DATA PROCESSING PROGRAM STUDENT APPLICATION IN SMK MERDEKA BANDUNG

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ABSTRACT

Data processing application program students at the Merdeka SMK is an application designed to process data related to state students at SMK Merdeka Bandung such as, data processing re-registration of students, student attendance data, and data transfer of students. Non optimal processing of these data led to difficulties in finding information about the state of the data and preparing reports of students that have not been adequate. Therefore, it needs an application that can support and solve these problems.

Based on these problems the author intended to make the final project by taking the title "Data Processing Application Program Students in Vocational Merdeka Bandung". The data collection techniques were observation, interview and literature study, whereas the system development phase use waterfall method.

The author hopes that this application can assist staff in vocational administration Merdeka Bandung in processing the data processing of this student, both from data entry, data search, until it reports. The author also hopes that the application can be made can increase the performance of administrative staff who use this application

1. INTRODUCTION

1.1. Identify problems

SMK Merdeka Bandung is one of the educational institutions that are capable of producing human resources ready to work in the field of their abilities - their students, because in Bandung Merdeka SMK there are various departments of expertise is offered to all students, in order to explore students' skills in demand.

But still there is because the administrative management of students who still use manual way then there is often an error in the processing of student administration data, the Bandung Merdeka SMK really need an application program that can help to do data processing students who registered as a student or students in SMK Merdeka Bandung .With the application programs that can improve the performance of administrative staff in particular schools, to be able to understand the program a more modern application in accordance with the times.

Based on the above background, it can take a subject that is how to build data-processing application program students in SMK Merdeka Bandung.

1.2. The purpose

The purpose of writing this report final task is to build a data processing application programs of students in SMK MERDEKA Bandung.
Goals of this research are:

1. Helping the School of Administration in managing the registration data over students
2. Helping the School of Administration in managing the accounting data transfer of students
3. Helping the School of Administration in managing student attendance data
4. Helping the School of Administration in re-registration data search students
5. Helping the School of Business Administration in student attendance data search
6. Helping the School of Administration in the search for the data transfer of students

7. Helping the School of Administration in preparing reports of students re-register data
8. Helping the School of Business Administration in making the student attendance data reports
9. Helping the School of Administration in the making of accounting data reported mutations students

1.3. Benefits

Help streamline and streamline time so that it can more quickly in this report to inform the school principal in particular.

2. MODEL, ANALYSIS, DESIGN AND IMPLEMENTATION

2.1. Research methodology

The methodology used in the writing of this final task is as follows:

2.1.1 Stage of data collection

a. Literature Review, which is data collection by collecting literature, papers and readings that are related to the research title
b. Observation, ie observe directly the object under study so that the author obtain accurate data.
c. Interview (interview), which is a direct interview with the people concerned with the object or issue being handled by the author.

2.1.2 Phase-making software

Data analysis techniques in the manufacture of software using the paradigm of the waterfall software, which includes several processes including

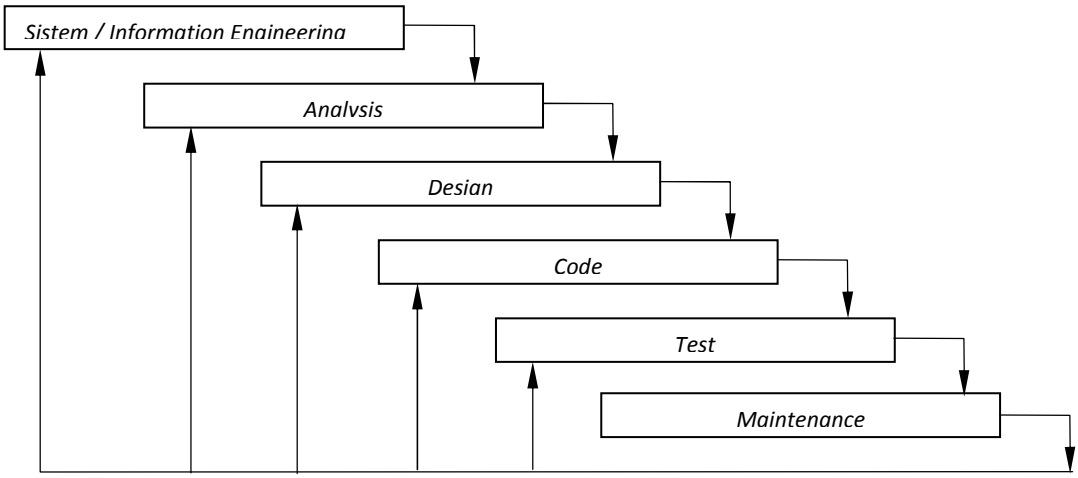


Figure 1.1 Waterfall Method

2.2 Model Analysis and Design

Modeling is used in making the application program on the author using a structured modeling, the flow map, Entity Relational Diagram (ERD), Diagram context, Data Flow Diagram (DFD).

