

**DEPARTMENT OF INFORMATION TECHNOLOGY &
COMMUNICATION**



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DIGITAL TECHNOLOGY

DFT50114

TECHNICAL REPORT

FORM 6 ATTENDANCE SYSTEM (SYSTEM MANAGEMENT STUDENT)

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DECLARATION

We hereby declare that the technical report entitled " FORM 6 ATTENDANCE SYSTEM (SYSTEM MANAGEMENT STUDENT)" is based on original work under supervision and guidance of Pn. Rosmawati Binti Jaafar except for I citations and quotations which have been duly acknowledged. We also declare that it has not I been previously and concurrently submitted for any other diploma or award at Polytechnic or other institutions.

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Project Title : FORM 6 ATTENDANCE SYSTEM (SYSTEM MANAGEMENT STUDENT)

Session : 2 2022/2023

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ABSTRACT

System Management Student is one of the ways in which teachers do not need to fill out an attendance form to ensure that students are present on the day. This shows that SMK Junjung is one of the educational institutions that still use the manual method of taking student attendance by marking their names on paper. Form 6 from the school also still writing their information on paper. Therefore, by creating the System Management Student at SMK Junjung to make it easier for the school to track student attendance and their information result in academic without any problems and to speed up the process. The system also help student to view academic result. The system also help student to view academic and co-curriculum result.

The System Management Student will create using a lot of software and apps. The software and apps that we using for creating this system are Visual Studio Code and Notepad++ for build codes. Also, XAMPP for start MySQL database and APACHE. InfinityFree to creating free webhosting with PHP and MySQL. PhpMyAdmin to build database. WinSCP to transfer file between a local computer and a remote server.

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1.0 PROJECT PLAN

1.1 INTRODUCTION

System Management Student is one of the ways in which teachers do not need to fill out an attendance form to ensure that students are present on the day. This shows that SMK Junjung is one of the educational institutions that still use the manual method of taking student attendance by marking their names on paper. Form 6 from the school also still writing their information on paper Therefore, by creating the Form 6 Attendance System at SMK Junjung to make it easier for the school to track student attendance and their information result in academic and co-curriculum without any problems and to speed up the process. With that, teachers can easily use the student attendance app to record and manage student attendance. The application also help student to view their academic result. As widely known, attendance is important for students in order to have a great result in the on every examination.

1.2 PROBLEM STATEMENT

Based on the observation, most of the attendance in SMK Junjung is still practicing the manual way of taking daily attendance. The teacher must mark each student's attendance individually by calling out their names. Moreover, attendance sheet frequently gets misplaced, and the entire attendance procedure is susceptible to human error. As a result, data loss could occur, and the attendance list's data could be false due to misunderstanding.

Besides, the teacher must manually analyse the number of absences in order to produce a report monthly. Therefore, it is time-consuming, and the calculation's outcome could be incorrect if the teacher overlooked any information from the attendance record. Therefore, a system management student is proposed to replace the manual system. Also, students can falsify their own personal information when filling out the information form, which makes it difficult for teachers to fill in accurate information for students. Other than that, students cannot access digital or online academic results.

1.3 OBJECTIVES

In order to improve manual system management student into. The objectives of the project are to:

- i. The teacher can key in student exam results and co-curriculum activities.
- ii. To update co-curriculum and activities result.
- iii. To print result student.

1.4 PROJECT SCOPE

This project is developed to assist the SMK JUNJUNG to save their system management student. This system will help to the school to save the Form 6 students all information from manual to digital in database. Below is the scope of this project, user scope and system scope.

1.4.1 USER SCOPE

a) Student.

The system requires students can login and examination result can be seen given by teacher.

b) Teacher.

The system requires teacher to register student information details in order to use the system. Teacher can login and can view students' attendance and give out reports to students at the end of every examination.

1.4.2 SYSTEM SCOPE

This system will be upgrade from an existing. In this system we are using XAMPP and Notepad++.

1.5 LITERATURE REVIEW

To conduct more thorough research, an existing or similar system was examined in the literature review for potential strengths, weaknesses, and issues encountered during project system development. The journals chosen are those that are relevant to the proposed system. This review assists us by providing information on how the current system operates.

1.5.1 Attendance and Information System using RFID and Web-Based Application for Academic Sector.

Information Technology (IT) has played a significant role in developing several aspects in academic sectors and domains such as student monitoring and management systems. Therefore, it is a critical subject to tracking and manages student's attendance in school, college, and university environment. Since it can be helped to urge students to attend on time, amend the efficiency of the learning, increase learning grade, and finally boosting and improving the education level. Calling student's name or taking student's signature are two traditional methods for tracking the attendance of the students in the classroom and they were more time-consuming. Nevertheless, the academic performance influenced by student's presentation. So, there is a need to manage the student attendance records automatically by using information technology management system in a faculty to assist the maintaining attendance. Hence, the attendance systems can be useful to reduce administrative complexity and cost rather than increase the efficiency of the education. In the digital era, technologies have been developed and emerged recently, and that could change the future of sciences to affect people everyday life such as Wireless Sensor Networks (WSNs). Biometrics techniques are used to verify identification through their characteristics like face recognition, signatures, fingerprint, voice recognition, irises, barcode, Bluetooth, Near-Field Communication (NFC), RFID and so on. Identification, tracking, and counting are different applications for these technologies-based attendance systems. RFID is an automation technology used to identifying and positioning an object. Healthcare industry, financial institutions, cars, books, mobile phones, computer equipment, are several applications that they used RFID technology to positioning and managing people, assets, and inventory.

1.5.2 Student Attendance Management System

These purposes include recordkeeping, assessment of students, and promotion of optimal and consistent attendance in class. As long as in many developing countries, a minimum percentage of class attendance is required in most institutions and this policy has not been adhered to, because of the various challenges the present method of taking attendance presents. The process of recording attendances for students was in the form of hardcopy papers and the system was manually done. Besides wasting time and taking efforts for preparing sheets and documents, other disadvantages may be visible to the traditional one due to loss or damage to the sheets-sheet could be stolen.

The developed system considers as an alternative to the traditional one, it is easy, fast and reliable than the traditional one, especially after the development of information technology and its usage by educational institutions. Therefore, the design of student attendance system has a significant reality meaning. The system is a Web-based application developed for daily student attendance in departments within the university. It facilitates access to the attendance of a particular student in a particular class. This system will also help in generating reports and evaluating the attendance eligibility of a student. The system is not only improving the work efficiency students' study and development, but also can save human and material resources.

1.5.3 Mobile Based Attendance System Using QR Code

The student's attendance tracking is a vital issue to assess students' performance in the classroom. The traditional way of attendance using paper and pen is, recording manually and then converting into desktop application. The desktop application is standalone application installed in the desktop or laptop. The drawback of this system is that the computer systems are not portable hence it cannot be kept anywhere to do attendance task. Therefore, managing the attendance using traditional approach is really a cumbersome process. To make it more efficiency in managing student's information, a smartphone like Android Technology could be applied to make this process easier and more beneficial in every way. Attendance management System is software developed for daily student attendance information of a student in a particular-class. Some of Android technology for this application includes PHP in server-side language, MySQL and PHP as back-end design and HTML, CSS and JavaScript as front-end tools. Managing the attendance using mobile phones provide easy and interactive access to the attendance records of student. It consumes not only less energy but also helps in reducing the

wastage of paper. Mobile being portable can help instructors or any other users to take attendance on their mobiles and view the various statistics to analyse the attendance record of the student.

1.5.4 Mobile based Student Attendance Management System

In the current scenario of various educational institutions to manage and maintaining student information is very tough task for anyone. The whole academic record of the student information consists of monitoring their performance and progress changes periodically which is very huge workload on lecturers to handle and keep on updating the progress report of each and every student in against of their respective scheduled classes. The traditional way of taking attendance through the lecturers is a manually in a register book in which they are used to do a manual calculation to maintain monthly attendance database of the students. Such system takes so much time to generate record and many times it creates an error also as it followed manual traditional system. Apart from this error problems some time many more problems are generated like attendance register book or manually fake data inserted through unknown recourses which are really not authorized for that work. In order to reduce all these problems and concern overcome through this problem, a smart mobile based application is generated to increase its efficiency as well as its security by sending all information about the students to the authorized web-based admin panel server as it linked in the proposed mobile application. It is a beneficial step in every way for our future E-schools. It consists of five modules such as admin controlling, teacher authentication, student authentication, display digital register, submit final report to the given admin web-based server. This android-based application used by the teacher to login and through its subject id and class id display the digital register for the particular class students and finally submit it to the authorized admin panel. As it already defined that the admin panel is totally web based secured web site which is authorized to make changes in any of the database of the students as well as the teachers. Therefore, it is crucial to reinforce the use of the mobile based attendance application to register system in order to improve the traditional process of recording and reporting the student attendance in the higher educational organizations.

1.6 METHODOLOGY

This project is developed using an agile approach. The reason to choose agile for this project development is that it helps deliver products of the highest quality and it gets the job done at a lower cost. By using this agile the ability to find problems and create solutions is more quickly and efficiently. With agile, it allows developers to independently decide what they can do in a set time interval. At the end of the iteration, it gets a working piece of software installed, tested, and presented to the client.

