BAB III

KEGIATAN SELAMA KERJA PRAKTEK



3.1 Jadwal Praktek Kerja

Praktek kerja lapangan di PT. PLN PERSERO (J&P) dimulai pada akhir bulan Desember yaitu tepatnya pada tanggal 20 Desember 2004, dimana kegiatan dimulai dengan survei permasalahan di tempat usaha tersebut. Pihak tempat penulis melakuakan kerja praktek meminta pengembangan untuk pembuatan software untuk sistem manajemen perbaikan trafo dimulai dari login pengguna, pemasaran, pembelian, penawaran. Pada pertengahan desember penulis memulai perancangan untuk pembuatan software tersebut, lalu pembuatan dimulai pada awal bulan Desember 2004 sampai pada pertengahan bulan Januari 2005. Jadwal untuk penulis melakukan kerja praktek tidak menentu untuk hari Senin hingga hari Kamis dimulai berkisar antara pukul 08.30 sampai pukul 11.00/15.00, dan hari Jum'at dimulai dari pukul 08.00 sampai 11.30.

3.2 Teknik Prakek Kerja

3.2.1 Identifikasi Masalah

Kekurangan yang dimiliki oleh sistem pendataan secara manual PT.PLN PERSERO (J&P) adalah sebagai berikut :

- Proses pencarian data dalam bentuk arsip membutuhkan waktu lama.
- Resiko kehilangan data dalam bentuk arsip masih cukup besar.
- Data kurir yang bertugas dalam pengantaran maupun pengambilan barang sangat sederhana kemungkinan terjadinya status keberadaan barang yang tidak jelas dapat terjadi.

- Laporan akhir dari aktivitas jasa kurir antar kota yang dibuat secara manual membutuhkan waktu lama dan keakuratan data laporannya kurang. Kelemahan – kelemahan yang terdapat pada sistem yang ada pada saat ini menyebabkan suatu permasalahan seperti berkurangnya efektifitas kerja dan efisiensi dari pegawai PT.PLN PERSERO (J&P), sehingga secara tidak langsung dapat merugikan perusahaan tersebut..

3.2.2 Analisis Sistem

Sistem yang dibuat pada PT. PLN PERSERO (J&P) adalah pembuatan *prosedure* pemasaran, penawaran, pembelian, pengadaan dan permintaanberkaitan dengan data customer pada pemasaran dan data supplier pada pembelias, dengan membuat masing-masing table pada database nya dan pembuatan laporan.

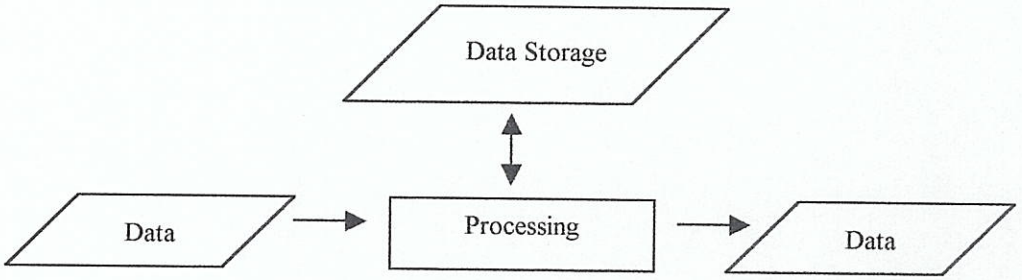
3.3 Konsep Dasar Sistem

Dewasa ini penggunaan kata sistem semakin meluas dan meliputi berbagai bidang, sehingga timbul berbagai definisi dan istilah tentang sistem tersebut yang masing-masing beranjak dari sudut pandang dan ruang lingkup pengertian itu sendiri.

Sistem adalah suatu jaringan kerja dari prosedur-prosedur yang saling berhubungan, berkumpul bersama-sama untuk melakukan suatu kegiatan atau untuk menyelesaikan suatu sasaran tertentu.

Data adalah bahan informasi, dirumuskan sebagai kumpulan dari simbol-simbol yang teratur yang menyatakan jumlah, tindakan-tindakan, hal-hal dan sebagainya yang diambil dari lambang grafis, alfabhetis, numeric, atau lambang khusus.

Hubungan data dan informasi didefinisikan sebagai bahan baku dan produk jadi. Data sebagai bahan baku, diolah melalui suatu proses transformasi atau pengolahan data menjadi informasi. Model sistem informasi dapat ditunjukkan pada gambar 3.1:

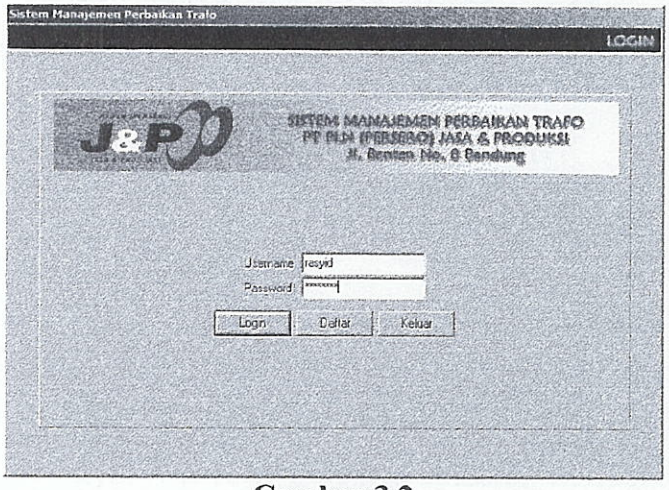


Gbr 3.1 Transformasi data menjadi informasi

Sistem informasi adalah sistem manusia mesin yang terpadu untuk menyajikan informasi guna mendukung fungsi operasi, manajemen, dan, pengambilan keputusan dalam sebuah organisasi.

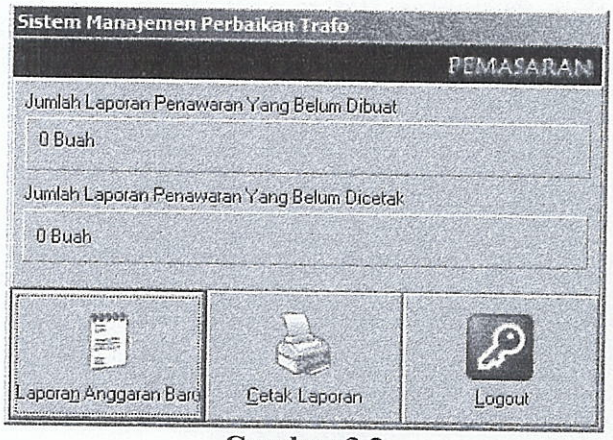
3.3.1 Tampilan Program

Pada form login pengguna harus mengisi terlebih dahulu nama dan password sesuai dengan database agar dapat login ke form berikutnya yaitu form pemasaran (Gbr 3.3).

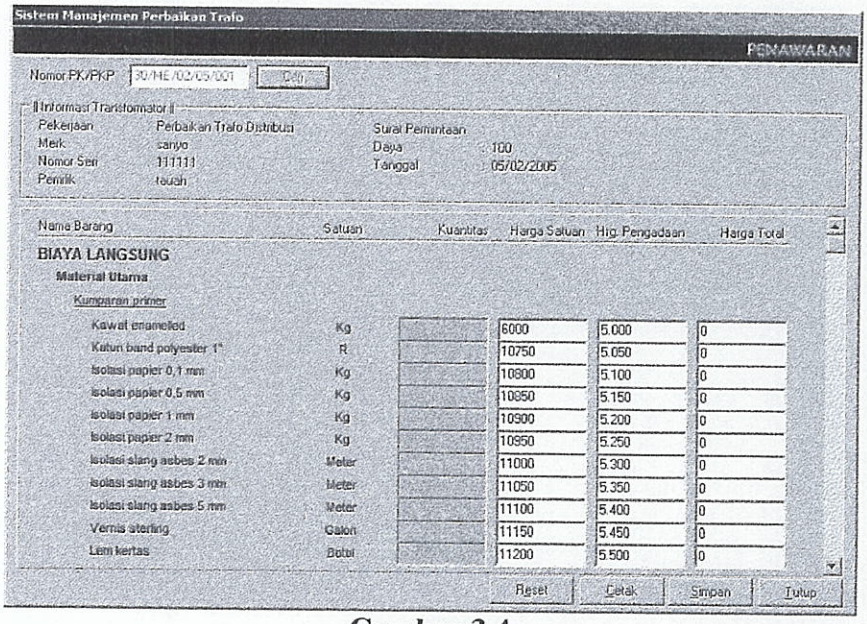


Gambar 3.2

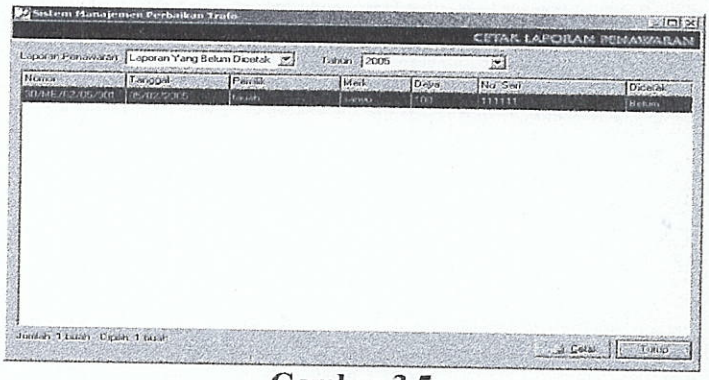
Setelah masuk pada form pemasaran pengguna bisa mengisi jumlah laporan penawaran yang belum dibuat dan yang belum dicetak kemudian klik tombol laporan anggaran baru atau masuk ke form penawaran (Gbr 3.4), dan untuk cetak laporan akan masuk ke form cetak laporan penawaran (Gbr 3.5) dan apabila ingin keluar klik tombol logout dan akan menuju form login (Gbr 3.2).



Gambar 3.3

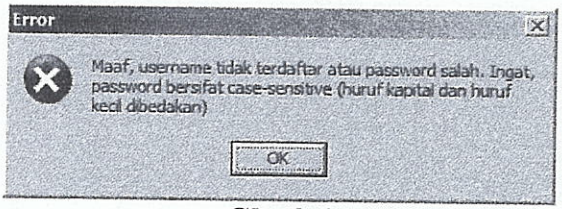


Gambar 3.4



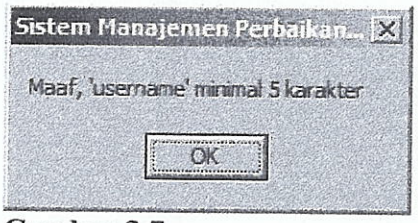
Gambar 3.5

Apabila username tidak terdapat pada database maka akan keluar messagge error seperti dibawah ini.

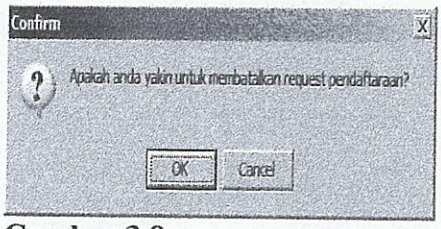


Gbr 3.6

Dan apabila nama kurang dari 5 karakter akan keluar messagge seperti pada Gbr 3.7. Apabila ada pembatalan saat pengisian nama akan muncul messagge seperti pada Gbr 3.8.

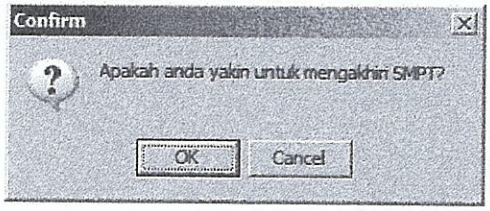


Gambar 3.7



Gambar 3.8

Apabila ingin meninggalkan program Sistem Manajemen Perbaikan Trafo ini maka akan keluar messagge seperti pada Gbr 3.9 dan Gbr 3.10.