2.2.1 re-registration process that is running

a. Students are given a blank registration form to be filled again by the students
b. Re-blank registration form completed by the staff provided to sisiwa Administration.

c. Administrative staff to check the completeness of registration Terms reset, if the registration requirements not complete the re-registration form at the back again to the students by the staff grammar attempt to complete back by students.

d. Administrative staff record data re-register students if the student has complete Terms.

e. Administrative staff report re-registration of students based on re-entry registasi students to be given to the principal and signed.

f. The principal re-check the students' registration report, if the report is error then report back to the administrative staff to do check back on re-entry student registration, and the report has not signed by the principal.

g. The principal will sign the report if the student re-registration of the report does not there is a mistake.

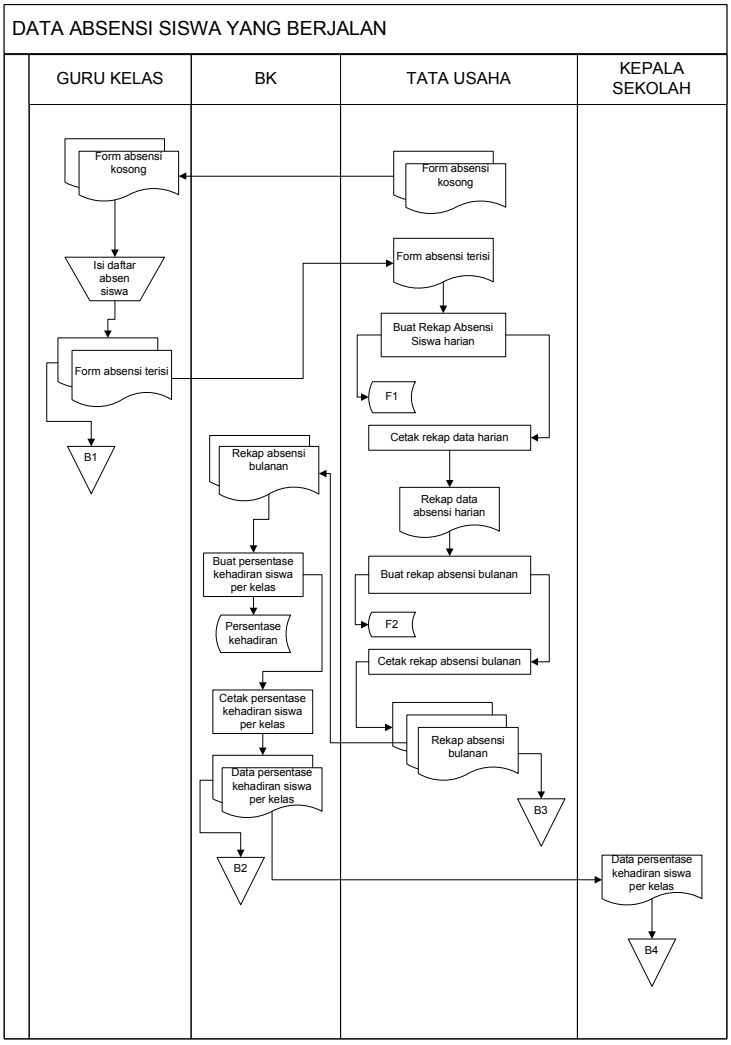


Figure 1.2. Flow map student re – registration

2.2.2 Attendance students process the running

a. Administration provides a list of vacant student absences to the teacher

b. Teachers record student attendance on the attendance list of students form provided by the administration

c. Note the presence of students made by teachers given back to the administrative staff, teachers have a copy of the form lists the student attendance records to become the teacher concerned.

d. Based on the attendance form lists students who have filled the administrative staff to make

recapitulation of daily attendance and a record of the administration.

e. Based on the recapitulation of daily attendance administrative staff absenteeism is a recapitulation students and a monthly archive of administration.

f. Administrative staff to print a monthly attendance summary and approved by the head of the order business, then handed over to the student for making a recapitulation of the percentage the presence of students per class, based on monthly attendance summary.

g. Students section of recapitulation reports the percentage of students per class attendance to be a report to the principal.