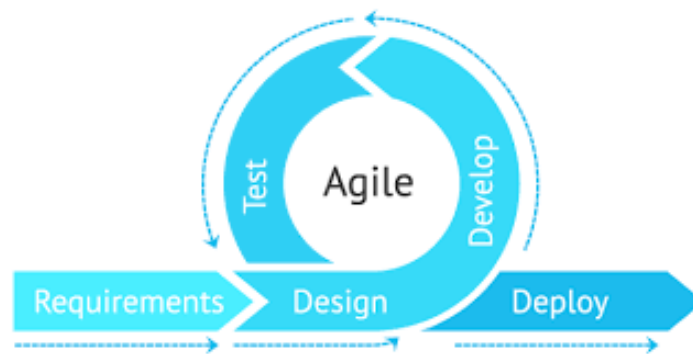


Figure 1.1: the flow on an agile development model (Hazevytch, 2020)

1. Requirements

At this stage, a process such as data collection, qualitative and quantitative or descriptive data analysis, and identifying everything that is required to proceed to the next stage is performed.

One of the things that are brainstormed at this stage is a proposal for the project title because it symbolizes the project itself. We also figure out the potential problem for the school still use manual attendance taking until today.

2. Design

The design stage is the process of creating a system based on the findings of the analysis. The system design documents are created in accordance with the requirements, which aids in the definition of the overall system architecture Form 6 Attendance and Information System for SMK Junjung.

The design of the web interface is now being processed. By using the ideas that have been collected in the requirements phase. Thus, a client's opinions will also be heard to improve the system interface better.

3. Develop

At this phase, the developing process of the interface is done. All the function required for the project is also implemented. Our team offers ongoing support at this stage to maintain the system's functionality and address any new defects. Additional iterations may be made in the future to this student's attendance and information to improve an existing product.

4. Test

When the development process is finished, the testing phase is carried out. Before the system is made available to users, the testing procedure is helpful for identifying flaws that may exist.

a. Unit Testing

It is the phase in which an website's smallest testable unit is tested. Typically, the test is run during the coding phase.

b. Functional Testing

This phase is used to determine whether the system's features function as expected. The main function of the attendance management system is to test whether the output is consistent with SMK Junjung's expectations.

c. User Acceptance Testing

It is a type of testing done by the client or end user to ensure that the system can handle the required tasks in real-world scenarios. Make inquiries if the system is complete according to the specifications they require.

5. Deploy

When the SMK Junjung system is complete, the deployment step is conducted by our team which will explain to the principal and form 6 teachers of the SMK Junjung about the results achieved and the requirements. This stage helps maintain functionality and prevent bugs. There will be opportunities to gather information and make modifications that can be included in upcoming revisions of the system as people interact with it.

1.7 GANTT CHART

WEEKS	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10 W12	W11		W13	W14	W15	
	WEEK 1		WEEK 2		WEEK 3		WEEK 4		WEEK 5		WEEK 6		WEEK 7		WEEK 8	
	PLANNING															
1.0 PROJECT PROPOSAL Prepare project plan and project design	■		■													
PROPOSAL SRESENTATION	■		■													
2.0 PROJECT DEVELOPMENT <ul style="list-style-type: none"> Plan requirement and design specifications. Manage the hardware or software configuration. Develop problem specification and design 					■		■									
DEMO 1 PRESENTATION							■									
3.0 PROJECT DEVELOPMENT.(CONTINUE) <ul style="list-style-type: none"> Plan requirement and design specification. Manage the hardware and software configuration. Develop problem specification and design 							■		■							
DEMO 2 PRESENTATION									■							
4.0 PROJECT DEVELOPMENT (CONTINUE) <ul style="list-style-type: none"> Plan requirement and design specification. Manage the hardware and software configuration. Develop problem specification and design 											■					
5.0 DELIVERABLES <ul style="list-style-type: none"> Present deliverables Prepare project documentation. Present final project. 													■			
CAPSTONE PROJECT PRESENTATION															■	
<ul style="list-style-type: none"> Capstone project presentation Project referring Re-present capstone project. Full documents and project submission 															■	

2.0 REQUIREMENT SPECIFICATION

2.1 FUNCTIONAL REQUIREMENTS

Other system features include:

Centralized database

A centralized database is one that operates entirely within a single location. The database itself is located on a central computer or database system. Users can access the database through a computer network, but it is the central computer that runs and maintains the database.

Client/Server System

The term client/server refers primarily to an architecture or logical division of responsibilities, the client is the application (also known as the front-end), and the server is the DBMS (also known as the back-end).

A client/server system is a distributed system in which,

- Some sites are client sites and others are server sites.
- All the data resides at the server sites.
- All applications execute at the client sites.

2.2 NON-FUNCTIONAL REQUIREMENTS

2.2.1 Performance Requirements

The steps involved to perform the implementation of airline database are as listed below.

a. Teacher

- i. By using this system, teachers will be able to add a student details. The admission student is used for logging in to ensure that not everyone can register to ensure integrity.
- ii. Teacher will be able to change password after logging into their account for better security.
- iii. The teacher will be able to view the student details and make any necessary changes when needed.

b. Student

- i. By using this system, student can login to view result reports.

2.3 HARDWARE AND SOFTWARE REQUIREMENTS

This is the list of software and hardware that we used when developing our system.

Hardware Requirements

Table 1: Hardware requirements

Hardware	Description
Device Name	DESKTOP- 2MJTK8U
Processor	Intel(R) Core(TM) i5-7300U CPU @ 2.60GHz 2.71 GHz
Installed RAM	16.0 GB
System Type	64-bit operating system, x64-based processor
Others	Touch support with 10 touch points

Software Requirements

Table 2: Software requirements

Software	Description
Client	
Internet Browser	Microsoft Edge and Google Chrome
Server	
Operating System	Windows 10
Programming Tools	Notepad++
Written in	HTML, PHP
Database Server	XAMPP Control Panel v3.3.0
Web Server	Apache 2.4.53 and MySQL

2.4 SYSTEM CONFIGURATION

2.4.1 Database and Main Components

- a. Firstly, need to run Apache and MySQL after opening the XAMPP Control Panel. Then, wait for them to turn green and click on Admin to be directed to the PhpMyAdmin page.

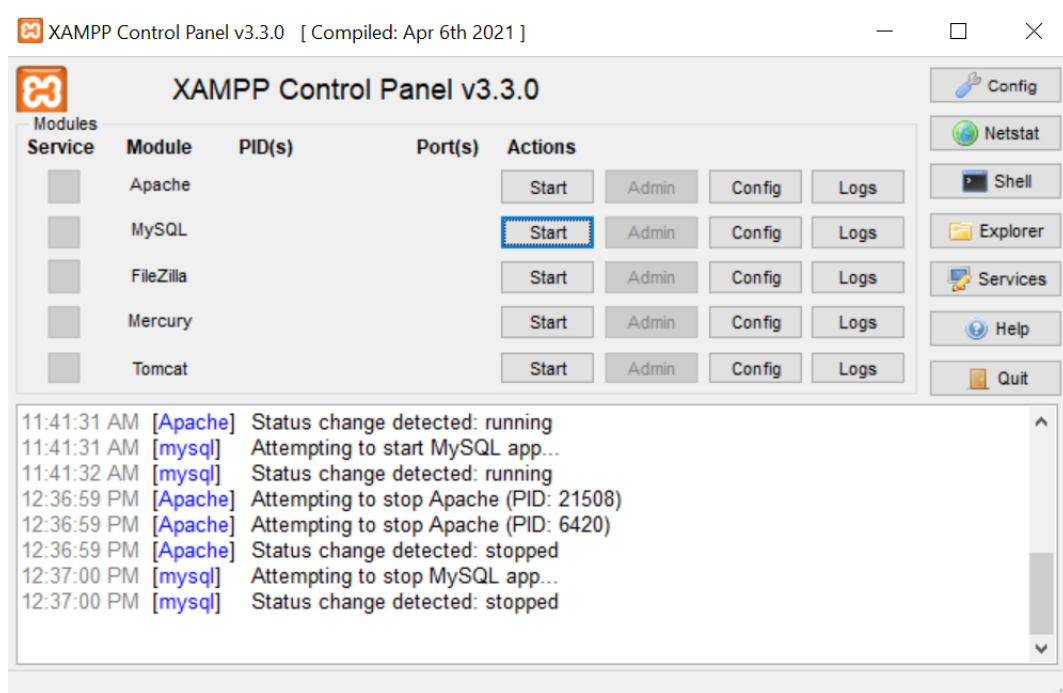


Figure 1.2: XAMPP Control Panel

- b. Click 'New' to create the database for this system.

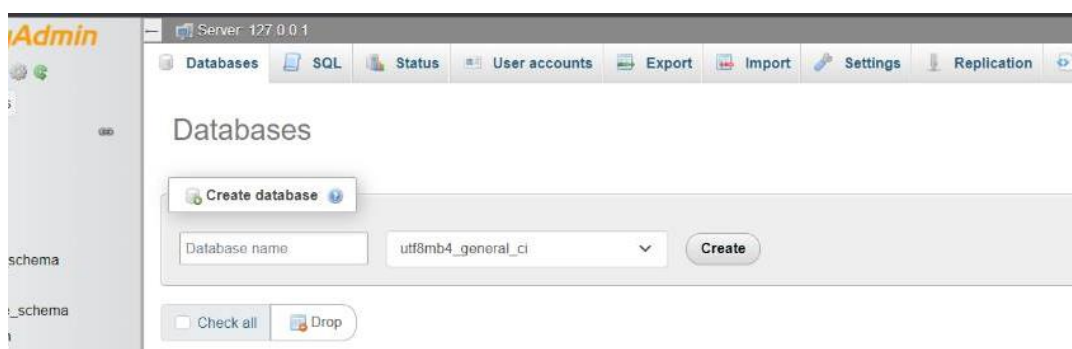


Figure 1.3: PhpMyAdmin

c. Import the given SQL file and click 'Go'.