Gbr 3.9



Gbr 3.10

Form Admin

```
unit formAdmin;

interface
uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, Buttons, ExtCtrls;
type
  TfrmAdmin = class(TForm)
    Panel1: TPanel;
    Image1: TImage;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    BitBtn4: TBitBtn;
    Panel2: TPanel;
    Label1: TLabel;
    Label2: TLabel;
    Panel3: TPanel;
    Label3: TLabel;
    Panel4: TPanel;
                Label4: TLabel;
                procedure BitBtn1Click(Sender: TObject);
                procedure BitBtn2Click(Sender: TObject);
                procedure FormClose(Sender: TObject; var Action: TCloseAction);
                procedure BitBtn4Click(Sender: TObject);
                procedure FormShow(Sender: TObject);
                procedure Showit(Sender: TObject; usr: string);
        private
                { Private declarations }
                user: string;
                procedure RefreshInfo;
        public
                { Public declarations }
        end;

var
        frmAdmin: TfrmAdmin;
implementation
uses formAdminPengguna, formAdminServer, formLogin, database, SqlExpr;
{$R *.dfm}
procedure TfrmAdmin.BitBtn1Click(Sender: TObject);
begin
        frmAdminPengguna.ShowModal;
        RefreshInfo;
end;
procedure TfrmAdmin.BitBtn2Click(Sender: TObject);
begin
        frmAdminServer.ShowModal;
        RefreshInfo;
end;
procedure TfrmAdmin.FormClose(Sender: TObject; var Action: TCloseAction);
begin
        with modulData.SQLState do
        begin
                SQL.Clear;
                SQL.Add('UPDATE login SET logout=NOW() WHERE
username='+QuotedStr(user)+
```

```
                                        ' and logout='+QuotedStr('0000-00-00 00:00:00'));
                    ExecSQL(true);
                    if RowsAffected=0 then
                            ShowMessage('Maaf, terjadi kesalahan pada server database (E002)');
            end;
            Action := caHide;
            frmLogin.Show;
end;
procedure TfrmAdmin.RefreshInfo;
var
            accLogin,accActive, accReq, accBlocked: integer;
begin
            With Moduldata do
            begin
                    with SQLState do
                    begin
                            SQL.Clear;
                            SQL.Add('SELECT * FROM user WHERE (blok=1)');
                            Open;
                            accBlocked := RecordCount;
                            SQL.Clear;
                            SQL.Add('SELECT * FROM user WHERE ((blok=0) and
(request=1))');
                            Open;
                            accReq := RecordCount;
                            SQL.Clear;
                            SQL.Add('SELECT * FROM user WHERE ((request=0) and (blok=0))
ORDER BY username ASC');
                            Open;
                            accActive := RecordCount;
                            SQL.Clear;
                            SQL.Add('SELECT * FROM login WHERE (login.logout=0)');
                            Open;
                            accLogin := RecordCount;
                            Close;
                    end;
            end;
            Label3.Caption := Format('Jumlah pengguna: %d'#13'    %d Account Aktif'#13+
                            '    %d Account Menunggu Persetujuan'#13'    %d Account Diblok'#13
+
                            '%d Account Sedang Login (termasuk administrator)',
                            [accActive+accReq+accBlocked,accActive, accReq, accBlocked,
accLogin]);
            if modulData.SQLConnection1.Connected then
                    Label4.Caption := 'Server online dan berfungsi dengan normal'
            else
                    Label4.Caption := 'Server offline!!! Harap periksa komputer server';
end;
procedure TfrmAdmin.FormShow(Sender: TObject);
begin
            RefreshInfo;
end;
procedure TfrmAdmin.Showit(Sender: TObject; usr: string);
begin
            user := usr;
            show;
            FormShow(Sender);
end;
```

```
procedure TfrmAdmin.BitBtn4Click(Sender: TObject);
begin
        close;
end; end.
```

