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DEPARTMENT OF INFORMATION & COMMUNICATION TECHNONOLOGY

POLITEKNIK MALAYSIA

UNGKU OMAR POLYTECNIC
DIPLOMA IN INFORMATION TECHNOLOGY
(DIGITAL TECHNOLOGY)

SMART COURSE ORGANIZER

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ABSTRACT

College students are currently dealing with undergraduate issues after failing a subject and having to retake it. Students must rely on their Academic Advisor to manage their academics. The primary purpose of Smart Course Organizer is to assist repeating students in managing their matters in order to avoid any overlooked on unregistered course that can caused students to graduate accordingly. Some institutions continue to use a manual guidebook for the entire semester for student academics. In this case, some of the students may misplace or damage the guidebook. As a result, students will face issues in the future or next semester when they need to refer to the guidebook to take the next steps. To solve that problem, we develop a system that can list all of the courses that students should take each semester. The Waterfall Backflow Model is the method we used to create Smart Course Organizer.

TABLE OF CONTENT

CHAPTER 1: PROJECT PLAN

1.1 Introduction

In 21 century, advance technology is no longer unfamiliar in a human life, young generation most likely to use device as to keep the info rather than using a paper or a book (Schindler,2017). For example, students nowadays love using web-conferencing software, blogs, wikis, social networking sites and more to get latest information of everything they are looking for (Schindler,2017). The use of the internet allows students to find amazing convenience, they can find various kinds of help, tutorials and other kinds of assisting material which could be used to academically improve and enhance their learning(Raja, R., & Nagasubramani, 2018). Now the problem is, in some institute students need to keep a paper or book and depends on Academic Advisor to manage their academic info such as what subjects they need to register for next semester and more. It is important to having a good organizer to manage academic info for not facing any problem in future such as undergraduate and more.

So, we take advantage of technology nowadays to develop a system named as "Smart Course Organizer", will be establish in 2021. Main services of this system which are to support management system. Smart Course Organizer is developed to organize student management. In the existing system, students need to keep a paper or book and depends on Academic Advisor to manage academic info. However, by using this system student can manage their academic info by themselves and less dependency on Academic Advisor. Smart Course Organizer have a Decision Support System. A Decision Support Systems are used to A decision support system processes data to assist in management decision-making (Hubworks 2021). It stores and gathers the information required for management to take the proper actions at the correct time.

In conclusion, digital technologies are now an integral aspect of the university student experience (Taylor & Francis 2015). Every student and institute must take advantage of the technology to upgrade flexibilities of time and place, ease of organizing to increase the number of positive academic outcomes (Taylor & Francis 2015). For example, by using organizer system such as Smart Course Organizer to 'enhance' ability to manage student's academic info. This will make student and institute get good feedback on their education and system management.

1.2 Problem Statement

The major problem is about overlooked repeater student. If student overlooked on course registration it will cause credit hour for graduate not enough and the student will undergraduate because of that. Besides, the management services also need to be conducted efficiently.

i. Some institution still using a manual guidebook for the all semester for student academic. In this situation some of the student might lose or damage the guidebook. So, student will face the problems in the future or next semester when they need to refer the guidebook to do the next steps.

ii. Every semester, student need to fill their grade in a piece of paper and need to submit to academic advisor. Academic advisors have to recheck student grade one-by-one.

Based on the problems that occur, this project will give beneficial to the employees & students of Ungku Omar Polytechnic to make a management more efficient and follow up with the technology using nowadays. This system also will make the organization became so easy and faster.

1.3 Objectives

The goals of doing the research are to help college students, especially for repeater student. The objectives of the project are:

i. To design a system that functioning as organizer that help to manage students who failed their subject.

ii. To develop a system that able to help academic advisor to check using this system rather than using a paper.

iii. To develop a system that can list all student course that they should take every semester (overlooked course registration).

1.4 Scope of Project

1.4.1 User Scope

1.4.1.1 Student

i. Login
ii. View course list
iii. Insert subject grade

1.4.1.2 Admin (Unit Pendaftaran)

i. Login
ii. Manage list of course
iii. Manage student
iv. Manage Academic Advisor
v. View report

1.4.1.3 Academic Advisor

i. Login
ii. View student details
iii. View student grade

1.4.2 System Scope

i. Store student grade, Academic Advisor details
ii. Sample (10 students), (10 academic advisor) and (1 admin)
iii. Generate reports

1.5 Literature Review

1.5.1 Previous System

Beginning of research results activities at JTMK had found overall data and student result record were done manually or tradition file system for managing student result. The use of file system is less efficient because the data stored cannot be recovered if disaster happens such as fire because it does not have a second storage for data.

After the exam results come out, all students need to print their exam result slip, after that the slip needs to be given to the academic advisor. Besides that, the Academic Advisor can see if there are any students who failed the semester and need to repeat the semester. In addition, the academic advisor had difficulties when want to check the student records or slip due stack files stored in the rack. This will cause problem in term of time because must check one by one files.

1.5.2 Case Study

The following is a case study that was conducted.

1.5.2.1 Case Study 1: iPUO

iPUO is one of the Ungku Omar Polytechnic Website. These Polytechnic are centered at Ipoh, Perak. iPUO is website that student can make course registration, check exam result, schedule etc. Besides, this website also displays current issues regarding Ungku Omar polytechnic.

Figure 1.1: iPUO interface

Figure 1.5.1 shown iPUO main page that have student login and display some information about Ungku Omar Polytechnic which is they logo and address. Besides, they also display provide links for user to navigate through the site which is Sistem ePortal and they official website.

1.5.2.1.1 Advantage of The System

i. Up-to-date course information.
ii. An easy-to-understand interface arrangement.
iii. Secure and confidential.

1.5.2.1.2 Disadvantages of The System

i. Need internet access.
ii. Less attractive interface.
iii. Cannot detect if any students who failed the semester
iv. Cannot detect if any student who need to repeat the semester

1.5.2.2 Case Study 2: Chipper

Chipper is a student planning app comes equipped with several tools dedicated to students. Simply add all the courses that you are currently taking and organize them by time and date in the built-in schedule.

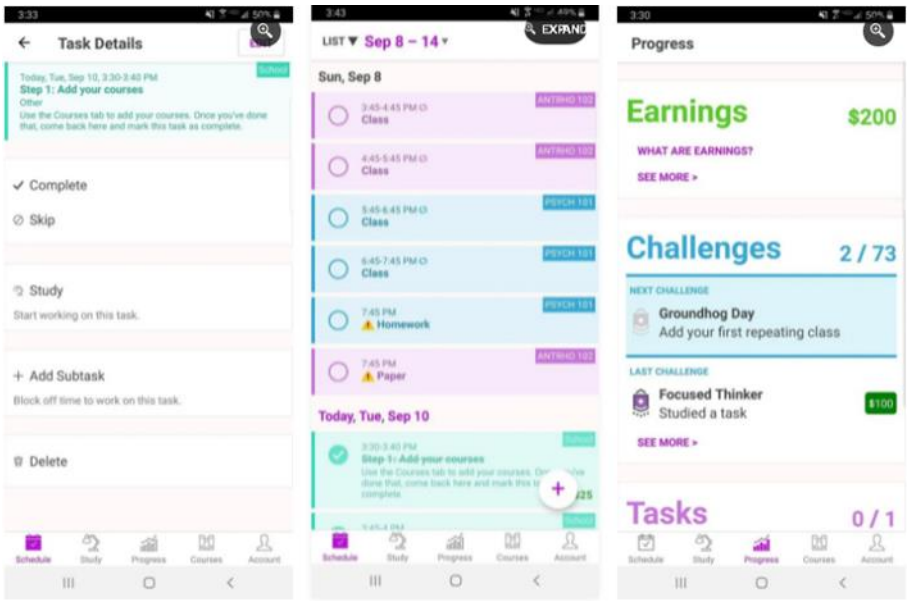


Figure 1.2: Chipper main menu.

Figure 1.5.2.2 shown page of the apps. Besides, they also provide menu for student to navigate through the app which is schedule, study, course, and account.

1.5.2.2.1 Advantages of The System

i. Students can add and delete course.
ii. An easy-to-understand interface arrangement.
iii. The schedule is done in a systematic manner.
iv. Interactive interface

1.5.2.2.2 Disadvantages of The System

i. Need internet access.

1.5.2.3 Case Study 3: Power Planner

Power Planner integrates with Google Calendar to make your life even easier. Better yet, you can also estimate your GPA by inputting assignment and test grades.

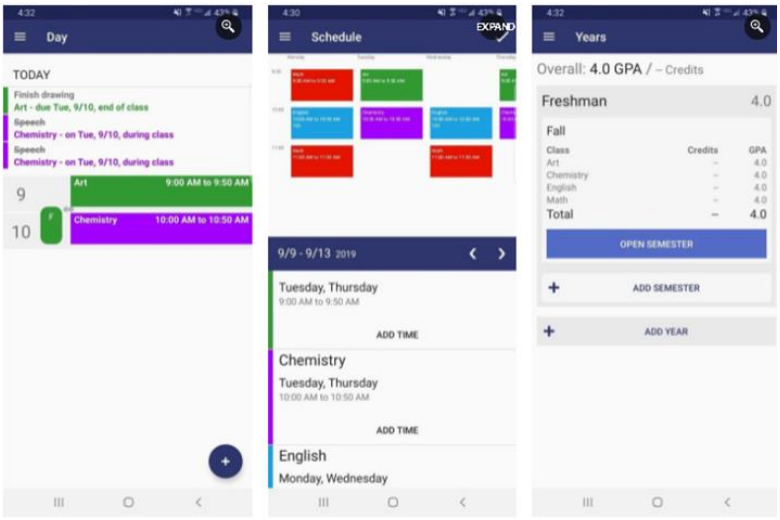


Figure 1.3: Power Planner main menu.