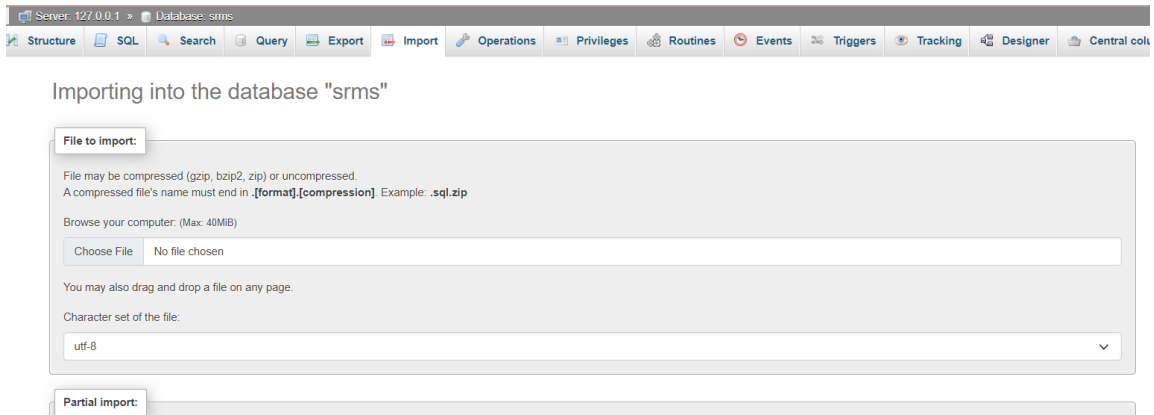


Figure 1.4: Import File

d. Then all the tables inside the database can be viewed.

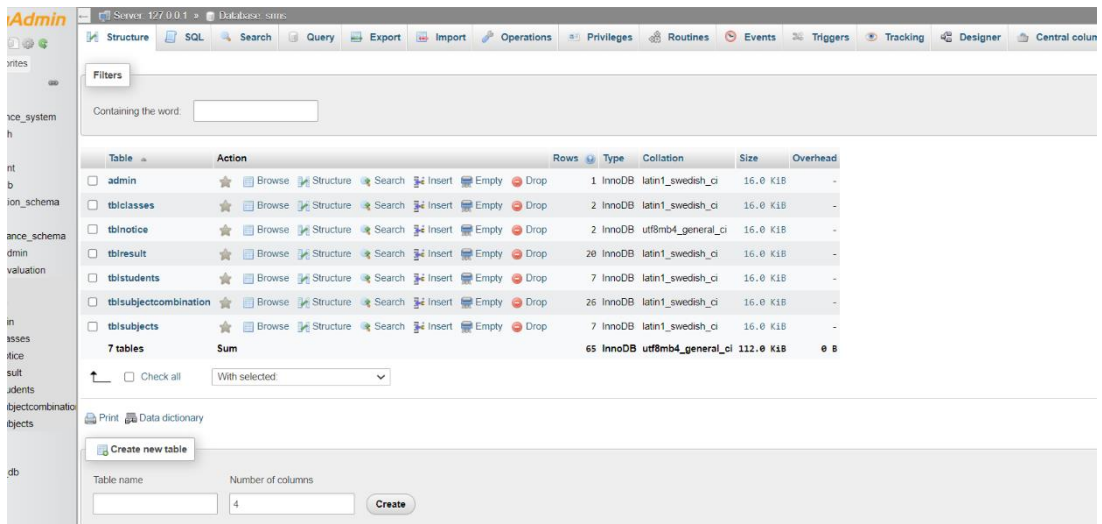


Figure 1.5: Database

e. Now, our users can use the system.

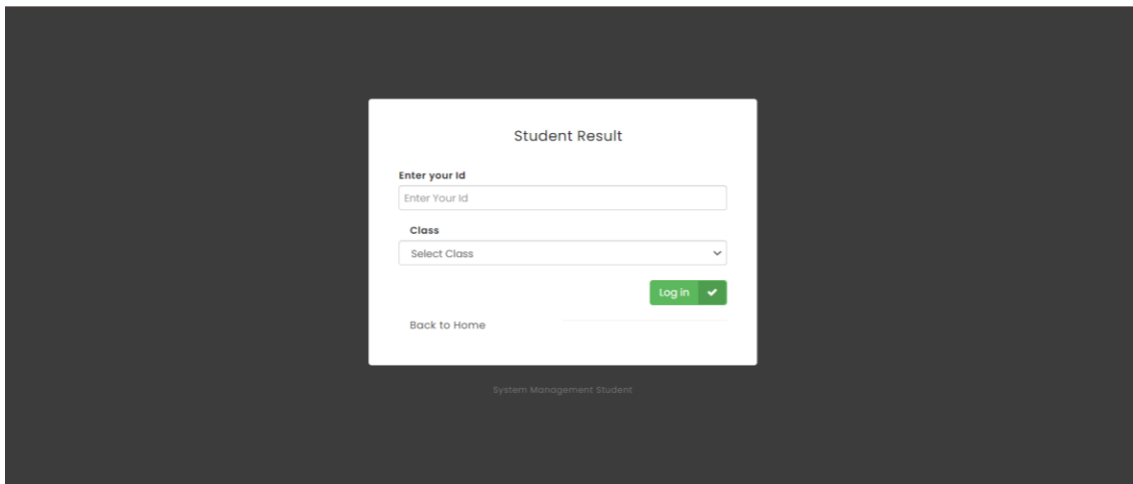


Figure 1.6: Student Login Page

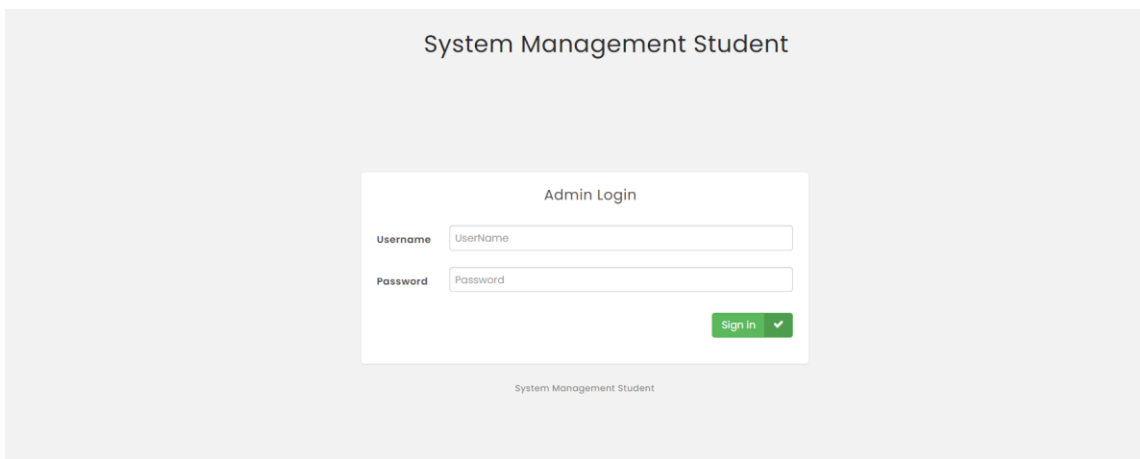


Figure 1.7: Teacher Login Page

2.5 SAFETY AND SECURITY REQUIREMENTS

a. Login Page

- i. This system can only be used by teachers at SMK Junjung and students. It has a login page where students can use id number as their username and password. For the teacher can set own username and password. And the user is a teacher, then the system will direct teachers to their own interface while students will be directed to the student result page.

b. Encryption

- i. Because of security concerns, all passwords stored in the database were encrypted.

c. Client Side and Server-Side Validation

- i. Make sure all relevant field controls are filled out in the appropriate format before sending data to the server. The user's input is transferred to the server during server-side validation, where it is checked using a server-side programming language like PHP.

d. Exception Handling – Error Message

- i. Exception handling is the process of responding to unwanted or unexpected events while this system is running. Exception handling handles these events to keep the system from crashing, and exceptions would disrupt the normal operation of a program if this process did not exist.

3.0 FINAL DESIGN

3.1 Logical Design

Logical design is an abstract design for the system. When drawing this, we look into logical relationships between objects.

3.1.1 Data Flow Diagram

This diagram is a graphical representation of data flow in our system. We provide information about the outputs and inputs of each entity and the process itself.

a. Context Diagram

- i. Figure 1.8 outlines how the external entities interact with an internal system.

