

CHAPTER 1

PROJECT OVERVIEW

1.1 Introduction

One of the services a faculty provided to the students of Asia Pacific College is consultation. A professor has an allotted consultation hour for students to address their academic, curricular, and extra-curricular needs. If a student would like to consult, they go to the faculty department located in 4th floor in APC and there is a log book where they have to fill in the date, time, purpose, and the name of the professor they would like to meet. There is no strict compliance for students to write on the log book. Sometimes, students meet a professor on an off-consultation hour during their convenient time.

The School of Engineering would like to record the student-professor interaction. They would like to know when the meeting happened, what transpired, and who were present. They would like to make use of the record as a basis for curriculum improvement, help students with their academic and curricular needs, and other management decisions.

School of Engineering has low population. The retention rate is low due to students transferring to other program because of the difficulty level of Engineering and Math subjects. Moreover, majority of students who stay are having difficulty passing the subjects. Some of these students who are “at-risk” of failing the subjects need more intervention from the professor who they enrolled in the past. They would like to know if intervention would help students from failing and to determine the root cause why a student is failing.

Student and faculty interaction doesn’t end with academic. A faculty can also advise a student with their curricular needs such as the subject they have to take. It is a process included in the pre-registration to enrolment. They also want these interactions to be recorded.

Currently, APC-SOE has no centralized and automated system to track the student and faculty interaction. Asia Pacific College – School of Engineering Faculty-Student Academic and Curricular Intranet Advising System will help the School to centralize and automate the advising records, allow faculty to review the content of the past advising sessions, and generate report for the management.

The system is like a ticketing system that will gather, record, and retrieve all transaction and will generate a reference number which is a unique identifier. This identifier will be called a "case". It will contain all information such as the case owner, the student, the case for, nature of concern, date and time of the notes.

The system has six (6) users: Admin, Executive Director, Program Director, Adviser Faculty, and Students. Table 1.2 and Table 1.3 will show the level of access depending on the user level.

The admin will have capability to create an account and manage their module and people access. They are responsible for verifying the user's identity before registration.

An Executive Director will be able to do all functions on the system. They have the capability to generate reports available in the system which are printable and in pdf format and import database records.

The Program Director does have the same capability. Reports that will be generated will only contain cases related to the student under his program.

The faculty can create a case, add notes on the case, create additional sub case if needed for other faculty intervention, and close the case. He can only access the students' cases that are currently enrolled to his subjects which include previous cases created by another faculty.

The student can create a case, add notes, and close the case. Only cases associated to his login are accessible.

Asia Pacific College-School of Engineering Student-Faculty Academic and Curricular Intranet Advising System will be a communication system that will gather, save and retrieve all interaction to help student with their academic and curricular needs and help SOE management with decision making.

1.2 Objectives

1.2.1 General Objective

To design and develop a web-based intranet system for Asia Pacific College – School of Engineering that will serve as a medium of communication for student and faculty and to centralize students' academic and curricular advising records.

1.2.2 Specific Objectives

- To develop a User Account Registration Module.
- To develop a Login Module.
- To develop a Case module that allows the user to do the following:
 - Open, retrieve, and close a case.
 - Generate a case ID as a unique identifier of the interaction.
 - Categorize the nature of interaction.
 - Add and save a note on a case that is stamped with user ID, date, and time.
 - Create a sub-case.
 - Assign the other users involved.
- To develop a reporting module that will allow users with director level to generate a report.
- To develop an importing module that will allow users with director level to import files as database records.

1.3 Scope and Delimitation

1.3.1 Scope

- The system will be a web-based application.
- The users are the following:

○ SOE Executive Director	○ APC Faculties
○ SOE Program Director	○ SOE Students
○ Adviser	○ Administrator
- The user access to module is defined by their user role:

Table 1.1 User Roles and Module

USER ROLE	
Executive Director	Login, Case, Report, Import
Program Director	Login, Case, Report, Import, Registration
Adviser	Login, Case
Faculty	Login, Case
Student	Login, Case
Administrator	Login, Registration

- The user access to cases is defined by their user role:

Table 1.2 User Roles and Case Access

USER ROLE	CASE ACCESS LEVEL
Executive Director	All Cases
Program Director	Cases by Students under the Program
Adviser	Cases under his group
Faculty	Cases associated Students Enrolled to his Subject
Student	Cases associated with his User ID
Administrator	No Accessible

- The System will have a registration module allowing the user to enter the login and security information.
- The system will have a login module that will allow the user to enter the login information for verification prior to accessing the account. The login module contains account recovery feature in case password has forgotten.
- The system will have a case module that will record, save, and retrieve all interaction.
- The system will have a reporting module that will generate report in PDF format. The list of the reports are as follows:
 - Case Status
 - All Cases by Student ID
 - All Cases by Faculty ID
 - All Cases per Student ID
 - All Cases per Faculty ID
 - Case Note Details
- The user needs to register before having an account.
- The user must be an enrolled student and currently employed to APC prior to registration.
- A case will have the following information:

Table 1.3 Case Attributes and Description

CASE ATTRIBUTES	DESCRIPTION
Age	An indicator that will provide the number of days and hours from the time it was created.
Case Closed	The date and time when the case was closed
Case Created	The date and time when the case number was generated
Case ID	A unique system generated identifier
Case Owner	The user who created the case
Category	A dropdown to categorize the type of interaction
Cluster	(1.) An identifier for a student which cluster he is included. (2.) An identifier to a faculty whose cluster he advised
Faculty	The other user who will be involved in the case
Nature	A drop-down where a user can select if the nature is Academic or Curricular
Notes	A section where user can add, save, and review the notes of the users involved. Each added note will be stamped with user ID, date, and time
Priority	A dropdown that will allow user to categorize the priority level of the case
Status	An indicator if a case is Open, Closed, or Automated Closed
Sub-Category	A dropdown to narrow down the category of interaction
Subject	A dropdown viewable only if Academic to identify to which subject the case is for
Title	A user defined title for the case

- A case can be described by nature, category, and sub-category.

Table 1.4 Case Nature, Category and Sub-Category

Nature	Category	Sub-Category
Academic	Tutorial	Current Subject
Academic	Tutorial	Past Subject
Academic	Outcome	Passed
Academic	Outcome	Failed
Academic	Behaviour	Attendance
Academic	Project	Consultation
Academic	project	Deliverables
Academic	Project	Project Output
Academic	Other	Other
Curricular	Enrolment	Advising
Curricular	Enrolment	Load revision
Curricular	Pre-registration	Pre-registration
Curricular	Flow Chart	Advising
Curricular	Flow Chart	Change
Curricular	Other	Other

1.3.1 Delimitation

- The system can only be accessed within APC network.
- The system will only be available to APC – SOE students and selected faculties.
- The system will not be integrated to any existing APC system and it will be a standalone application.
- The system administrator account will be setup by the programmer. Login information can be changed by the admin.
- The student ID will be the user ID for students and the Employee ID for the faculty.
- A case cannot be deleted once a case number is generated.
- A case notes cannot be deleted nor modified once saved
- A case will automatically change its status from “Open” to “Automated Close” if no activity after 30 days from the last case notes.

1.4 Assumptions and Constraints

1.4.1 Assumptions

- The system will be hosted by APC-ITRO.
- The user checks the system in a daily basis.
- The user sends new case notification via APC Email in case other party is outside APC.
- The user undergone a system training familiarization and case management training.
- The administrator verifies the identity of the user in the APC System prior to the registration.
- The faculty creates a case per student regarding the outcome of the enrolled students to his subjects before the submission of Final Grades.
- All cases, academic in nature, should be closed before the deadline of submission of Final Grades.
- Cluster List, Offered Subject, Enrolled Student per Subject, and faculty list will be imported by the Executive or Program Director every term to the system’s database.

1.4.2 Constraints

- The APC-ITRO might not be able to accommodate hosting the system due to limited resources.

1.5 Project Deliverables

Table 1.5 Major Milestone its expected start and end date.

Major Milestones	Frequency	Reporting From	Reporting to	Medium	Communication	Start Date	End Date
Requirement Analysis	Daily	PM	CLT	Email, Meeting	Review Plan	1-15-18	1-26-18
Business Process Plan	Daily	PM	CLT	Email, Meeting	Review Plan	2-5-18	3-28-18
Business Process Framework	Daily	PM	PD	Email, Meeting	Review Plan	2-5-18	3-28-18
System Development	Weekly	SD	DM	Email, Meeting	Review Status	4-2-18	7-1-18
Content Development Plan	Weekly	CD	PM	Email, Meeting	Review Status	4-2-18	7-12-18
Testing Plan	Daily	Te	DM	Email, Meeting	Test Result	6-14-18	7-2-18
Deployment Plan	Weekly	PM	CLT	Email, Meeting	Progress	7-12-18	7-13-18
Audit	Weekly	DM	PM	Email, Meeting	Audit Result	2-5-18	7-13-18

Refer to Table 4.9 for the reporting to/from data definition. CLT stands for Client.

Table 1.5 shows the expected start and end for each major milestone. It is also specified the required personnel to deliver the reports and its medium and to whom it will be submitted.