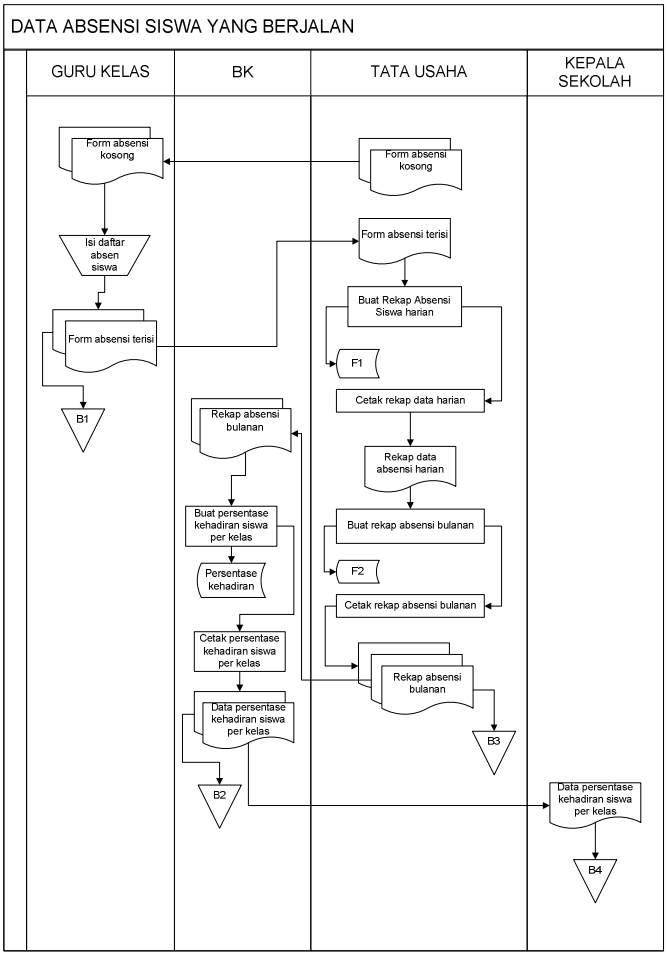


Figure 1.3. Flow map student attendance

2.2.3 Process accounting transfer of students who were walking

a. Students apply mutation with the approval of parents / guardians.

b. Administrative staff to check the completeness of the requirements of mutations.

c. If the requirement is less it will be refunded back to the students to complete.

d. Administrative staff to make notes in the book transfer of students.

e. Administrative staff make a list of students by level of situation

f. Administrative staff make a report to the principal based on the record books mutation.

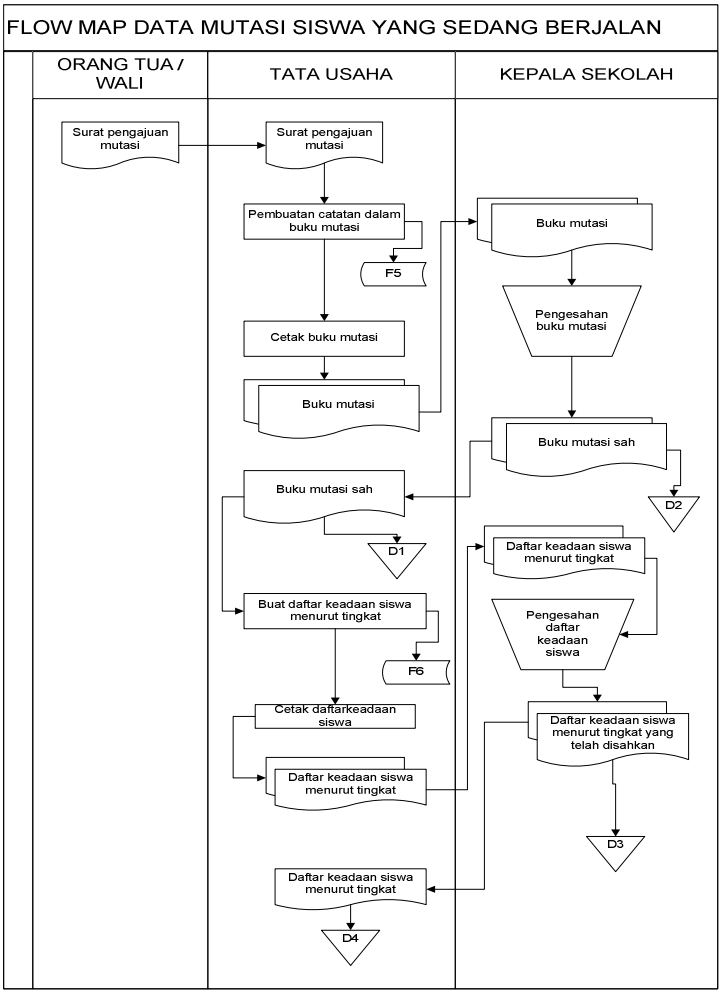


Figure 1.4. Flowmap transfer of students

2.2.4 Functional requirements analysis

Process analysis of functional requirements of application programs that will be built to produce a database design is described through the tool Entity Relationship Diagram (ERD) or collectively, the ER. ER diagram of the components forming the entity (entities) and Relation (relationship). Entities contained in the ER diagram of data processing information systems students can be seen in the following figure:

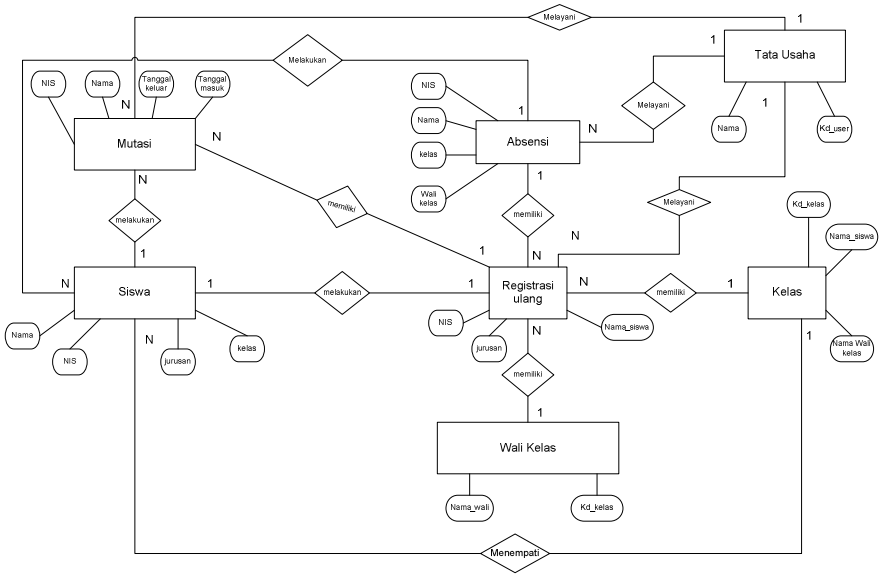


Figure 1.5. Entity Relationship Diagram

2.2.5 Analysis of non-functional requirements

Non-functional needs analysis is a stage where a software developer to analyze the resources that will use the software that was built, so that compatibility can be determined that the application will be built. This analysis does describe the situation existing systems in companies that include hardware requirements, software, and users.

a. Hardware requirements analysis
The following are the minimum hardware specifications contained in
Vocational administration section Merdeka Bandung:
1. Pentium IV 1.7 GHz
2. 256 MB RAM
3. Capacity 20 GB Hard Disk
4. CD-ROM drive 52x
5. Monitor 17 "1024 x 768 resolution
5. Mouse
6. Keyboard

b. Software Requirements Analysis
Specification software (Software) contained in the Vocational Independence
Bandung especially in the administration are as follows:
1. Windows XP
2. Microsoft Office

2.2.6 Diagram context

Context diagram is a general description of data flow from the system will be designed in general, here is the context diagram of the data processing application program students:

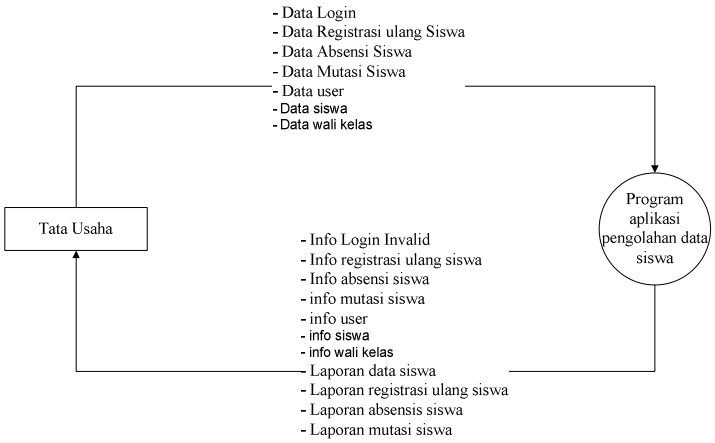
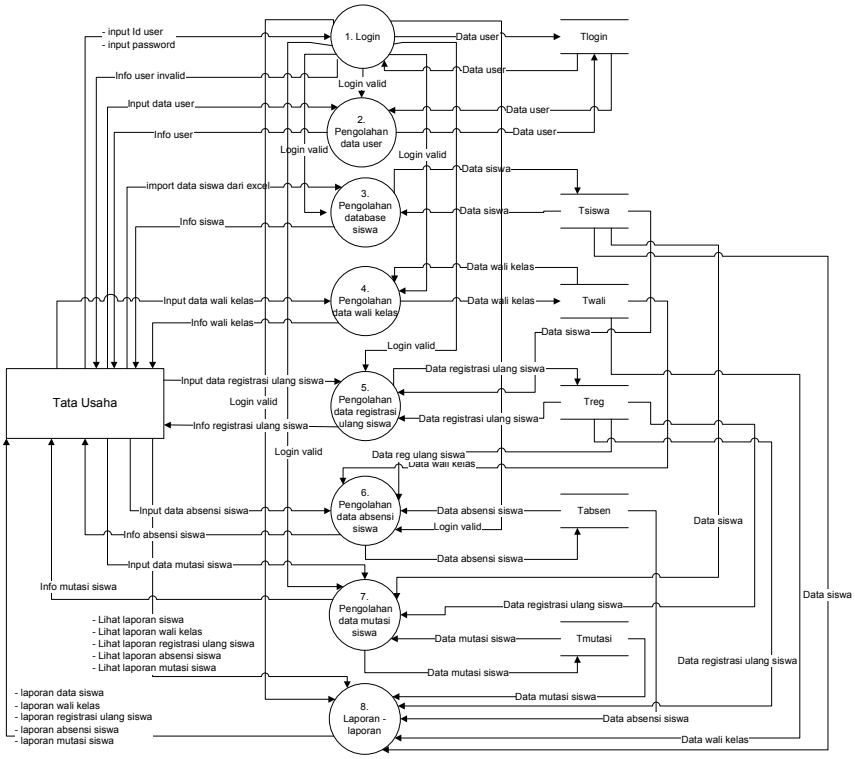