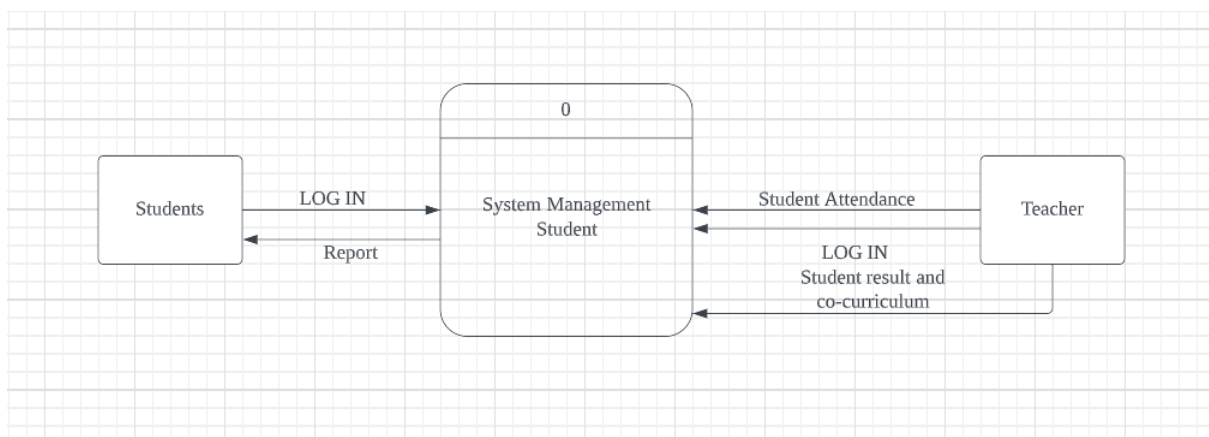


Figure 1.8: Context Diagram

b. DFD Level 0

- i. Figure 1.9 shows how each of the processes works in the attendance management system.

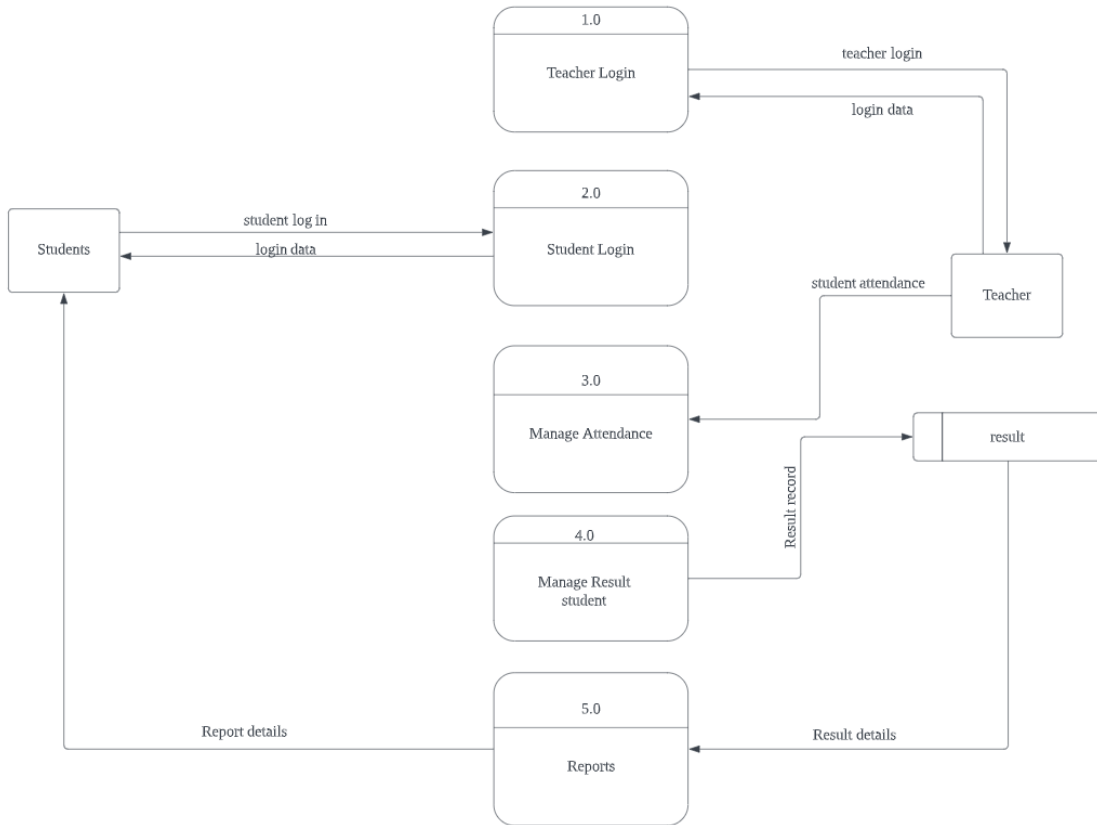


Figure 1.9: Lower-Level 0

c. DFD Lower-Level Process 1

- i. Figure 1.10 describes how the student login process works with the external entities.

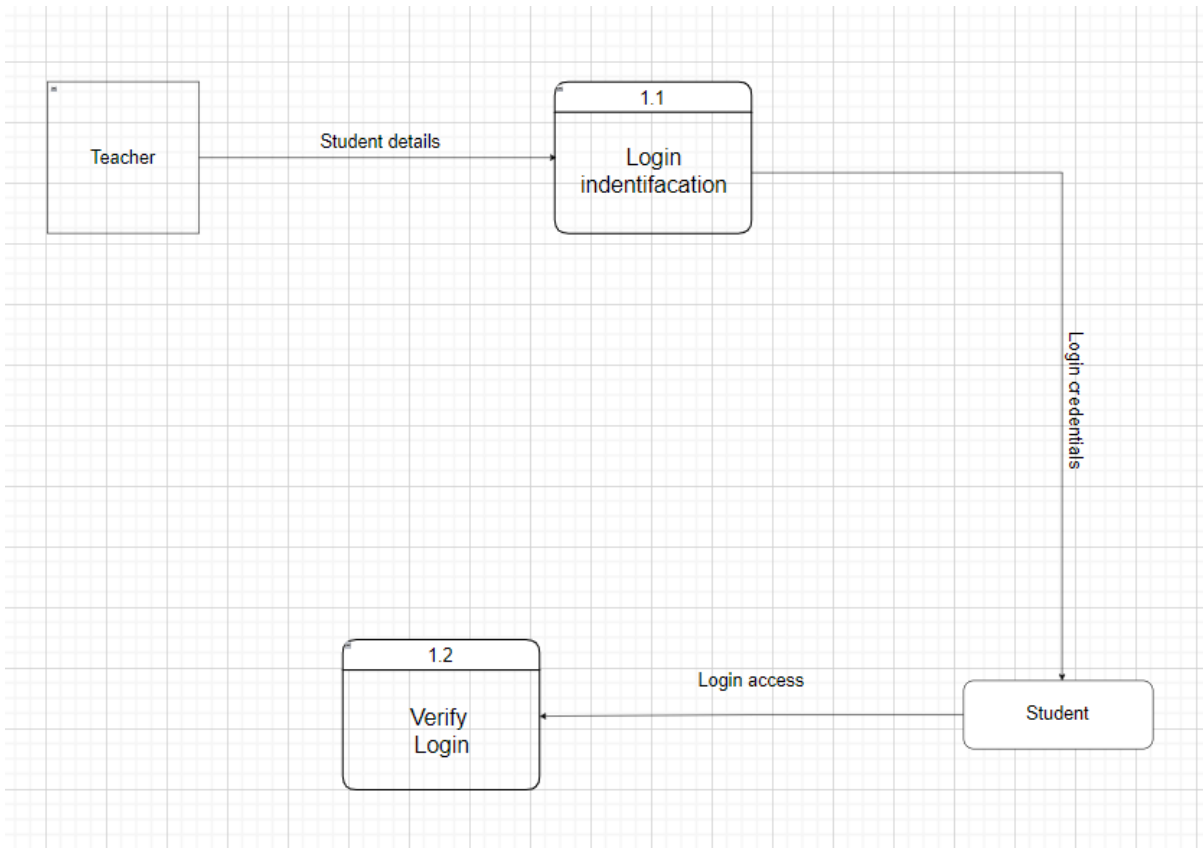


Figure 1.10: Lower-Level 1

d. DFD Lower-Level Process 2

- i. Figure 1.11 describes teacher login process works with the external entities.

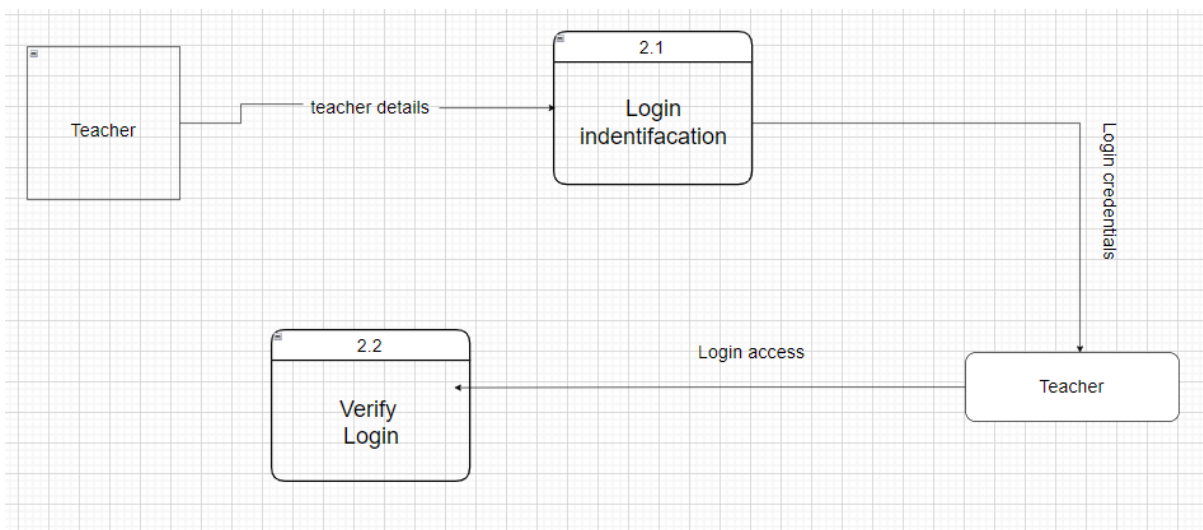


Figure 1.11: Lower-Level 2

e. DFD Lower-Level Process 3

i. Figure 1.12 describes the third process which is to manage student attendance.