Table 1.6 Major phases and the actual activities and its expected start and end date

Conceptualizing	Start Date	End Date
Define Problem	15-Jan-18	01-Feb-18
Define Project Objectives	15-Jan-18	02-Feb-18
Determine requirements	15-Jan-18	02-Feb-18
Define Business Process	15-Jan-18	02-Feb-18
Define Project Framework	15-Jan-18	02-Feb-18

Define Project Methodology	19-Jan-18	02-Feb-18
Define Reports requirement definition	22-Jan-18	02-Feb-18
Verification	07-Feb-18	08-Feb-18
Validation	07-Feb-18	08-Feb-18
get sign off	07-Feb-18	08-Feb-18
Workflow Analysis		Start Date
Define CM workflow	05-Feb-18	02-Mar-18
Define User types	21-Feb-18	02-Mar-18
Define Access privileges	22-Feb-18	02-Mar-18
Define Content types	23-Feb-18	02-Mar-18
Analysed project workflow	27-Feb-18	23-Feb-18
Present Project workflow for approval	26-Mar-18	28-Mar-18
Finalize Workflow	26-Mar-18	28-Mar-18
Verification	26-Mar-18	28-Mar-18
Validation	26-Mar-18	28-Mar-18
get sign off	26-Mar-18	28-Mar-18
Tools Selection		Start Date
Identify Tools	26-Feb-18	16-Mar-18
short list appropriate tools	05-Mar-18	23-Mar-18
Evaluate tools	07-Mar-18	27-Mar-18
Test Tools	12-Mar-18	29-Mar-18
Select tool	29-Mar-18	29-Mar-18
Verify tools	29-Mar-18	29-Mar-18
Validation	29-Mar-18	29-Mar-18
get sign off	30-Mar-18	30-Mar-18
System Development		Start Date
Install tools	02-Apr-18	03-Apr-18
Configure tools	02-Apr-18	03-Apr-18
Content Development	02-Apr-18	29-Jun-18
Determine Data Flow Diagram	02-Apr-18	27-Apr-18
Define UML or Use cases	30-Apr-18	08-Nov-08
Program coding	02-Jun-18	29-Jun-18
Initial content build-up	11-Jun-18	12-Jun-18
Conduct Test	12-Jun-18	29-Jun-18
Verification	29-Jun-18	29-Jun-18
Validation	29-Jun-18	29-Jun-18
Functional Test		Start Date
Setup test environment	14-Jun-18	20-Jun-18
Define Test Scenarios	15-Jun-18	20-Jun-18
Create Test Cases	18-Jun-18	20-Jun-18
Conduct Test	18-Jun-18	02-Jul-18
Verification	02-Jul-18	02-Jul-18
Validate	02-Jul-18	02-Jul-18

Release component	02-Jul-18	02-Jul-18
Get Sign off	02-Jul-18	02-Jul-18
Validation Test	Start Date	End Date
Setup test environment	22-Jun	22-Jun
Upload / install released component	26-Jun	26-Jun
Conduct Validation Test	26-Jun	04-Jul
Verification	04-Jul	04-Jul
Validation	04-Jul	04-Jul
Create development package	04-Jul	04-Jul
Deploy	04-Jul	04-Jul
Get Sign off	04-Jul	04-Jul
Content Building	Start Date	End Date
Actual content build-up	03-Jul-18	11-Jul-18
Verifying encoded content	10-Jul-18	11-Jul-18
Verification	11-Jul-18	12-Jul-18
Validate	11-Jul-18	12-Jul-18
Get sign off	13-Jul-18	13-Jul-18
Training	Start Date	End Date
Prepare Training materials and Equipment	12-Jul-18	13-Jul-18
Conduct User training/s	12-Jul-18	13-Jul-18
Get Feedback	12-Jul-18	13-Jul-18
Verification	12-Jul-18	13-Jul-18
Validation	12-Jul-18	13-Jul-18
Get sign off	12-Jul-18	13-Jul-18
Go Live	Start Date	End Date
Check Website accessibility w/in APC	12-Jul-18	13-Jul-18
Install Compatible Browser, Plugins, Add-ons	12-Jul-18	13-Jul-18
Configure Tools	12-Jul-18	13-Jul-18
Install System Application	12-Jul-18	13-Jul-18
Verify Installation	12-Jul-18	13-Jul-18
Validate	12-Jul-18	13-Jul-18
Go Live	13-Jul-18	13-Jul-18
Get Sign off	13-Jul-18	13-Jul-18

Table 1.6 shows the expected start and end date for each actual activity.

1.6 Definition and Acronyms

The following table consists of terms used in the Academic and Curricular Advising Management System. The terms consist of technical terms for and non-technical terms for the specific details of our so called “cases”.

Table 1.7 Definition and Acronyms

Term	Definition
Academic	The case is Academic in nature if the topic is related to the enrolled subjects
At-risk	It is discretion of the faculty based on the running numbers/performance of the student
Automate	to decrease the human effort needed to perform a certain task and to make something operate automatically by using machines or computers
Automated Close	A category under case status. The Status of the case will be changed from "Open" to "Automated Close" if a case has no activity for 30 days after the last notes.
Case	An instance of a particular situation that is related to academic or curricular matters.
Centralize	Concentrate (control of an activity or organization) under a single authority.
Consultation	The action or process of formally discussing about grades, subjects, or anything about academic or curricular.
Curricular	The case is Curricular in nature is the topic is related to activities or school process such as pre-registration, enrolment, load revision, etc.
DFD	Data Flow Diagram. This represents the flow of data process and the data entities involved within the system.
ERD	Entity Relationship Diagram shows how each entity is connected to another and the tables to be used for the databases.
HTTP	Hypertext Transfer Protocol. It is the underlying protocol used by the World Wide Web, and this protocol defines how messages are formatted and transmitted.
Interaction	When the student and faculty communicate with each other.
Intranet	A local or restricted communications network, especially a private network created using Word Wide Web software.
Nature	The choice of the user if the case created is Academic or Curricular matter.
Security Confirmation	A confirmation that informs the user if the security questions are already answered or if the user changed his/her password.
Security Information	The practice of preventing unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction of information.
Web-Based Application	Any program that is accessed over a network connection using HTTP, rather than existing within a device's memory.

CHAPTER II

PROJECT ORGANIZATION

2.1 External Interfaces

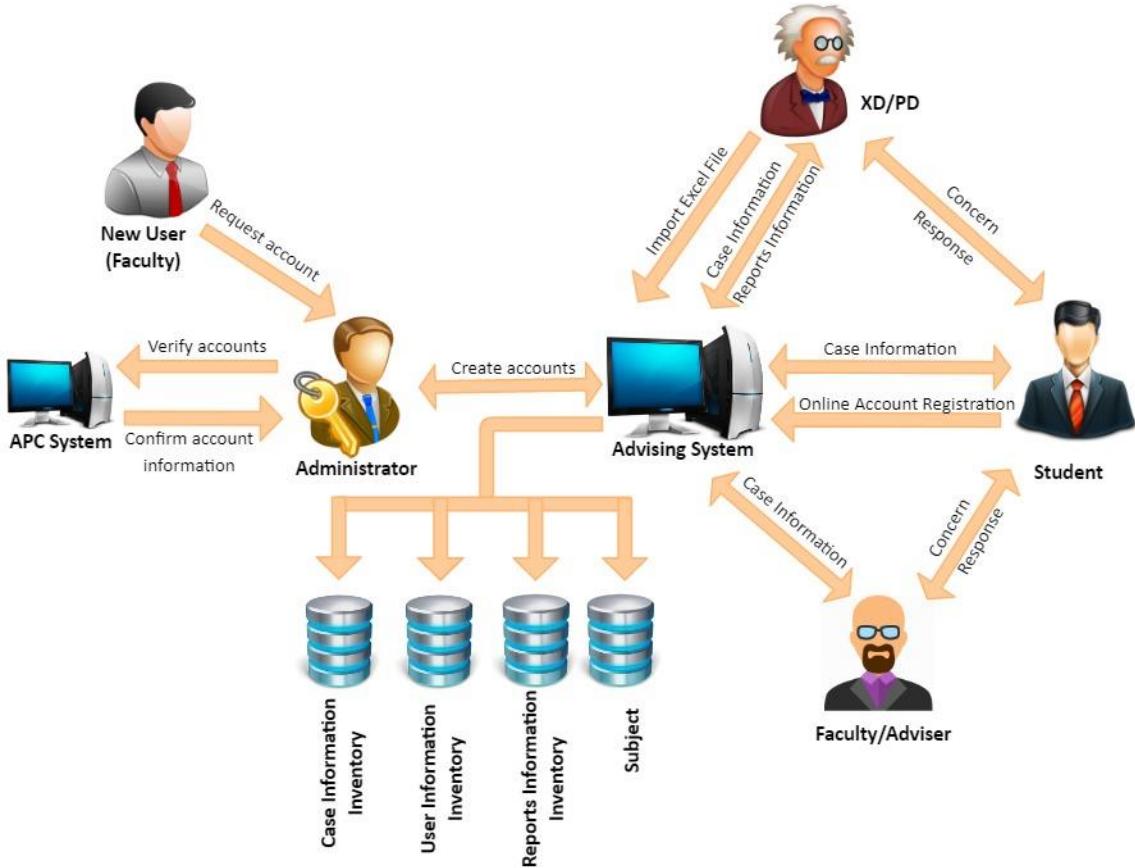


Figure 2.1 External Interfaces

Figure 2.1 shows the relationship of the entities with the system. When a new user needs to register, he needs to go to the administrator. The administrator will look into the APC system to validate and verify the new user identify. If verified, the new user will proceed with the registration to create an online account. Once done, he is ready to login. ACAMS allows student - faculty interaction to be organized, focused, efficient, and effective. When a user has a concern, regardless of nature, he just needs to find a computer within the APC premises and go to ACAMS website. He just needs to create a case and once a case number is generated and saved, it will be available to the other user involved. Ultimately, the system is a means to support the faculty or student to deal with any interaction in the school, managing the interaction from the moment they're captured through to their resolution.

2.2 Internal Structure

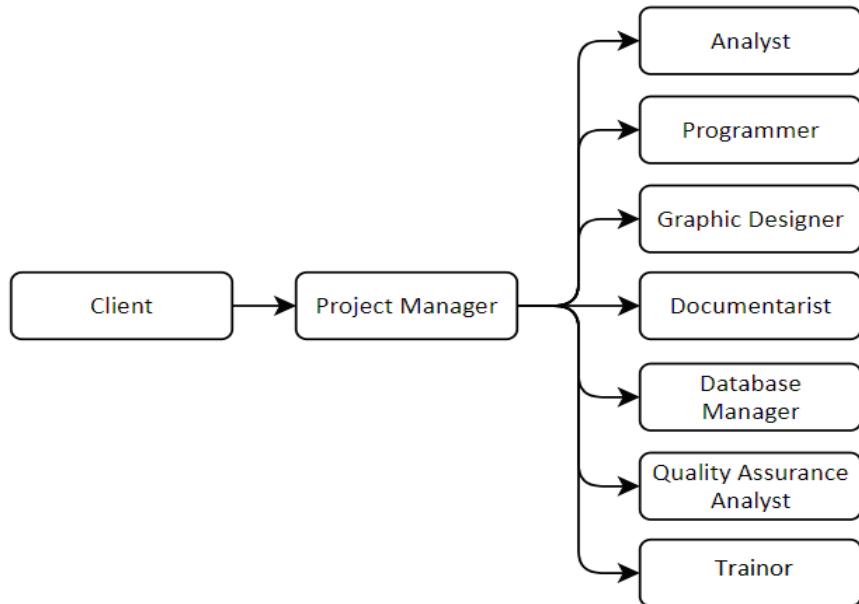


Figure 2.2 Internal Structure

Figure 2.2 shows the people involved in planning, assigning, analyzing, and developing the system proposed by the client in a hierarchical model. Each entity corresponds to the type of manpower as well as which phase they are included in the whole phase of the system development.