Figure 6.3 shown page of the apps. Besides, they also provide menu for student to navigate through the app which is schedule, day and years.

1.5.2.3.1 Advantages of The System

i. Students can add and delete course.
ii. An easy-to-understand interface arrangement.
iii. Interactive interface

1.5.2.3.2 Disadvantages of The System

i. Need internet access.
ii. Students need to pay for upgrade to premium version

1.5.3 Comparison of Case Study with Previous System.

Item	Previous System	Case Study 1	Case Study 2	Case Study 3
	Tradition file system	iPUO	Chipper	Power Planner
Storage	File System	Database (MySQL)	Database (MySQL)	Microsoft Azure
Graphic	None	Buttons, Pictures	Buttons and Pictures	Buttons and Pictures
Speed	Slow, not efficient	Fast	Fast	Fast
Method	i. Student must print they exam result slip then pass to academic advisor ii. Academic Advisor will record the student information	i. Student only need to fill in the accreditation forms. ii. Student information will automatically be stored in database.	i. Student only need to fill in the accreditation forms. ii. Student must register first before logging in.	i. Student only need tofill in the accreditation forms. ii. Student must register first before logging in.
Requirement	i. Lot of paper ii. Large storage space	i. Computer ii. Internet access	i. Mobile Phone ii. Internet access	i. Mobile Phone ii. Internet access

Table 1.1 Comparison of case study with previous system

1.6 Methodology

Methodologies are described as a collection of instructions for solving a problem using specific components such as phases, tasks, methods, and techniques. It can also be described as a systematic method for solving a problem that can be used in a single development.

Agile Modal, Prototyping Model, Spiral Model, and others are examples of models that can be used in the development system. The most appropriate methodology for executing this project is Waterfall Backflow Model which is commonly used in system development life cycle (SDLC).

The system development life cycle is a structured research methodology for planning and managing the system development process. The system development life cycle is a systematic development process that involves six stages, starting with preparation and ending with support. SDLC approach that is more suitable for the system to be built. Figure 7.1 below shows the Waterfall Backflow Model.

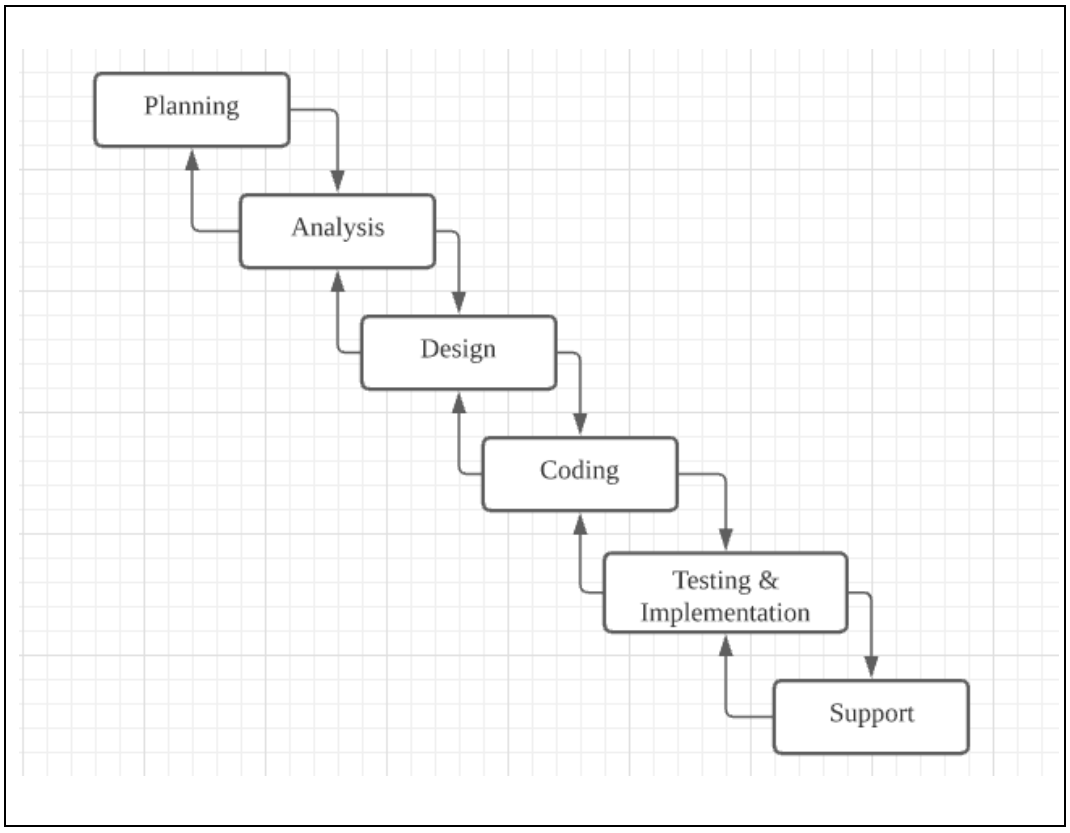


Figure 1.4: Waterfall Backflow Model by (Shelly, G. & Rosenblatt, H, 2012).

1.6.1 Planning Phase

This is the early planning phase for the Smart Course Organizer System. Various items of the planning process, such as the planning system title and the type of system to be developed, have been made during this period. The project's scope is defined during this process, and a project management plan is developed. It involves deciding the cost, quality, resources available, and a reasonable timeline. Aside from that, a Gantt chart has been developed. This scheduling strategy was carried out with the goal of serving as a guide for system developers to complete system development on time.

1.6.2 Analyze Phase

The Analyze phase is dedicated to requirement gathering and analysis. All vital information is gathered and analyzed. This step is designed to resolve all ambiguities regarding future software. The main purpose of this phase is to understand about the company's needs and problems. We have gathered all the system requirements for the Smart Course Organizer. During this process, some of the activities or tasks were carried out to gather information on Smart Course Organizer at JTMK registration unit. Finally, the gathered data is analyzed and implemented in the project.

1.6.3 Design Phase

This is where the entire architecture of the future project is created. Before starting a program, it is important to understand the system that needs to be implemented as well as the extent of system interoperability once it's completed. The idea for the Smart Course Organizer was sketched during this process. The layout, including text, icons, and diagrams of position and uses of each object, has been established in the system's interface design.

1.6.4 Coding Phase

Coding, All the components of the designed software are implemented, and the source code is created. This is the most crucial stage in the development of the Smart Course Organizer system, as it is here that the system's programs, algorithms, and flow chart are developed. The actual coding will be written in this process. A programming language such as html, php or JavaScript is used to program the systems. Aside from that, the data collected during the analysis and design processes will be implemented.

1.6.5 Testing Phase

Testing involves the checking of any faulty parts of the code and their fixes. Everything is thoroughly tested and, if needed, re-tested until all problems are solved. The testing process is where the completed system is checked to ensure that all the system's functions are working properly. The Smart Course Organizer should be carefully tested to ensure that it is free of errors. The implementation process will be conducted by JTMK registration unit staff, with the company representative given priority in testing the system so that all the functions that have been determined are able to meet the company's requirements.

1.6.6 Support Phase

When the testing phase is finished, and there are no bugs or errors in the system, the support process starts. During this phase, the support phase is the last phase in completing the Smart Course Organizer. All the completed paperwork and entire system will be presented to the supervisors for review. Once it had evaluated by the supervisor, the project will be given approval certification.

1.7 Project Gantt Chart

		Name	Duration	Start	Finish	Predecessors
1		**1.Planning Phase**	7 days?	**7/8/21 8:00 AM**	**7/16/21 5:00 PM**	
2		Type & Title of the system	1 day?	7/8/21 8:00 AM	7/8/21 5:00 PM	
3		Deciding Scope of the system	1 day?	7/9/21 8:00 AM	7/9/21 5:00 PM	2
4		Management plan	2 days?	7/12/21 8:00 AM	7/13/21 5:00 PM	3
5		Diciding Cost	2 days?	7/14/21 8:00 AM	7/15/21 5:00 PM	2;3;4
6		Develope Gantt Chart	1 day?	7/16/21 8:00 AM	7/16/21 5:00 PM	2;3;4;5
7		**2.Analyze Phase**	4 days?	**7/19/21 8:00 AM**	**7/22/21 5:00 PM**	**1**
8		Gathered all system requirements	3 days?	7/19/21 8:00 AM	7/21/21 5:00 PM	5
9		Document review	1 day?	7/22/21 8:00 AM	7/22/21 5:00 PM	8
10		**3.Design Phase**	10 days?	**7/23/21 8:00 AM**	**8/5/21 5:00 PM**	**7**
11		Entity Relation Diagram(ERD) Desigr	5 days?	7/23/21 8:00 AM	7/29/21 5:00 PM	9
12		Context Diagram(CD) Design	5 days?	7/23/21 8:00 AM	7/29/21 5:00 PM	9
13		Data Flow Diagram (DFD) Design	5 days?	7/23/21 8:00 AM	7/29/21 5:00 PM	9
14		Interface Design	5 days?	7/30/21 8:00 AM	8/5/21 5:00 PM	11;12;13
15		**3.Coding Phase**	10 days?	**8/6/21 8:00 AM**	**8/19/21 5:00 PM**	**10**
16		Develop System Module	5 days?	8/6/21 8:00 AM	8/12/21 5:00 PM	14
17		Integrate System Module	5 days?	8/13/21 8:00 AM	8/19/21 5:00 PM	16
18		**5.Testing**	10 days?	**8/20/21 8:00 AM**	**9/2/21 5:00 PM**	**15**
19		Perform System Testing	5 days?	8/20/21 8:00 AM	8/26/21 5:00 PM	17
20		Correct Issues Found	5 days?	8/27/21 8:00 AM	9/2/21 5:00 PM	19
21		**6.Support**	5 days?	**9/3/21 8:00 AM**	**9/9/21 5:00 PM**	**18**
22		Make a report	5 days?	9/3/21 8:00 AM	9/9/21 5:00 PM	19