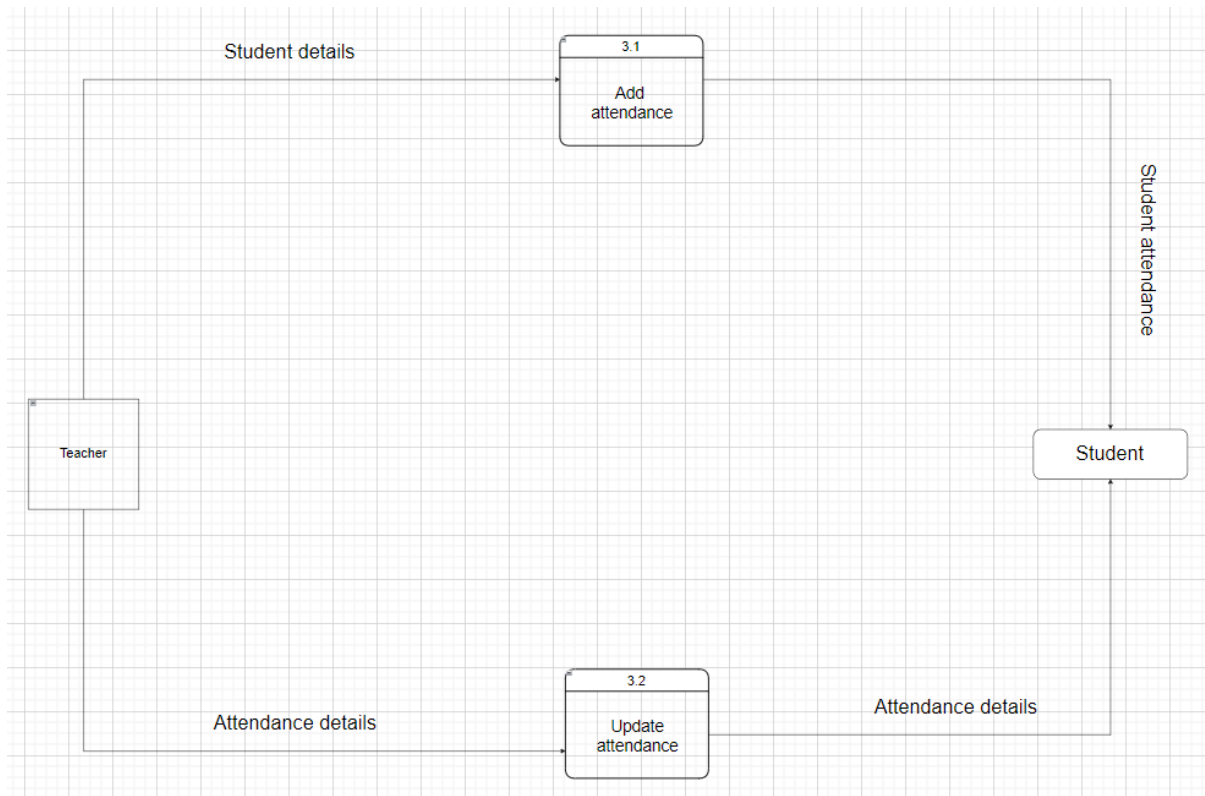


Figure 1.12: Lower-Level 3

f. DFD Lower-Level Process 4

i. In Figure 1.13, the process of manage result is described in detail.

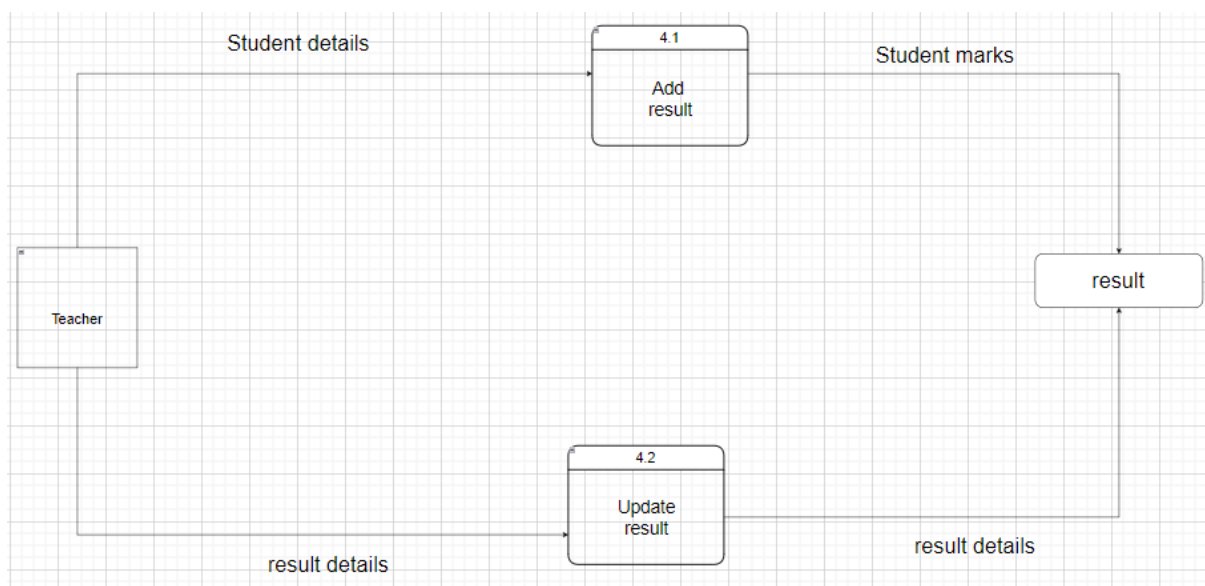


Figure 1.13: Lower-Level 4

g. DFD Lower-Level Process 5

i. The fifth process is described in Figure 1.14 which is to manage report.

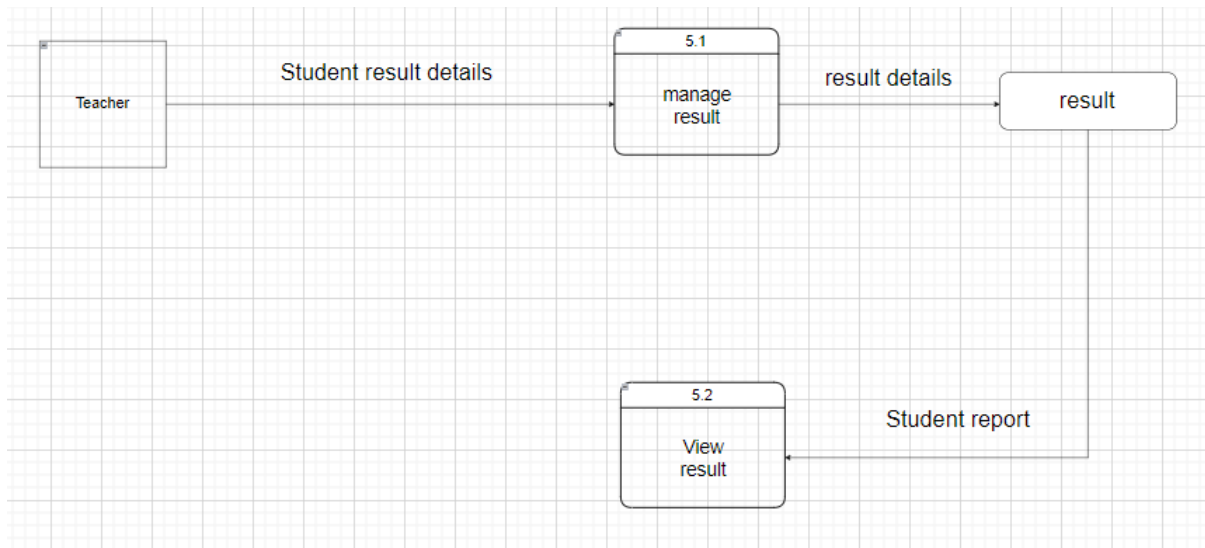


Figure 1.14: Lower-Level 5

3.1.2 Entity Relationship Diagram

Figure 1.15 is drawn to describe how entities are related to each other.

