BAB IV

IMPLEMENTASI DAN PENGUJIAN

Pada bab ini akan dilakukan implementasi dan pengujian terhadap sistem yang baru. Tahapan ini dilakukan setelah perancangan selesai dilakukan dan selanjutnya akan diimplementasikan pada bahasa pemrograman yang akan digunakan. Setelah implementasi maka dilakukan pengujian sistem yang baru dimana akan dilihat kekurangan-kekurangan pada aplikasi yang baru untuk selanjutnya diadakan pengembangan sistem.

4.1 Implementasi

Tujuan Implementasi adalah untuk mengkonfirmasikan modul program perancangan pada para pelaku sistem sehingga user dapat memberi masukankepada pembangun sistem.

4.1.1 Kebutuhan Perangkat Keras

Perangkat keras yang diperlukan untuk mengimplementasikan perangkat lunak dari Sistem Informasi Akademik Penjurusan di SMA Negeri 3 Purwakarta, antara lain:

1. Komputer *Client*
    a. Prosesor Pentium II sampai dengan Pentium IV
    b. RAM sebesar 128 MB
    c. Hard disk 40 GB
    d. Monitor SVGA

2. Komputer *Server*
    a. Prosesor Pentium IV
    b. RAM sebesar 256 MB
    c. Hard disk 80 GB
    d. Monitor SVGA

4.1.2 Kebutuhan Perangkat Lunak

Perangkat lunak yang digunakan untuk mengimplementasikan Sistem Informasi Akademik Penjurusan di SMA Negeri 3 Purwakarta adalah sebagai berikut:

1. Sistem operasi Microsoft Windows XP Professional.
2. Visual Basic 6.0 untuk penulisan kode program.
3. Microsoft SQL Server 2000 untuk penyimpanan database

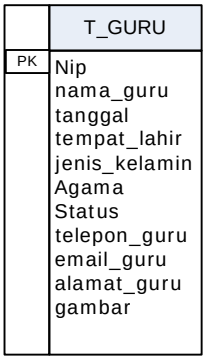
4.1.3 Implementasi Basis Data

Langkah pertama dalam pembuatan perangkat lunak ini yaitu membuat basis datanya, adapun hasil *generate database* dengan SQL Server 2000 adalah sebagai berikut:

Tabel 4.1 *Generate* Tabel *User*

Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_USER] ([USERID] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NIP] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PASS] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [HAK] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL) ON [PRIMARY] GO

Tabel 4.2 *Generate* Tabel *Guru*

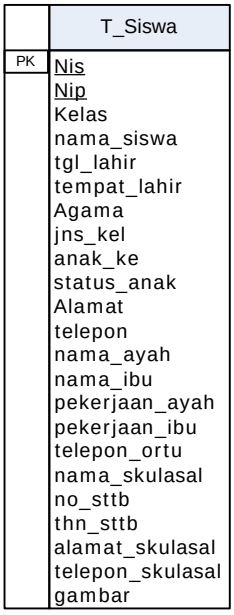
Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_GURU] ([NIP] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NAMA_GURU] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [TANGGAL] [datetime] NOT NULL , [TEMPAT_LAHIR] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [PENDIDIKAN] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [JENIS_KELAMIN] [varchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [AGAMA] [varchar] (18) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [STATUS] [varchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [TELEPON_GURU] [varchar] (12) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [EMAIL_GURU] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL , [ALAMAT_GURU] [varchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS

	NULL , [GAMBAR] [varchar] (250) COLLATE SQL_Latin1_General_CP1_CI_AS NULL) ON [PRIMARY] GO

Tabel 4.3 *Generate* Tabel *Kelas*

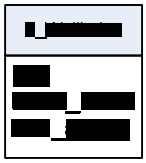
Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_KELAS] ([nip] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [nis] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [kelas] [varchar] (8) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL) ON [PRIMARY] GO