Table 1.2: Gantt Chart Table

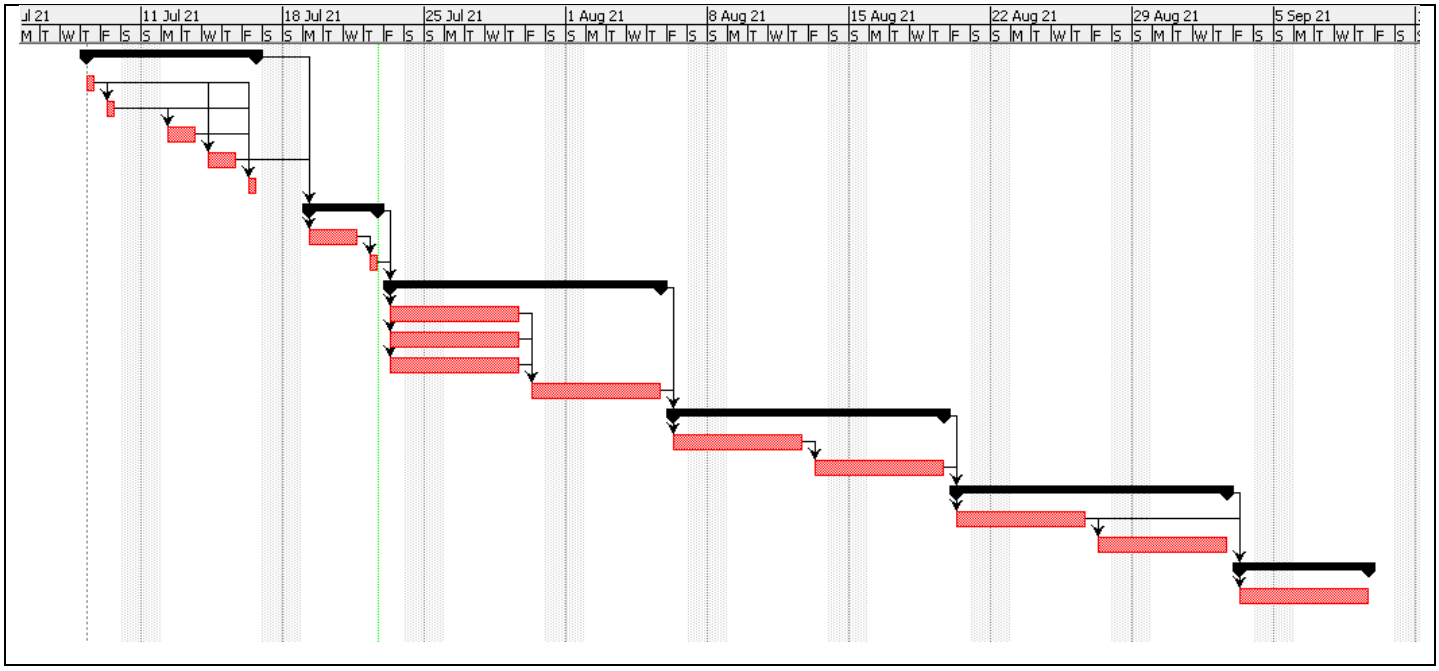


Figure 1.5 Gantt Chart Graph

CHAPTER 2: REQUIREMENT SPECFICATION

2.1 Functional Requirement

i. Home Menu

Describe: User will be able to go to home page

ii. Student Login Menu

Describe: Student will be able to login to the website using their Registration Number as ID and IC as Password

iii. Course List Menu

Describe: After student able to login, student will be able to see course of list

iv. Student Grade Menu

Describe: Student able to choose subject and student able insert their grade for every subjects

v. Logout Menu

Describe: After complete viewing course list and insert grade, student will be able to logout and go to home page

vi. Academic Advisor Login Menu

Describe: Academic Advisor will be able to login to the website using their Registration Number as ID and IC as Password

vii. Search Student Details

Describe: Given that a academic advisor is logged in to the website, then the first page that is shown should be the search student details page. The academic advisor should be able to search for student details. (Exp: Academic Advisor has to enter course section in textbox then click button search. It will show all the student details in table)

viii. Search Student Grade

Describe: The academic advisor should be able to search for student grades. (Exp: Academic Advisor has to enter course section in textbox then click button search. It will show all the student grade in table)

ix. Logout Menu

Describe: After complete viewing student details and student grade, academic advisor will be able to logout and go to home page

x. Admin Login Menu

Describe: Admin will be able to login to the website using their Registration Number as ID and IC as Password

xi. Manage Course Menu

Describe: Here, admin able to manage course list either to insert, update or delete. (Exp: Name, IC, Phone, Email, and Course Section)

xii. Insert Button

Describe: Admin able to insert new course in course list. (Exp: Name, IC, Phone, Email, and Course Section)

xiii. Update Button

Describe: Admin able to update course in course list. (Exp: Name, IC, Phone, Email, and Course Section)

xiv. Delete Button

Describe: Admin able to delete course in course list. (Exp: Name, IC, Phone, Email, and Course Section)

xv. Manage Academic Advisor Menu

Describe: Admin able to manage academic advisor information either to insert, update or delete. (Exp: Name, IC, Phone, Email, and Course Section)

xvi. Insert Button

Describe: Admin able to insert new academic advisor information. (Exp: Name, IC, Phone, Email, and Course Section)

xvii. Update Button

Describe: Admin able to update academic advisor information. (Exp: Name, IC, Phone, Email, and Course Section)

xviii. Delete Button

Describe: Admin able to delete academic advisor information. (Exp: Name, IC, Phone, Email, and Course Section)

xix. Manage Student Menu

Describe: Admin able to manage student information either to insert, update or delete. (Exp: Name, IC, Phone, Email, and Course Section)

xx. Insert Button

Describe: Admin able to insert new student information. (Exp: Name, IC, Phone, Email, and Course Section)

xxi. Update Button

Describe: Admin able to update student information. (Exp: Name, IC, Phone, Email, and Course Section)

xxii. Delete Button

Describe: Admin able to delete student information. (Exp: Name, IC, Phone, Email, and Course Section)

xxiii. Logout Menu

Describe: Admin will be able to logout and go to home page

2.2 Non-Functional Requirement

i. Usability

a. The website is designed to be a simple as possible to achieve vision clarity and make sure user have the best experience.

b. The website has error prevention when login and more.

ii. Availability

a. The server website should always stay available for user access the website.

b. User can reach our website when they have an internet connection.

iii. Reliability

a. Users need to login their account to use the website.

iv. Simplicity

a. User Friendly interface.

v. Performance

a. Take less time to load the page.

2.3 Software Requirement

2.3.1 Software Cost

To create the system, appropriate tools must be used to enforce this method. The selection is based on the software's suitability and the system's specifications. Table 10.1 shows the type of software and expenses cost.

Table 2.1: Table of Software and expenses cost

No	Type of software	Prices
1	XAMPP	Free
2	Adobe Dreamweaver CS3	RM94.20
3	MYSQL	Free
	Total Amount	**RM94.20**

2.4 System Configuration

Smart Course Organizer has a system configuration; however, in order to use Smart Course Organizer, the user must first have a device such as a smartphone, laptop, or computer. To use Smart Course Organizer, users must first have access to the internet. Users must also use the most recent version of a browser, such as Google Chrome (latest version), Firefox (latest version), or Internet Explorer 9 or higher. Lastly open Smart Course Organizer website by search it at browser.

2.5 Security Requirement / Exception Handling

Smart Course Organizer has a security interface that requires the user to login before proceeding to the next step. Smart Course Organizer, for example, has three types of users: Student, Academic Advisor, and Admin. To keep all information safe from prying eyes, they each have their own id and password.

Smart Course Organizer has an interface that student needs to enter their subject grade. If student do some human error or what we call is careless Smart Course Organizer will do exception handling and tell the student that the student, make a careless mistake. For example, student does not enter any value after that the student click submit button and the Smart Course Organizer will pop up error message that the student is not enter any value.