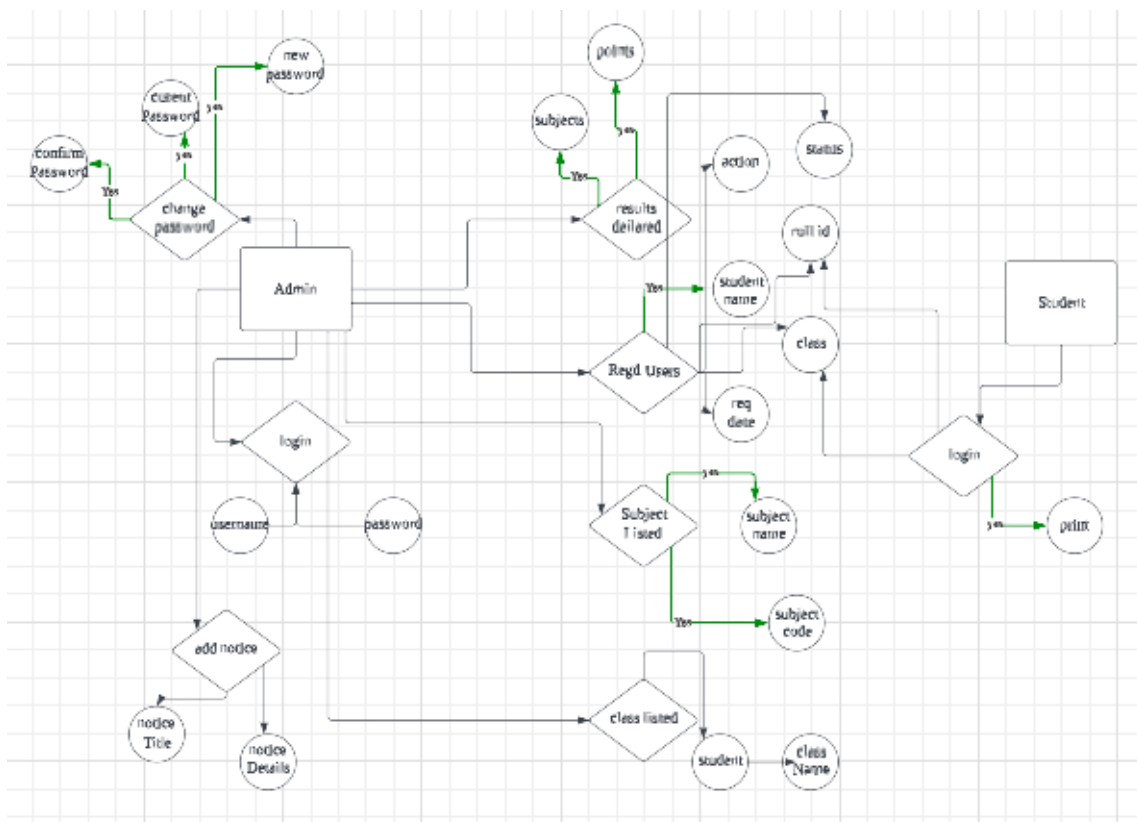


Figure 1.15: 2 Entity Relationship Diagram

3.1.3 Functional Decomposition Diagram

This diagram is drawn to show how the various functions in the system management student are organized. It is graphically displayed in a hierarchical order.

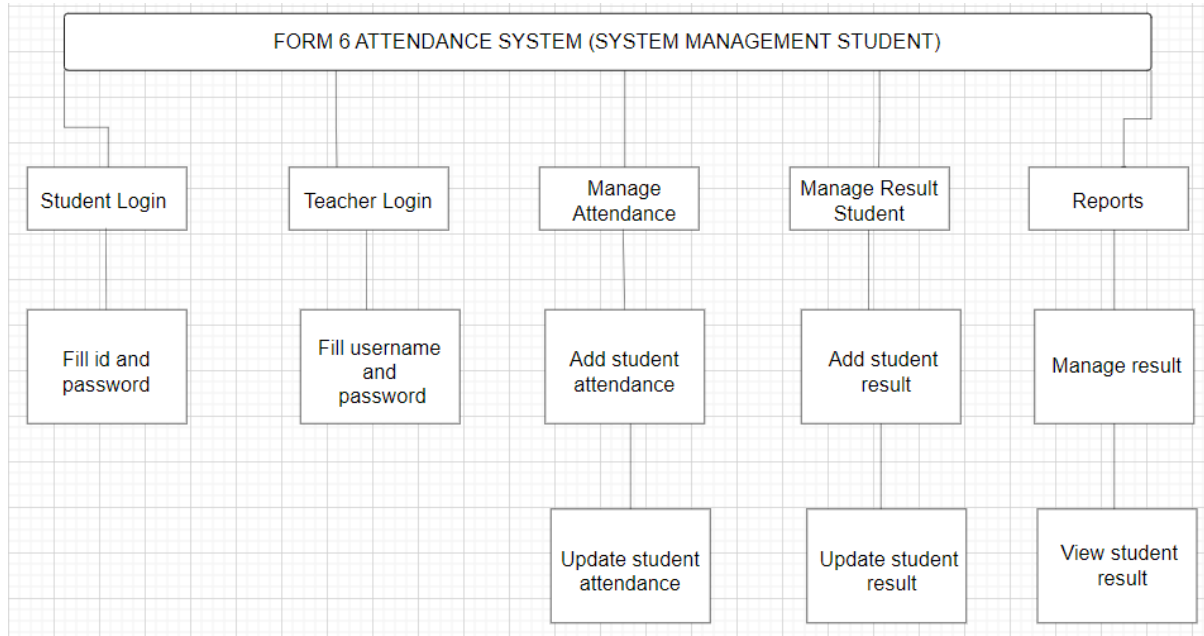


Figure 1.16: Functional Decomposition Diagram

3.1.5 Physical Design

a. Dashboard Page

i. Figure 1.17, this page show the for each category listed.

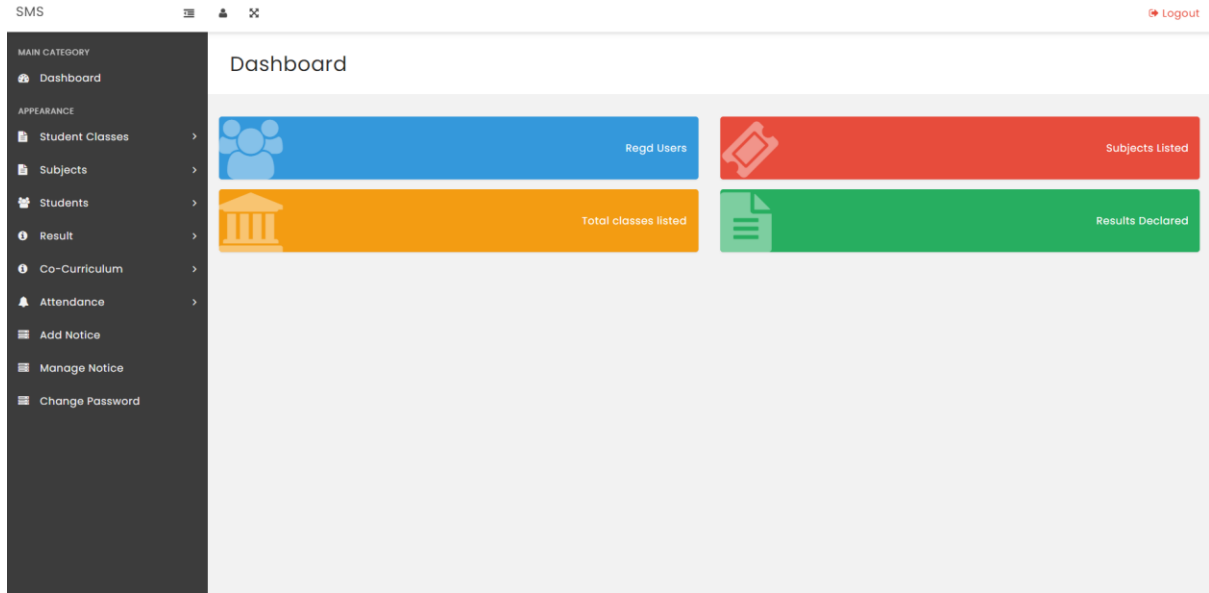


Figure 1.17: Dashboard Page

b. Student Class Page

i. Figure 1.18 for manage class page.

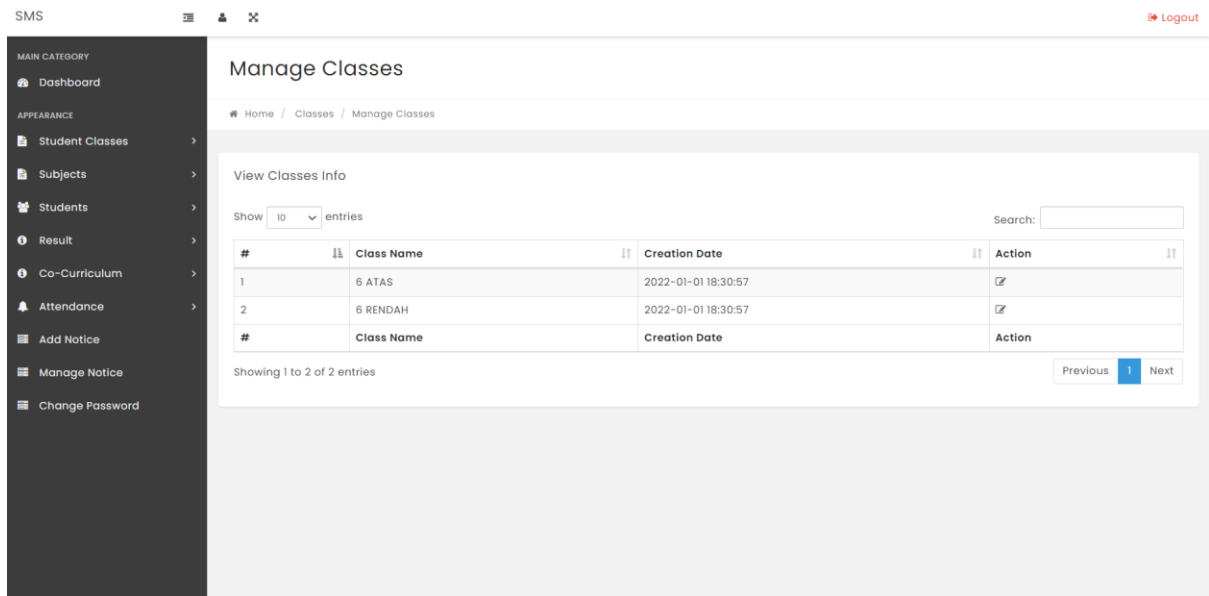


Figure 1.18: Student Class Page

c. Create Subject Page

i. Figure 1.19 for create subject page.