2.1 Roles and Responsibilities

Table 2.1. Roles and Responsibilities

Name of Position	Description of Task
Client	The person who is knowledgeable about the system to be created. He serves as the source of information and verification with regard to the project itself.
Project Manager	He will manage, plan, monitor, assign task and ensure that the project is properly designed and created to fulfill all the requirements specified by the client. He is responsible for the its successful completion.
Analyst	He is responsible for ensuring that the requirements of the client is captured and documented correctly before a solution is developed and implemented for making the project more efficient and effective.
Programmer	The one who will develop the analyses and the design approved by the client in a system.

Graphic Designer	His role is styling and laying out pages with content, including text and images. He will focus on the design process relating to the front-end (client side) design of a website.
Database Manager	A specialist that models, designs and creates the databases and tables used by a software solution. This role combines Data Administrator (logical) and DBA (physical).
Quality Assurance Analyst	The one who will develop test plans, test cases and test scripts for projects, among other assigned duties. He is in charge of ensuring that the system contains no errors by analyzing development data.
Documentarist	The person creates and keeps a copy of all the requirements needed as a proposal for Software Engineering project. He oversees making the minutes of the meeting for every consultation and discussion with the client.
Trainor	The person who will create the training module and conduct training sessions that will help the user in understanding how the system works.

Table 2.1 identifies the personnel involved and their responsibilities in the project making. Their responsibilities describe the nature of work activity and supporting process.

CHAPTER III

TECHNICAL PROCESS PLANS

3.1. Functional Description

3.1.1. Current Functional Description

CASE 1: Students go to the faculty department if needed a consultation. A receptionist is available at the lobby. She checks the faculty schedule and their availability for consultation. If the faculty is available, receptionist will call the faculty department to inform the faculty that a student is looking for them. They will meet at the lobby or in a conference room. There is a log book available at the counter where student can write the date, time, purpose, and the faculty name but it is not strictly implemented.

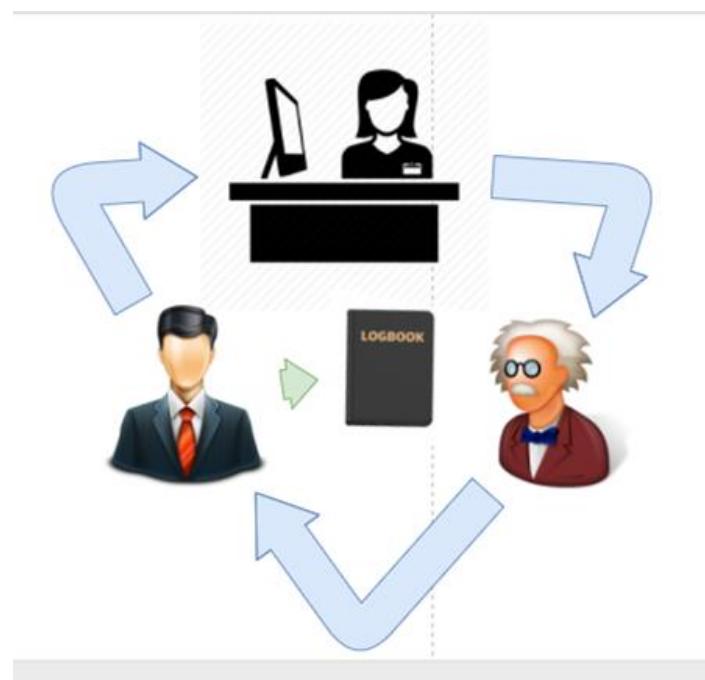


Figure 3.1 Student consultation Diagram through faculty receptionist

CASE2: The student and faculty meet on their convenient time. The meetings are not documented unless there's a need for a “Minutes of the Meeting” or a meeting invite was sent through outlook.

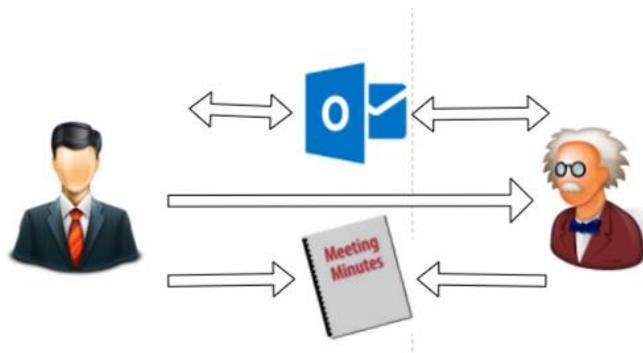


Figure 3.2 Student Consultation Diagram through Scheduled Meeting

3.1.2 Proposed Functional Description

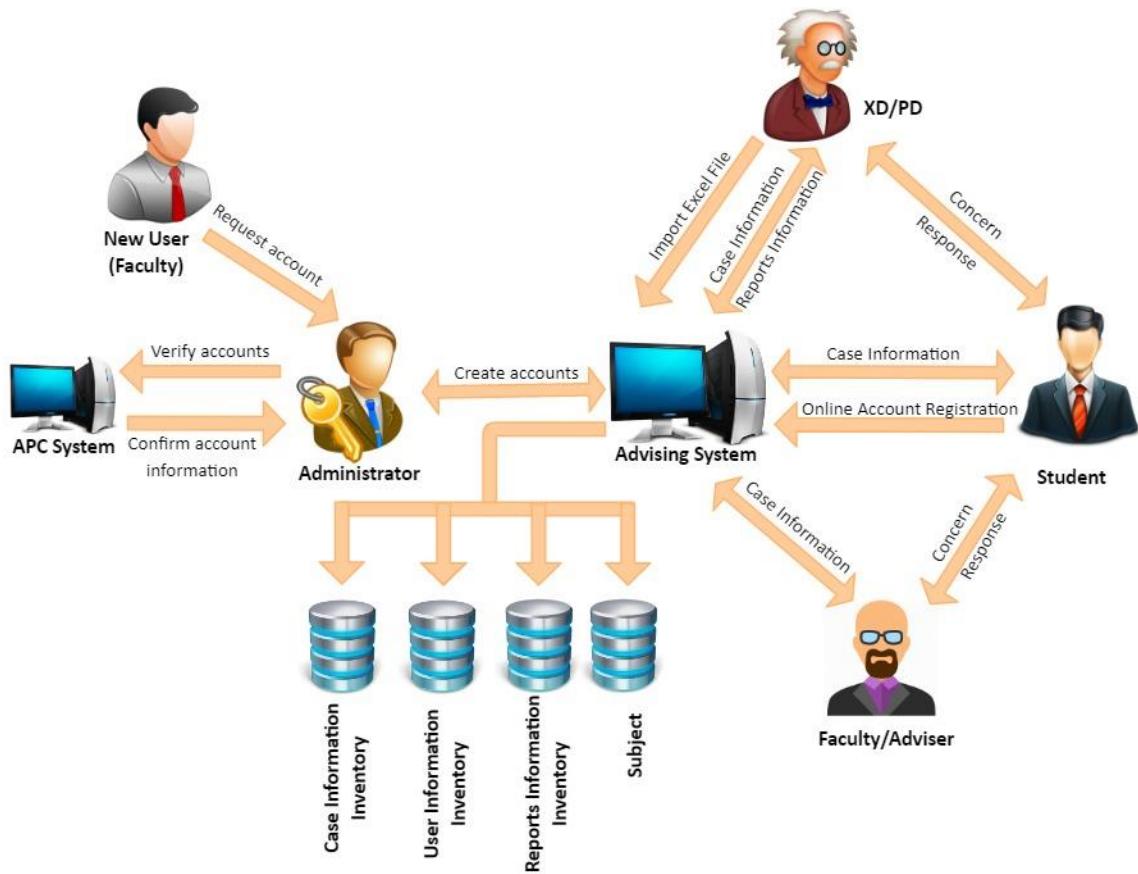


Figure 3.3 Proposed Functional Description

The new design will use automation. It will be a system that will create, save, update, and retrieve advising details effectively and efficiently. All interaction will be saved in a database, so all the authorized users can access the records.

To make the system accessible, each user will have an online account. The student information will be imported in bulk by directors. Once done, they can proceed with online self-registration where they can verify setup their login and security information. Faculty online account will be setup by admin.

A consultation or advising regardless of concern will be called a case. A case will represent an interaction between a student and a faculty. It will be academic or curricular in nature and the user can further describe the category of concern by the available dropdowns. A case does contain indicators for reporting purposes. Users can exchange notes on a case and the notes are stamped with date and time, user ID. All pending cases will show up on the users' homepage and those cases that has no activity 30 days after the last added notes will automatically change its status from "Open" to "Automated Close".

The following are the modules available in the system: 1. Registration Module; 2. Login Module; 3. Case Module; 4. Importing Module; and 5. Reporting Module;

The Login Module is the first page that the user can see when they visit the system. This module allows the user to enter the user ID and password. This information is required before accessing the other modules for security verification. The login module also has an account recovery feature. This feature allows the user to enter the answers to the security questions in case the password has forgotten. The security questions were the question selected during the registration.

Registration Module would be the module used to setup the login and security account information. This module would be accessible to student after they received an auto generated email that contains a link. This link directs to the registration module. The users have to fill up the forms to complete the registration process.

The Case Module allows the users to create, save, retrieve and update a case. An interaction is equivalent to a case. It has nature, category, and sub-category that would help users to properly describe the nature of the case. This category selection can be changed by executive director by importing new list. This feature is provided to executive director for system flexibility. A case does contain attributes. A case will have a case ID. It is a unique case indicator that is system

generated. It is only shared by a faculty and a student. A case if left unattended or no activity will automatically close by the system. Its status will change from open to automated closed if no activity 30 days after the last added notes.

The Importing Module allows the users with directors' level to manage database records in bulk.

Importing data:

The executive/ program director has the capability to import files on the system. This data will be used as records on the database. The following are the list of tables that they can import:

- List of Offered Subjects and the faculty that will facilitate (current term)
- List of Student currently enrolled (per subject)
- List of Student Information
- List of Cluster and its respective adviser
- List of Student (per cluster)

Registration Process:

For student - They have to do a self-registration. the student information should be imported prior to the registration. There will be an email that will be sent to the student after the import is done.

For faculty - They have to coordinate to the administrator to setup their account.

Create/ Managing a case:

The list of all open case will be available on the user home screen right after they login. This is for the user to effectively manage their cases. The data can be sorted depending on the users preferred field. To view the case detail, the user can simply click on the case number and it will be directed to the case detail page. This page contains the student information and the case detail such as the case title, notes, nature, etc. The student and the faculty can exchange notes within the case. It notes will be stamped with their user ID, date, and time. Once the notes is

saved, it cannot be deleted nor modified. Cases that has no activity within 30 days after the last added noted will be automatically closed by the system by changing the case status from "Open" to "Automated Close".