CHAPTER 3: FINAL DESIGN

3.1 Logical Design

3.1.1 Entity Relationship Diagram

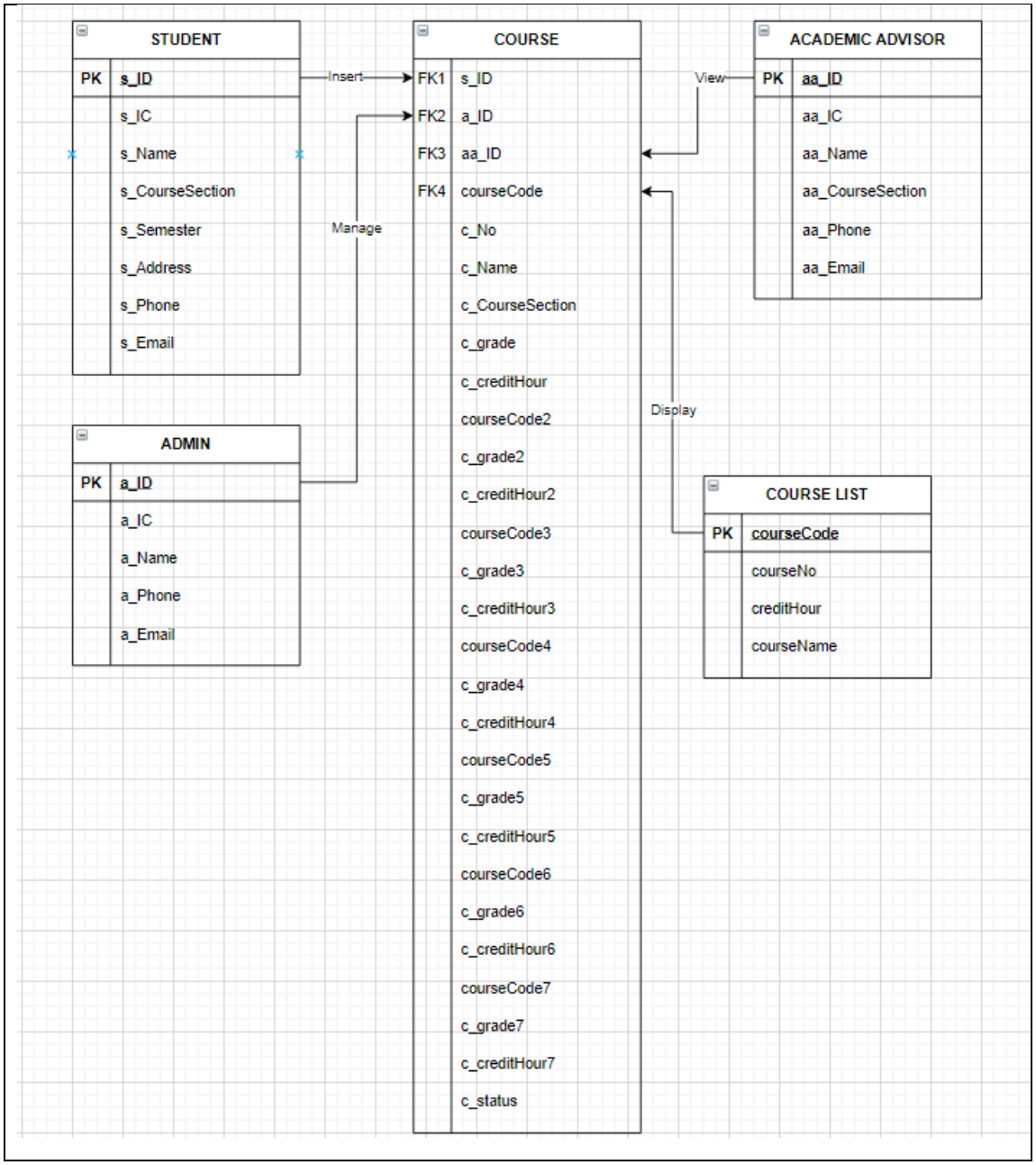


Figure 3.1 Entity Relationship Diagram

3.1.2 Context Diagram

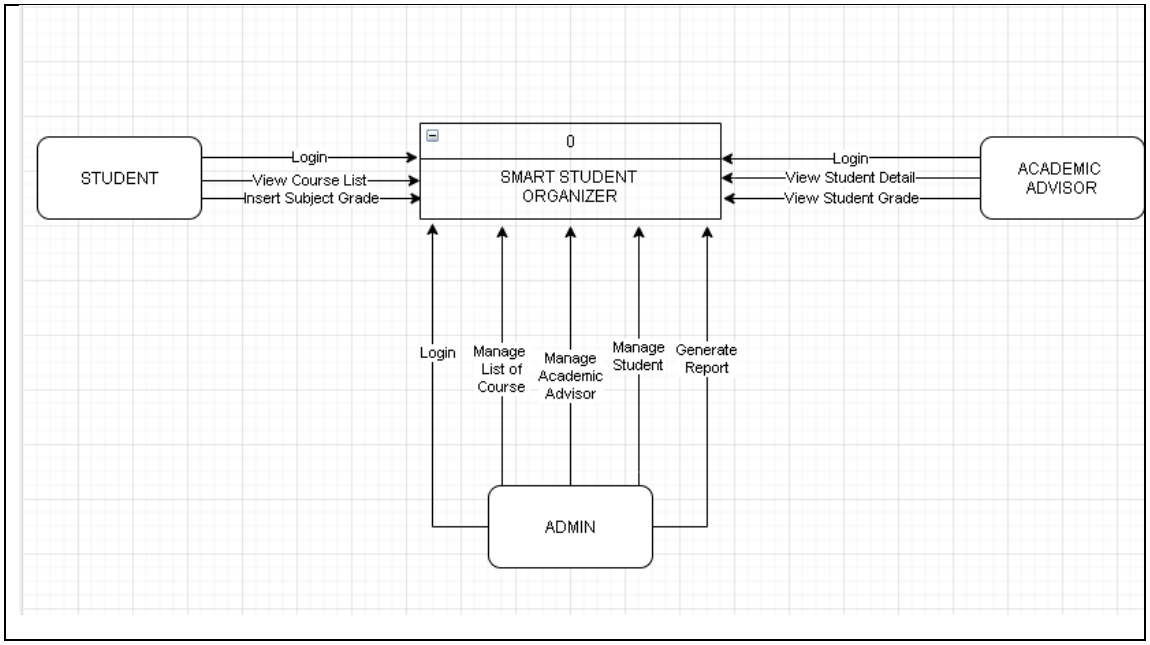


Figure 3.2 Context Diagram

3.1.3 Data Flow Diagram

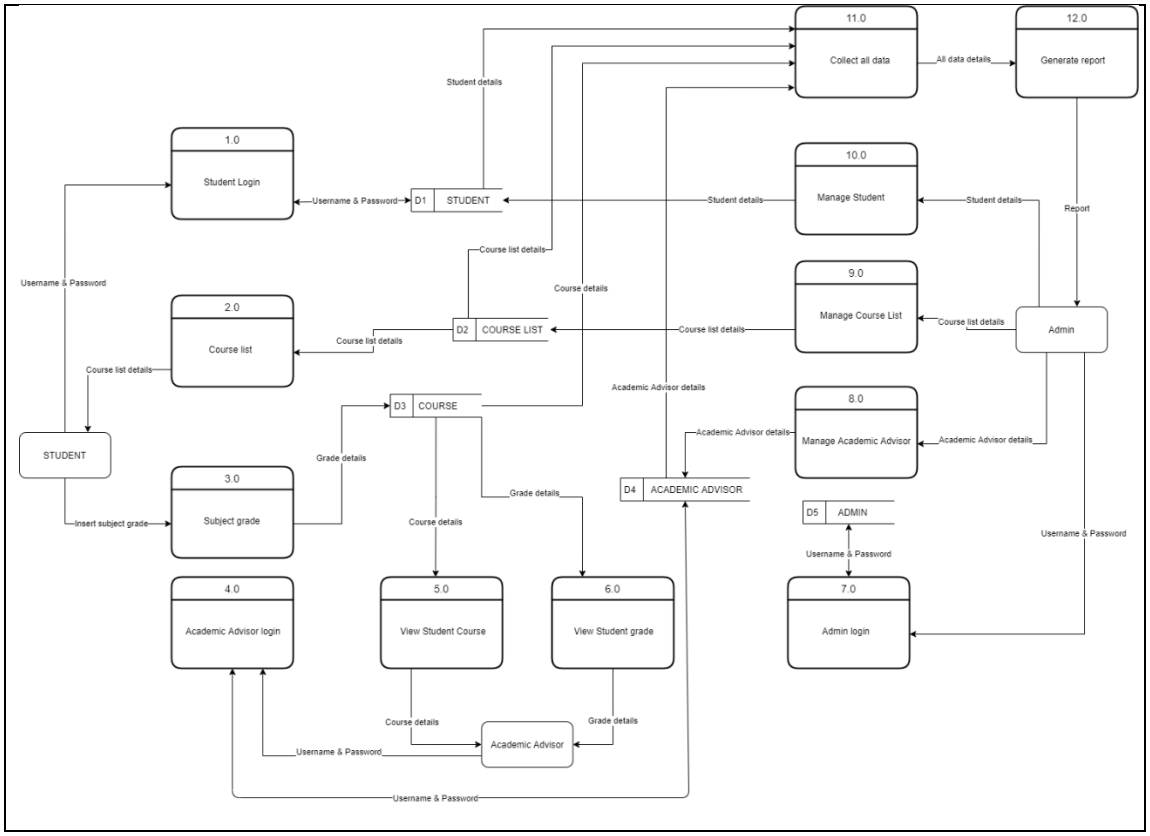


Figure 3.3 Data Flow Diagram

3.1.4 Functional Decomposition Diagram

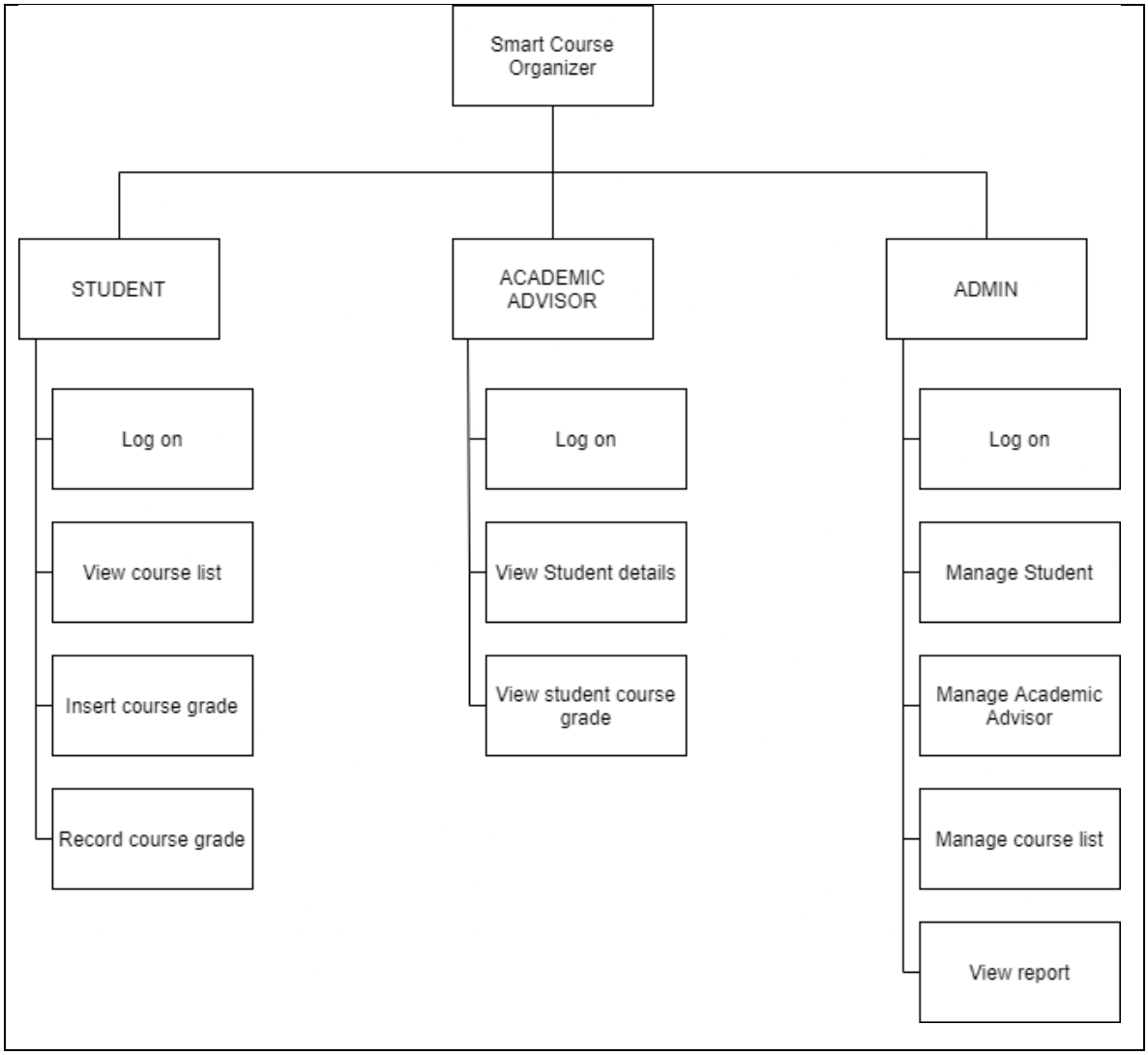


Figure 3.4 Functional Decomposition Diagram

3.2 Physical Design

3.2.1 Homepage Smart Course Organizer

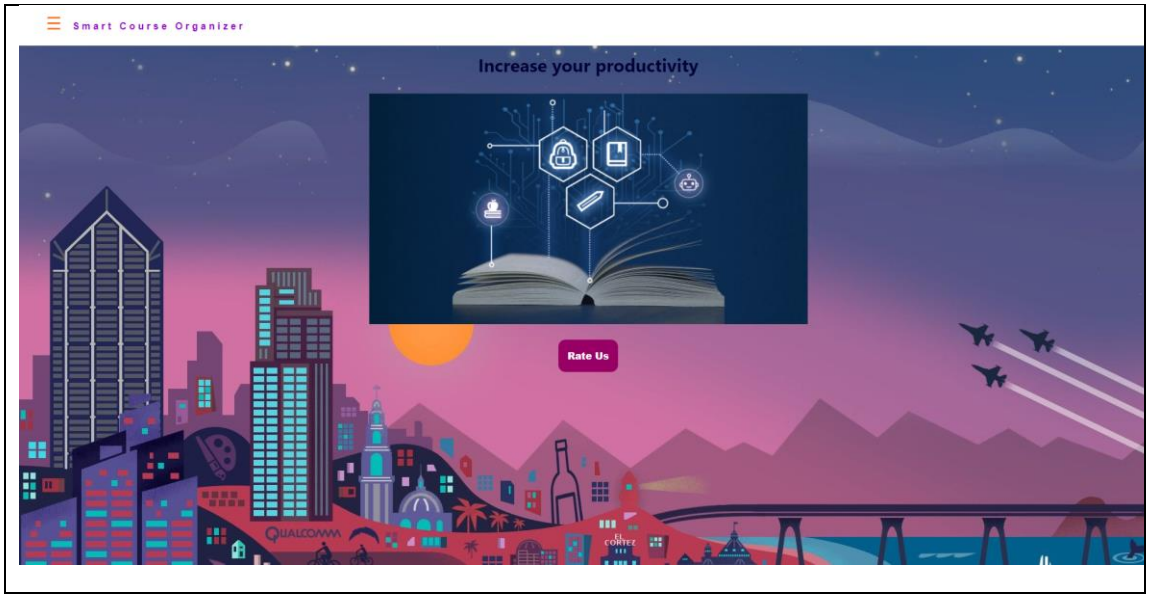


Figure 3.5 Homepage Smart Course Organizer

3.2.2 Student Login

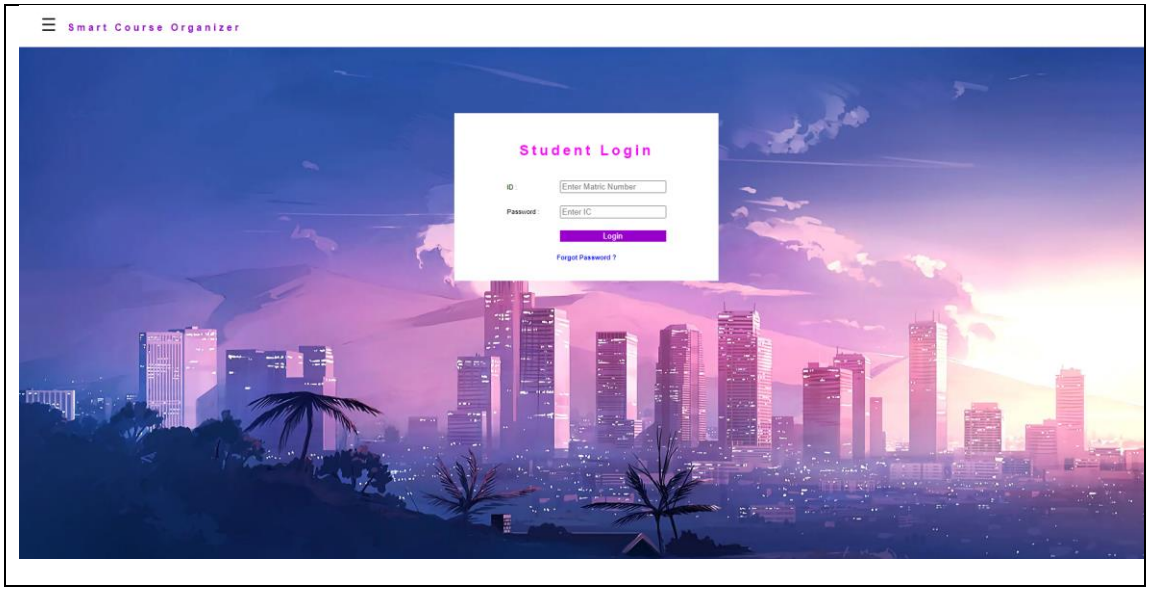


Figure 3.6 Student Login

3.2.3 Main page for student (list of course)

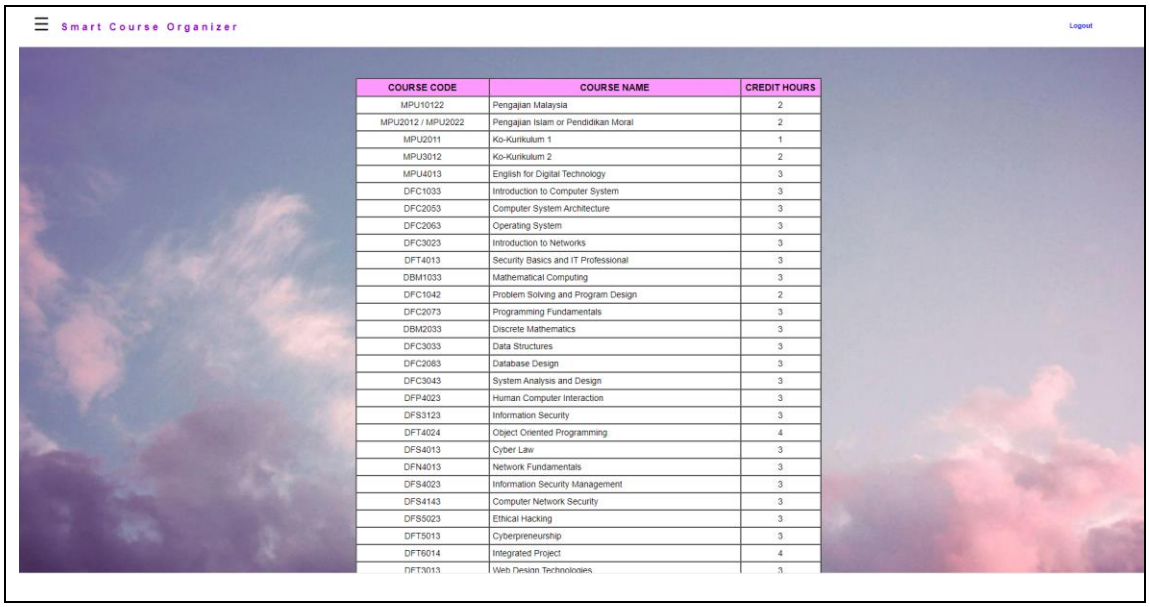


Figure 3.7 Main page for student

3.2.4 Insert Grade page interface

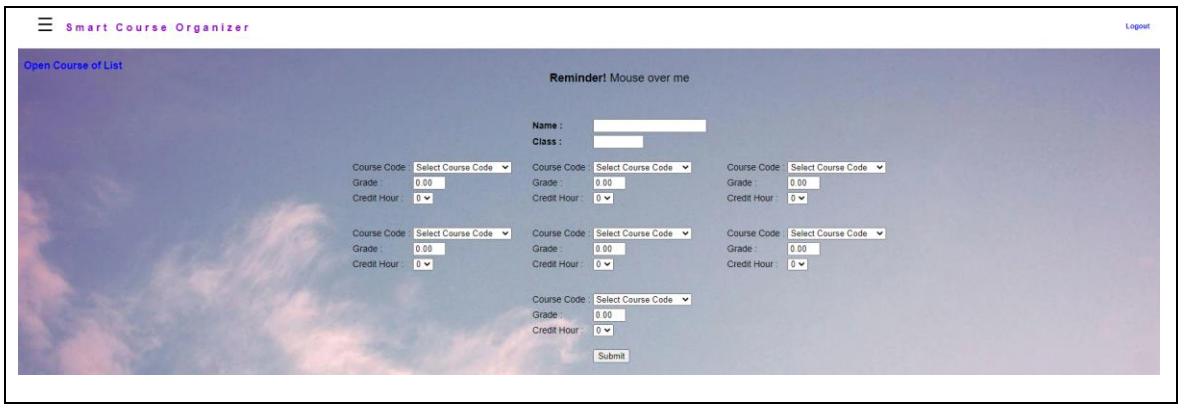


Figure 3.8 Insert Grade page

3.2.5 Academic Advisor Login page

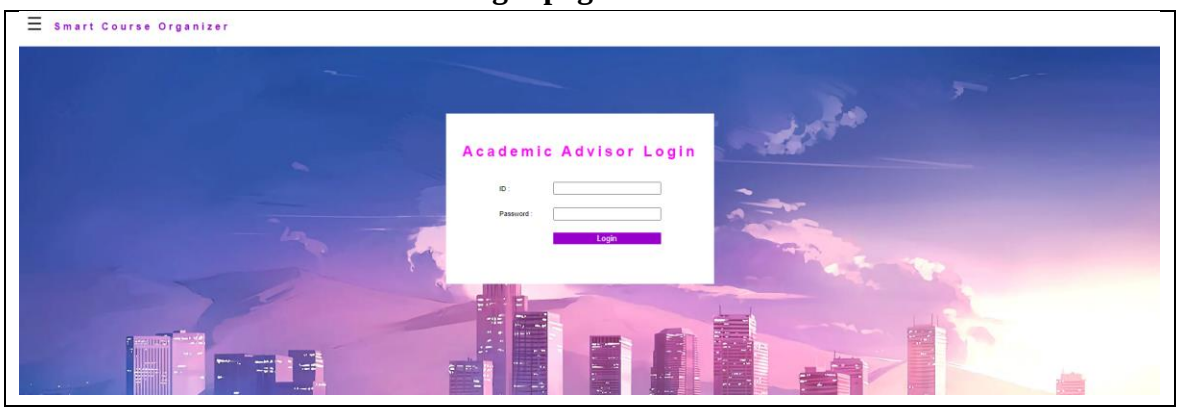


Figure 3.9 Academic Advisor Login page

3.2.6 View Student details for Academic Advisor page (Main page)

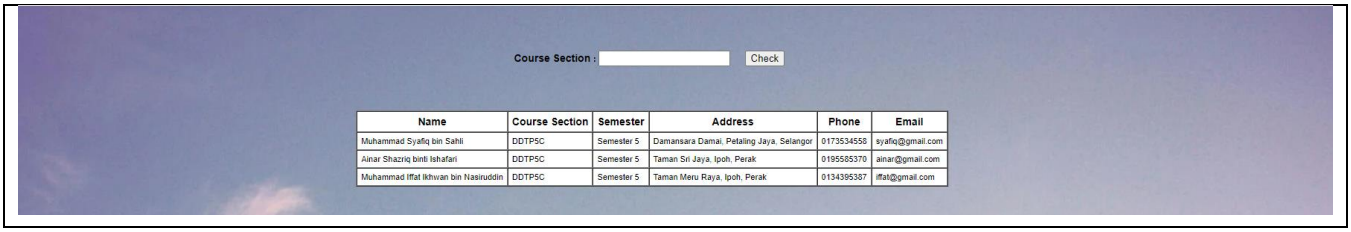