Form Admin Pengguna

```
unit formAdminPengguna;

interface

uses
 Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
 Dialogs, StdCtrls, Buttons, Grids, ExtCtrls, ComCtrls, DateUtils;

type
 TfrmAdminPengguna = class(TForm)
  Panel1: TPanel;
  Image1: TImage;
  PageControl1: TPageControl;
  tabAktif: TTabSheet;
  tabRequest: TTabSheet;
  tabBlok: TTabSheet;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label5: TLabel;
  Label6: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
                Label10: TLabel;
  StringGrid1: TStringGrid;
  edUsername1: TEdit;
  edPassword1: TEdit;
  edNamaLengkap1: TEdit;
                edDivisi1: TEdit;
  cbAkses1: TComboBox;
  edJabatan1: TEdit;
  BitBtn1: TBitBtn;
  BitBtn2: TBitBtn;
                BitBtn3: TBitBtn;
  BitBtn4: TBitBtn;
  edEmail1: TEdit;
  Label11: TLabel;
  Label12: TLabel;
  Label13: TLabel;
  Label14: TLabel;
  Label15: TLabel;
  Label16: TLabel;
  Label17: TLabel;
  Label18: TLabel;
  edUsername2: TEdit;
  edPassword2: TEdit;
  edNamaLengkap2: TEdit;
  edDivisi2: TEdit;
```

```
                cbAkses2: TComboBox;
    edJabatan2: TEdit;
    BitBtn5: TBitBtn;
    BitBtn6: TBitBtn;
    BitBtn7: TBitBtn;
    BitBtn8: TBitBtn;
    edEmail2: TEdit;
    Label19: TLabel;
    Label20: TLabel;
    StringGrid2: TStringGrid;
                Label21: TLabel;
    Label22: TLabel;
    Label23: TLabel;
    Label24: TLabel;
                Label25: TLabel;
                Label26: TLabel;
                Label27: TLabel;
                Label28: TLabel;
                edUsername3: TEdit;
                edPassword3: TEdit;
                edNamaLengkap3: TEdit;
                edDivisi3: TEdit;
                cbAkses3: TComboBox;
                edJabatan3: TEdit;
                BitBtn9: TBitBtn;
                BitBtn10: TBitBtn;
                BitBtn11: TBitBtn;
                BitBtn12: TBitBtn;
                edEmail3: TEdit;
                Label29: TLabel;
                Label30: TLabel;
                StringGrid3: TStringGrid;
                BitBtn13: TBitBtn;
                BitBtn14: TBitBtn;
    BitBtn15: TBitBtn;
    BitBtn16: TBitBtn;
    BitBtn17: TBitBtn;
    BitBtn18: TBitBtn;
                procedure BitBtn2Click(Sender: TObject);
                procedure tabAktifShow(Sender: TObject);
                procedure StringGrid1SelectCell(Sender: TObject; ACol, ARow: Integer;
                        var CanSelect: Boolean);
                procedure BitBtn1Click(Sender: TObject);
                procedure BitBtn13Click(Sender: TObject);
                procedure BitBtn3Click(Sender: TObject);
                procedure FormShow(Sender: TObject);
                procedure BitBtn4Click(Sender: TObject);
                procedure BitBtn14Click(Sender: TObject);
    procedure tabRequestShow(Sender: TObject);
    procedure StringGrid2SelectCell(Sender: TObject; ACol, ARow: Integer;
                        var CanSelect: Boolean);
                procedure BitBtn5Click(Sender: TObject);
                procedure BitBtn15Click(Sender: TObject);
                procedure BitBtn16Click(Sender: TObject);
                procedure tabBlokShow(Sender: TObject);
                procedure StringGrid3SelectCell(Sender: TObject; ACol, ARow: Integer;
                        var CanSelect: Boolean);
                procedure BitBtn8Click(Sender: TObject);
```

```
    procedure BitBtn18Click(Sender: TObject);
    procedure BitBtn17Click(Sender: TObject);
    procedure BitBtn9Click(Sender: TObject);
    procedure BitBtn12Click(Sender: TObject);
        private
                { Private declarations }
                procedure DisableControl1;
                procedure EnableControl1;
                procedure RefreshControl1;
                function isValidateOK1: boolean;
                procedure DisableControl2;
                procedure EnableControl2;
                function isValidateOK2: boolean;
                procedure RefreshControl2;
                procedure DisableControl3;
                procedure EnableControl3;
                function isValidateOK3: boolean;
                procedure RefreshControl3;
        public
                { Public declarations }
        end;

var
        frmAdminPengguna: TfrmAdminPengguna;

implementation

uses formAdminTambahPengguna, database, SqlExpr, DB;

{$R *.dfm}

procedure TfrmAdminPengguna.DisableControl1;
begin
                edUsername1.Text := '';
                edPassword1.Text := '';
                cbAkses1.ItemIndex := -1;
                edNamaLengkap1.Text := '';
                edDivisi1.Text := '';
                edJabatan1.Text := '';
                edEmail1.Text := '';
                edUsername1.Enabled := false;
                edPassword1.Enabled := false;
                cbAkses1.Enabled := false;
                edNamaLengkap1.Enabled := false;
                edDivisi1.Enabled := false;
                edJabatan1.Enabled := false;
                edEmail1.Enabled := false;
                bitbtn13.Enabled := false;
                BitBtn1.Enabled := false;
                BitBtn4.Enabled := false;
end;

procedure TfrmAdminPengguna.EnableControl1;
begin
                edUsername1.Enabled := true;
                edPassword1.Enabled := true;
                cbAkses1.Enabled := true;
                edNamaLengkap1.Enabled := true;
```

```
                edDivisi1.Enabled := true;
                edJabatan1.Enabled := true;
                edEmail1.Enabled := true;
                bitbtn13.Enabled := true;
                BitBtn1.Enabled := true;
                BitBtn4.Enabled := true;
end;

procedure TfrmAdminPengguna.BitBtn2Click(Sender: TObject);
begin
        frmAdminTambahPengguna.ShowModal;
        tabAktifShow(self);
end;

procedure TfrmAdminPengguna.tabAktifShow(Sender: TObject);
var
        i,accActive, accReq, accBlocked: integer;
        tmp: boolean;
begin
        StringGrid1.RowCount := 2;
        StringGrid1.rows[1].clear;
        StringGrid1.FixedRows := 1;
        StringGrid1.ColCount := 5;
        with StringGrid1.Rows[0] do
        begin
                Clear;
                add('Username');
                add('Divisi');
                add('Login terakhir');
                add('IP Login terakhir');
                add('Sedang login');
        end;
        With Moduldata do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE (blok=1)');
                        Open;
                        accBlocked := RecordCount;
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE ((blok=0) and
(request=1))');
                        Open;
                        accReq := RecordCount;
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE ((request=0) and (blok=0))
ORDER BY username ASC');
                        Open;
                        accActive := RecordCount;
                        Label1.Caption := format ('Daftar pengguna (%d) (%d account
menunggu '+
                                                'persetujuan && %d account
diblok)',[accActive,accReq,accBlocked]);
                        if accActive=0 then
                                StringGrid1.RowCount := 2
                        else
                                StringGrid1.RowCount :=accActive+1;
```

```
                if accActive>0 then
                begin
                        First;
                        i:=1;
                        while not Eof do
                        begin
                                with SQLState2 do
                                begin
                                        ModulData.SQLState2.SQL.Clear;
                                        ModulData.SQLState2.SQL.Add('SELECT
* FROM login WHERE (username=' +
        QuotedStr(SQLState.FieldByName('username').AsString) +
                                                        ') ORDER BY tgl DESC');
                                        open;
                                end;
                                with StringGrid1.Rows[i] do
                                begin
                                        Clear;

        add(SQLState.FieldByName('username').AsString);

        add(SQLState.FieldByName('divisi').AsString);
                                        if sqlstate2.recordCount>0 then
                                        begin

        add(SQLState2.FieldByName('tgl').AsString);

        add(SQLState2.FieldByName('ip').AsString);
                                                if
YearOf(SQLState2.FieldByName('logout').AsDateTime)=1899 then
                                                        add('Ya')
                                                else
                                                        add('Tidak');
                                        end else
                                        begin
                                                add('-');
                                                add('-');
                                                add('Tidak');
                                        end;
                                end;
                                inc(i);
                                ModulData.SQLState.Next;
                        end;
                end;
        end;
        StringGrid1SelectCell(self,0,StringGrid1.Row,tmp);
end;

procedure TfrmAdminPengguna.RefreshControl1;
begin
        tabAktifShow(self);
        if StringGrid1.Cells[0,1]='' then
                DisableControl1;
end;

procedure TfrmAdminPengguna.DisableControl2;
```

```
begin
                edUsername2.Text := '';
                edPassword2.Text := '';
                cbAkses2.ItemIndex := -1;
                edNamaLengkap2.Text := '';
                edDivisi2.Text := '';
                edJabatan2.Text := '';
                edEmail2.Text := '';
                edUsername2.Enabled := false;
                edPassword2.Enabled := false;
                cbAkses2.Enabled := false;
                edNamaLengkap2.Enabled := false;
                edDivisi2.Enabled := false;
                edJabatan2.Enabled := false;
                edEmail2.Enabled := false;
                bitbtn5.Enabled := false;
                BitBtn8.Enabled := false;
                BitBtn16.Enabled := false;
end;

procedure TfrmAdminPengguna.EnableControl2;
begin
                edUsername2.Enabled := true;
                edPassword2.Enabled := true;
                cbAkses2.Enabled := true;
                edNamaLengkap2.Enabled := true;
                edDivisi2.Enabled := true;
                edJabatan2.Enabled := true;
                edEmail2.Enabled := true;
                bitbtn5.Enabled := true;
                BitBtn8.Enabled := true;
                BitBtn16.Enabled := true;
end;

procedure TfrmAdminPengguna.StringGrid1SelectCell(Sender: TObject; ACol,
        ARow: Integer; var CanSelect: Boolean);
begin
        if StringGrid1.Cells[0,1]='' then
        begin
                DisableControl1;
                exit;
        end;
        EnableControl1;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE
username='+QuotedStr(StringGrid1.Cells[0,ARow]));
                        open;
                        edUsername1.Text := FieldByName('username').AsString;
                        edPassword1.Text := FieldByName('password').AsString;
                        cbAkses1.ItemIndex :=
cbAkses1.Items.IndexOf(FieldByName('akses').AsString);
                        edNamaLengkap1.Text := FieldByName('namalengkap').AsString;
                        edDivisi1.Text := FieldByName('divisi').AsString;
                        edJabatan1.Text := FieldByName('jabatan').AsString;
```

```
                try
                        edEmail1.Text := FieldByName('email').AsString;
                except
                        on EVariantTypeCastError do
                                edEmail1.Text := '';
                end;
        end;
    end;
end;

function TfrmAdminPengguna.isValidateOK1: boolean;
begin
    if length(edUsername1.Text)<5 then
    begin
        showMessage('username minimal 5 karakter');
        edUsername1.SetFocus;
        result := false;
        exit;
    end else
    if length(edPassword1.Text)<6 then
    begin
        ShowMessage('password minimal 6 karekter');
        edPassword1.SetFocus;
        result := false;
        Exit;
    end else
    if cbAkses1.ItemIndex = -1 then
    begin
        ShowMessage('Hak akses tidak boleh kosong');
        cbAkses1.SetFocus;
        result := false;
        exit;
    end;
    result := true;
end;

procedure TfrmAdminPengguna.BitBtn1Click(Sender: TObject);
begin
    if not edUsername1.Enabled then
        exit;
    if not isValidateOK1 then
        exit;
    if MessageDlg('Apakah anda yakin untuk mengupdate informasi account ini?',
            mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
        exit;
    with modulData do
    begin
        with SQLState do
        begin
            SQL.Clear;
            SQL.Add('UPDATE user SET
username='+QuotedStr(edUsername1.Text)+
                                    ', password='+QuotedStr(edPassword1.Text)+
                                    ', akses='+QuotedStr(cbAkses1.Text)+
                                    '
namalengkap='+QuotedStr(edNamaLengkap1.Text)+
                                    ', divisi='+QuotedStr(edDivisi1.Text)+
                                    ', jabatan='+QuotedStr(edJabatan1.Text)+
```

```
                                        ', email='+QuotedStr(edEmail1.Text)+
                                        ' WHERE
username='+QuotedStr(StringGrid1.Cells[0,StringGrid1.Row]));
                        ExecSQL(True);
                end;
        end;
        with StringGrid1.Rows[StringGrid1.Row] do
        begin
                strings[0] := edUsername1.Text;
                Strings[1] := edDivisi1.Text;
        end;
end;

procedure TfrmAdminPengguna.BitBtn13Click(Sender: TObject);
begin
        if not edUsername1.Enabled then
                exit;
        if MessageDlg('Apakah anda yakin untuk memblok account ini ('+
                        QuotedStr(StringGrid1.Cells[0,StringGrid1.Row])+')?'#13+
                        'Perhatian: Account ini tidak akan bisa digunakan untuk login lagi.',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('UPDATE user SET blok=1 WHERE username='+
                                        QuotedStr(StringGrid1.Cells[0,StringGrid1.Row]));
                        ExecSQL(True);
                        if rowsAffected=0 then
                                ShowMessage('Terjadi kesalahan di database...'#13+
                                                'Mohon periksa komputer server');
                end;
        end;
        StringGrid1.Rows[StringGrid1.Row].Clear;
        RefreshControl1;
end;

procedure TfrmAdminPengguna.BitBtn3Click(Sender: TObject);
begin
        close;
end;

procedure TfrmAdminPengguna.FormShow(Sender: TObject);
begin
        PageControl1.ActivePageIndex := 0;
end;

procedure TfrmAdminPengguna.BitBtn4Click(Sender: TObject);
begin
        if not edUsername1.Enabled then
                exit;
        if MessageDlg('Apakah anda yakin untuk menghapus account ini ('+
                        QuotedStr(StringGrid1.Cells[0,StringGrid1.Row])+')?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
```

```
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('DELETE FROM user WHERE username='+
                                        QuotedStr(StringGrid1.Cells[0,StringGrid1.Row]));
                        ExecSQL(True);
                        if rowsAffected=0 then
                                ShowMessage('Terjadi kesalahan di database...'#13+
                                                'Mohon periksa komputer server');
                end;
        end;
        StringGrid1.Rows[StringGrid1.Row].Clear;
        RefreshControl1;
end;

procedure TfrmAdminPengguna.BitBtn14Click(Sender: TObject);
begin
        RefreshControl1;
end;

procedure TfrmAdminPengguna.tabRequestShow(Sender: TObject);
var
        i,accActive, accReq, accBlocked: integer;
        tmp: boolean;
begin
        StringGrid2.RowCount := 2;
        StringGrid2.rows[1].clear;
        StringGrid2.FixedRows := 1;
        StringGrid2.ColCount := 4;
        with StringGrid2.Rows[0] do
        begin
                Clear;
                add('Username');
                add('Divisi');
                add('Nama lengkap');
                add('Jabatan');
        end;
        With Moduldata do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE (blok=1)');
                        Open;
                        accBlocked := RecordCount;
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE ((request=0) and (blok=0))
ORDER BY username ASC');
                        Open;
                        accActive := RecordCount;
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE ((blok=0) and
(request=1))');
                        Open;
                        accReq := RecordCount;
                        Label11.Caption := format ('Daftar Permintaan Pendaftaran (%d) '+
                                        '(%d account aktif && %d account diblok)',
```

```
                                        [accReq,accActive,accBlocked]);
                        if accReq=0 then
                                StringGrid2.RowCount := 2
                        else
                                StringGrid2.RowCount :=accReq+1;
                        if accReq>0 then
                        begin
                                First;
                                i:=1;
                                while not Eof do
                                begin
                                        with StringGrid2.Rows[i] do
                                        begin
                                                Clear;
                                                add(FieldByName('username').AsString);
                                                add(FieldByName('divisi').AsString);

        add(FieldByName('namalengkap').AsString);
                                                add(FieldByName('jabatan').AsString);
                                        end;
                                        inc(i);
                                        Next;
                                end;
                        end;
                end;
        end;
        StringGrid2SelectCell(self,0,StringGrid2.Row,tmp);
end;

procedure TfrmAdminPengguna.StringGrid2SelectCell(Sender: TObject; ACol,
        ARow: Integer; var CanSelect: Boolean);
begin
        if StringGrid2.Cells[0,1]='' then
        begin
                DisableControl2;
                exit;
        end;
        EnableControl2;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE username=' +
                                        QuotedStr(StringGrid2.Cells[0,ARow]));
                        open;
                        edUsername2.Text := FieldByName('username').AsString;
                        edPassword2.Text := FieldByName('password').AsString;
                        cbAkses2.ItemIndex :=
cbAkses2.Items.IndexOf(FieldByName('akses').AsString);
                        edNamaLengkap2.Text := FieldByName('namalengkap').AsString;
                        edDivisi2.Text := FieldByName('divisi').AsString;
                        edJabatan2.Text := FieldByName('jabatan').AsString;
                        try
                                edEmail2.Text := FieldByName('email').AsString;
                        except
                                on EVariantTypeCastError do
                                        edEmail2.Text := '';
```

```
                    end;
                end;
        end;
end;

function TfrmAdminPengguna.isValidateOK2: boolean;
begin
        if length(edUsername2.Text)<5 then
        begin
                showMessage('username minimal 5 karakter');
                edUsername2.SetFocus;
                result := false;
                exit;
        end else
        if length(edPassword2.Text)<6 then
        begin
                ShowMessage('password minimal 6 karekter');
                edPassword2.SetFocus;
                result := false;
                Exit;
        end else
        if cbAkses2.ItemIndex = -1 then
        begin
                ShowMessage('Hak akses tidak boleh kosong');
                cbAkses2.SetFocus;
                result := false;
                exit;
        end;
        result := true;
end;
procedure TfrmAdminPengguna.BitBtn5Click(Sender: TObject);
begin
        if not edUsername2.Enabled then
                exit;
        if not isValidateOK2 then
                exit;
        if MessageDlg('Apakah anda yakin untuk menyetujui informasi account ini?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('UPDATE user SET
username='+QuotedStr(edUsername2.Text)+
                                        ', password='+QuotedStr(edPassword2.Text)+
                                        ', akses='+QuotedStr(cbAkses2.Text)+
                                        ',
namalengkap='+QuotedStr(edNamaLengkap2.Text)+
                                        ', divisi='+QuotedStr(edDivisi2.Text)+
                                        ', jabatan='+QuotedStr(edJabatan2.Text)+
                                        ', email='+QuotedStr(edEmail2.Text)+
                                        ', request=0'+
                                        ' WHERE
username='+QuotedStr(StringGrid2.Cells[0,StringGrid2.Row]));
                        ExecSQL(True);
                end;
```

```
        end;
        StringGrid2.Rows[StringGrid2.Row].Clear;
        RefreshControl2;
end;

procedure TfrmAdminPengguna.RefreshControl2;
begin
        tabRequestShow(self);
        if StringGrid2.Cells[0,1]='' then
                DisableControl2;
end;

procedure TfrmAdminPengguna.BitBtn15Click(Sender: TObject);
begin
        RefreshControl2;
end;

procedure TfrmAdminPengguna.BitBtn16Click(Sender: TObject);
begin
        if not edUsername2.Enabled then
                exit;
        if not isValidateOK2 then
                exit;
        if MessageDlg('Apakah anda yakin untuk mengupdate informasi account ini?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('UPDATE user SET
username='+QuotedStr(edUsername2.Text)+
                                                ', password='+QuotedStr(edPassword2.Text)+
                                                ', akses='+QuotedStr(cbAkses2.Text)+
                                                '
namalengkap='+QuotedStr(edNamaLengkap2.Text)+
                                                ', divisi='+QuotedStr(edDivisi2.Text)+
                                                ', jabatan='+QuotedStr(edJabatan2.Text)+
                                                ', email='+QuotedStr(edEmail2.Text)+
                                                ' WHERE
username='+QuotedStr(StringGrid2.Cells[0,StringGrid2.Row]));
                        ExecSQL(True);
                end;
        end;
        with StringGrid2.Rows[StringGrid2.Row] do
        begin
                strings[0] := edUsername2.Text;
                Strings[1] := edDivisi2.Text;
        end;
end;

procedure TfrmAdminPengguna.tabBlokShow(Sender: TObject);
var
        i,accActive, accReq, accBlocked: integer;
        tmp: boolean;
begin
        StringGrid3.RowCount := 2;
```

```
StringGrid3.rows[1].clear;
StringGrid3.FixedRows := 1;
StringGrid3.ColCount := 5;
with StringGrid3.Rows[0] do
begin
        Clear;
        add('Username');
        add('Divisi');
        add('Login terakhir');
        add('IP Login terakhir');
        add('Sedang login');
end;
With Moduldata do
begin
        with SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM user WHERE ((blok=0) and
(request=1))');
                Open;
                accReq := RecordCount;
                SQL.Clear;
                SQL.Add('SELECT * FROM user WHERE ((request=0) and (blok=0))
ORDER BY username ASC');
                Open;
                accActive := RecordCount;
                SQL.Clear;
                SQL.Add('SELECT * FROM user WHERE (blok=1)');
                Open;
                accBlocked := RecordCount;
                Label21.Caption := format ('Daftar Account Yang Diblok (%d) ' +
                        '(%d account aktif && %d account menunggu
persetujuan)',
                        [accBlocked,accActive,accReq]);
                if accBlocked=0 then
                        StringGrid3.RowCount := 2
                else
                        StringGrid3.RowCount :=accBlocked+1;
                if accBlocked>0 then
                begin
                        First;
                        i:=1;
                        while not Eof do
                        begin
                                with SQLState2 do
                                begin
                                        ModulData.SQLState2.SQL.Clear;
                                        ModulData.SQLState2.SQL.Add('SELECT
* FROM login WHERE (username=' +
        QuotedStr(SQLState.FieldByName('username').AsString) +
                                                        ') ORDER BY tgl DESC');
                                        open;
                                end;
                                with StringGrid3.Rows[i] do
                                begin
                                        Clear;
```

```
                add(SQLState.FieldByName('username').AsString);

                add(SQLState.FieldByName('divisi').AsString);
                                                        if sqlstate2.recordCount>0 then
                                                        begin

                add(SQLState2.FieldByName('tgl').AsString);

                add(SQLState2.FieldByName('ip').AsString);
                                                                if
YearOf(SQLState2.FieldByName('logout').AsDateTime)=1899 then
                                                                        add('Ya')
                                                                else
                                                                        add('Tidak');
                                                        end else
                                                        begin
                                                                add('-');
                                                                add('-');
                                                                add('Tidak');
                                                        end;
                                                end;
                                                inc(i);
                                                ModulData.SQLState.Next;
                                        end;
                                end;
                        end;
                end;
                StringGrid3SelectCell(self,0,StringGrid3.Row,tmp);
end;

procedure TfrmAdminPengguna.StringGrid3SelectCell(Sender: TObject; ACol,
        ARow: Integer; var CanSelect: Boolean);
begin
        if StringGrid3.Cells[0,1]='' then
        begin
                DisableControl3;
                exit;
        end;
        EnableControl3;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('SELECT * FROM user WHERE
username='+QuotedStr(StringGrid3.Cells[0,ARow]));
                        open;
                        edUsername3.Text := FieldByName('username').AsString;
                        edPassword3.Text := FieldByName('password').AsString;
                        cbAkses3.ItemIndex :=
cbAkses3.Items.IndexOf(FieldByName('akses').AsString);
                        edNamaLengkap3.Text := FieldByName('namalengkap').AsString;
                        edDivisi3.Text := FieldByName('divisi').AsString;
                        edJabatan3.Text := FieldByName('jabatan').AsString;
                        try
                                edEmail3.Text := FieldByName('email').AsString;
                        except
```

```
                                        on EVariantTypeCastError do
                                                edEmail3.Text := '';
                                end;
                        end;
                end;
end;

procedure TfrmAdminPengguna.BitBtn8Click(Sender: TObject);
begin
        if not edUsername2.Enabled then
                exit;
        if MessageDlg('Apakah anda yakin untuk menghapus account ini ('+
                        QuotedStr(StringGrid2.Cells[0,StringGrid2.Row])+')?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('DELETE FROM user WHERE username='+
                                        QuotedStr(StringGrid2.Cells[0,StringGrid2.Row]));
                        ExecSQL(True);
                        if rowsAffected=0 then
                                ShowMessage('Terjadi kesalahan di database...'#13+
                                                'Mohon periksa komputer server');
                end;
        end;
        StringGrid2.Rows[StringGrid2.Row].Clear;
        RefreshControl2;
end;

procedure TfrmAdminPengguna.DisableControl3;
begin
                edUsername3.Text := '';
                edPassword3.Text := '';
                cbAkses3.ItemIndex := -1;
                edNamaLengkap3.Text := '';
                edDivisi3.Text := '';
                edJabatan3.Text := '';
                edEmail3.Text := '';
                edUsername3.Enabled := false;
                edPassword3.Enabled := false;
                cbAkses3.Enabled := false;
                edNamaLengkap3.Enabled := false;
                edDivisi3.Enabled := false;
                edJabatan3.Enabled := false;
                edEmail3.Enabled := false;
                bitbtn17.Enabled := false;
                BitBtn9.Enabled := false;
                BitBtn12.Enabled := false;
end;

procedure TfrmAdminPengguna.EnableControl3;
begin
                edUsername3.Enabled := true;
                edPassword3.Enabled := true;
                cbAkses3.Enabled := true;
```

```
                edNamaLengkap3.Enabled := true;
                edDivisi3.Enabled := true;
                edJabatan3.Enabled := true;
                edEmail3.Enabled := true;
                bitbtn17.Enabled := true;
                BitBtn9.Enabled := true;
                BitBtn12.Enabled := true;
end;

function TfrmAdminPengguna.isValidateOK3: boolean;
begin
        if length(edUsername3.Text)<5 then
        begin
                showMessage('username minimal 5 karakter');
                edUsername3.SetFocus;
                result := false;
                exit;
        end else
        if length(edPassword3.Text)<6 then
        begin
                ShowMessage('password minimal 6 karekter');
                edPassword3.SetFocus;
                result := false;
                Exit;
        end else
        if cbAkses3.ItemIndex = -1 then
        begin
                ShowMessage('Hak akses tidak boleh kosong');
                cbAkses3.SetFocus;
                result := false;
                exit;
        end;
        result := true;
end;


procedure TfrmAdminPengguna.RefreshControl3;
begin
        tabBlokShow(self);
        if StringGrid3.Cells[0,1]='' then
                DisableControl3;
end;

procedure TfrmAdminPengguna.BitBtn18Click(Sender: TObject);
begin
        RefreshControl3;
end;

procedure TfrmAdminPengguna.BitBtn17Click(Sender: TObject);
begin
        if not edUsername3.Enabled then
                exit;
        if not isValidateOK3 then
                exit;
        if MessageDlg('Apakah anda yakin untuk mengupdate informasi account ini?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
```

```
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('UPDATE user SET
username='+QuotedStr(edUsername3.Text)+
                                                ', password='+QuotedStr(edPassword3.Text)+
                                                ', akses='+QuotedStr(cbAkses3.Text)+
                                                '
namalengkap='+QuotedStr(edNamaLengkap3.Text)+
                                                ', divisi='+QuotedStr(edDivisi3.Text)+
                                                ', jabatan='+QuotedStr(edJabatan3.Text)+
                                                ', email='+QuotedStr(edEmail3.Text)+
                                                ' WHERE
username='+QuotedStr(StringGrid3.Cells[0,StringGrid3.Row]));
                                ExecSQL(True);
                        end;
        end;
        with StringGrid3.Rows[StringGrid3.Row] do
        begin
                strings[0] := edUsername3.Text;
                Strings[1] := edDivisi3.Text;
        end;
end;

procedure TfrmAdminPengguna.BitBtn9Click(Sender: TObject);
begin
        if not edUsername3.Enabled then
                exit;
        if not isValidateOK3 then
                exit;
        if MessageDlg('Apakah anda yakin untuk mengaktifkan kembali account ini?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('UPDATE user SET
username='+QuotedStr(edUsername3.Text)+
                                                ', password='+QuotedStr(edPassword3.Text)+
                                                ', akses='+QuotedStr(cbAkses3.Text)+
                                                '
namalengkap='+QuotedStr(edNamaLengkap3.Text)+
                                                ', divisi='+QuotedStr(edDivisi3.Text)+
                                                ', jabatan='+QuotedStr(edJabatan3.Text)+
                                                ', email='+QuotedStr(edEmail3.Text)+
                                                ', request=0'+
                                                ', blok=0'+
                                                ' WHERE
username='+QuotedStr(StringGrid3.Cells[0,StringGrid3.Row]));
                                ExecSQL(True);
                        end;
        end;
        StringGrid3.Rows[StringGrid3.Row].Clear;
        RefreshControl3;
end;
```

```
procedure TfrmAdminPengguna.BitBtn12Click(Sender: TObject);
begin
        if not edUsername3.Enabled then
                exit;
        if MessageDlg('Apakah anda yakin untuk menghapus account ini ('+
                        QuotedStr(StringGrid3.Cells[0,StringGrid3.Row])+')?',
                        mtConfirmation,[mbYes,mbCancel],0)=mrCancel then
                exit;
        with modulData do
        begin
                with SQLState do
                begin
                        SQL.Clear;
                        SQL.Add('DELETE FROM user WHERE username='+
                                        QuotedStr(StringGrid3.Cells[0,StringGrid3.Row]));
                        ExecSQL(True);
                        if rowsAffected=0 then
                                ShowMessage('Terjadi kesalahan di database...'#13+
                                                'Mohon periksa komputer server');
                end;
        end;
        StringGrid3.Rows[StringGrid3.Row].Clear;
        RefreshControl3;
end;end.
```