3.2. Data Model

3.2.1. Entity-Relationship Diagram (ERD)

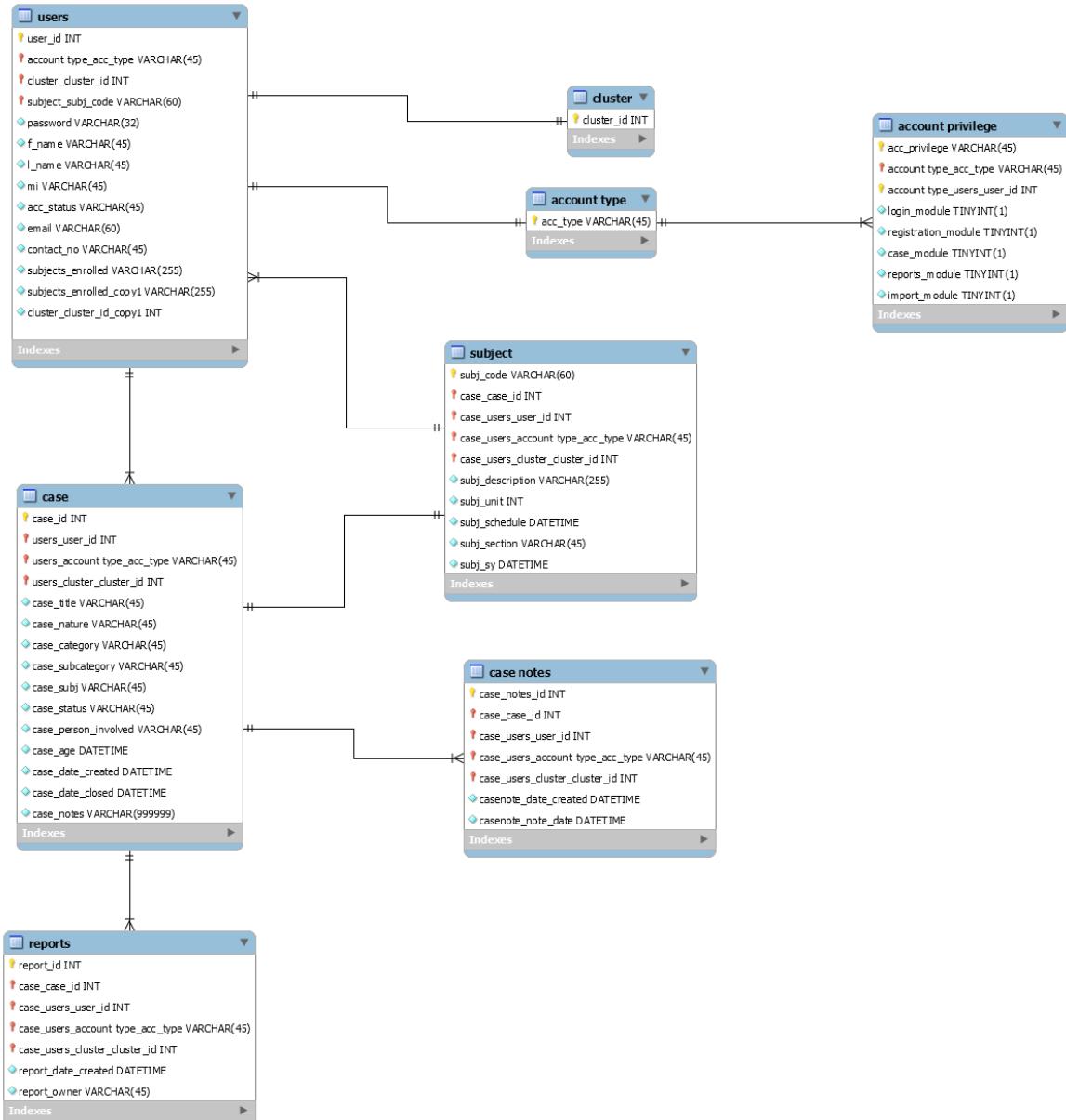


Figure 3.4 Entity Relationship Diagram

In figure 3.4, the Entity Relationship Diagram (ERD) in our system used the crowfoot notation. It is a bit simpler than the chen and a bit cleaner to look at. Our tables composed of primary keys that are interconnected to other tables as foreign keys. There are 14 tables in the diagram. The tables consists of the user, case, case notes, subject, cluster, account privilege, account type, and the six user entities which are the student, faculty, adviser, program director, executive director, and admin.

3.2.2. Entity Attribute List

Table 3.1 Entity Attribute List

Table Name	Attribute Name	Data Type	Required	Key
Users	user_id	INT	YES	PK
Users	password	VARCHAR	YES	
Users	f_name	VARCHAR	YES	
Users	l_name	VARCHAR	YES	
Users	mi	VARCHAR	YES	
Users	acc_status	VARCHAR	YES	
Users	acc_type	VARCHAR	YES	
Users	email	VARCHAR	YES	
Users	contact_no	VARCHAR	YES	
Users	subject_enrolled	VARCHAR	YES	
Users	cluster_id	INT	YES	FK
Case	case_id	INT	YES	PK
Case	user_id	INT	YES	FK
Case	case_title	VARCHAR	YES	
Case	case_nature	VARCHAR	YES	
Case	case_category	VARCHAR	YES	
Case	case_subcategory	VARCHAR	YES	
Case	case_subj	VARCHAR	YES	
Case	case_status	VARCHAR	YES	
Case	case_person_involved	VARCHAR	YES	
Case	case_age	DATETIME	YES	
Case	case_date_created	DATETIME	YES	
Case	case_date_closed	DATETIME	YES	
Case	case_notes_id	INT	NO	FK
Case Notes	case_notes_id	INT	YES	PK
Case Notes	user_id	INT	YES	FK
Case Notes	casenote_date_created	DATETIME	YES	
Case Notes	casenote_note_date	DATETIME	YES	
Subject	subj_code	VARCHAR	YES	PK
Subject	user_id	INT	YES	FK
Subject	subj_description	VARCHAR	YES	
Subject	subj_unit	INT	YES	

Subject	subj_schedule	DATETIME	YES	
Subject	subj_section	VARCHAR	YES	
Subject	subj_sy	DATETIME	YES	
Cluster	cluster_id	INT	YES	PK
Cluster	user_id	INT	YES	FK
Reports	report_id	INT	YES	PK
Reports	report_date_created	DATETIME	YES	
Reports	report_owner	VARCHAR	YES	
Reports	user_id	INT	YES	FK

Table 3.1 is the Data Dictionary table. This table consist of the tables in the database and its attributes. This table defines the attribute information such as the data type, format, range, if required to have a value and the key type.

3.3 Process Model

3.3.1. Project Framework

In figure 3.5, the context diagram for the Academic and Curricular Advising System contains six entities and four data stores. It includes the inputs from the login, case, reports, and user information. Note that in the users table, there are four inputs and three outputs. One does not go out because it is from the import module which only imports multiple users. The generalization of the arrows is utilized to reduce the redundancy of the input and output data flow.