Figure 3.10 View Student details for Academic Advisor page

3.2.7 View Student Grade for Academic Advisor page

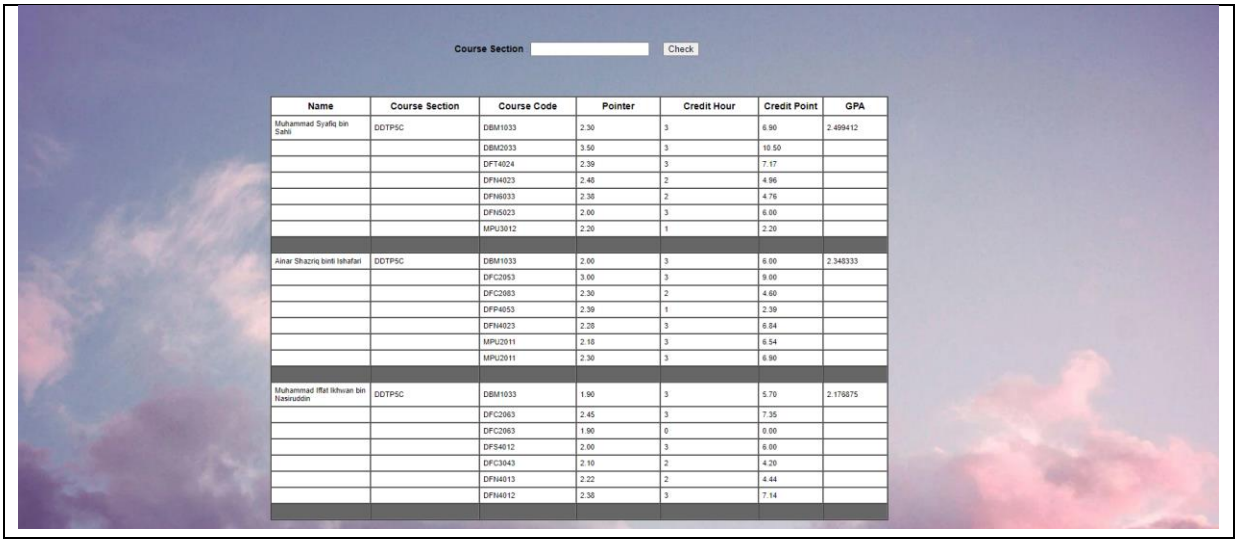


Figure 3.11 View Student Grade for Academic Advisor page

3.2.8 Admin Login page

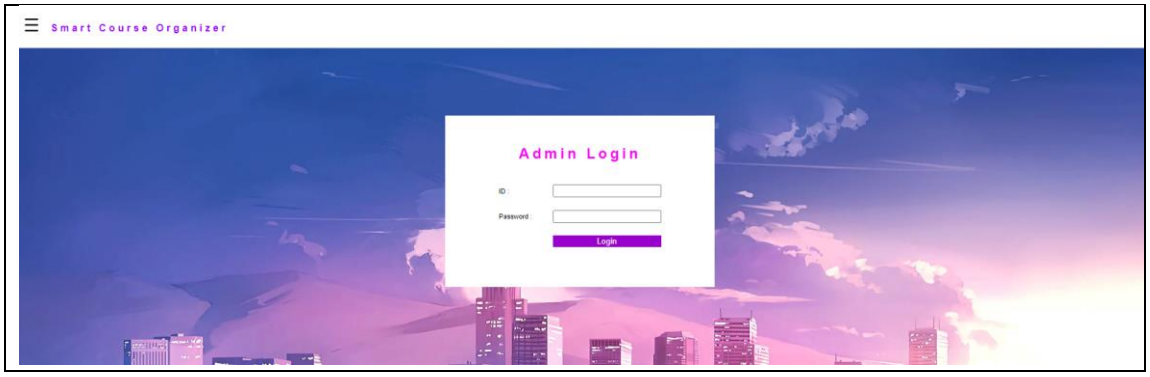


Figure 3.12 Admin Login page

3.2.9 Main page for Admin

Figure 3.13 Main page for admin

3.2.10 Student list report (Admin)

Smart Course Organizer

Jalan Raja Musa Mahadi, Politeknik Ungku Omar, 31400 Ipoh, Perak

Phone : 05-545 7656

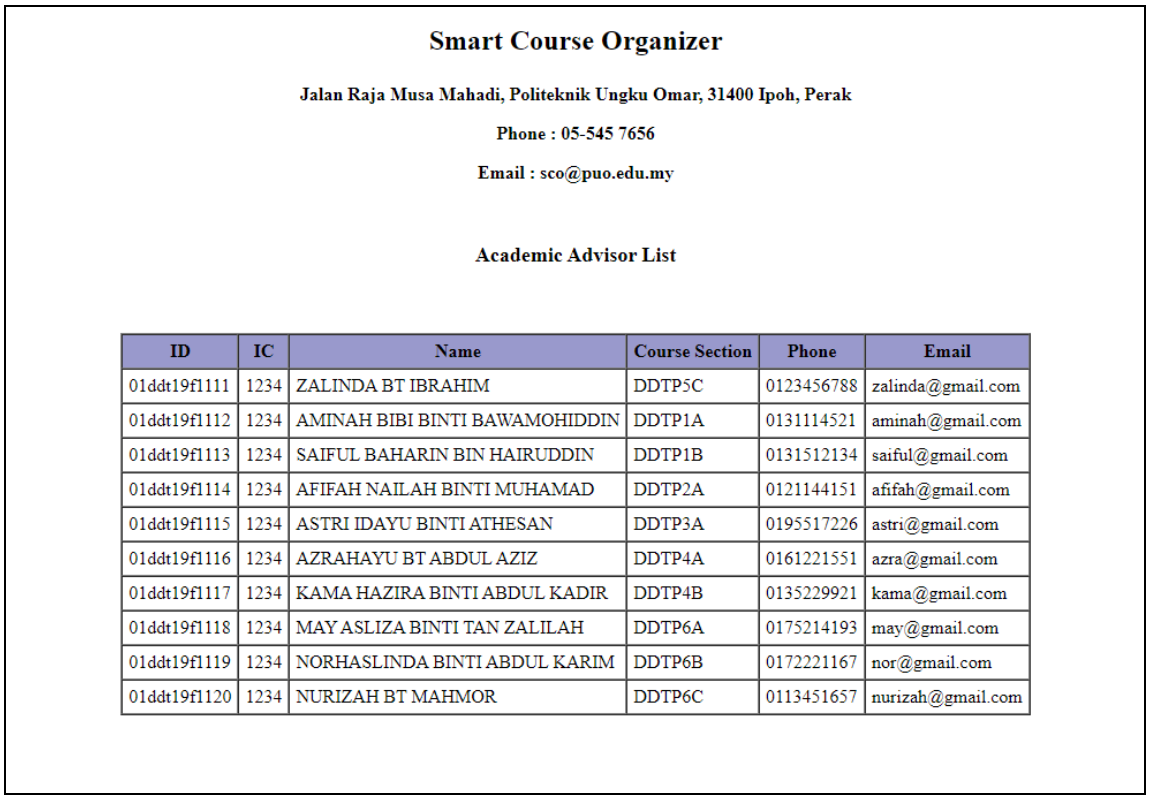
Email : sco@puo.edu.my

Student List

ID	IC	Name	CourseSection	Semester	Address	Phone	Email
01ddt19f1230	010720080213	Muhammad Syafiq bin Sahli	DDTP5C	Semester 5	Damansara Damai, Petaling Jaya, Selangor	0173534558	syafiq@gmail.com
01ddt19f1231	010209080304	Ainar Shazriq binti Ishafari	DDTP5C	Semester 5	Taman Sri Jaya, Ipoh, Perak	0195585370	ainar@gmail.com
01ddt19f1132	010714081295	Muhammad Iffat Ikhwan bin Nasiruddin	DDTP5C	Semester 5	Taman Meru Raya, Ipoh, Perak	0134395387	iffat@gmail.com
01ddt19f1157	010819100213	Muhammad Iezham Arif	DDTP1A	Semester 1	Damansara Damai, Petaling Jaya, Selangor	0199432166	Iezham @gmail.com