Form Admin server

```
unit formAdminServer;

interface

uses
        Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
        Dialogs, StdCtrls, ExtCtrls, Registry;

type
        TfrmAdminServer = class(TForm)
  Panel1: TPanel;
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
                ServerName: TComboBox;
                HostName: TEdit;
                Label3: TLabel;
                DBName: TEdit;
                UserName: TEdit;
                Label4: TLabel;
                Label5: TLabel;
                Password: TEdit;
                Button1: TButton;
                Button2: TButton;
                procedure Button1Click(Sender: TObject);
                procedure FormCreate(Sender: TObject);
                procedure Button2Click(Sender: TObject);
  procedure FormShow(Sender: TObject);
        private
                { Private declarations }
```

```
                GlobalVal: TStringList;
                OrgVal: array[1..5] of string;
                procedure GetDBMSSetting(val: TStringList);
                procedure WriteDBMSSetting(val: TStringList);
        public
                { Public declarations }
        end;

var
        frmAdminServer: TfrmAdminServer;

implementation

{$R *.dfm}

procedure TfrmAdminServer.Button1Click(Sender: TObject);
begin
        WriteDBMSSetting(Globalval);
        close;
end;

procedure TfrmAdminServer.GetDBMSSetting(val: TStringList);
var
        Reg: TRegistry;
        i: integer;
begin
        Reg:=TRegistry.Create;
                val.clear;
        try
                Reg.RootKey:=HKEY_LOCAL_MACHINE; // Section to look for within the
registry
                if not Reg.OpenKey('\SOFTWARE\iman\smpt\dbms',False) then
                        ShowMessage('Error opening key')
                else
                        Reg.GetValueNames(Val);
                        for i:=0 to val.count-1 do
                        begin
                                val.Values[val.Strings[i]] := Reg.ReadString(val.Strings[i]);
                        end;
        finally
                Reg.Free;
        end;
end;

procedure TfrmAdminServer.WriteDBMSSetting(val: TStringList);
var
        Reg: TRegistry;
begin
        Reg:=TRegistry.Create;
        try
                Reg.RootKey:=HKEY_LOCAL_MACHINE; // Section to look for within the
registry
                if not Reg.OpenKey('\SOFTWARE\iman\smpt\dbms',False) then
                        ShowMessage('Error opening key')
                else begin
                        Reg.WriteString('HostName',HostName.Text);
                        Reg.WriteString('DataBase',DBName.Text);
                        Reg.WriteString('User_Name',UserName.Text);
```

```
                Reg.WriteString('Password',Password.Text);
                Reg.CloseKey;
            end;
        finally
            Reg.Free;
        end;
end;

procedure TfrmAdminServer.FormCreate(Sender: TObject);
begin
        GlobalVal := TStringList.Create;
        FormShow(self);
end;

procedure TfrmAdminServer.Button2Click(Sender: TObject);
begin
        ServerName.Text := OrgVal[1];
        HostName.Text := OrgVal[2];
        DBName.Text := OrgVal[3];
        UserName.Text := OrgVal[4];
        Password.Text := OrgVal[5];
        close;
end;

procedure TfrmAdminServer.FormShow(Sender: TObject);
begin
        GetDBMSSetting(GlobalVal);
        OrgVal[1] := ServerName.Text;
        OrgVal[2] := HostName.Text;
        OrgVal[3] := DBName.Text;
        OrgVal[4] := UserName.Text;
        OrgVal[5] := Password.Text;
        HostName.Text :=  GlobalVal.Values['HostName'];
        DBName.Text := Globalval.Values['DataBase'];
        UserName.Text := GlobalVal.Values['User_Name'];
        Password.Text := Globalval.Values['Password'];
end;

end.
```

Form Login

```
unit formLogin;

interface

uses
 Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
 Dialogs, StdCtrls, ExtCtrls;

type
 TfrmLogin = class(TForm)
   Panel1: TPanel;
   Image1: TImage;
   Panel2: TPanel;
   Label2: TLabel;
   Label3: TLabel;
   edUserName: TEdit;
```

```
    edPassword: TEdit;
                Button1: TButton;
                Image3: TImage;
                Button2: TButton;
    Button3: TButton;
                procedure Button1Click(Sender: TObject);
    procedure Button2Click(Sender: TObject);
    procedure Button3Click(Sender: TObject);
    procedure FormShow(Sender: TObject);
    procedure FormClose(Sender: TObject; var Action: TCloseAction);
        private
                { Private declarations }
                procedure Redirect(dest:string);
        public
                { Public declarations }
        end;

var
        frmLogin: TfrmLogin;

implementation

uses database, SqlExpr, Math, formRequestDaftar, DB, formAdmin, formInvest,
 DateUtils, formRAB, formREN, formPengadaan, formPemasaran, formMain;

{$R *.dfm}

procedure TfrmLogin.Redirect(dest:string);
begin
        frmLogin.Hide;
        if Uppercase(dest)='ALL' then
                frmAdmin.Showit(self,edUserName.Text)
        else
        if Uppercase(dest)='INV' then
                frmInvest.Showit(self,edUserName.Text)
        else
        if Uppercase(dest)='REN' then
                frmREN.Showit(self,edUserName.text)
        else
        if Uppercase(dest)='ADA' then
                frmPengadaan.Showit(self,edUserName.text)
        else
        if Uppercase(dest)='SAR' then
                frmPemasaran.Showit(self,edUserName.text)
        else
        if Uppercase(dest)='DAT' then
                frmMain.Showit(self,edUserName.text)
end;

procedure TfrmLogin.Button1Click(Sender: TObject);
var
        year,month,day,hh,mm,ss,ms:word;
        akses,val: string;
begin
        with modulData.SQLState do
        begin
                with SQL do
                begin
```

```
                    Clear;
                    Add('SELECT * FROM user WHERE
username='+QuotedStr(edusername.Text)+
                                'and password='+QuotedStr(edPassword.Text));
                end;
                open;
                if RecordCount>0 then
                begin
                    if FieldByName('blok').AsInteger=1 then
                        ShowMessage('Maaf, account anda diblok. Silakan hubungi
administrator')
                    else
                    if FieldByName('request').AsInteger=1 then
                        ShowMessage('Maaf, account anda belum disetujui. Silakan
hubungi administrator')
                    else
                    begin
                        akses:=FieldByName('akses').AsString;
                        with Moduldata.SQLState2 do
                        begin
                            SQL.Clear;
                            SQL.Add('SELECT * FROM login WHERE
(username=' +

        QuotedStr(ModulData.SQLState.FieldByName('username').AsString) +
                                ') ORDER BY tgl DESC');
                            open;
                        end;
                        if
(YearOf(modulData.SQLState2.FieldByName('logout').AsDateTime) =
                                1899) and
(modulData.SQLState2.RecordCount>0) then
                        begin
                            ShowMessage('Ada orang lain yang sedang memakai
account ini!!!'#13+
                                'Jika anda pemilik asli account ini,
silakan hubungi administrator');
                        end else
                        begin

        DecodeDateTime(Now,year,month,day,hh,mm,ss,ms);
                            SQL.Clear;
                            val :=format('NOW(), "%s", 0', [edUserName.Text]);
                            SQL.Add('INSERT INTO login (tgl, username,
logout) VALUES ('+val+')');
                            ExecSQL(true);
                            if rowsAffected=0 then
                                showMessage('Ada kesalahan di database,
mohon periksa komputer server');
                            Redirect(akses);
                        end;
                    end;
                end else
                begin
                    MessageDlg('Maaf, username tidak terdaftar atau password salah.
Ingat,'#13 +
                        'password bersifat case-sensitive (huruf kapital dan
huruf '#13 +
```

```
                                        'kecil dibedakan)',mtError,[mbOK],0);
                        edUserName.SetFocus;
                end;
        end;
end;

procedure TfrmLogin.Button2Click(Sender: TObject);
begin
        close;
end;

procedure TfrmLogin.Button3Click(Sender: TObject);
begin
        frmRequestDaftar.ShowModal;
end;

procedure TfrmLogin.FormShow(Sender: TObject);
begin
        edUserName.Text := '';
        edPassword.Text := '';
        edUserName.SetFocus;
end;

procedure TfrmLogin.FormClose(Sender: TObject; var Action: TCloseAction);
begin
        If MessageDlg('Apakah anda yakin untuk mengakhiri SMPT?',mtConfirmation,
                        [mbOK,mbCancel],0)=mrOK then
                Action := caFree
        else
   Action := caNone;
end;

end.
```