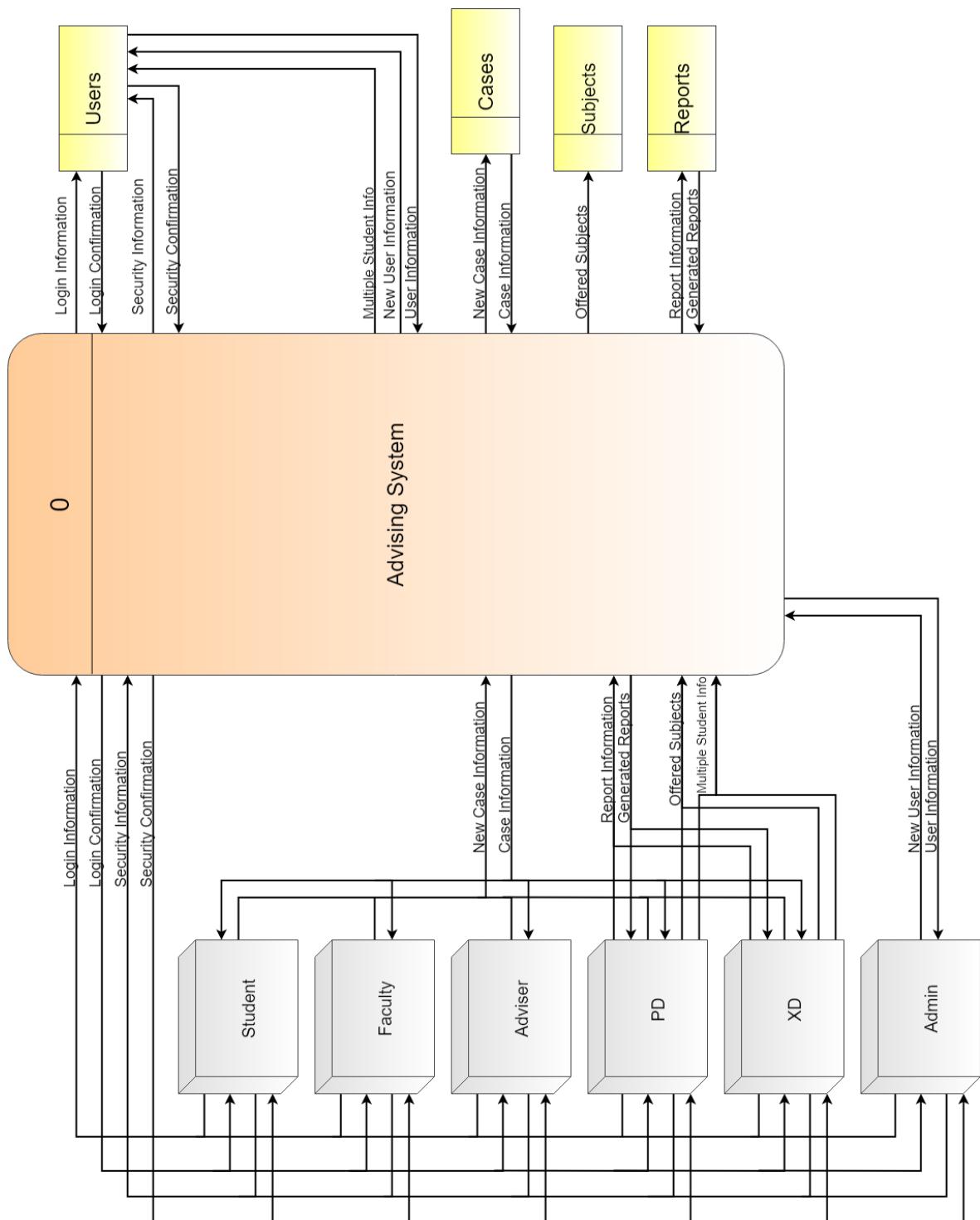


Figure 3.5 Context Diagram

3.3.2. Process Details

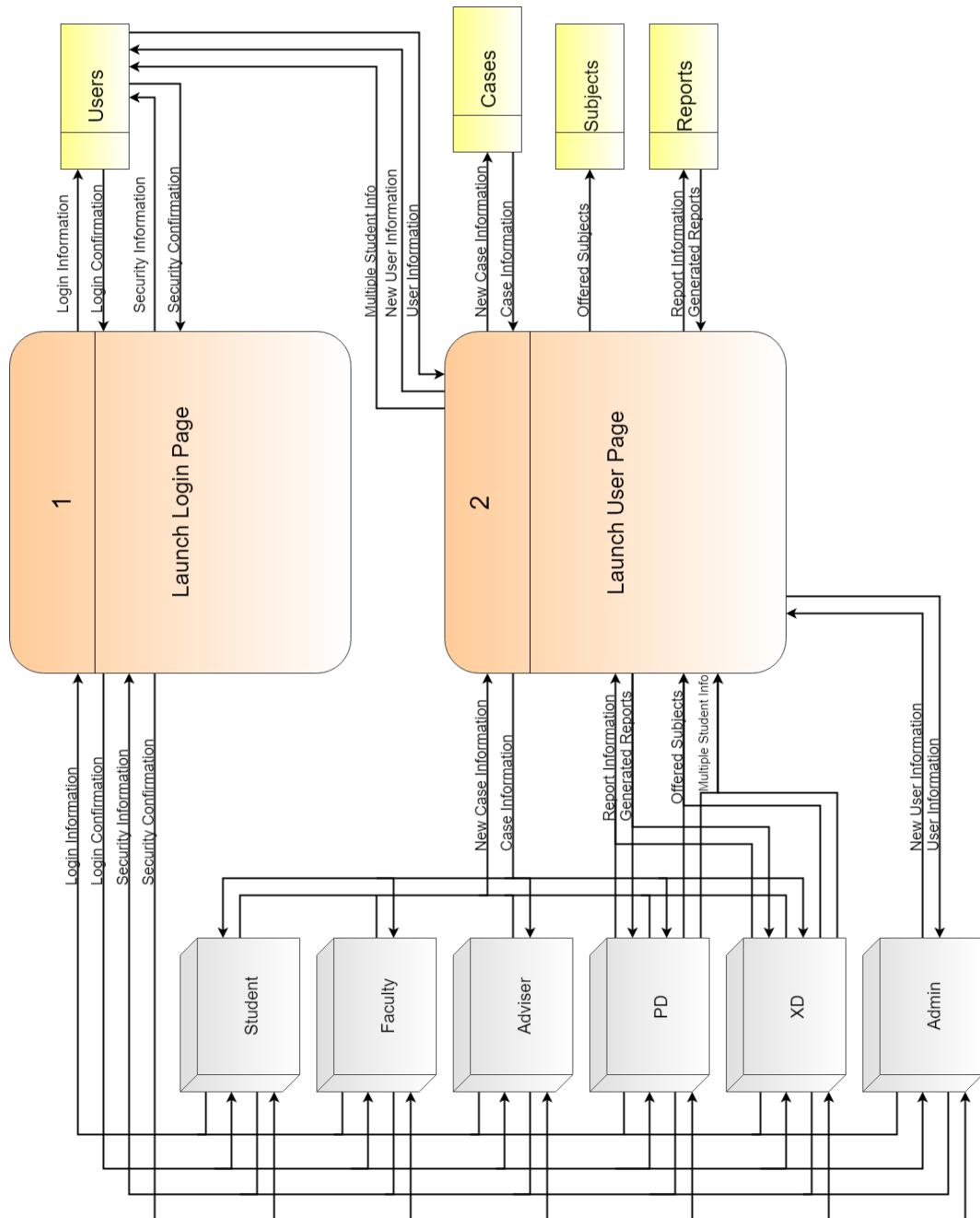


Figure 3.6 Lvl0 Data Flow Diagram

The Lvl0 is composed of 2 processes which is the login page and the user pages. The login page is where the users verify and confirm their login information and security details. The user pages are for the user's corresponding pages with their respective modules.

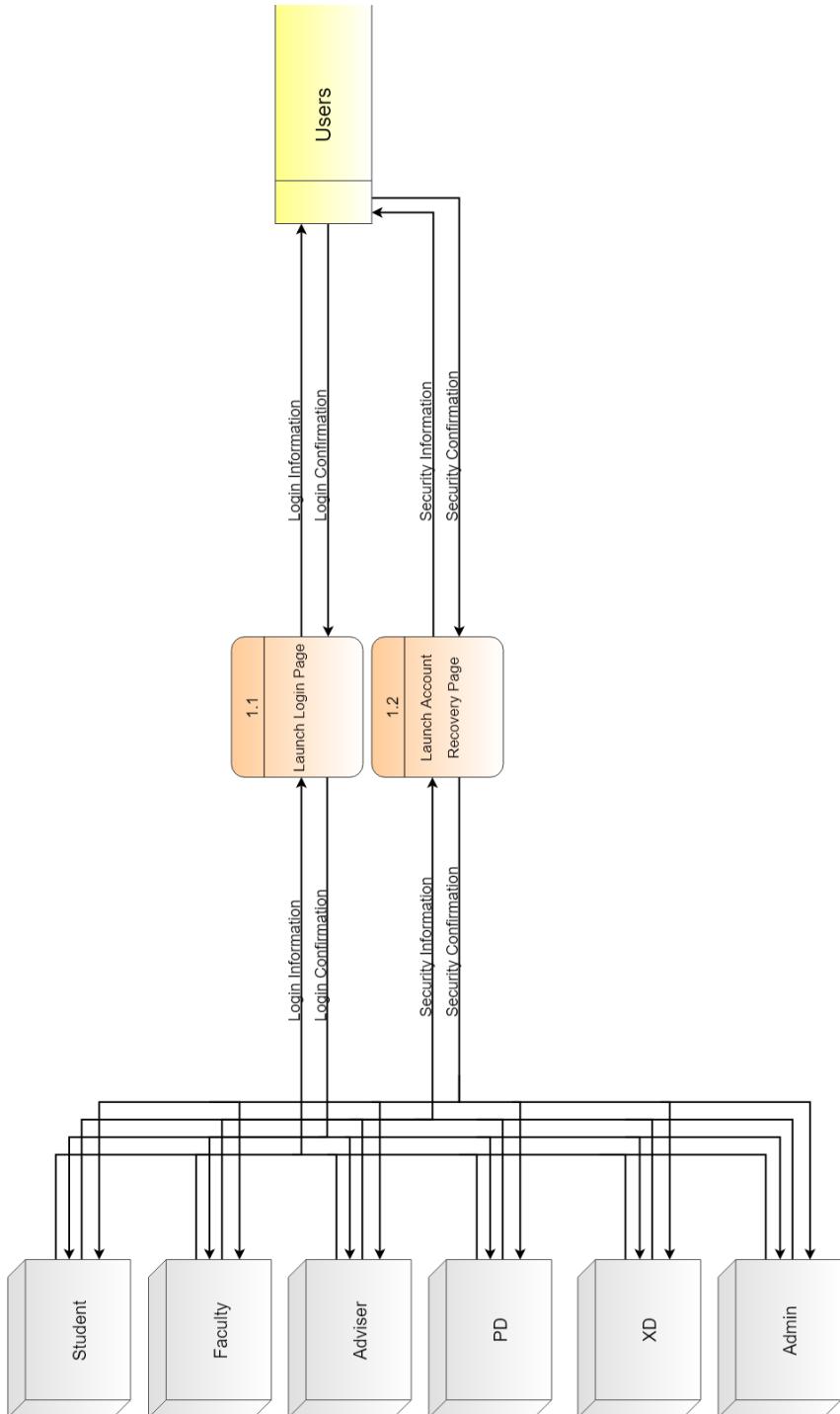


Figure 3.7 Lvl1: Launch Login Page

The exploded view of the Lvl1's login page is shown in Figure 3.7. The login module's inputs and outputs are generalized for the sake of spacing and redundancy, but in the inputs and outputs.