01ddt19f1115	010234080345	Muhammad Fadhil	DDTP1B	Semester 1	Klang, Kuala Lumpur, Selangor	0123456789	fadhil@gmail.com
01ddt19f1117	011008081112	Muhammad Syukri	DDTP2A	Semester 2	Taman Rompin, Kuantan, Pahang	0124215778	syukri@gmail.com
01ddt19f1414	010714081412	Nur Aqilah	DDTP3A	Semester 3	Taman Meru Raya, Ipoh, Perak	0192483419	Aqilah@gmail.com
01ddt19f1119	011403081221	Danial Izzuddin	DDTP4A	Semester 4	Bandar Sri Damansara, Kuala Lumpur, Selangor	0192736697	Danial@gmail.com
01ddt19f1450	010303084411	Amir Iskandar	DDTS6A	Semester 6	Kepong, Kuala Lumpur, Selangor	0135332187	Amir@gmail.com
01ddt19f1001	010230308778	Anis Husna	DDTP6A	Semester 6	Medan Gopeng, Ipoh, Perak	0123155619	Anis @gmail.com

Figure 3.14 Student list report

3.2.11 Academic Advisor list (Admin)



Smart Course Organizer

Jalan Raja Musa Mahadi, Politeknik Ungku Omar, 31400 Ipoh, Perak

Phone : 05-545 7656

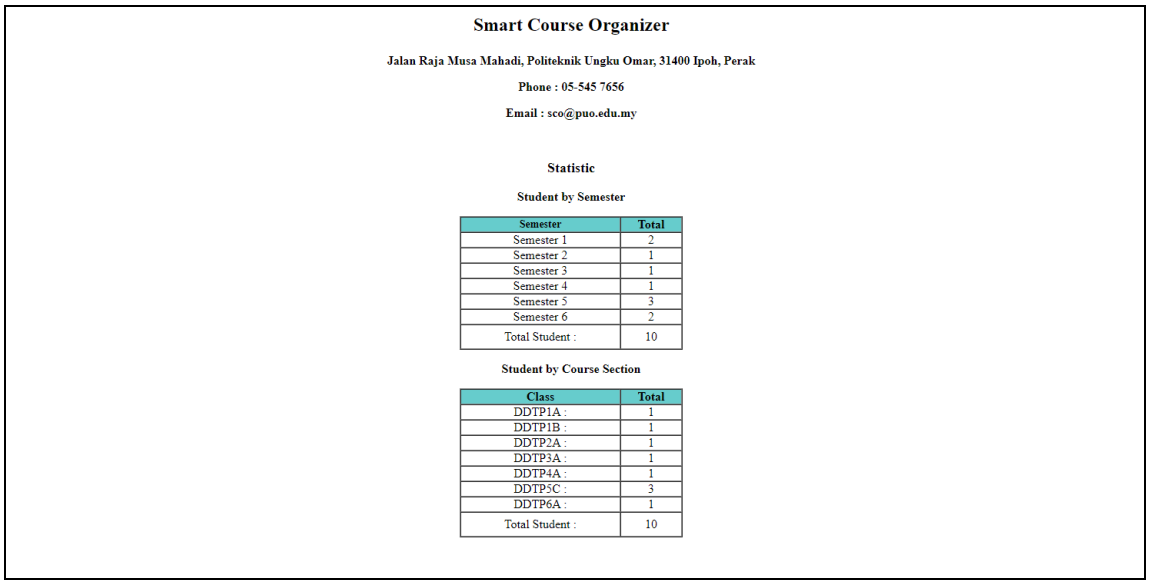
Email : sco@puo.edu.my

Academic Advisor List

ID	IC	Name	Course Section	Phone	Email
01ddt19f1111	1234	ZALINDA BT IBRAHIM	DDTP5C	0123456788	zalinda@gmail.com