Tabel 4.4 *Generate* Tabel *Siswa*

Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_SISWA] ([NIS] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [KELAS] [varchar] (8) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [SEMESTER] [varchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NAMA_SISWA] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [TANGGAL_LAHIR] [datetime] NOT NULL , [TEMPAT_LAHIR] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [AGAMA] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [JENIS_KELAMIN] [varchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [ANAK_KE] [varchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [STATUS_ANAK] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [ALAMAT] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [TELEPON] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NAMA_AYAH] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,

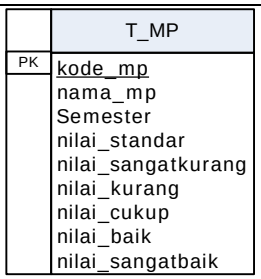
	[NAMA_IBU] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PEKERJAAN_AYAH] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PEKERJAAN_IBU] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [TELEPON_ORANGTUA] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NAMA_SKULASAL] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NO_STTB] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [THN_STTB] [varchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [ALAMAT_SKULASAL] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [TELEPON_SKULASAL] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [GAMBAR] [varchar] (250) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [Thn_Ajaran] [int] NULL) ON [PRIMARY] GO

Tabel 4.5 *Generate* Tabel *Wali Kelas*

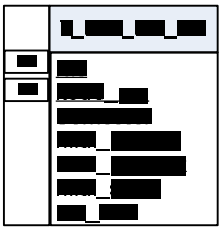
Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_WALIKELAS] ([NIP] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [KD_KELAS] [varchar] (8) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [THN_AJARAN] [varchar] (6) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL) ON [PRIMARY] GO

Tabel 4.6 *Generate* Tabel *Mata Pelajaran*

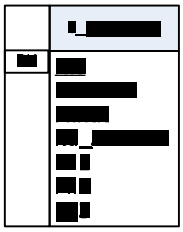
Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_MP] ([KD_MP] [varchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NAMA_MP] [varchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [SEMESTER] [varchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NILAI_STANDAR] [int] NOT NULL ,

	[NILAI_SANGATKURANG] [int] NOT NULL , [NILAI_KURANG] [int] NOT NULL , [NILAI_CUKUP] [int] NOT NULL , [NILAI_BAIK] [int] NOT NULL , [NILAI_SANGATBAIK] [int] NOT NULL , [nilaikkm] [int] NOT NULL) ON [PRIMARY] GO

Tabel 4.7 *Generate* Tabel *Nilai Per Mata Pelajaran*

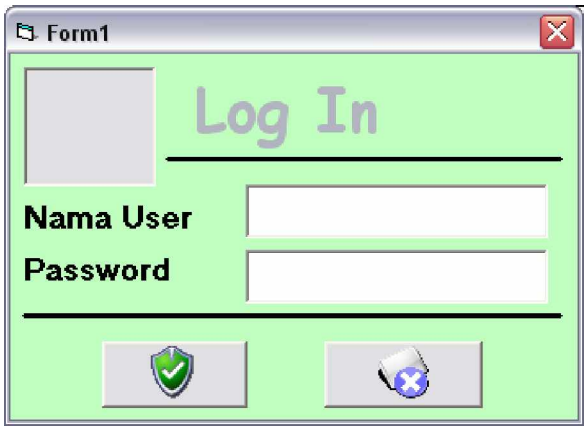
Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_NILAI_PER_MP] ([NIS] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [KD_MP] [varchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [SEMESTER] [varchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [NILAI_KONSEP] [int] NOT NULL , [NILAI_PRAKTEK] [int] NOT NULL , [NILAI_SIKAP] [char] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [CAT_WALI] [varchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL) ON [PRIMARY] GO

Tabel 4.8 *Generate* Tabel *Penjurusan*

Nama Tabel	Hasil Generate
	CREATE TABLE [dbo].[T_PENJURUSAN] ([NIS] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PSIKOTES] [varchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [MINAT] [varchar] (5) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [KD_JURUSAN] [varchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PIL_1] [varchar] (6) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PIL_2] [varchar] (6) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL , [PIL_3] [varchar] (6) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL) ON [PRIMARY] GO