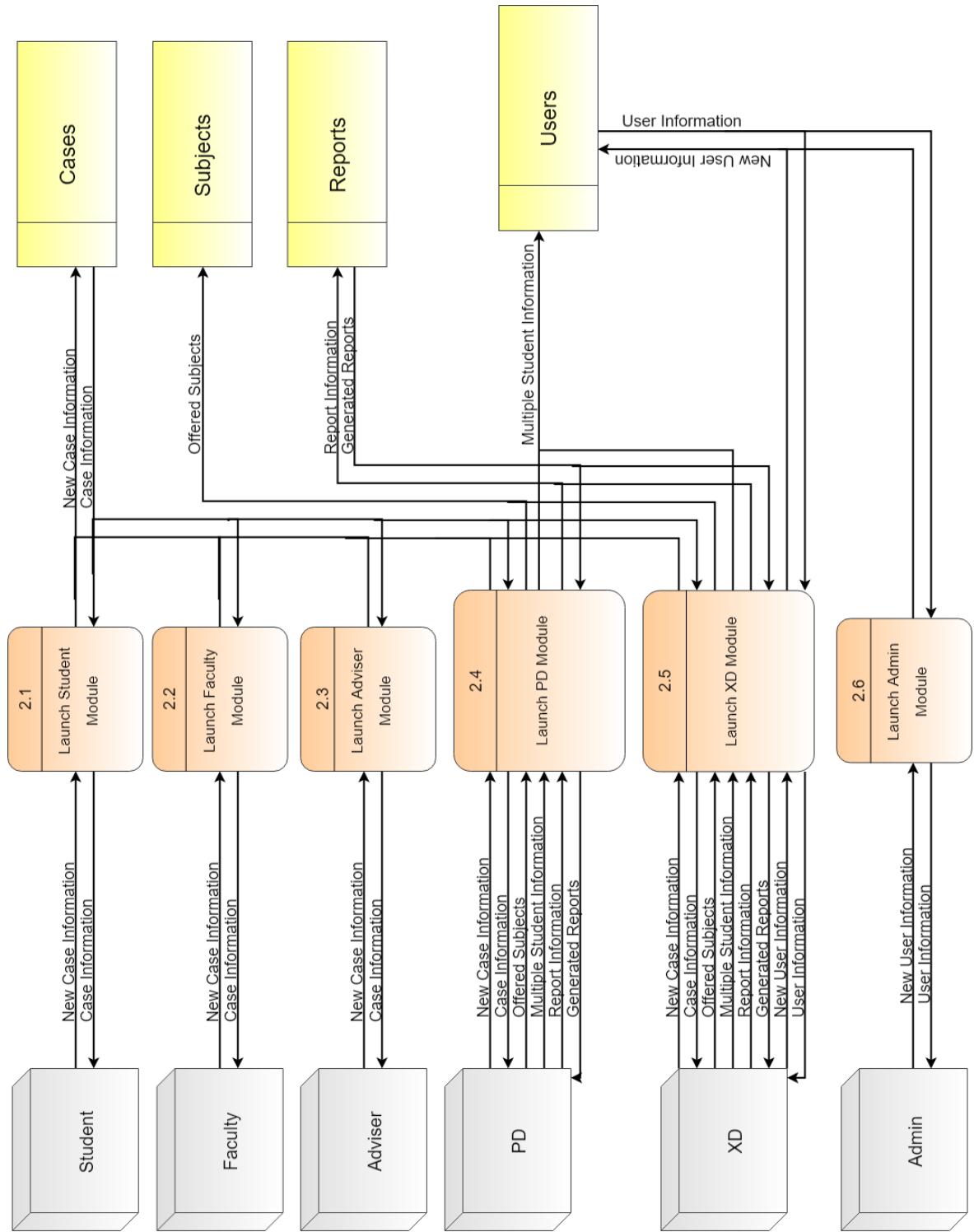


Figure 3.8 Lvl1: Launch User Page

The exploded view of the Lvl1's user page is shown in figure 3.8. Each entity's individual inputs are specified for the visualization of inputs a user or entity has.

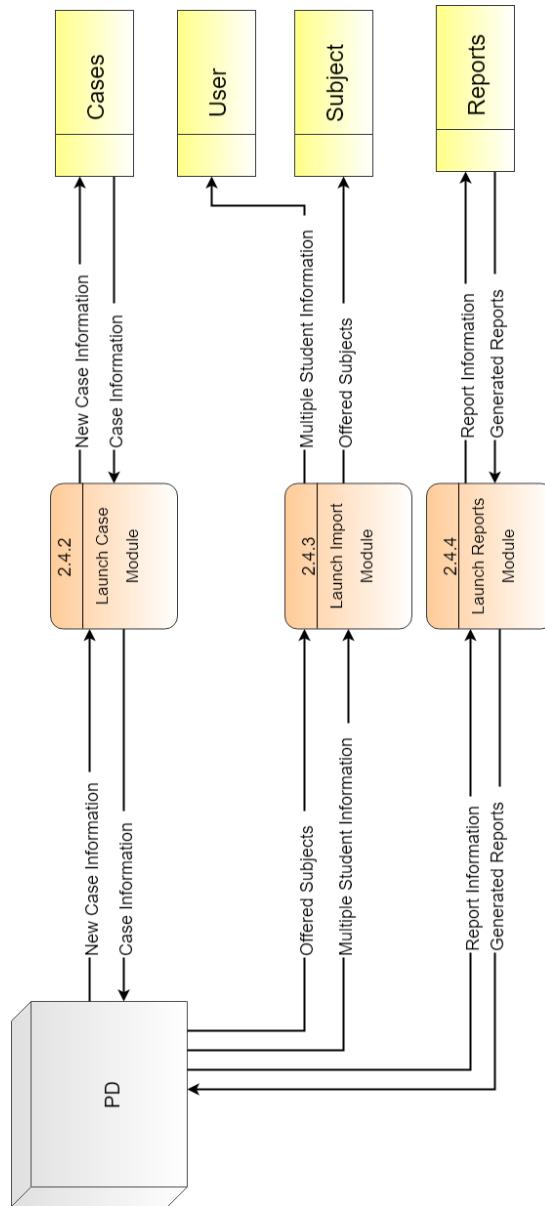


Figure 3.9 Lvl2 DFD: Program Director (PD)

The program director (PD) has three processes: case module, import module and reports module. The case module is similar to the student, faculty, and adviser where they input new case information and could view other case information that are accessible corresponding to their power. Import module is where the PD can import the subjects offered during the term and multiple student information as new users in the users table. A reports module is where only both the PD and XD could utilize. The reports information inputted are the parameters of the reports to be generated and the generated reports could be in a form of pdf or excel file.

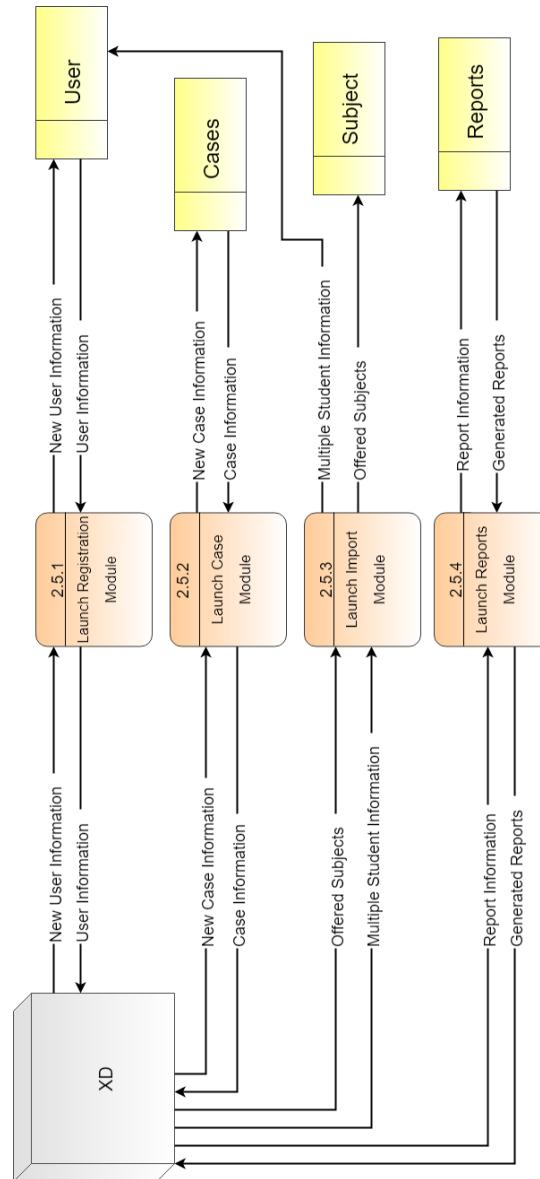


Figure 3.10 Lvl2 DFD: Executive Director (XD)

The executive director (XD) has one more process than the PD, which is the registration module where the XD could register new single users. This process is specifically for special case students like transfer students, and for faculty members. Another single process entity is the admin, although it has similar inputs for a process with the XD, the admin's module has a different level of input like how the admin can edit the details of any user while the XD could only create. As seen in Figure 3.8, the student, faculty, and adviser entities uses the same module which is the case module. The case module is where they input new case information and could view other case information that are accessible corresponding to their power.

3.4 Hierarchy

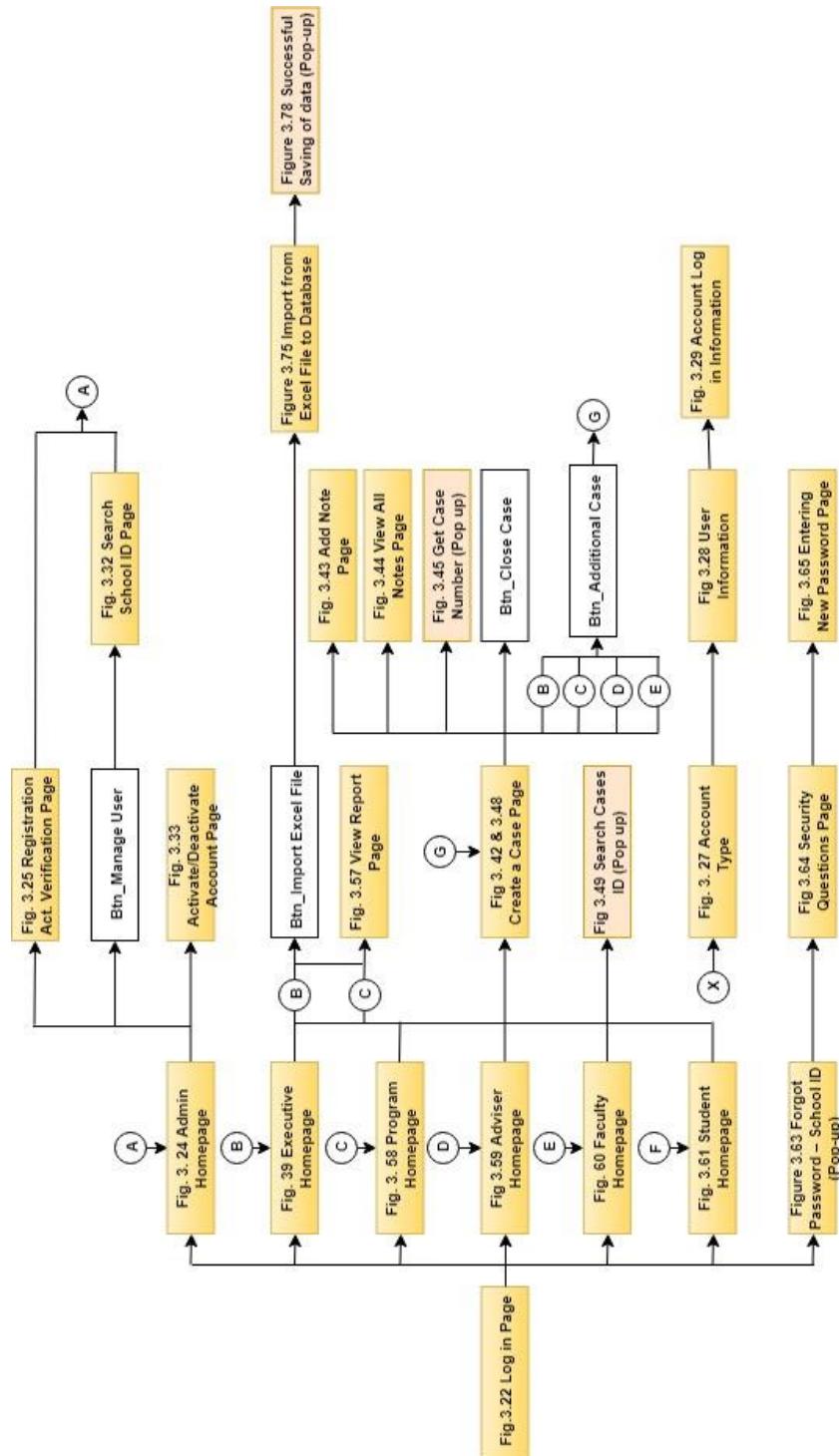


Figure 3.11 Main Hierarchy

Figure 3.11 shows the overall flow of the system depending on the position of the user and when the user forgot his password.