01ddt19f1112	1234	AMINAH BIBI BINTI BAWAMOHIDDIN	DDTP1A	0131114521	aminah@gmail.com
01ddt19f1113	1234	SAIFUL BAHARIN BIN HAIRUDDIN	DDTP1B	0131512134	saiful@gmail.com
01ddt19f1114	1234	AFIFAH NAILAH BINTI MUHAMAD	DDTP2A	0121144151	afifah@gmail.com
01ddt19f1115	1234	ASTRI IDAYU BINTI ATHESAN	DDTP3A	0195517226	astri@gmail.com
01ddt19f1116	1234	AZRAHAYU BT ABDUL AZIZ	DDTP4A	0161221551	azra@gmail.com
01ddt19f1117	1234	KAMA HAZIRA BINTI ABDUL KADIR	DDTP4B	0135229921	kama@gmail.com
01ddt19f1118	1234	MAY ASLIZA BINTI TAN ZALILAH	DDTP6A	0175214193	may@gmail.com
01ddt19f1119	1234	NORHASLINDA BINTI ABDUL KARIM	DDTP6B	0172221167	nor@gmail.com
01ddt19f1120	1234	NURIZAH BT MAHMOR	DDTP6C	0113451657	nurizah@gmail.com

Figure 3.15 Academic Advisor list

3.2.12 Statistic (Admin)



Smart Course Organizer

Jalan Raja Musa Mahadi, Politeknik Ungku Omar, 31400 Ipoh, Perak

Phone : 05-545 7656

Email : sco@puo.edu.my

Statistic

Student by Semester

Semester	Total
Semester 1	2
Semester 2	1
Semester 3	1
Semester 4	1
Semester 5	3
Semester 6	2
Total Student :	10

Student by Course Section

Class	Total
DDTP1A :	1
DDTP1B :	1
DDTP2A :	1
DDTP3A :	1
DDTP4A :	1
DDTP5C :	3
DDTP6A :	1
Total Student :	10