Form Pemasaran

```
unit formPemasaran;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, Menus, StdCtrls, Buttons, ExtCtrls;

type
  TfrmPemasaran = class(TForm)
    Panel1: TPanel;
    Image1: TImage;
    Panel2: TPanel;
    Label1: TLabel;
    Label2: TLabel;
    Panel3: TPanel;
    Label3: TLabel;
    Panel4: TPanel;
    Label4: TLabel;
    BitBtn2: TBitBtn;
    BitBtn1: TBitBtn;
```

```
    BitBtn4: TBitBtn;
    PopupMenu1: TPopupMenu;
    RencanaAnggaranBiaya1: TMenuItem;
    SuratPerintahKerjaInternSPKI1: TMenuItem;
                    procedure BitBtn2Click(Sender: TObject);
                    procedure BitBtn1Click(Sender: TObject);
                    procedure BitBtn4Click(Sender: TObject);
                    procedure Showit(Sender: TObject; usr: string);
                    procedure FormClose(Sender: TObject; var Action: TCloseAction);
                    procedure refreshInfo;
    procedure FormShow(Sender: TObject);
          private
                    { Private declarations }
                    user: string;
          public
                    { Public declarations }
          end;

var
  frmPemasaran: TfrmPemasaran;

implementation

uses formPenawaran, formCetakLapPenawaran, database, formLogin;

{$R *.dfm}

procedure TfrmPemasaran.BitBtn2Click(Sender: TObject);
begin
          frmPenawaran.ShowModal;
  refreshInfo;
end;

procedure TfrmPemasaran.BitBtn1Click(Sender: TObject);
begin
          frmCetakLapPenawaran.ShowModal;
  refreshInfo;
end;

procedure TfrmPemasaran.BitBtn4Click(Sender: TObject);
begin
          close;
end;

procedure TfrmPemasaran.Showit(Sender: TObject; usr: string);
begin
          user := usr;
          show;
end;

procedure TfrmPemasaran.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
          with modulData.SQLState do
          begin
                    SQL.Clear;
                    SQL.Add('UPDATE login SET logout=NOW() WHERE
username='+QuotedStr(user)+
```

```
                                        ' and logout='+QuotedStr('0000-00-00 00:00:00'));
                    ExecSQL(true);
            end;
            Action := caHide;
            frmLogin.Show;
end;
procedure TfrmPemasaran.refreshInfo;
var
            dtPenawarannoPrint: string;
            dtjumlahRAB, dtJumlahPenawaran: integer;
begin
            with modulData.SQLState do
            begin
                        SQL.Clear;
                        SQL.Add('SELECT * FROM print WHERE form=5 and print=0');
                        Open;
                        dtPenawaranNoPrint := IntToStr(RecordCount);
                        close;
                        SQL.Clear;
                        SQL.Add('SELECT * FROM print WHERE form=2');
                        Open;
                        dtJumlahRAB := RecordCount;
                        close;
                        SQL.Clear;
                        SQL.Add('SELECT * FROM print WHERE form=5');
                        Open;
                        dtJumlahPenawaran := RecordCount;
                        close;
            end;
            Label4.Caption := dtPenawaranNoPrint+ ' Buah';
            Label3.Caption := IntToStr(dtJumlahRAB-dtJumlahPenawaran)+ ' Buah';
end;
procedure TfrmPemasaran.FormShow(Sender: TObject);
begin
 refreshInfo;
end;end.
```

Form Penawaran

```
unit formPenawaran;

interface

uses
            Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
            Dialogs, ExtCtrls, StdCtrls, Mask, StrUtils;

type
            TfrmPenawaran = class(TForm)
                        Panel1: TPanel;
                        Image1: TImage;
                        Label2: TLabel;
                        GroupBox1: TGroupBox;
                        Label1: TLabel;
                        Label3: TLabel;
                        Label4: TLabel;
                        Label5: TLabel;
                        Label6: TLabel;
```

Label7: TLabel;
Label8: TLabel;
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Label11: TLabel;
Label12: TLabel;
Label13: TLabel;
Label14: TLabel;
Label15: TLabel;
lbPekerjaan: TLabel;
lbMerk: TLabel;
lbNoseri: TLabel;
lbPemilik: TLabel;
lbSurat: TLabel;
lbDaya: TLabel;
lbTanggal: TLabel;
Panel2: TPanel;
ScrollBar1: TScrollBar;
Panel3: TPanel;
Label24: TLabel;
Label25: TLabel;
Label26: TLabel;
Label27: TLabel;
Label28: TLabel;
Panel4: TPanel;
Bevel1: TBevel;
Button1: TButton;
Button2: TButton;
Button3: TButton;
edNomor: TEdit;
Label204: TLabel;
Panel5: TPanel;
Label29: TLabel;
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UNIT PELAKSANA TEKNIS PERPUSTAKAAN
UNIKOM

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        edHrgTotal78: TEdit;
        edHrgTotal79: TEdit;
        edHrgTotal80: TEdit;
        edHrgTotal81: TEdit;
        edHrgTotal82: TEdit;
        Button4: TButton;
        btReset: TButton;
        procedure FormCreate(Sender: TObject);
        procedure ScrollBar1Change(Sender: TObject);
        procedure edNomorKeyDown(Sender: TObject; var Key: Word;
                Shift: TShiftState);
        procedure edNomorKeyPress(Sender: TObject; var Key: Char);
        procedure getValue;
        function setValue:Boolean;
        procedure edQty01Change(Sender: TObject);
        procedure edQty01Enter(Sender: TObject);
        procedure edQty01Exit(Sender: TObject);
        procedure edQty01KeyDown(Sender: TObject; var Key: Word;
                Shift: TShiftState);
        procedure edQty01KeyPress(Sender: TObject; var Key: Char);
        procedure Button3Click(Sender: TObject);
        procedure Button4Click(Sender: TObject);
        procedure FormShow(Sender: TObject);
        procedure Button2Click(Sender: TObject);
        procedure btResetClick(Sender: TObject);
        procedure resetControl;
        procedure prepareControl;
        procedure Button1Click(Sender: TObject);
    private
        { Private declarations }
        function GetComponent(name:string):TEdit;
    public
        { Public declarations }
    end;

var
    frmPenawaran: TfrmPenawaran;

implementation

uses database, SqlExpr, DB, functions, formCetakLapPenawaran;

{$R *.dfm}

procedure TfrmPenawaran.FormCreate(Sender: TObject);
begin
    ScrollBar1.Min := 0;
```

```
        ScrollBar1.Max := Panel5.Height - Panel4.Height + 1;
end;

procedure TfrmPenawaran.ScrollBar1Change(Sender: TObject);
begin
        Panel5.Top := ScrollBar1.Position * -1;
end;

procedure TfrmPenawaran.edNomorKeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
var
        dtSS: word;
begin
        dtSS := edNomor.SelStart;
        if Key=VK_RIGHT then
        begin
                if (dtSS=1) or (dtSS=4) or (dtSS=7) or
                        (dtSS=10) then
                edNomor.SelStart :=dtSS + 1;
        end else
        if Key=VK_LEFT then
        begin
                if (dtSS=3) or (dtSS=6) or (dtSS=9) or
                        (dtSS=12) then
                edNomor.SelStart :=dtSS - 1;
        end else
        if Key=VK_BACK then
        begin
                Key := 0;
                if dtSS=length(edNomor.Text) then
                begin
                        edNomor.Text := LeftStr(edNomor.Text,Length(edNomor.Text)-1)+' ';
                        edNomor.SelStart := dtSS - 1;
                end else
                if dtSS=1 then
                begin
                        edNomor.Text := ' ' + RightStr(edNomor.Text,length(edNomor.Text)-
1);
                        edNomor.selStart := dtSS - 1;
                end else
                if dtSS=0 then
                begin
                        {do nothing}
                end else
                if (dtSS=3) or (dtSS=6) or (dtSS=9) or(dtSS=12) then
                begin
                        edNomor.Text := LeftStr(edNomor.Text,dtSS-2)+' '+
                                        RightStr(edNomor.Text,Length(edNomor.Text)-
edNomor.SelStart+1);
                        edNomor.selStart := dtSS - 2;
                end else
                begin
                        edNomor.Text := LeftStr(edNomor.Text,dtSS-1)+' '+
                                        RightStr(edNomor.Text,Length(edNomor.Text)-
edNomor.SelStart);
                        edNomor.selStart := dtSS - 1;
                end;
        end else
```

```
        if Key=VK_DELETE then
        begin
                Key := 0;
                if (dtSS=0) then
                begin
                        edNomor.Text :=' ' + RightStr(edNomor.Text,length(edNomor.Text)-
1);
                end else
                if (dtSS=length(edNomor.Text)) then
                begin
                        {do nothing}
                end else
                begin
                        edNomor.Text := LeftStr(edNomor.Text,dtSS)+' '+
                                        RightStr(edNomor.Text,length(edNomor.Text)-dtSS-
1);
                end;
                edNomor.SelStart := dtSS;
        end;
end;

procedure TfrmPenawaran.edNomorKeyPress(Sender: TObject; var Key: Char);
var
        dtSS: word;
begin
        {Penomoran: 30/ME/01/05/001}
        dtSS := edNomor.SelStart;
        if key=#8 then
        begin
                key:=#0;
                exit;
        end;
        if ((dtSS in [0,1,6,7,9,10,12,13,14]) and not (Key in ['0'..'9'])) or
                        ((dtSS in [3,4]) and not (Key in ['a'..'z','A'..'Z'])) then
        begin
                key := #0;
                beep;
                exit;
        end;
        if dtSS=0 then
        begin
                edNomor.Text := Key+RightStr(edNomor.Text,Length(edNomor.Text)-1);
                edNomor.SelStart :=dtSS + 1;
        end else
        if dtSS=length(edNomor.Text)-1 then
        begin
                edNomor.Text := LeftStr(edNomor.Text,Length(edNomor.Text)-1)+Key;
                edNomor.SelStart :=dtSS + 1;
        end else
        if dtSS=length(edNomor.Text) then
        begin
                {do nothing}
        end else
        begin
                edNomor.Text := LeftStr(edNomor.Text,dtSS)+Key+
                                RightStr(edNomor.Text,Length(edNomor.Text)-
edNomor.SelStart-1);
                edNomor.SelStart :=dtSS + 1;
```

```
        end;
        dtSS := edNomor.SelStart;
        if (edNomor.SelStart=2) or (edNomor.SelStart=5) or (edNomor.SelStart=8) or
                        (edNomor.SelStart=11) then
                edNomor.SelStart :=dtSS + 1;
        Key := #0;
end;

procedure TfrmPenawaran.getValue;
var
        dtTahun: string;
        fmtSetting: TFormatSettings;
        i: integer;
        edtmp1,edtmp2,edtmp3: TEdit;
        number: double;
begin
        GetLocaleFormatSettings(LCID_INSTALLED,fmtSetting);
        dtTahun := '20'+MidStr(edNomor.Text,10,2);
        with modulData.SQLState2 do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM lap_rab WHERE
kode='+QuotedStr(edNomor.Text)+
                                        ' and tahun='+dtTahun+' ORDER by item');
                Open;
                if RecordCount=0 then
                begin
                        showMessage('Maaf, terjadi kesalahan di database server...');
                        exit;
                end;
                First;
                for i:= 1 to 82 do begin
                        edtmp1 := GetComponent('edQty'+Format('%.2d',[i]));
                        edtmp2 := GetComponent('edHargaSat'+Format('%.2d',[i]));
                        edtmp3 := GetComponent('edHrgTotal'+Format('%.2d',[i]));
                        edtmp1.Text := FloatToStr(FieldByName('qty').AsFloat,fmtSetting);
                        edtmp2.Text := FieldByName('harga').AsString;
                        number := (getNumber(edtmp1.Text)*getNumber(edtmp2.Text));
                        edtmp3.Text := Format('%.0n',[number]);
                        Next;
                end;
        end;
        with moduldata.SQLState3 do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM harga_ada_skr ORDER BY kode');
                Open;
                for i:= 1 to 82 do begin
                        edtmp1 := GetComponent('edHrgAda'+Format('%.2d',[i]));
                        edtmp1.Text := Format('%.0n',[FieldByName('harga').AsFloat]);
                        Next;
                end;
        end;
end;

function TfrmPenawaran.setValue: Boolean;
var
        dtTahun,dtQty,dtHarga: string;
```

```
        fmtSetting: TFormatSettings;
        i: integer;

        edtmp1,edtmp2: TEdit;
begin
        result := true;
        GetLocaleFormatSettings(LCID_INSTALLED,fmtSetting);
        dtTahun := '20'+MidStr(edNomor.Text,10,2);
        with modulData.SQLState3 do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM harga_ren_skr ORDER BY kode');
                Open;
        end;