SMS Logout

MAIN CATEGORY

- Dashboard

APPEARANCE

- Student Classes
- Subjects
- Students
- Result
- Co-Curriculum
- Attendance
- Add Notice
- Manage Notice
- Change Password

Subject Creation

Home / Subjects / Create Subject

Create Subject

Subject Name

Subject Code

Figure 1.19: Create Subject Page

d. Manage Subject Page

i. Figure 1.20 for manage subject page.

SMS Logout

MAIN CATEGORY

- Dashboard

APPEARANCE

- Student Classes
- Subjects
- Students
- Result
- Co-Curriculum
- Attendance
- Add Notice
- Manage Notice
- Change Password

Manage Subjects

Home / Subjects / Manage Subjects

View Subjects Info

Show entries Search:

#	Subject Name	Subject Code	Creation Date	Update Date	Action
1	Bahasa Melayu	BM01	2022-01-01 18:30:57		<input type="checkbox"/>
2	English	ENG11	2022-01-01 18:30:57		<input type="checkbox"/>
3	Sejarah	SJ1	2022-01-01 18:30:57		<input type="checkbox"/>
4	Seni Visual	SV	2022-01-01 18:30:57		<input type="checkbox"/>
5	Social Studies	SS08	2022-01-01 18:30:57		<input type="checkbox"/>
6	Economy	ECO1	2022-01-01 18:30:57		<input type="checkbox"/>
7	Mathematics	MTH01	2022-01-01 18:30:57		<input type="checkbox"/>
#	Subject Name	Subject Code	Creation Date	Update Date	Action

Showing 1 to 7 of 7 entries Previous Next

Figure 1.20: Manage Subject Page

e. Student Admission Page

i. Figure 1.21, show to add student information.

SMS Logout

MAIN CATEGORY

- Dashboard

APPEARANCE

- Student Classes
- Subjects
- Students
- Result
- Co-Curriculum
- Attendance
- Add Notice
- Manage Notice
- Change Password

Student Admission

Home / Student Admission

Fill the Student info

Full Name

No ID

Email id

Gender Male Female Other

Class

DOB

Figure 1.21: Admission Student Page

f. Manage Student Page

i. Figure 1.22, show to manage student information.

SMS Logout

MAIN CATEGORY

- Dashboard

APPEARANCE

- Student Classes
- Subjects
- Students
- Result
- Co-Curriculum
- Attendance
- Add Notice
- Manage Notice
- Change Password

Manage Students

Home / Students / Manage Students

View Students Info

Show entries Search:

#	Student Name	Roll id	Class	Reg Date	Status	Action
1	Sarita	46456	6 ATAS()	2022-01-01 18:30:57	Active	<input type="checkbox"/>
2	Hazirah	0268	6 ATAS()	2022-12-02 15:31:37	Active	<input type="checkbox"/>

Showing 1 to 2 of 2 entries Previous Next

Figure 1.22: Manage Student Page

g. Create Co-Curriculum Page

i. Figure 1.23, show to create student co-curriculum details.

The screenshot shows the 'Create Co-Curriculum' page. On the left is a dark sidebar with a 'MAIN CATEGORY' section containing 'Dashboard' and an 'APPEARANCE' section with 'Student Classes', 'Subjects', 'Students', 'Result', 'Co-Curriculum', 'Attendance', 'Add Notice', 'Manage Notice', and 'Change Password'. The main content area has a header 'Create Co-Curriculum' and a breadcrumb 'Home / Co-Curriculum / Add Co-Curriculum'. The form itself is titled 'Create Co-Curriculum' and contains four text input fields: 'Student Name', 'Uniformed Unit', 'Association Clubs', and 'Sport Clubs'. A green 'Submit' button with a checkmark is at the bottom of the form. The top of the page shows 'SMS' on the left and 'Logout' on the right.

Figure 1.23: Create Co-Curriculum Page

i. Add Notice Page

i. Figure 1.24, show how to add notice.

The screenshot shows the 'Add Notice' page. The sidebar is identical to Figure 1.23. The main content area has a header 'Add Notice' and a breadcrumb 'Home / Notices / Add Notice'. The form is titled 'Add Notice' and contains two input fields: 'Notice Title' (a text box) and 'Notice Details' (a larger text area with a small icon in the bottom right corner). A green 'Submit' button with a checkmark is at the bottom of the form. The top of the page shows 'SMS' on the left and 'Logout' on the right.

Figure 1.24: Add Notice Page

j. Manage Notice Page

i. Figure 1.25, show to manage notice whether to delete or not.

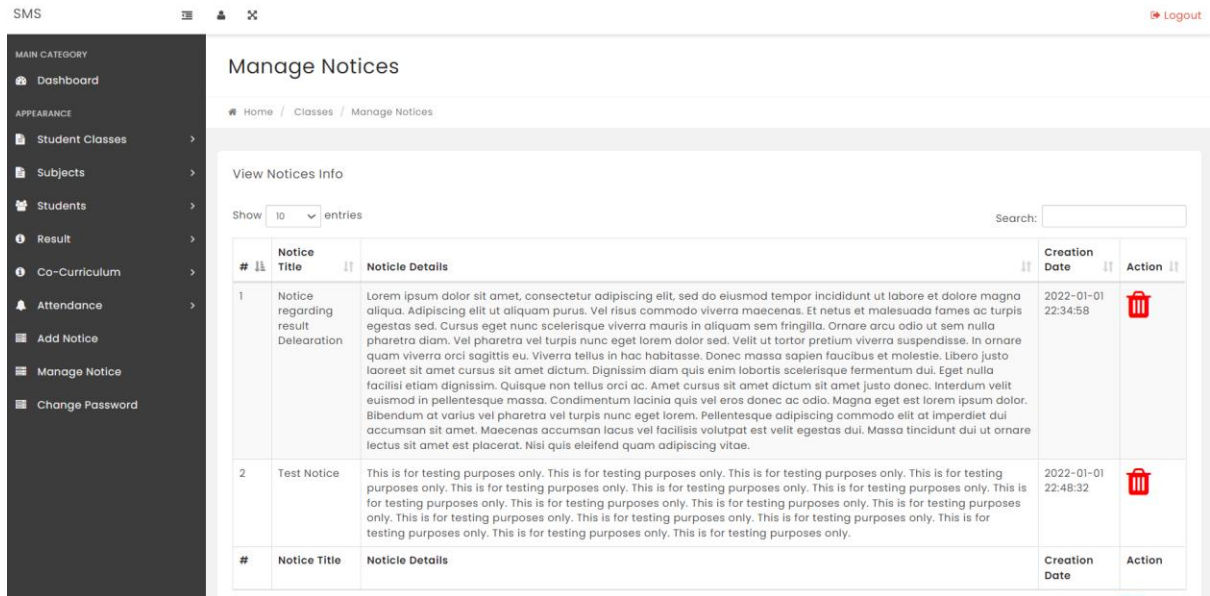


Figure 1.25: Manage Notice Page

j. Change Password Page

i. Figure 1.26, show to the admin can change the password.

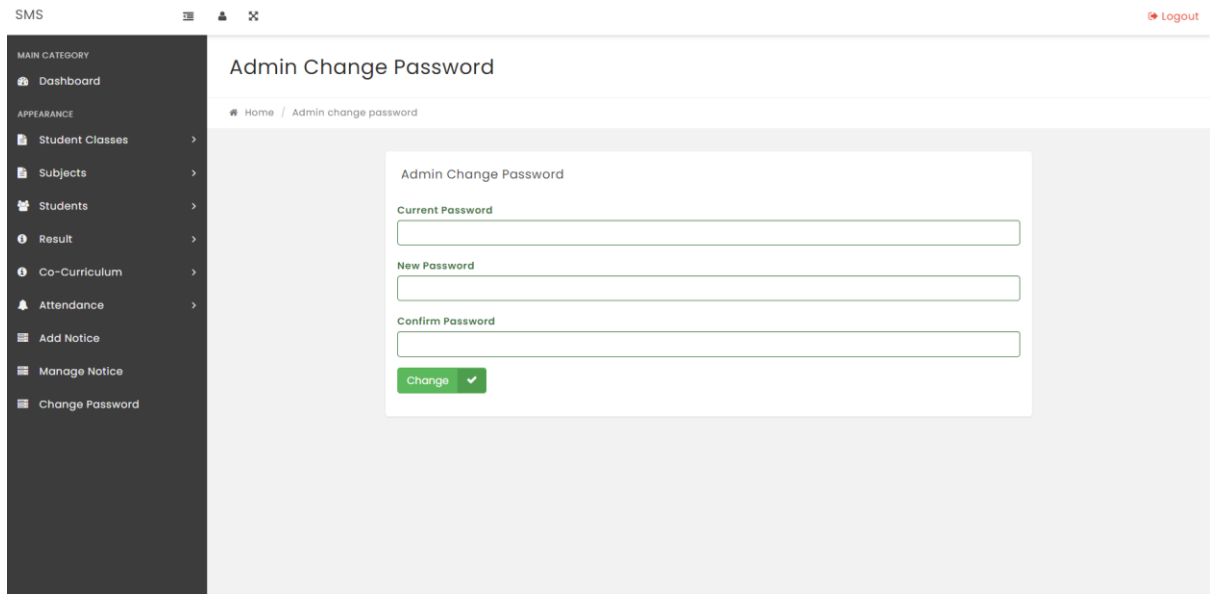


Figure 1.26: Change Password Page

4.0 TEST DESCRIPTION AND RESULT

4.1 Unit Testing

Table 3: Unit Testing Plan (Teacher)