Figure 3.16 Statistic

3.2.13 Manage course (Admin)

Figure 3.17 Manage course

3.2.14 Update Course (Admin)

Figure 3.18 Update Course

3.2.15 Manage Academic Advisor (Admin)

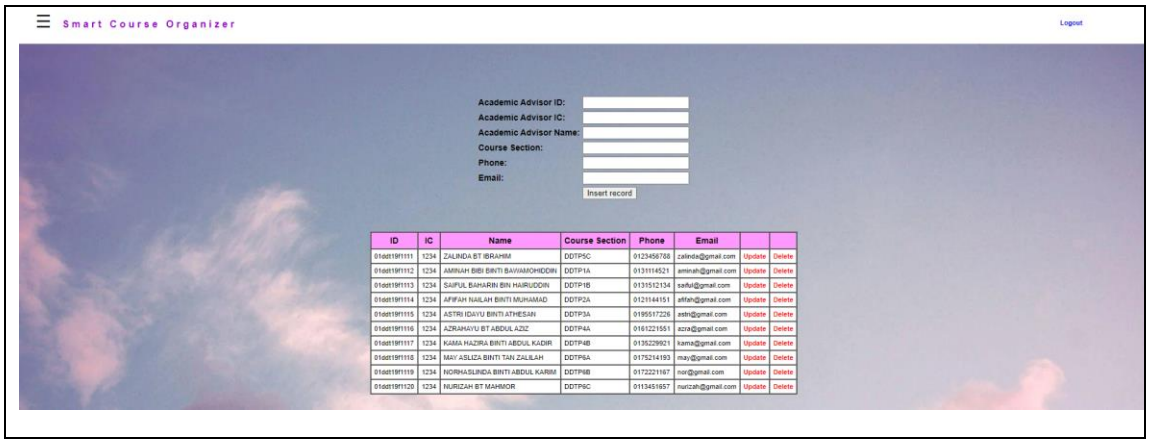


Figure 3.19 Manage Academic Advisor

3.2.16 Update Academic Advisor (Admin)

Figure 3.20 Update Academic Advisor

3.2.17 Manage Student (Admin)

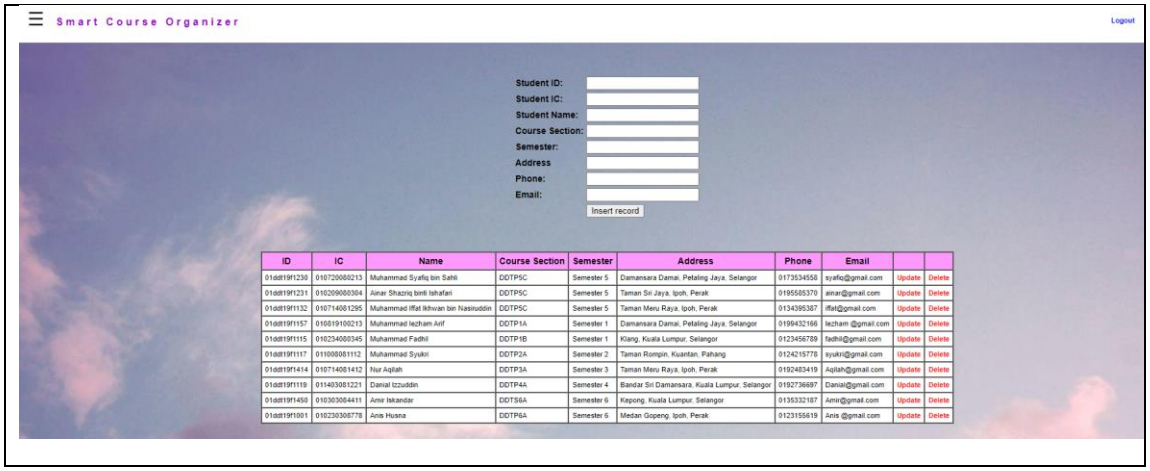


Figure 3.21 Manage Student

3.2.18 Update Student (Admin)

Figure 3.22 Update Student

3.2.19 Rate us page

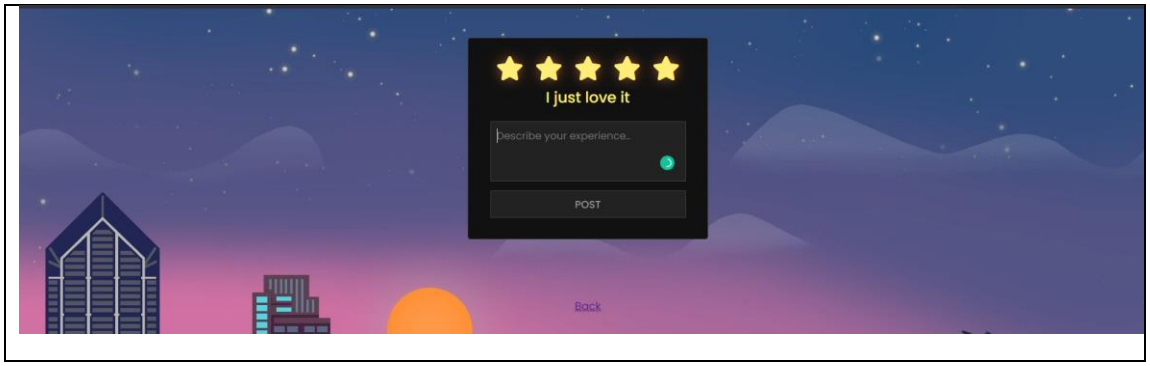


Figure 3.23 Rate us page

CHAPTER 4: TEST DESCRIPTION AND RESULT

Unit Testing Plan

Academic Advisor Login Page

No	Test Case Name	Input	Expected output	Actual output	Result (pass/fail)	Test comments
1	Launch application	Able to start Smart Course Organizer easily without error	Clicking Academic Advisor Login in Home Page	Academic Advisor Login Page open	Pass	-
2	Enter invalid ID	ID:11111111	ID or Password is invalid. Please try again	ID or Password is invalid. Please try again	Pass	Invalid ID attemped stopped
3	Enter invalid password	Password:******	ID or Password is invalid. Please try again	ID or Password is invalid. Please try again	Pass	Invalid Password
4	Enter valid ID and Password	ID:01ddt19f1230 Password:**********	Academic Advisor Menu page open	Academic Advisor Menu page open	Pass	Invalid login attempt stopped
5	Home Menubar	Click Home menubar	Home page open	Home page open	Pass	-
6	Student login menubar	Click Student login menubar	Student Login page open	Student Login page open	Pass	-
7	Academic Advisor login menubar	Click Academic Advisor login menubar	Academic Advisor Login page open	Academic Advisor Login open	Pass	-
8	Admin Login menubar	Click Admin Login menubar	Admin Login Page open	Admin Login Page open	Pass	-

Unit Testing Plan

Academic Advisor (Student Details)

Test Date	18-9-2021	Test Case ID	Admin-1A
Tester	Iffat Ikhwan	Test Case Description	Smart Course Organizer – Test Case Plan
Pre - Requisite	Login into system account	Post-Requisite	Owner may view page smoothly

No	Test Case Name	Test Procedure	Input Data	Expected Result	Result (Pass/Fail)	Remarks
1	Launch Application	Able to start the Academic Advisor (Student Details) without error	Clicking the Academic Advisor (Student Details)	Academic Advisor (Student Details) page open	Pass	-
2	Search student details	Users enter class or course section and click button check for search student details	Course section: DDTP5C	Show Student Details by selected course section	Pass	Show Student Details in table
3	Logout menubar	Able to logout from page Academic Advisor	Click logout menubar	Logout from page Academic Advisor	Pass	-
4	Student Grade menubar	Able to open page Student grade	Click Student Grade menubar	Student Grade page open	Pass	-

Unit Testing Plan

Academic Advisor (Student Grade)

No	Test Case Name	Test Procedure	Input Data	Expected Result	Result (Pass/Fail)	Remarks
1	Launch Application	Able to start the Academic Advisor (Student Grade) without error	Clicking the Academic Advisor (Student Grade)	Academic Advisor (Student Details) page open	Pass	-
2	Search Student Grade	Users enter class or course section and click button check for search Student Grade	Course section: DDTP5C	Show Student Grade by selected course section	Failed	System did not show status student
3	Logout menubar	Able to logout from page Academic Advisor	Click logout menubar	Home page of Smart Course Organizer open	Pass	-
4	Student Grade menubar	Able to open page Student grade	Click Student Grade menubar	Student Grade page open	Pass	-

CHAPTER 5: DISCUSSIONS

5.1 Advantage of the project

There are some advantages of this project which are:

i. This project has automatic calculate student GPA
ii. Have validation to avoid human error
iii. Have shortcuts for user to make it easier when they use the website

5.2 Limitation of the project

Every project had their own limitation. In this project there are some limitations which are:

i. This project did not show status student course. Example (MK1, MK2, MK3) MK stand for “Mengulang kursus”.
ii. Admin did not know how many students failed by selected course/subject.
iii. Academic Advisor can see another student class information.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, while this project will provide huge benefits to students, system education, and others, it does have some flaws. However, this organizer was created to assist students in avoiding undergraduate and relying less on Academic Advisors to manage academic information such as subjects those students fail and must retake.

Suggestions for Smart Course Organizer include sending a notification to students about the subject's status. For example, if a student has already failed a subject twice (subject status MK2) and needs to repeat the subject again for the next semester, the organizer will send a notification. If the student fails a third time (subject status MK3), the student will be assigned the status "GB" (Gagal Berhenti).

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