        //simpan data
        with modulData.SQLState2 do
        begin
                SQL.Clear;
                SQL.Add('DELETE FROM lap_penawaran WHERE
kode='+QuotedStr(edNomor.Text)+
                                ' and tahun='+dtTahun);
                execSQL(true);
                SQL.Clear;
                SQL.Add('SELECT * FROM lap_rab WHERE
kode='+QuotedStr(edNomor.Text)+
                                ' and tahun='+dtTahun+' ORDER by item');
                Open;
                for i:= 1 to 82 do begin
                        edtmp1 := GetComponent('edQty'+Format('%.2d',[i]));
                        edtmp2 := GetComponent('edHargaSat'+Format('%.2d',[i]));
                        with moduldata.SQLState3 do
                        begin
                                if edtmp1.text='' then
                                        dtQty := '0'
                                else
                                        dtQty := edtmp1.text;
                                if edtmp2.text='' then
                                        dtHarga := '0'
                                else
                                        dtHarga := edtmp2.text;
                                SQL.Clear;
                                SQL.Add('INSERT INTO lap_penawaran
(kode,tahun,item,qty,harga) VALUES '+

        '('+QuotedStr(edNomor.Text)+','+dtTahun+','+IntToStr(i)+','+
                                                ReplaceDec(dtQty)+','+
                                                ReplaceDec(dtHarga)+')');
                                ExecSQL(true);
                                if RowsAffected=0 then
                                begin
                                        Result := false;
                                        exit;
                                end;
                                close;
                        end;
                        //simpan jika user melakukan perubahan harga satuan
```

```
                        if getNumber(edtmp2.Text)<>
getNumber(FIeldByName('harga').AsString) then
                        begin
                                with modulData.SQLState do
                                begin
                                        SQL.Clear;
                                        SQL.Add('UPDATE harga_ren_skr SET
harga='+ReplaceDec(dtHarga)+
                                                        ' WHERE kode='+IntToStr(i));
                                        ExecSQL(true);
                                        if RowsAffected=0 then
                                        begin
                                                Result := false;
                                                exit;
                                        end;
                                        SQL.Clear;
                                        SQL.Add('INSERT INTO harga_ren (kode,tgl,harga)
VALUES '+

        '('+IntToStr(i)+',now(),'+ReplaceDec(dtHarga)+')');
                                        ExecSQL(true);
                                        if RowsAffected=0 then
                                        begin
                                                Result := false;
                                                exit;
                                        end;
                                end;
                        end;
                        next;
                end;
        end;

end;

function TfrmPenawaran.GetComponent(name:string):TEdit;
var i: integer;
begin
        result := nil;
        for i := 0 to ComponentCount-1 do
        begin
                if (Components[i].Name=name) then
                begin
                        Result := (Components[i] as TEdit);
                        exit;
                end;
        end;
end;

procedure TfrmPenawaran.edQty01Change(Sender: TObject);
var
        editBox,editBox2,editBox3,editBox4: TEdit;
        fmtSetting: TFormatSettings;
        CommaChar: char;
        number: double;
begin
        GetLocaleFormatSettings(LCID_INSTALLED,fmtSetting);
        CommaChar := fmtSetting.DecimalSeparator;
        editBox := (Sender as TEdit);
```

```
        if (editBox.Text = '0') then
                editBox.text := '';
        if editBox.Text = '' then
                editBox.Color := clSilver
        else begin
                editBox.Color := clWhite;
                if editBox.Text[1]=CommaChar then
                begin
                        editBox.Text := '0'+editBox.Text;
                        editbox.SelStart := length(editBox.Text);
                end;
        end;
        editBox2 := GetComponent('edHargaSat'+RightStr(editBox.Name,2));
        editBox3 := GetComponent('edHrgTotal'+RightStr(editBox.Name,2));
        editBox4 := GetComponent('edQty'+RightStr(editBox.Name,2));
        number := (getNumber(editBox2.Text)*getNumber(editBox4.Text));
        editBox3.Text := Format('%.0n',[number]);
end;

procedure TfrmPenawaran.edQty01Enter(Sender: TObject);
var
        EditBox: TEdit;
        i: integer;
        lblComponent: TLabel;
begin
        EditBox := (Sender as TEdit);
        if frmPenawaran.ComponentCount > 0 then
        begin
                for i:= 0 to frmPenawaran.ComponentCount-1 do
                begin
                        if frmPenawaran.components[i].ClassName='TLabel' then
                        begin
                                lblComponent := frmPenawaran.Components[i] as TLabel;
                                if (lblComponent.Top = EditBox.Top + 3) and
(lblComponent.Parent=Panel5) then
                                        (frmPenawaran.Components[i] as TLabel).Font.Color
:= clHighlightText;
                        end;
                end;
        end;
        if (EditBox.top + EditBox.Height + Panel5.top < Panel4.height) and
                (EditBox.Top + Panel5.Top >= 0) then
                exit;
        if (EditBox.top + Panel5.top < 0) then
        begin
                Panel5.Top := EditBox.top * -1;
                if panel5.Top > 0 then
                        panel5.top := 0;
                ScrollBar1.Position := panel5.top * -1;
                editbox.SetFocus;
        end
        else if EditBox.top + EditBox.Height + panel5.top > Panel4.height then
        begin
                Panel5.Top := EditBox.Top * -1 + (Panel4.Height-editBox.Height) + 1;
                ScrollBar1.Position := panel5.top * -1;
                editbox.SetFocus;
        end;
end;
```

```
procedure TfrmPenawaran.edQty01Exit(Sender: TObject);
var
        EditBox: TEdit;
        i: integer;
begin
        EditBox := (Sender as TEdit);
        if frmPenawaran.ComponentCount > 0 then
        begin
                for i:= 0 to frmPenawaran.ComponentCount-1 do
                begin
                        if frmPenawaran.components[i].ClassName='TLabel' then
                        begin
                                if (frmPenawaran.Components[i] as TLabel).Top =
EditBox.Top + 3 then
                                        (frmPenawaran.Components[i] as TLabel).Font.Color
:= clWindowText;
                        end;
                end;
        end;
end;

procedure TfrmPenawaran.edQty01KeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
var
        fmtSetting: TFormatSettings;
        CommaChar: char;
        editBox: TEdit;
        pos: integer;
begin
        GetLocaleFormatSettings(LCID_INSTALLED,fmtSetting);
        CommaChar := fmtSetting.DecimalSeparator;
        editBox := (sender as TEdit);
        if Key = VK_DECIMAL then
        begin
                if isContainComma(editBox.Text) then
                        exit;
                key := 0;
                pos := editBox.SelStart;
                if pos=0 then
                begin
                        editBox.Text := CommaChar + editBox.Text;
                        editBox.SelStart := 2;
                end else if pos=length(editBox.Text) then
                begin
                        editBox.Text := editBox.Text + CommaChar;
                        editBox.SelStart := length(EditBox.Text);
                end else begin
                        editBox.text :=
LeftStr(editBox.Text,pos)+CommaChar+RightStr(editBox.Text,length(editBox.Text)-pos);
                        editBox.SelStart := pos+1;
                end;
        end;
end;

procedure TfrmPenawaran.edQty01KeyPress(Sender: TObject; var Key: Char);
var
        fmtSetting: TFormatSettings;
```

```
        CommaChar: char;
        editBox: TEdit;
begin
        GetLocaleFormatSettings(LCID_INSTALLED,fmtSetting);
        CommaChar := fmtSetting.DecimalSeparator;
        editBox := (sender as TEdit);
        if not (key in ['0'..'9',CommaChar,#8]) or
         ((key=CommaChar) and (iscontainComma(editBox.Text))) then
        begin
                beep;
                Key := #0;
        end;
end;

procedure TfrmPenawaran.Button3Click(Sender: TObject);
begin
        if MessageDlg('Anda yakin menutup jendela ini?',mtConfirmation,
                        [mbYes,mbCancel],0)=mrYes then
                close;
end;

procedure TfrmPenawaran.Button4Click(Sender: TObject);
var
        dtTahun: string;
begin
        dtTahun := '20'+MidStr(edNomor.Text,10,2);
        with modulData.SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM print WHERE
kode='+QuotedStr(edNomor.Text)+
                                ' and tahun='+dtTahun+' and form=5');
                Open;
                if RecordCount>0 then
                begin
                        ShowMessage('Maaf, nomor PK ini telah dibuat Lampiran
Penawaran,'#13+
                                        'silakan masukkan nomor PK yang lain...');
                        edNomor.SetFocus;
                        exit;
                end;
                SQL.Clear;
                SQL.Add('SELECT * FROM pk WHERE kode='+QuotedStr(edNomor.Text)+
                                ' and tahun='+dtTahun);
                Open;
                if RecordCount=0 then
                begin
                        showMessage('Maaf, nomor PK tersebut belum ada pada tabel '+
                                        'investigasi...'#13'Silakan tekan tombol elipsis untuk
melihat '+
                                        'investigasi yang telah dilakukan');
                        edNomor.SetFocus;
                        exit;
                end;
                lbPekerjaan.Caption := 'Perbaikan Trafo Distribusi';
                lbMerk.Caption := FieldByName('merk').asstring;
                lbNoseri.Caption := FieldByName('noseri').AsString;
                lbPemilik.Caption := FieldByName('pemilik').AsString;
```

```
                lbSurat.Caption := '';
                lbDaya.Caption := FieldByName('daya').AsString;
                lbTanggal.Caption := FieldByName('tgl').AsString;
        end;
        getValue;
        prepareControl;
end;

procedure TfrmPenawaran.resetControl;
var
        i: integer;
begin
        button1.Enabled := false;
        button2.Enabled := false;
        btReset.Enabled := false;
        Button4.Enabled := true;
        for i:=0 to ComponentCount-1 do
        begin
                if Components[i].ClassType = TEdit then
                begin
                        (Components[i] as TEdit).Enabled := false;
                        (Components[i] as TEdit).Text := '';
                end;
        end;
        edNomor.Enabled := true;
        edNomor.Text := '00/XX/00/00/000';
 Panel5.Top := 0;
end;

procedure TfrmPenawaran.prepareControl;
var
        i: integer;
begin
                for i:=0 to frmPenawaran.ComponentCount-1 do
                begin
                        if frmPenawaran.Components[i].ClassType = TEdit then
                        begin
                                (frmPenawaran.Components[i] as TEdit).Enabled := true;
                        end;
                end;
                button1.enabled := true;
                button2.enabled := true;
                btReset.Enabled := true;
                edNomor.Enabled := false;
                button4.enabled := false;
  edQty01.SetFocus;
end;

procedure TfrmPenawaran.FormShow(Sender: TObject);
begin
        resetControl;
end;

procedure TfrmPenawaran.Button2Click(Sender: TObject);
var
        dtTahun: string;
begin
        dtTahun := '20'+MidStr(edNomor.Text,10,2);
```

```
        if setValue then
                showMessage('Lampiran Penawaran berhasil disimpan...')
        else
        begin
                showMessage('Maaf, terjadi kesalahan di server '#13+
                        'database ketika menyimpan Lampiran Penawaran...');
                exit;
        end;
        with moduldata.SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM print WHERE
kode='+QuotedStr(edNomor.Text)+
                        ' and tahun='+dtTahun+' and form=5');
                Open;
                if RecordCount=0 then
                begin
                        SQL.Clear;
                        SQL.Add('INSERT into print (kode,tahun,form,print) VALUES ('+
                                QuotedStr(edNomor.text)+','+dtTahun+',5,0)');
                        ExecSQL(true);
                        if rowsAffected=0 then
                                ShowMessage('Maaf, ada kesalahan pada server
database');
                end;
                close;
        end;
end;

procedure TfrmPenawaran.btResetClick(Sender: TObject);
begin
        resetControl;
end;

procedure TfrmPenawaran.Button1Click(Sender: TObject);
var
        dtTahun: string;
        lsKode, lsTahun: TStrings;
begin
        dtTahun := '20'+MidStr(edNomor.Text,10,2);
        with moduldata.SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM print WHERE
kode='+QuotedStr(edNomor.Text)+
                        ' and tahun='+dtTahun+' and form=5');
                Open;
                if RecordCount=0 then
                        Button2.Click;
        end;
        lsKode := TStringList.Create;
        lsTahun := TStringList.Create;
        lsKode.Add(edNomor.Text);
        lsTahun.Add(dtTahun);
        with moduldata.SQLState do
        begin
                SQL.Clear;
                SQL.Add('UPDATE print SET print=print+1 WHERE kode=' +
```