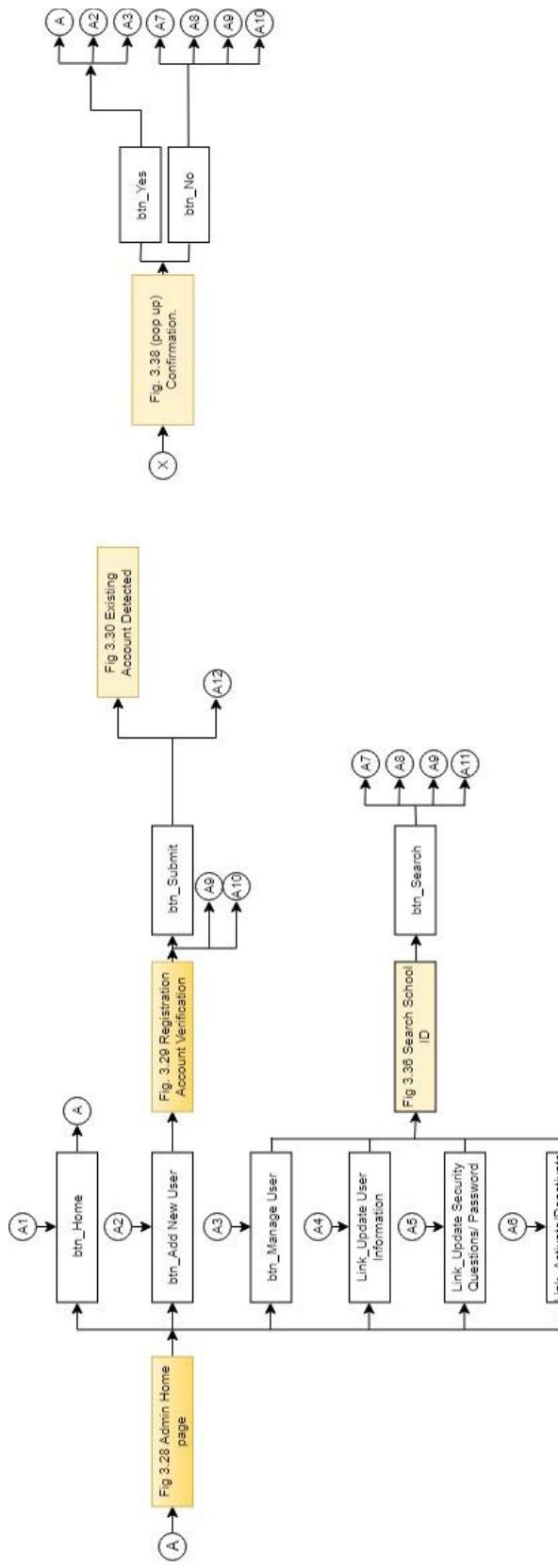


Figure 3.12 Admin Hierarchy (A)

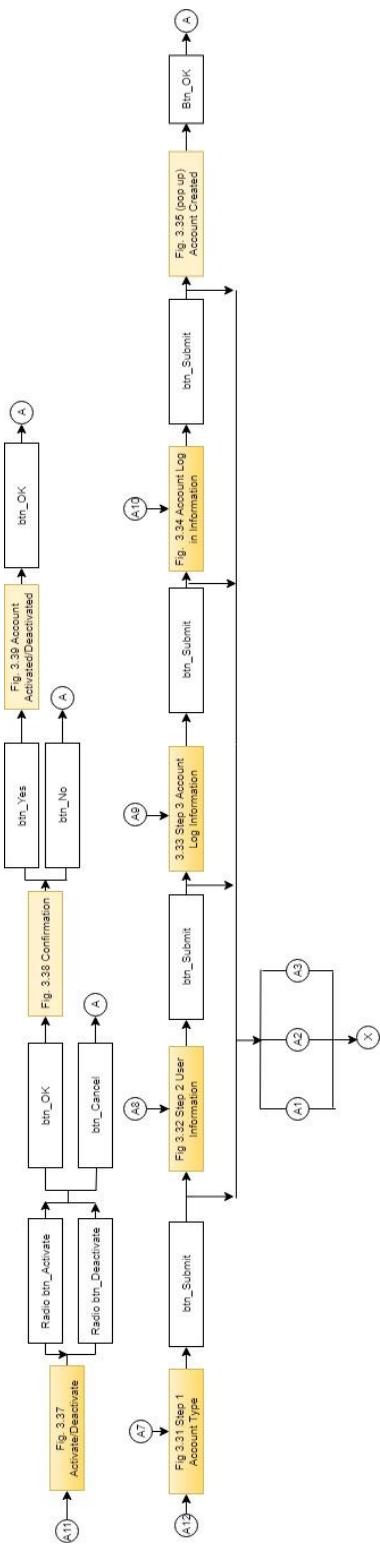


Figure 3.13 Admin Hierarchy (B)

Figures 3.12 and 3.13 show the hierachal processes of the admin user. It contains the elements utilized from the admin menu page as well as the registration page.

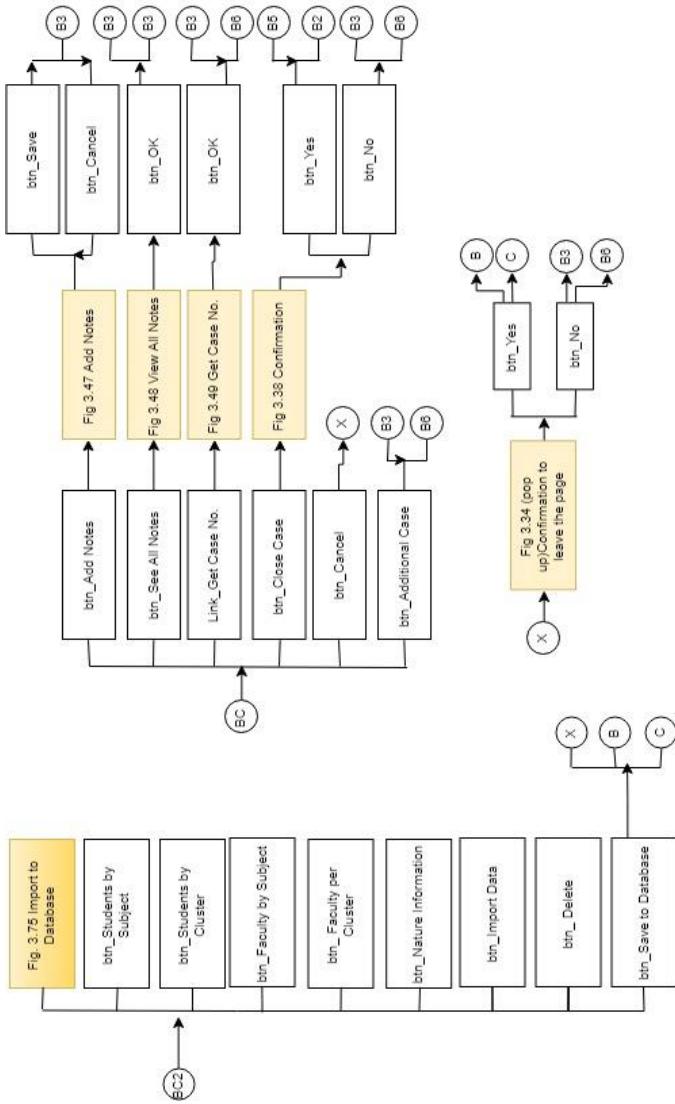


Figure 3.14 Adviser Hierarchy (A)

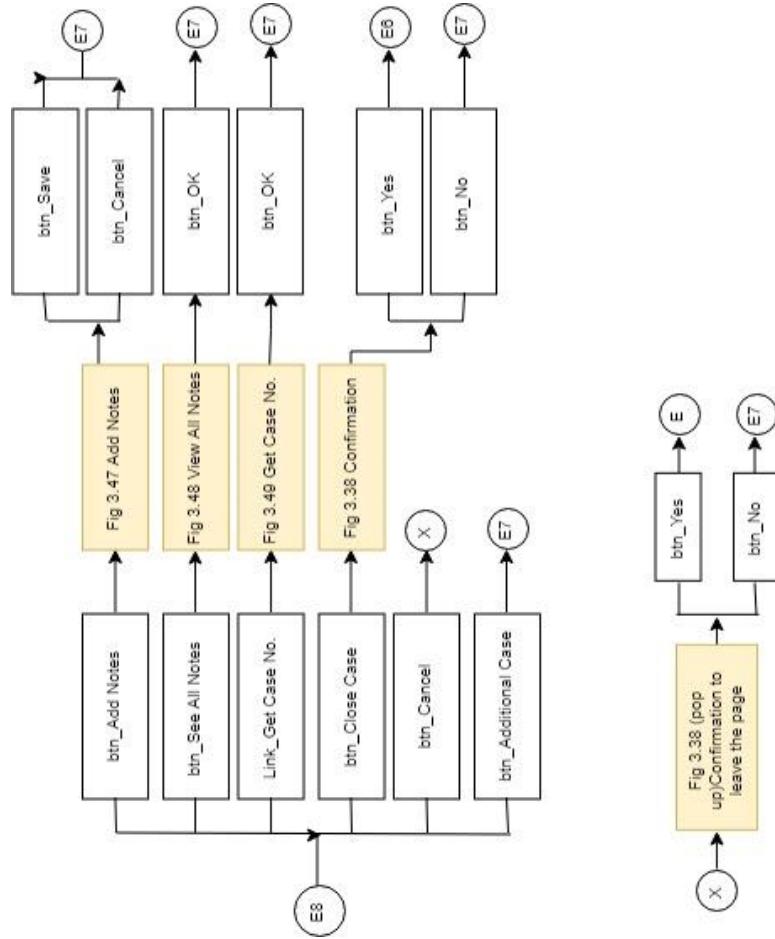


Figure 3.15 Adviser Hierarchy (B)

Figures 3.14 & 3.15 show the hierachal processes of the adviser user. It contains the elements utilized from the adviser menu page as well as the case page.