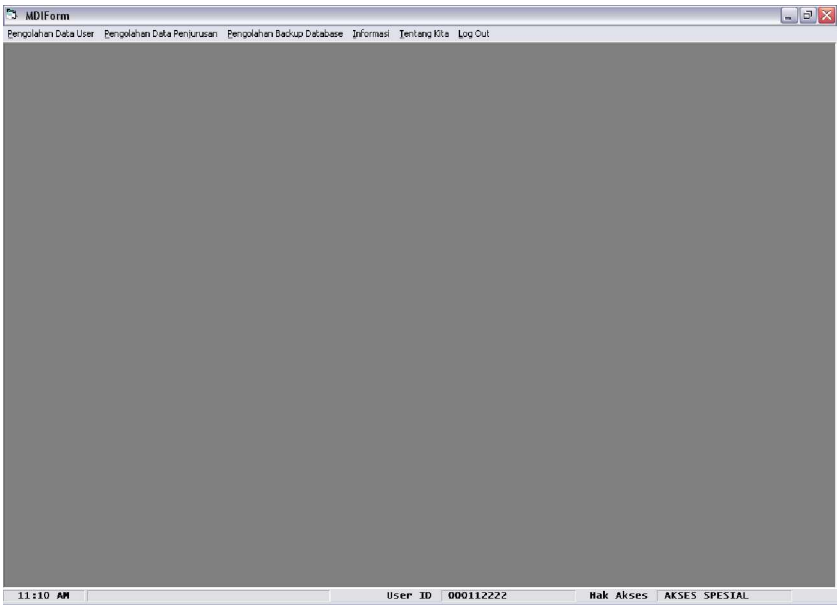
4.1.4 Implementasi Antarmuka

1. **Form Login**



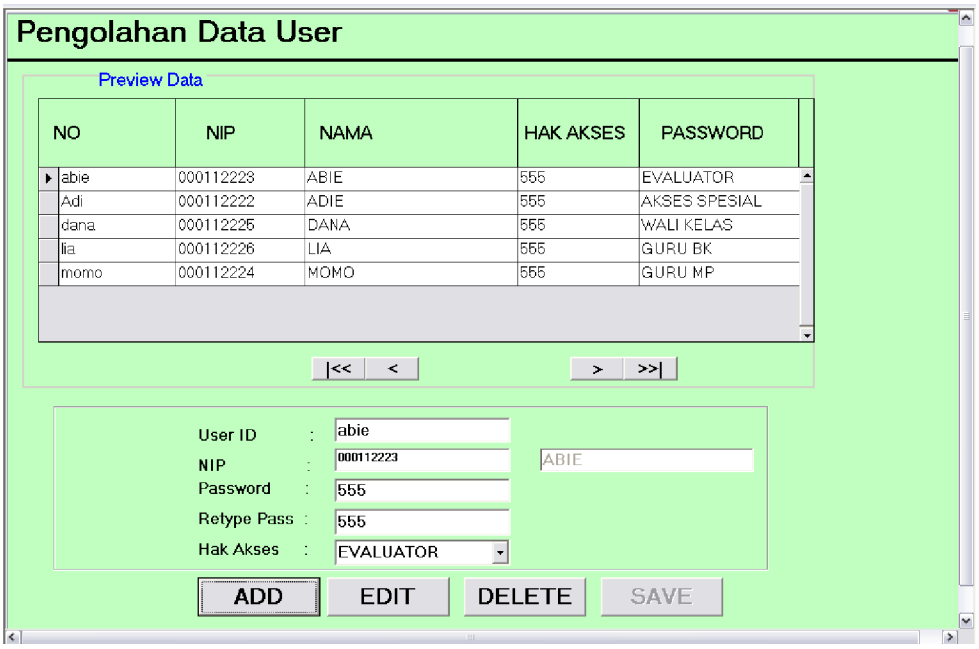
Gambar 4.1 Form Log In

2. **Form Menu Utama**



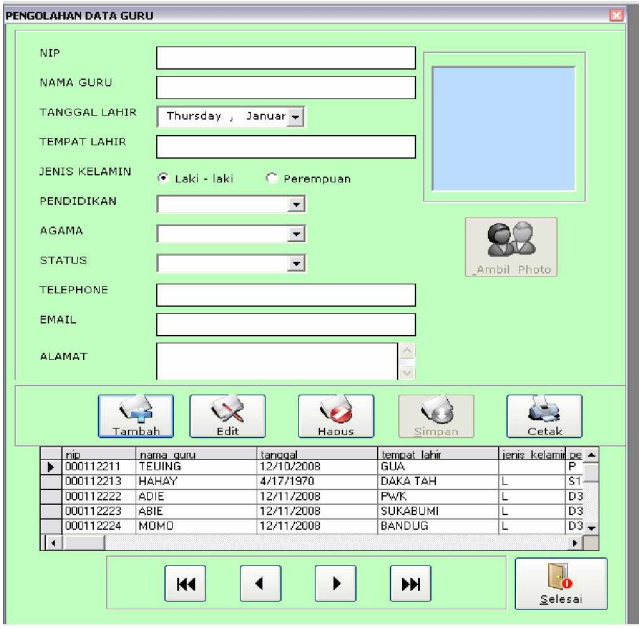
Gambar 4.2 Form Menu Utama

3. Form Data User



Gambar 4.3 Form Data User