```
                                        QuotedStr(edNomor.Text)+' and tahun='+dtTahun+' and
form=5');
                ExecSQL(true);
                if rowsAffected=0 then
                        ShowMessage('Maaf, ada kesalahan pada server database');
                close;
        end;
        frmCetakLapPenawaran.CetakLaporan(lsKode,lsTahun);
end;

end.
```

Form Cetak Laporan Penawaran

```
unit formCetakLapPenawaran;

interface

uses
        Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
        Dialogs, Buttons, Grids, StdCtrls, ExtCtrls, DateUtils, Printers, Math;

type
        TfrmCetakLapPenawaran = class(TForm)
                Panel1: TPanel;
                Image1: TImage;
                Label1: TLabel;
                Label2: TLabel;
                Image2: TImage;
                lbJumlah: TLabel;
                lbDipilih: TLabel;
                Button2: TButton;
                cbCrPrint: TComboBox;
                cbCrTahun: TComboBox;
                grLaporan: TStringGrid;
                BitBtn1: TBitBtn;
                BitBtn2: TBitBtn;
                procedure FormShow(Sender: TObject);
                procedure cbCrPrintChange(Sender: TObject);
                procedure grLaporanClick(Sender: TObject);
                procedure BitBtn2Click(Sender: TObject);
  procedure Button2Click(Sender: TObject);
        private
                { Private declarations }
                procedure RefreshControl;
                procedure refreshLabel;
        public
                { Public declarations }
                procedure CetakLaporan(repRange, repYear:TStrings);
        end;

var
        frmCetakLapPenawaran: TfrmCetakLapPenawaran;

implementation

uses database, SqlExpr, DB;
```

```
{$R *.dfm}

procedure TfrmCetakLapPenawaran.RefreshControl;
var
        crPrint, crTahun,
        dtKode, dtTahun, dtTgl, dtPemilik, dtMerk, dtDaya, dtNoSeri, dtCetak: string;
        jumlah, i: integer;

begin
        //hitung jumlah laporan yang ada
        if cbCrPrint.ItemIndex=0 then
                crPrint := ' and print=0'
        else
                crPrint := '';
        if (cbCrTahun.ItemIndex < cbCrPrint.Items.Count-1) and (cbCrTahun.itemIndex<>-1)
then
                crTahun := ' and tahun='+cbCrTahun.Text
        else
                crTahun := '';
        with modulData.SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM print WHERE form=5 '+crTahun+crPrint);
                Open;
                jumlah := RecordCount;
        end;
        if jumlah>0 then
        begin
                grLaporan.RowCount := jumlah+1;
                BitBtn2.Enabled := true;
        end else
        begin
                grLaporan.RowCount := 2;
                grLaporan.Rows[1].clear;
                BitBtn2.Enabled := false;
        end;
        lbJumlah.Caption := format('Jumlah: %d buah',[jumlah]);
        refreshLabel;

        //retrieve data from database
        with modulData.SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT * FROM print WHERE form=5 '+crTahun+crPrint);
                Open;
        end;
        for i:=1 to jumlah do
        begin
                with grLaporan.Rows[i] do
                begin
                        clear;
                        dtKode := modulData.SQLState.FieldByName('kode').AsString;
                        dtTahun := modulData.SQLState.FieldByName('tahun').AsString;
                        if modulData.SQLState.FieldByName('print').AsInteger=0 then
                                dtCetak := 'Belum'
                        else
                                dtCetak := 'Sudah';
```

UNIT PELAYANAN PERPUSTAKAAN UNIKOM

```
                        //nomor PK
                        add(dtKode);

                        with modulData.SQLState2 do
                        begin
                                SQL.Clear;
                                SQL.Add('SELECT * FROM pk WHERE
kode='+QuotedStr(dtKode)+' and tahun='+dtTahun);
                                open;
                                dtTgl := FieldByName('tanggal').AsString;
                                dtPemilik := FieldByName('pemilik').AsString;
                                dtMerk := FieldByName('merk').AsString;
                                dtDaya := FieldByName('daya').AsString;
                                dtNoSeri := FieldByName('noseri').AsString;
                        end;

                        add(dtTgl);
                        add(dtPemilik);
                        add(dtMerk);
                        add(dtDaya);
                        add(dtNoSeri);
                        add(dtCetak);
                end;
                modulData.SQLState.Next;
        end;
end;

procedure TfrmCetakLapPenawaran.FormShow(Sender: TObject);
var
        i: integer;
begin
        //Set judul tabel
        grLaporan.ColCount := 7;
        with grLaporan.Rows[0] do
        begin
                Clear;
                add('Nomor');
                add('Tanggal');
                add('Pemilik');
                add('Merk');
                add('Daya');
                add('No. Seri');
                add('Dicetak');
        end;
        with modulData.SQLState do
        begin
                SQL.Clear;
                SQL.Add('SELECT DISTINCT tahun FROM pk');
                Open;
                cbCrTahun.Items.Clear;
                while not eof do
                begin
                        cbCrTahun.Items.Add(FieldByName('tahun').AsString);
                        Next;
                end;
                cbCrTahun.Items.Add('Semua');
                i := cbCrTahun.Items.IndexOf(IntToStr(YearOf(Now)));
                if i<>-1 then
```

```
                    cbCrTahun.itemIndex := i
                else
                    cbCrTahun.ItemHeight := cbCrTahun.Items.Count-1;
                Close; {Close the dataset}
        end;
        refreshControl;
end;

function currtoString(curr:longint):string;
var
        tmp: string;
        angkaasli,angka,angka2,angka3: integer;
const
        bil: array[1..9] of string = ('Satu','Dua','Tiga','Empat','Lima',
                'Enam','Tujuh','Delapan','Sembilan');
        miliar= 1000000000;
        juta=1000000;
        ribu=1000;
        satu=1;
begin
        tmp := '';
        if curr>=miliar then
        begin
                angka := curr div miliar;
                angka3:=0;
                angkaasli := angka;
                if angka >9 then
                begin
                        angka2 := angka div 10;
                        if angka2>9 then
                        begin
                                angka3 := angka2 div 10;
                                tmp := tmp + bil[angka3]+' Ratus ';
                                angka2 := angka2 - angka3 * 10;
                        end;
                        if angka2>1 then
                                tmp := tmp + bil[angka2]+' Puluh '
                        else
                        if angka2>0 then
                                tmp := tmp + 'Sepuluh ';
                        angka := angka - angka2*10 - angka3*100;
                end;
                tmp := tmp + bil[angka]+' Miliar ';
                curr := curr - angkaasli * miliar;
        end;
        if curr>=juta then
        begin
                angka := curr div juta;
                angka3:=0;
                angkaasli := angka;
                if angka >9 then
                begin
                        angka2 := angka div 10;
                        if angka2>9 then
                        begin
                                angka3 := angka2 div 10;
                                tmp := tmp + bil[angka3]+' Ratus ';
                                angka2 := angka2 - angka3 * 10;
```

```
                    end;
                    if angka2>1 then
                        tmp := tmp + bil[angka2]+' Puluh '
                    else
                    if angka2>0 then
                        tmp := tmp + 'Sepuluh ';
                    angka := angka - angka2*10 - angka3*100;
                end;
                tmp := tmp + bil[angka]+' Juta ';
                curr := curr - angkaasli * juta;
            end;
            if curr>=ribu then
            begin
                angka := curr div ribu;
                angka3:=0;
                angkaasli := angka;
                if angka >9 then
                begin
                    angka2 := angka div 10;
                    if angka2>9 then
                    begin
                        angka3 := angka2 div 10;
                        tmp := tmp + bil[angka3]+' Ratus ';
                        angka2 := angka2 - angka3 * 10;
                    end;
                    if angka2>1 then
                        tmp := tmp + bil[angka2]+' Puluh '
                    else
                    if angka2>0 then
                        tmp := tmp + 'Sepuluh ';
                    angka := angka - angka2*10-angka3*100;
                end;
                tmp := tmp + bil[angka]+' Ribu ';
                curr := curr - angkaasli * ribu;
            end;
            if curr>=satu then
            begin
                angka := curr;
                angka3:=0;
                if angka >9 then
                begin
                    angka2 := angka div 10;
                    if angka2>9 then
                    begin
                        angka3 := angka2 div 10;
                        tmp := tmp + bil[angka3]+' Ratus ';
                        angka2 := angka2 - angka3 * 10;
                    end;
                    if angka2>0 then
                        tmp := tmp + bil[angka2]+' Puluh ';
                    angka := angka - angka2*10 - angka3*100;
                end;
                if angka>0 then
                    tmp := tmp + bil[angka]+ ' ';
            end;
            tmp := tmp + 'Rupiah';
            result := tmp;
end;
```

```
procedure TfrmCetakLapPenawaran.refreshLabel;
var
        dtJumlah: Integer;
begin
        dtJumlah:=grLaporan.Selection.Bottom-grLaporan.Selection.Top+1;
        if lbJumlah.Caption = 'Jumlah: 0 buah' then
                dtJumlah := 0;
        lbDipilih.Caption := format('Dipilih: %d buah',[dtJumlah]);
        lbDipilih.Left := lbJumlah.Left + lbJumlah.Width + 10;
end;

procedure TfrmCetakLapPenawaran.cbCrPrintChange(Sender: TObject);
begin
        RefreshControl;
end;

procedure TfrmCetakLapPenawaran.grLaporanClick(Sender: TObject);
begin
        refreshLabel;
end;

procedure TfrmCetakLapPenawaran.CetakLaporan(repRange, repYear:TStrings);
var
        ppix,ppiy,mmx,mmy,hmar,vmar,ls,lastLine,lastcol,i,j,tmp1,tmp2,tmp3,tmp4:integer;
        dtNomor, dtMerk, dtNoSeri, dtPemilik, dtTug, dtTgl, dtTglTrafo, dtHub,
        dtKet, dtSatuan: string;
        dtArus, dtEx, dtIsiMinyak, dtBerat, dtPB, dtSB, dtPS, dtAB, dtAC, dtBC,
        dtab2, dtac2, dtbc2,dtJumlahReal: real;
        dtJumlahInt: integer;
        dtdaya, dtTahun: word;
        dtJumlahKosong: boolean;
        dt01,dt02,dt03,dt04,dt05,dt06,dt07,dt08,dt09,dt10: string;

procedure println(text:string);
begin
        with Printer.Canvas do
        begin
                textout(Hmar+lastcol,Vmar+lastline,text);
                ls := TextHeight('X');
                lastLine := lastLine + ls;
        end;
end;

procedure printNoln(text:string);
begin
        with Printer.Canvas do
        begin
                ls := TextHeight('X');
                textout(Hmar+lastcol,Vmar+lastline,text);
                lastCol:=lastCol + TextWidth(text);
        end;
end;

procedure printCn(text:string);
var
        startX:integer;
begin
```

```
        with Printer.Canvas do
        begin
                startX := (((printer.PageWidth-mmx*20)-(Hmar+lastCol))-TextWidth(text)) div
2;
                textOut(Hmar+lastcol+startX,Vmar+lastline,text);
                ls := TextHeight('X');
                lastLine := lastLine + ls;
                lastCol :=lastcol+startX;
        end;
end;

begin
        with printer do
                begin
                        BeginDoc;
                        for j := 0 to repRange.Count - 1 do
                        begin
                                lastLine:=0;
                                lastCol := 0;
                                With Canvas do
                                begin
                                        Brush.Style := bsClear;
                                        {Establish printer parameters}
                                        ppix:=GetDeviceCaps(Handle,LOGPIXELSX);
{Pixels per inch, x direction}
                                        ppiy:=GetDeviceCaps(Handle,LOGPIXELSY); { "
                " y direction}
                                        mmx:=round(ppix/25.4);          {Pixels per mm,
x direction}
                                        mmy:=round(ppiy/25.4);          {       "
        "       y direction}
                                        hmar:=mmx*15;                   {Horizontal (left
hand) margin}
                                        vmar:=mmy*10;                   {Vertical (top)
margin}
                                        Font.PixelsPerInch:=ppix;       {BUG!}
                                        Image2.Proportional := true;

                                        with modulData.SQLState do
                                        begin
                                                SQL.Clear;
                                                SQL.Add('SELECT * FROM pk WHERE
kode='+QuotedStr(repRange[j])+
                                                        ' and tahun='+repYear[j]);
                                                Open;
                                                with moduldata.SQLState do
                                                begin
                                                        dtNomor :=
FieldByName('kode').AsString;
                                                        dtTahun :=
FieldByName('tahun').AsInteger;
                                                        dtTglTrafo :=
FieldByName('tgl').AsString;
                                                        dtDaya :=
FieldByName('daya').AsInteger;
                                                        dtMerk :=
fieldByName('merk').AsString;
```

```
fieldByName('noseri').AsString;
FieldByName('arus').AsFloat;
FieldByName('hubungan').AsString;
FieldByName('ex').AsFloat;
FieldByName('isiminyak').AsFloat;
FieldByName('berat').AsFloat;
FieldByName('pemilik').AsString;
FieldByName('tug').AsString;
FieldByName('tanggal').AsString;
FieldByName('PB').AsFloat;
FieldByName('SB').AsFloat;
FieldByName('PS').AsFloat;
FieldByName('AB').AsFloat;
FieldByName('AC').AsFloat;
FieldByName('BC').AsFloat;
FieldByName('ab2').AsFloat;
FieldByName('ac2').AsFloat;
FieldByName('bc2').AsFloat;

the current text.}

regular (no style)}

7208176 Hunting Fax (022) 7204809');
```

```
                dtNoSeri :=
                dtArus :=
                dthub :=
                dtEx :=
                dtIsiMinyak :=
                dtBerat :=
                dtPemilik :=
                dtTug :=
                dtTgl :=
                dtPB :=
                dtSB :=
                dtPS :=
                dtAB :=
                dtAC :=
                dtBC :=
                dtab2 :=
                dtac2 :=
                dtbc2 :=
            end;
end;

//halaman 1
Draw(hmar,vmar,Image2.Picture.Graphic);
LastCol := Image2.Picture.Graphic.Width+20;
Font.Name:='Arial';
{Set font size and style, Print Heading}
Font.Size := 14;
Font.Style:=[fsBold];
SetTextAlign(printer.canvas.handle,TA_LEFT);
println('PT. PLN (PERSERO) J&P');
println('UNIT PRODUKSI BANDUNG');
lastLine := lastLine + mmx*2;
ls:=textheight('X');          {line spacing = height of

{Set font size and style, get line height for body}
Font.Size:=10;
Font.Style:=[];               {restore font style to

println('Jalan Banten Nomor 8 Bandung. Telp. (022)
```

```
MoveTo(HMar,vmar+lastline+2);
LineTo(PageWidth-mmx*20,vmar+lastline+2);
lastline := lastline + 2;