Figure 1.6. Context diagram

2.2.7 Design of data processing applications Vocational students

This section writer uses to design the DFD model application authors add, these are the DF level 0 is the author add the data processing application program students:



Picture 1.7. DFD level 0 data processing application program students

2.3 Implementation of the application programs

Implementation was based on, is applied to the interface design in the form of visual page, design the data structure into a database table, making the program code and so on.

2.3.1 interface Implementation

a. Login



Figure.1.8 interfaces user login

b. Main Menu

After the user login data menginputkan him and declared valid by the system so users can access the system, it will show the main menu screen in the main menu where the user can perform this data processing - the data of students who have this system among other re-processing of student registration data, data processing student attendance, student transfer data processing, and processing the data in each report.

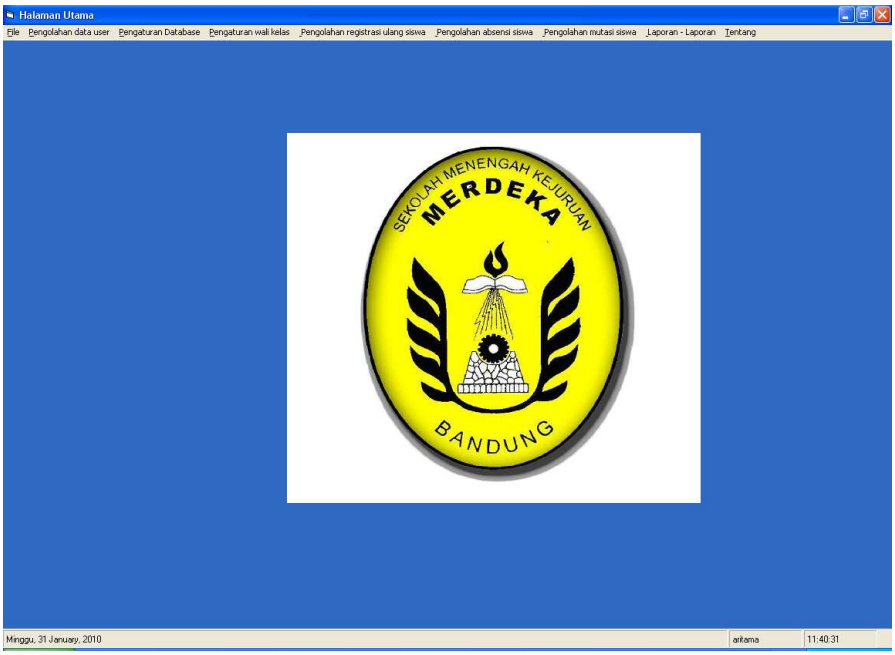


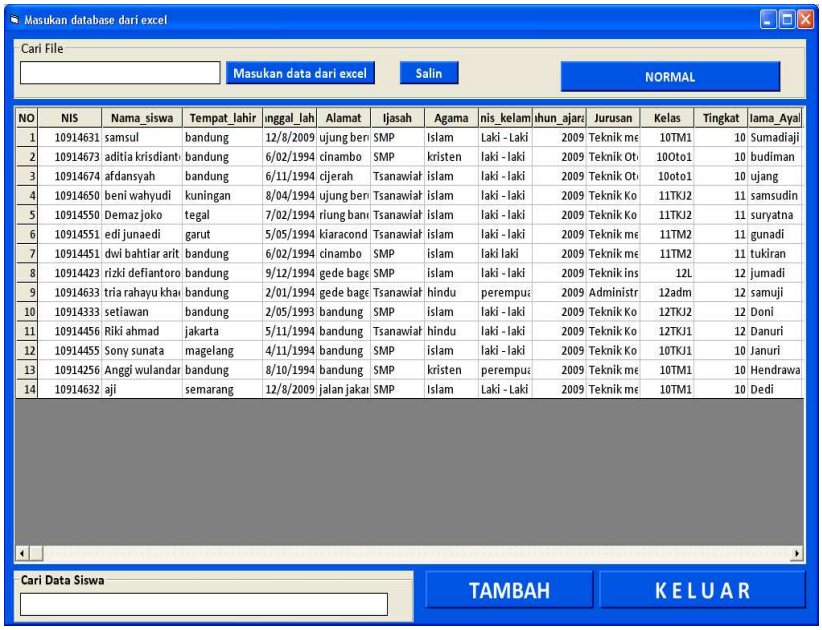
Figure 1.9.. Display the main menu

c. Form processing user data



Figure 1.10. display processing user data

d. Form Processing student database



NO	NIS	Nama_siswa	Tempat_lahir	nggal_lah	Alamat	Ijasah	Agama	nis_kelam	hun_ajar	Jurusan	Kelas	Tingkat	lama_Aya