4. Form Data Guru



Gambar 4.4 Form Data Guru

5. Form Pengolahan Siswa



Gambar 4.5 Form Data Siswa

6. Form Pengolahan Wali Kelas



Gambar 4.6 Form Data Wali Kelas

7. Form Proses Penjurusan



Gambar 4.7 Form Proses Penjurusan

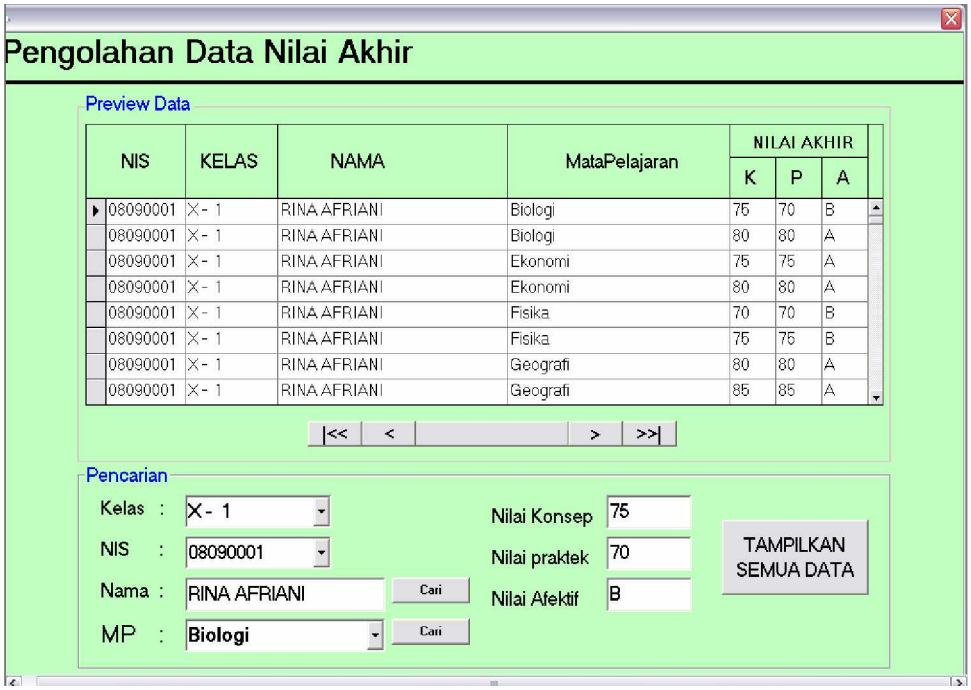
8. Form Pengolahan Data Mata Pelajaran