UNIT TESTING PLAN (UTP): Teachers						
No	Test Case Name	Test Procedure	Pre-condition	Excepted Result	Tester	Result
1.	Login Page	Users can fill up their username and password in the given space	Register who doesn't have an account yet	Successfully can log in if the user enters the correct input data	Razin	Pass
2.	Change Password Page	The teacher can change their password to secure their account	Insert a correct current password to be able to change to a new password	Successfully change their password	Razin	Pass
3.	Student Classes Page	A teacher can register a new class and manage the classes	Must follow the format to avoid registering the same class	Successfully created classes and manage the classes.	Razin	Pass
4.	Register Student Page	Teachers can register Students name to their account	Must follow the format and avoid registering the same email id and number id	Once a teacher has successfully created students name account with an email id and number id, the system will be able to have list name of the student in class, so that teacher know how many their student in the class.	Razin	Pass
5.	Subject Page	The teacher can create,	Must insert the subject name and subject code	Once a teacher has successfully	Razin	Pass

		view, and update subjects		created subject, they can manage that they teach for the students.		
6.	Result Page	On this page, teachers can key-in their students result in particular subject	Key-in the correct mark for the students result subject	The teacher will simply need to search for a student's name to view their student details on this page. If any changes are made by pressing the edit and delete buttons, a prompt notification will appear.	Razin	Pass
7.	Co-curriculum Page	Teacher needs to key-in student name and all the co-curriculum items in this page.	Key-in student name and co-curriculum items in this page.	Teacher needs to type the particular student's name and co-curriculum items in the page to avoid any clash data on students' name.	Razin	Pass
8.	Check attendance page	Teacher needs to click on the class and type the student's name to check whether the student is absent from the class code or not.	Click on the class and type the student to see whether they are available on each class code or not.	Teacher needs to click class and type particular student name to see the availability of students in each class code.	Razin	Pass

9.	Add notice page	Teachers can create notice so that the student can take note of every important notice that the teacher does.	The teacher needs to key in the notice title and type the notice details so that the students can take note on every important occasion. The teachers also can delete an error notice and add the new notice to avoid any falsehood of the notice.	Successfully create notice and manage the notice for the students.	Razin	Pass
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Table 4: Unit Testing Plan (Student)

UNIT TESTING PLAN (UTP): Student						
No	Test Case Name	Test Procedure	Pre-condition	Expected Result	Tester	Result (Pass/Fail)
1.	Login Page	Student can fill up their username and password in the space that given	Students need to have number id and choose class to log in to the page	Successfully can login if the user enters the correct input data	Razin	Pass
2.	Examination result page	Student needs to insert id and select class to see the exam result that will be generated	Must follow registration format and cannot register twice	The examination result for the current semester will be generated and students can see their result.	Razin	Pass

4.2 INTEGRATION TESTING PLAN

Table 5: Integration Testing Plan (Teacher)

INTEGRATION TESTING PLAN (ITP): Teacher						
No	Test Case Name	Test Procedure	Pre-condition	Excepted Result	Tester	Result (Pass/Fail)
1.	Login Page	Users must enter their login information correctly and then click the login button.	Must first have an account in order to log in.	To be redirected to the main page	Razin	Pass
2.	Change Password Page	The teacher can change their password to secure their account	Insert a correct current password to be able to change to a new password	Successfully change password	Razin	Pass
3.	Student Classes Page	Enter all the information required, then press the "Submit" button.	All requirements should be included in the proper format.	Successfully register student classes page.	Razin	Pass
4.	Register Student Page	Enter all the information required, then press the "Submit" button.	All requirements should be included in the proper format and cannot register the same ID twice.	When a student account is successfully registered, the teacher will get the lists of student's names in the class.	Razin	Pass
5.	Subject Page	Teachers can access the student's data	None	If any changes are made, the	Razin	Pass

		and teacher user accounts to make changes by searching their name and clicking the edit and remove buttons.		teacher will be able to view the user account of the website with the most recent information.		
6.	Result Page	Teachers can access the data of student details to make changes by searching their name and clicking the edit and remove buttons.	None	If any changes are made, the teacher will be able to view the student with the most recent information.	Razin	Pass
7.	Co-curriculum Page	Teachers can access the data of student details to make changes by searching their name and clicking the edit and remove buttons.	None	Teacher can view registered co-curriculum of the students. If an error of the students co-curriculum data, teacher can edit and change the data.	Razin	Pass
8.	Check attendance page	Select a date to see a report attendance and click on button 'Cari'	Select a date	The student attendance will be displayed.	Razin	Pass
9.	Add notice page	Type notice title then type the notice details and click on the submit button.	Notice title is mandatory to fill.	The notice will come out on the dashboard.	Razin	Pass

Table 6: Integration Testing Plan (Student)

INTEGRATION TESTING PLAN (ITP): Student						
No	Test Case Name	Test Procedure	Pre-condition	Excepted Result	Tester	Result (Pass/Fail)
1.	Login Page	Users must enter their login information correctly and then click the login button.	Must first have an account in order to log in.	To be redirected to the main page	Razin	Pass
2.	Examination result page	Fill in the name and class then click the submit button	Fill in all the requirements with the correct format	Notified the student with examination result data.	Razin	Pass

4.3 USER ACCEPTANCE TEST

This is proof that user acceptance testing is conducted with the teachers that work there.

Table 7: User Acceptance Test (Teacher)

USER ACCEPTANCE TESTING (UAT): Teachers						
No	Test Case Name	Acceptance Requirement	Test Result		Tester	Comments
			Pass	Fail		
1.	Login Page	Users can fill up their username and password in the space that given	Pass		Razin, ernylea & sharvinkumar	The login page is very easy to understand and use
2.	Change password Page	Teacher can change their username and password to secure their account	Pass		Razin, ernylea & sharvinkumar	Very secure and easy to reset the password
3.	Student Classes Page	Can register classes for student	Pass		Razin, ernylea & sharvinkumar	Quick and easy to use
4.	Register Student Page	Teacher can view, edit and delete user accounts if needed	Pass		Razin, ernylea & sharvinkumar	It speeds up the enrollment process for students when parents receive an easy-to-use link from the teacher.
5.	Subject Page	Teacher can view, edit and delete subjects if needed	Pass		Razin, ernylea & sharvinkumar	Easy to track who has user account and made some modification when needed
6.	Result Page	In this page teacher can view, Edit, and delete student result	Pass		Razin, ernylea & sharvinkumar	Easy to track result of the students and made some modifications when needed
7.	Co-curriculum Page	In this page, teacher can view, edit and	Pass		Razin, ernylea	Save more time on taking student co-curriculum activities

		delete co-curriculum data of the students.			&sharvinkumar	update of the students
8.	Check attendance page	In order to generate a report, teachers need to select a date to see their student attendance percentage	Pass		Razin, ernylea &sharvinkumar	Accurate re attendance report and very easy to track students based on the date they come to the class.
9.	Add notice page	In order to give notice to the students, teacher needs to generate a notice, so that the students can know the notice from the teacher.	Pass		Razin, ernylea &sharvinkumar	Save more time on giving notice to the students and more easy that the teacher can give the notice more early.

5.0 DISCUSSION

The traditional method of taking attendance will be replaced by the utilization of this technology. Additionally, the intent behind the implementation of this website is using checkbox to maintain student attendance data in real-time. As a result, the data will be better structured and stored securely. Teachers can create reports via this website by using the data that has been gathered regarding student attendance. This technology is used to manage the attendance processing. It also improves how quickly and easily attendance responsibilities may be completed.

The existing registration process necessitates filling out a significant amount of paper, as stated in our problem statement above. Given this, it is preferable to use less paper. In reality, it makes it easier to gather student information, which will be put in the database automatically. The registration form is user-friendly and easy to complete, saving time and money compared to manually filling out multiple types.

5.1 Advantage of this project

- a. With this attendance management system, teachers can easily manage student accounts without having stacks of paperwork for teachers' and students' data
- b. This system can manage academic and co-curriculum easily since all the registered data are stored in the database.
- c. Students' daily attendance will be easily recorded because teachers will only need to check attendance, which takes less time than the traditional method of collecting attendance.

5.2 Limitation of the project

- a. The user and teacher must have an internet connection in order to access this website.
- b. The teacher can obtain more students information details.

6.0 CONCLUSION

This website is developed to help teachers to simplify the process of taking student attendance. It will help in managing attendance records easily. Other than that, the system can improve the quality of data collected and eliminates unnecessary paperwork. Teacher can directly take their student's attendance. In order to help teachers in providing personal data for academic information, the system can also assist in saving personal information in the database. However, developing this system won't waste time and can even ease the stress of manually entering each student's information. This system is now being developed to improve efficiency while requiring less data to be entered. It is created using an agile methodology to provide a smoother website process.

The process of making this system includes starting with requirements analysis, design, testing and it is developed in school based on agile software development methods. Aside from simplifying the system's time and resources, it can also reduce the complexity of monitoring students' attendance at school.

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