{Print body}
LastCol := 0;
Pen.Color := RGB(184,192,199);
Font.Size:=12;
Font.Style := [fsBold,fsUnderline];
println('');
printCn('LAMPIRAN PENAWARAN');
tmp1 := lastline;
Font.Size := 10;
Font.Style := [];

lastCol := mmx*2;
println('');
println('Pekerjaan');
println('Merk');
println('Nomor Seri');
println('Pemilik');
lastline := tmp1;
lastCol := mmx*30;
println('');
println(': Perbaikan Trafo Distribusi');
println(': '+dtMerk);
println(': '+dtNoSeri);
println(': '+dtPemilik);
lastline := tmp1;
lastCol := PageWidth div 2 - Hmar;
println('');
println('Surat Permintaan');
println('Daya');
println('Tanggal');
println('');
lastCol := lastCol + mmx*30;
lastline := tmp1;
println('');
println(': '+dtTug);
println(': '+IntToStr(dtdaya));
println(': '+dtTglTrafo);
println('');
lastCol :=0;
println('');
MoveTo(hmar,vmar+lastLine);
LineTo(PageWidth-Hmar,vMar+lastline);
tmp1 := lastLine;
lastLine := lastline+mmx;

SetTextAlign(printer.canvas.handle,TA_CENTER);
lastCol := mmx*15 div 2;
printNoln('Nomor');
lastCol := mmx*15 + mmx*55 div 2;
printNoLn('Uraian Pekerjaan');
lastCol := mmx*70 + mmx*20 div 2;
printNoLn('Satuan');
lastCol := mmx*90 + mmx*20 div 2;
printNoLn('Vol');
```

```
                                        lastCol := mmx*110 + mmx*30 div 2;
                                        printNoLn('Harga Satuan');
                                        lastCol := mmx*140 + mmx*30 div 2;
                                        printLn('Jumlah');
                                        lastline := lastline+mmx;
                                        MoveTo(hmar,vmar+lastLine);
                                        LineTo(PageWidth-Hmar,vMar+lastline);
                                        lastline := lastline+mmx*2;

                                        with moduldata.SQLState do
                                        begin
                                                SQL.Clear;
                                                SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                                ' and tahun='+repYear[j]+'
and item>=1 and item<=11');
                                                Open;
                                                dt01 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                                SQL.Clear;
                                                SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                                ' and tahun='+repYear[j]+'
and item>=12 and item<=14');
                                                Open;
                                                dt02 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                                SQL.Clear;
                                                SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                                ' and tahun='+repYear[j]+'
and item=15');
                                                Open;
                                                dt03 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                                SQL.Clear;
                                                SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                                ' and tahun='+repYear[j]+'
and item>=16 and item<=43');
                                                Open;
                                                dt04 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                                SQL.Clear;
                                                SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                                ' and tahun='+repYear[j]+'
and item>=44 and item<=52');
                                                Open;
                                                dt05 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                                SQL.Clear;
```

```
                                        SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                ' and tahun='+repYear[j]+'
and item>=53 and item<=61');
                                        Open;
                                        dt06 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                        SQL.Clear;
                                        SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                ' and tahun='+repYear[j]+'
and item>=65 and item<=71');
                                        Open;
                                        dt07 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                        SQL.Clear;
                                        SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                ' and tahun='+repYear[j]+'
and item>=72 and item<=78');
                                        Open;
                                        dt08 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);

                                        SQL.Clear;
                                        SQL.Add('SELECT SUM(harga*qty)
jumlah FROM lap_penawaran WHERE kode='+QuotedStr(repRange[j])+
                                                ' and tahun='+repYear[j]+'
and item>=79 and item<=82');
                                        Open;
                                        dt09 :=
Format('%.0n',[FieldByName('jumlah').AsFloat]);
                                end;

                                lastCol := mmx*13;
                                SetTextAlign(printer.canvas.handle,TA_RIGHT);
                                printNoLn('1');
                                lastCol := mmx*17;
                                SetTextAlign(printer.canvas.handle,TA_LEFT);
                                printNoLn('Kumparan Primer');
                                lastCol := mmx*80;
                                SetTextAlign(printer.canvas.handle,TA_CENTER);
                                printNoLn('Unit');
                                lastCol := mmx*100;
                                SetTextAlign(printer.canvas.handle,TA_CENTER);
                                if dt01<>'0' then
                                        printnoln('1');
                                lastCol := mmx*138;
                                SetTextAlign(printer.canvas.handle,TA_RIGHT);
                                if dt01<>'' then
                                        printnoln(dt01);
                                lastCol := mmx*168;
                                if dt01<>'' then
                                        println(dt01)
                                else
                                        printLn('');
```

```
lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('2');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Kumparan Sekunder');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Unit');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt02<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt02<>'' then
        printnoln(dt02);
lastCol := mmx*168;
if dt02<>'' then
        println(dt02)
else
        printLn('');

lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('3');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Minyak Baru');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Liter');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt03<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt03<>'' then
        printnoln(dt03);
lastCol := mmx*168;
if dt03<>'' then
        println(dt03)
else
        printLn('');

lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('4');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Penggantian Komponen');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Unit');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
```

```
if dt04<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt04<>'' then
        printnoln(dt04);
lastCol := mmx*168;
if dt04<>'' then
        println(dt04)
else
        printLn('');

lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('5');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Ganti Insolation & Board');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Set');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt05<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt05<>'' then
        printnoln(dt05);
lastCol := mmx*168;
if dt05<>'' then
        println(dt05)
else
        printLn('');

lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('6');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Biaya Pengecatan');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Unit');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt06<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt06<>'' then
        printnoln(dt06);
lastCol := mmx*168;
if dt06<>'' then
        println(dt06)
else
        printLn('');
```

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```
lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('7');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Proses Rewering');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Unit');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt07<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt07<>'' then
        printnoln(dt07);
lastCol := mmx*168;
if dt07<>'' then
        println(dt07)
else
        printLn('');

lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('8');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Pengujian / Finishing');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Unit');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt08<>'0' then
        printnoln('1');
lastCol := mmx*138;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
if dt08<>'' then
        printnoln(dt08);
lastCol := mmx*168;
if dt08<>'' then
        println(dt08)
else
        printLn('');

lastCol := mmx*13;
SetTextAlign(printer.canvas.handle,TA_RIGHT);
printNoLn('9');
lastCol := mmx*17;
SetTextAlign(printer.canvas.handle,TA_LEFT);
printNoLn('Ongkos Kerja / Jasa Perbaikan');
lastCol := mmx*80;
SetTextAlign(printer.canvas.handle,TA_CENTER);
printNoLn('Unit');
lastCol := mmx*100;
SetTextAlign(printer.canvas.handle,TA_CENTER);
if dt09<>'' then
```

```
                printnoln('1');
        lastCol := mmx*138;
        SetTextAlign(printer.canvas.handle,TA_RIGHT);
        if dt09<>'0' then
                printnoln(dt09);
        lastCol := mmx*168;
        if dt09<>'' then
                println(dt09)
        else
                printLn('');

        println('');

        lastCol := mmx*13;
        SetTextAlign(printer.canvas.handle,TA_RIGHT);
        printNoLn('10');
        lastCol := mmx*17;
        SetTextAlign(printer.canvas.handle,TA_LEFT);
        printNoLn('Kompensasi Kawat Bekas');
        lastCol := mmx*80;
        SetTextAlign(printer.canvas.handle,TA_CENTER);
        printNoLn('Unit');
        lastCol := mmx*100;
        SetTextAlign(printer.canvas.handle,TA_CENTER);
        printnoln('');
        lastCol := mmx*138;
        SetTextAlign(printer.canvas.handle,TA_RIGHT);
        printNoLn('4000');
        lastCol := mmx*168;
        printLn('');
        lastline := lastline + mmx*2;
        MoveTo(hmar,vmar+lastLine);
        LineTo(PageWidth-Hmar,vMar+lastline);

        MoveTo(hmar+mmx*15,vmar+tmp1);
        lineto(hmar+mmx*15,vmar+lastline);
        MoveTo(hmar+mmx*70,vmar+tmp1);
        lineto(hmar+mmx*70,vmar+lastline);
        MoveTo(hmar+mmx*90,vmar+tmp1);
        lineto(hmar+mmx*90,vmar+lastline);
        MoveTo(hmar+mmx*110,vmar+tmp1);
        lineto(hmar+mmx*110,vmar+lastline);
        MoveTo(hmar+mmx*140,vmar+tmp1);
        lineto(hmar+mmx*140,vmar+lastline);

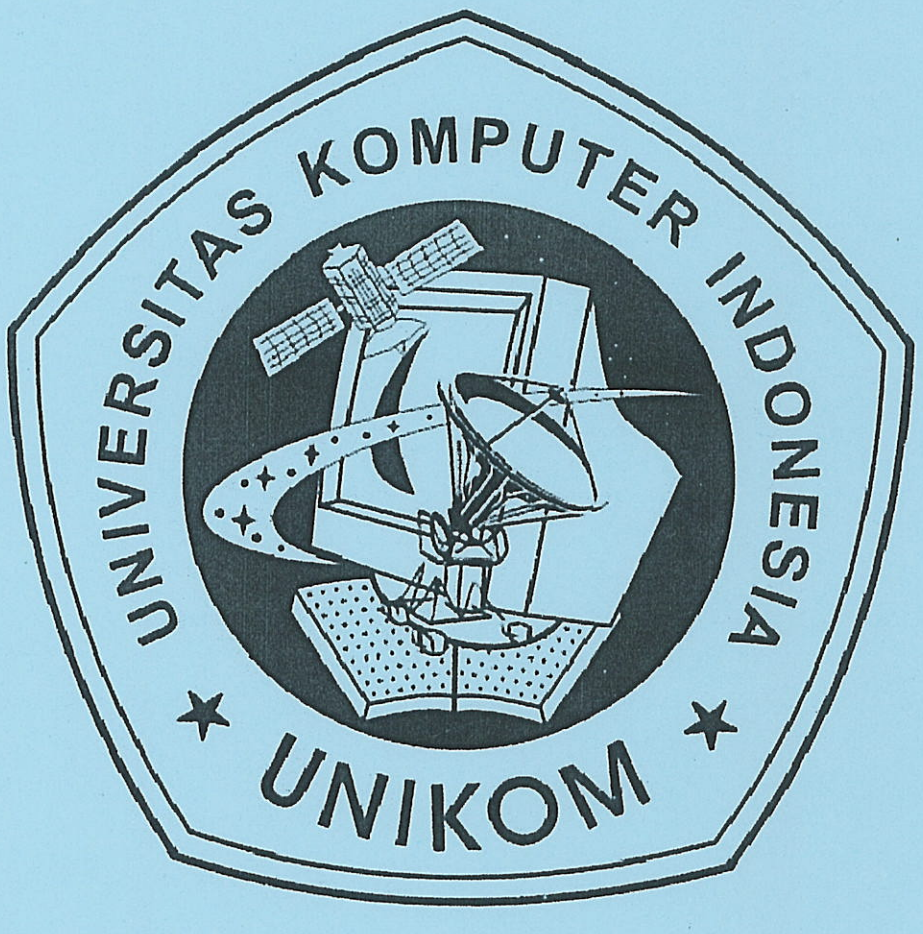
        lastline := lastline + mmx*1;
        lastCol := mmx*17;
        SetTextAlign(printer.canvas.handle,TA_LEFT);
        printnoln('JUMLAH BIAYA');
        lastCol := mmx*168;
        SetTextAlign(printer.canvas.handle,TA_RIGHT);
        println('654987654');
        lastline := lastline + mmx*1;
        MoveTo(hmar,vmar+lastLine);
        LineTo(PageWidth-Hmar,vMar+lastline);
        Rectangle(Hmar,Vmar+tmp1,PageWidth-
Hmar,lastLine+Vmar);
end;
```

```
                        if j<RepRange.Count-1 then
                            NewPage;
                    end;
                    endDoc
                end;
end;

procedure TfrmCetakLapPenawaran.BitBtn2Click(Sender: TObject);
var
    lsKode, lsTahun: TStrings;
    i: integer;
    fmtSetting: TFormatSettings;
    dtKode, dtTahun: string;
    tgl: TDate;
begin
    GetLocaleFormatSettings(LCID_INSTALLED,fmtSetting);
    lsKode := TStringList.Create;
    lsTahun := TStringList.Create;
    try
        for i:= grLaporan.Selection.Top to grLaporan.Selection.Bottom do
        begin
            tgl := StrToDate(grLaporan.Cells[1,i],fmtSetting);
            dtTahun := IntToStr(YearOf(tgl));
            dtKode := grLaporan.Cells[0,i];
            lsKode.Add(dtKode);
            lsTahun.Add(dtTahun);
            with modulData.SQLState do
            begin
                SQL.Clear;
                SQL.Add('UPDATE print SET print=print+1 WHERE kode='
+
                    QuotedStr(dtKode)+' and tahun='+dtTahun+'
and form=5');
                ExecSQL(true);
                if rowsAffected=0 then
                    ShowMessage('Maaf, ada kesalahan pada server
database');
                SQL.Clear;
            end;
        end;
        CetakLaporan(lsKode,lsTahun);
    finally
        lsKode.Free;
        lsTahun.Free;
    end;
    RefreshControl;
end;

procedure TfrmCetakLapPenawaran.Button2Click(Sender: TObject);
begin
    if MessageDlg('Anda yakin menutup jendela ini?',mtConfirmation,
        [mbYes,mbCancel],0)=mrYes then
        close;
end;

end.
```


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