Kode_MP	Nama_MP	Sangat Kurang	Kurang	Cukup	Baik	Sangat Baik
BIO	Biologi	60	65	70	75	80
EKO	Ekonomi	60	65	70	75	80
FIS	Fisika	50	60	65	70	75
GEO	Geografi	60	65	70	75	80
KIM	Kimia	50	60	70	75	80
MTK	Matematika	55	60	65	70	75

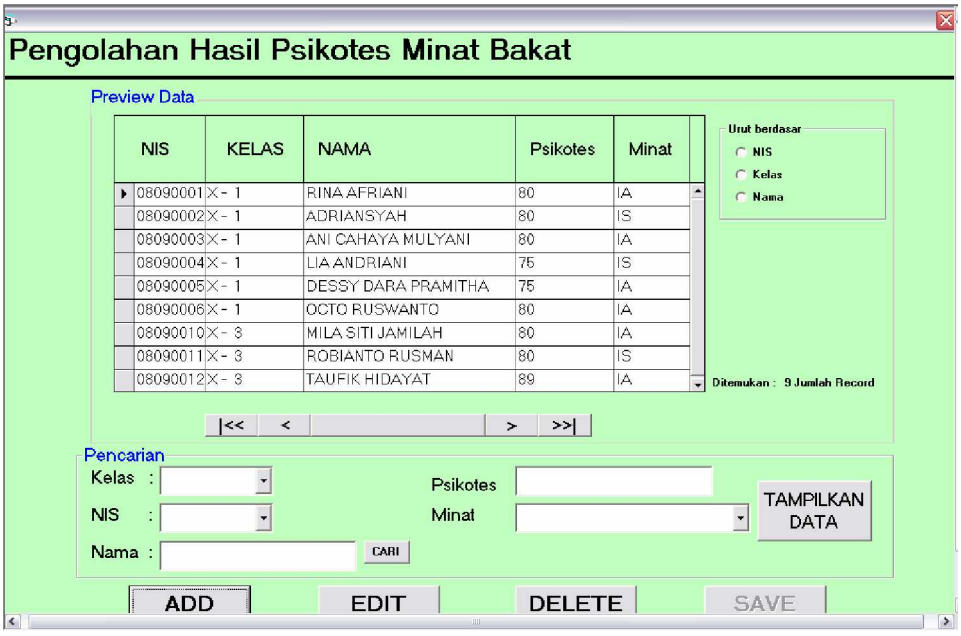
Gambar 4.8 Form Pengolahan Data Mata Pelajaran