1	10914631	samsul	bandung	12/8/2009	ujung ber	SMP	Islam	Laki - Laki	2009	Teknik me	10TM1	10	Sumadiaji
2	10914673	aditia krisdiant	bandung	6/02/1994	cinambo	SMP	kristen	laki - laki	2009	Teknik Ot	10Oto1	10	budiman
3	10914674	afdansyah	bandung	6/11/1994	cijerah	Tsanawiah	islam	laki - laki	2009	Teknik Ot	10oto1	10	ujang
4	10914650	beni wahyudi	kuningan	8/04/1994	ujung ber	Tsanawiah	islam	laki - laki	2009	Teknik Ko	11TKJ2	11	samsudin
5	10914550	Demaz joko	tegal	7/02/1994	riung ban	Tsanawiah	islam	laki - laki	2009	Teknik Ko	11TKJ2	11	suryatna
6	10914551	edi junaedi	garut	5/05/1994	kiaracond	Tsanawiah	islam	laki - laki	2009	Teknik me	11TM2	11	gunadi
7	10914451	dwi bahtiar arit	bandung	6/02/1994	cinambo	SMP	islam	laki laki	2009	Teknik me	11TM2	11	tukiran
8	10914423	rizki defiantoro	bandung	9/12/1994	gede bage	SMP	islam	laki - laki	2009	Teknik ins	12L	12	jumadi
9	10914633	tria rahayu kha	bandung	2/01/1994	gede bage	Tsanawiah	hindu	perempua	2009	Administr	12adm	12	samuji
10	10914333	setiawan	bandung	2/05/1993	bandung	SMP	islam	laki - laki	2009	Teknik Ko	12TKJ2	12	Doni
11	10914456	Riki ahmad	jakarta	5/11/1994	bandung	Tsanawiah	hindu	laki - laki	2009	Teknik Ko	12TKJ1	12	Danuri
12	10914455	Sony sunata	magelang	4/11/1994	bandung	SMP	islam	laki - laki	2009	Teknik Ko	10TKJ1	10	Januri
13	10914256	Anggi wulandar	bandung	8/10/1994	bandung	SMP	kristen	perempua	2009	Teknik me	10TM1	10	Hendrawa
14	10914632	aji	semarang	12/8/2009	jalan jakar	SMP	Islam	Laki - Laki	2009	Teknik me	10TM1	10	Dedi