9. Form Pengolahan Data Nilai Akhir



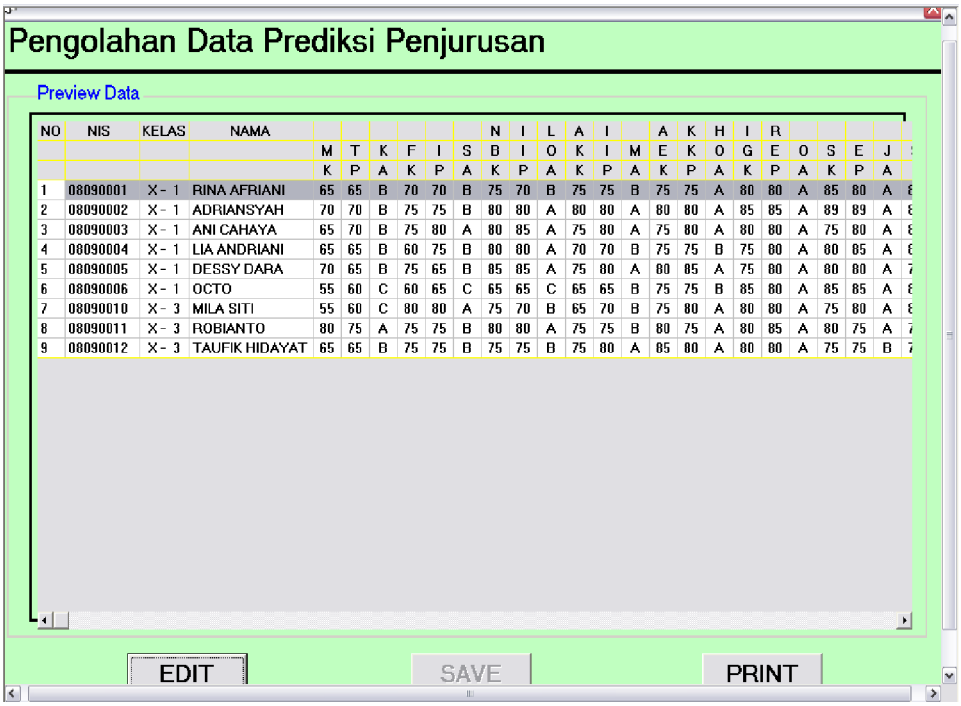
Gambar 4.9 Form Pengolahan Data Nilai Akhir

10. Form Pengolahan Hasil Psikotes Minat Bakat



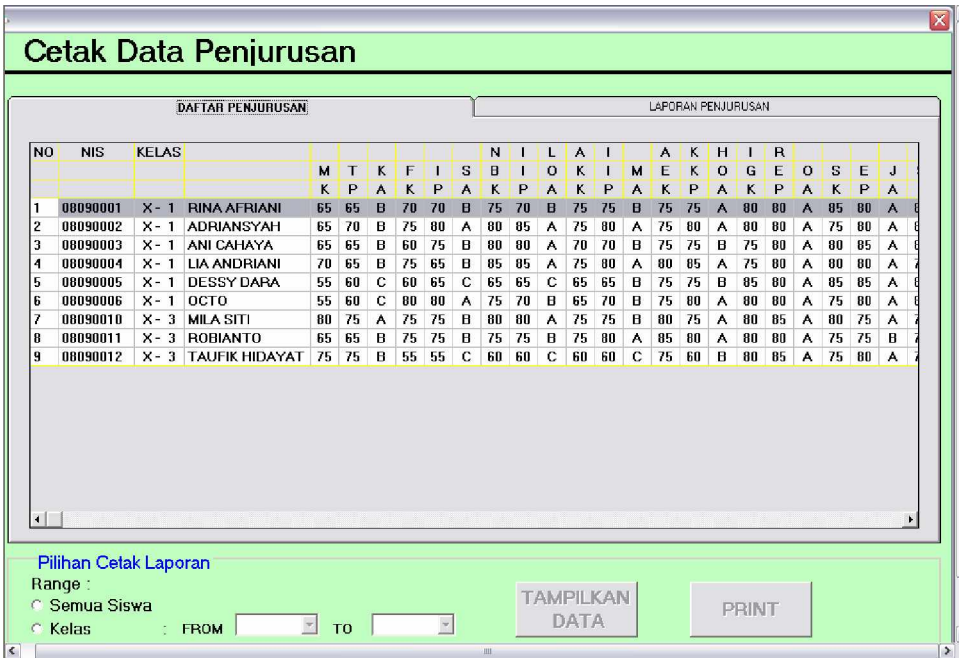
Gambar 4.10 Form Pengolahan Hasil Psikotes Minat Bakat

11. Form Pengolahan Data Prediksi Penjurusan



Gambar 4.11 Form Pengolahan Data Prediksi Penjurusan

12. Form Cetak Data Penjurusan



Gambar 4.12 Form Cetak Data Penjurusan