Figure 1.11. Display processing student database

e. Add students form the processing of student database



Figure 1.12. Form student data added

f. Form class guardian data processing

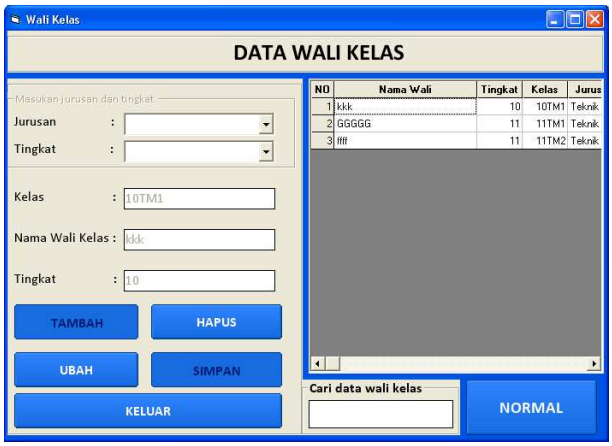


Figure 1.13. Form class guardian data processing

g. Re-form student registration info

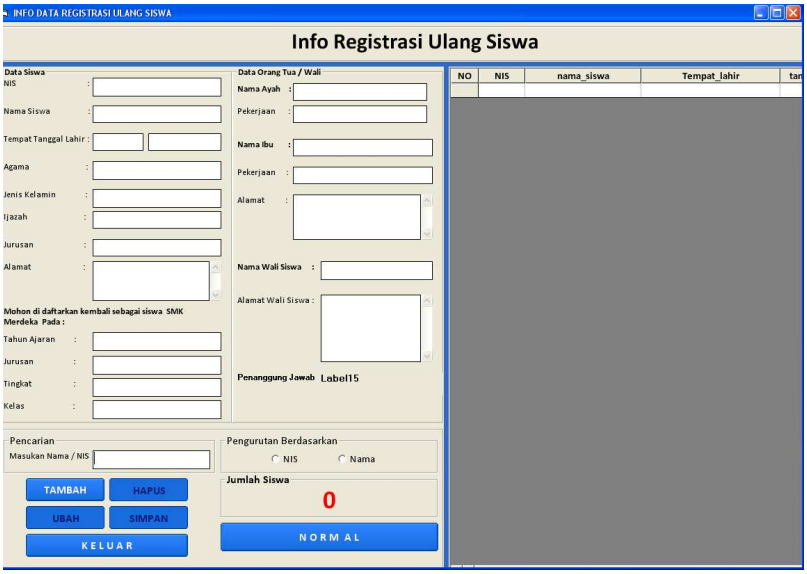


Figure 1.14. Re-form student registration info

h. Form re-added student registration data

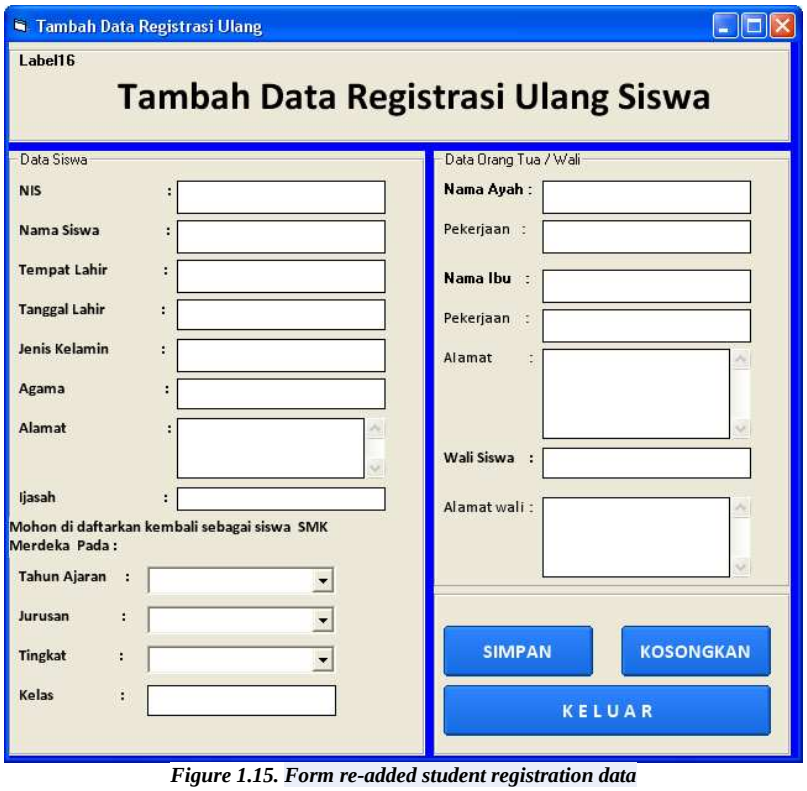


Figure 1.15. Form re-added student registration data

i. Form info student attendance

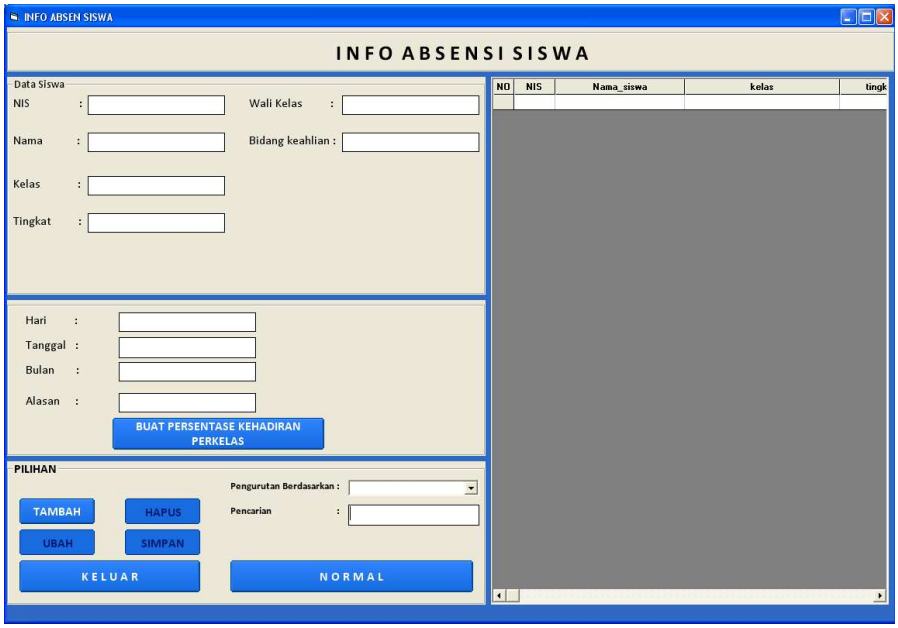


Figure 1.16. Display info form student attendance

j. Form student attendance data added



Figure 1.17. Display student attendance data added

k. Form data processing percentage of students

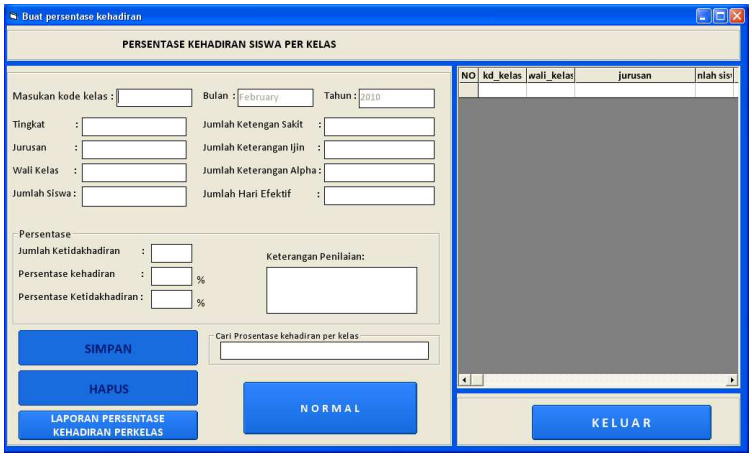


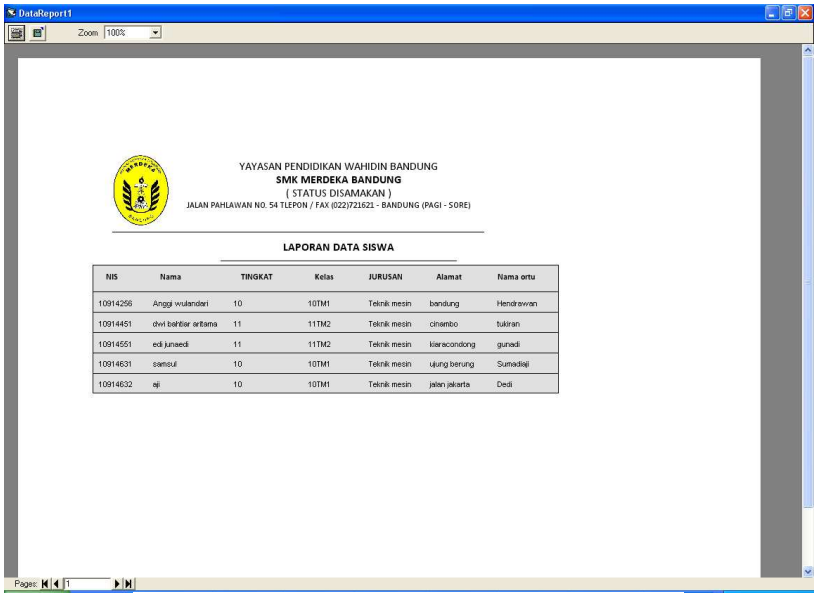
Figure 1.18. display form the percentage of attendance of data processing

l. info processing form the transfer of students



Figure 1.19. Info form looks like the transfer of students

k. Reports



Picture. View report student data as areas of expertise / majors

3. Results and Discussion

3.1 Discussion of problems

SMK Merdeka has problems in the processing of student data in the form:

1. *The absence of a system that can facilitate the processing of student data.*
2. *His series of work each employee effectiveness administration in managing student data so that there are still his fault*
3. *Making reports still use manual way*

3.2 Results of the discussion

The authors conclude on the basis of the discussion of the problem is as follows:

1. *The author makes an application program that can streamline the processing of student data to better.*

Based on the application program that the author add sebagia beikut obtained results:

1. *Helping the School of Administration in managing the registration data over students*
2. *Helping the School of Administration in managing the accounting data transfer students*
3. *Helping the School of Administration in managing student attendance data*
4. *Help the School of Administration in re-registration data search students*
5. *Helping the School of Business Administration in student attendance data search*
6. *Helping the School of Administration in the search for the data transfer of students*
7. *Helping the School of Business Administration in making the registration data report re students*
8. *Helping the School of Business Administration in making the report absenteeism data students*
9. *Helping the School of Administration in the making of accounting data reporting transfer students*

4. Conclusions and recommendations

4.1 Conclusion

Based on the analysis results obtained in the testing program, which was built is still in development, and still have enough obstacles in the development of this program, because it still requires the development of better in the development of this program is to be continued in accordance with a request from the supervisor, reviewer, and from Merdeka SMK party in the final stages of completion of travel writers today.

4.2 Suggestions

Software application programs of data processing students in vocational independence Bandung. is yet to be developed because they have not reached a perfect level, or still in development stage and development stage, because with the development of user requirements specifications, system requirement to achieve performance results and a better system.

5. References

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