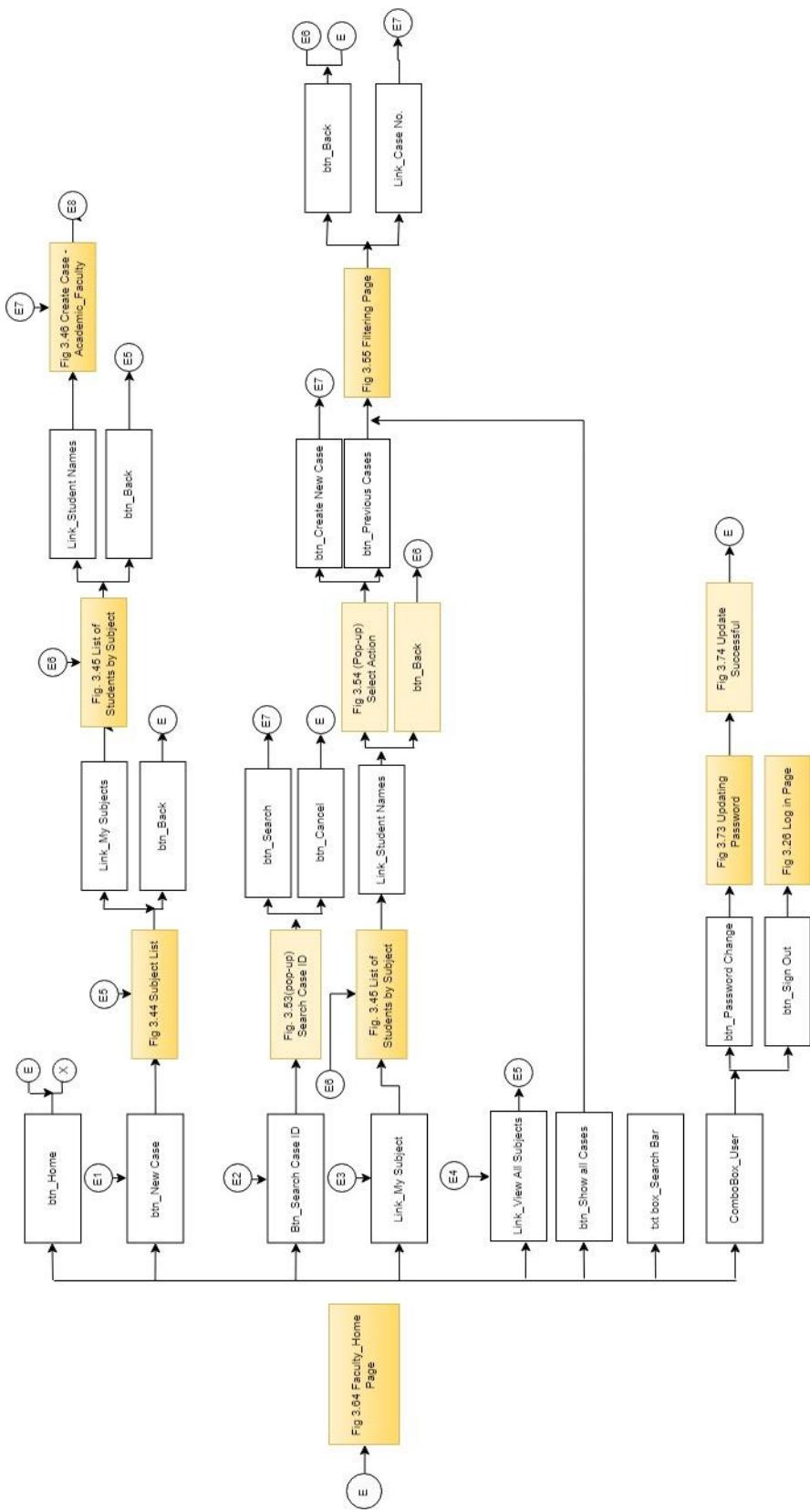


Figure 3.16 Faculty Hierarchy (A)

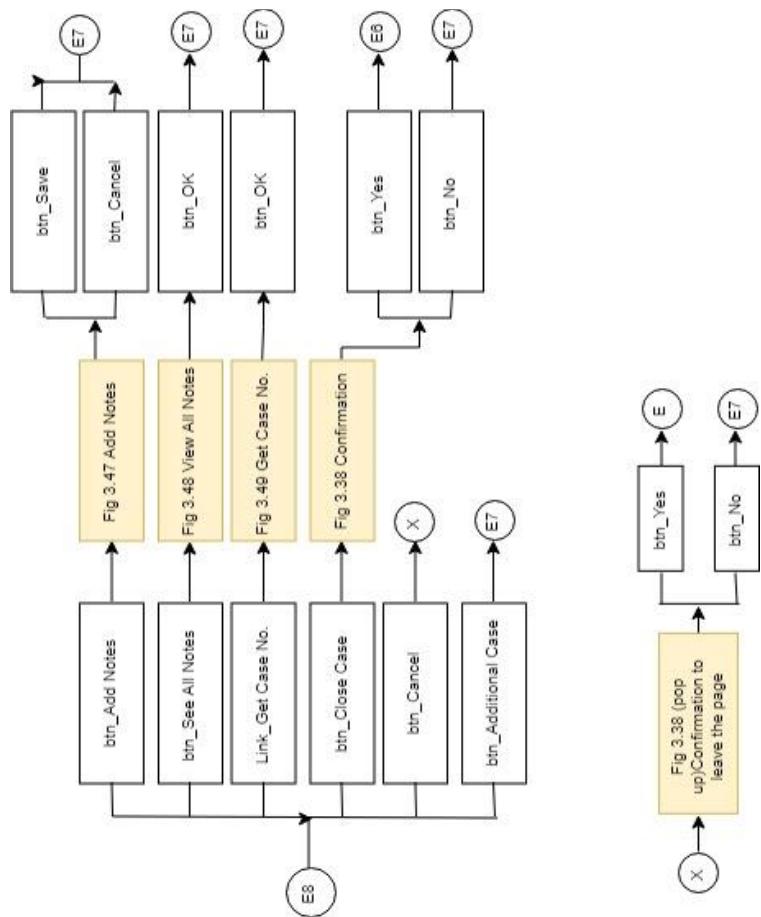


Figure 3.17 Faculty Hierarchy (B)

Figures 3.16 and 3.17 show the hierachal processes of the faculty user. It contains the elements utilized from the faculty menu page as well as the case page.

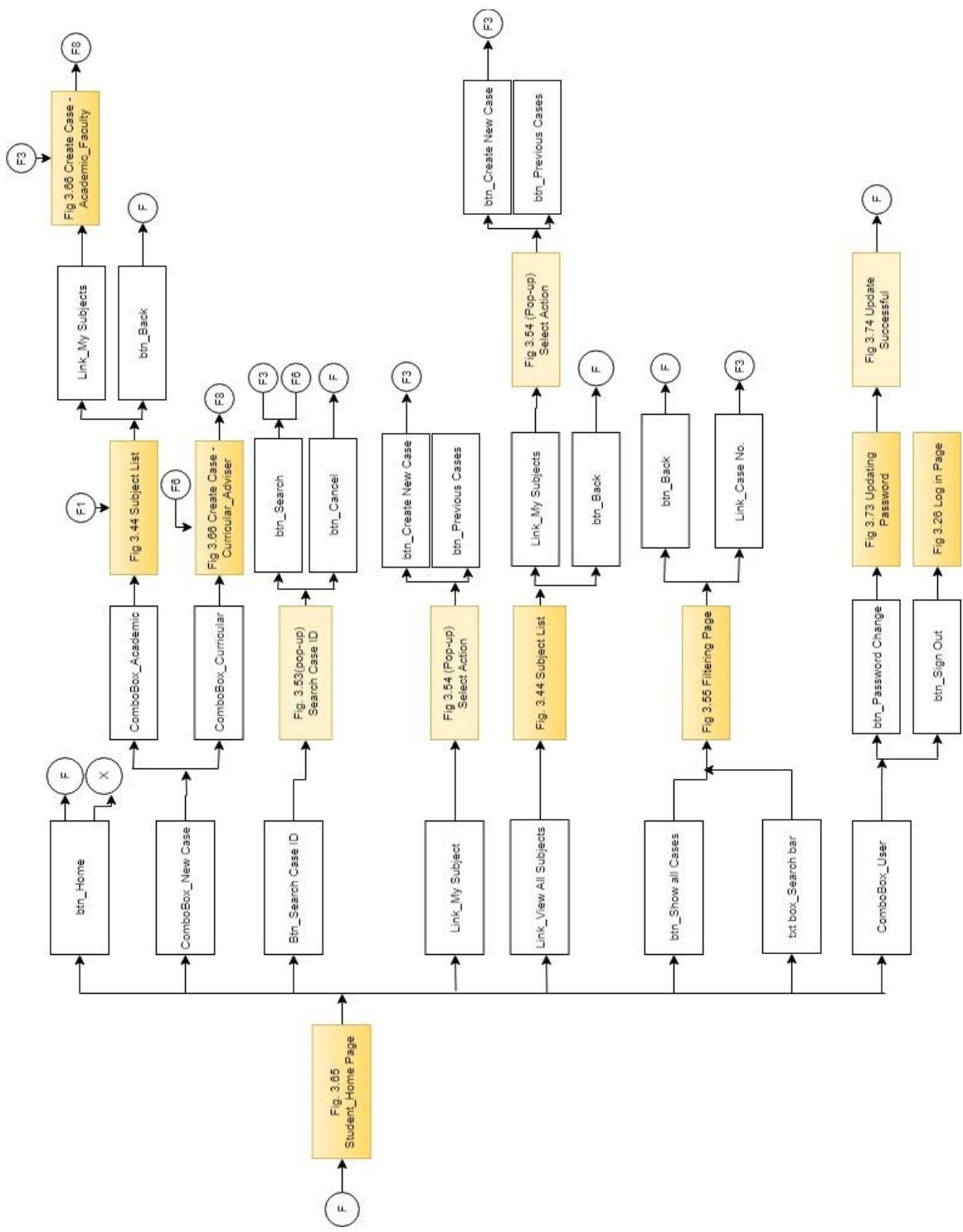


Figure 3.18 Student Hierarchy (A)

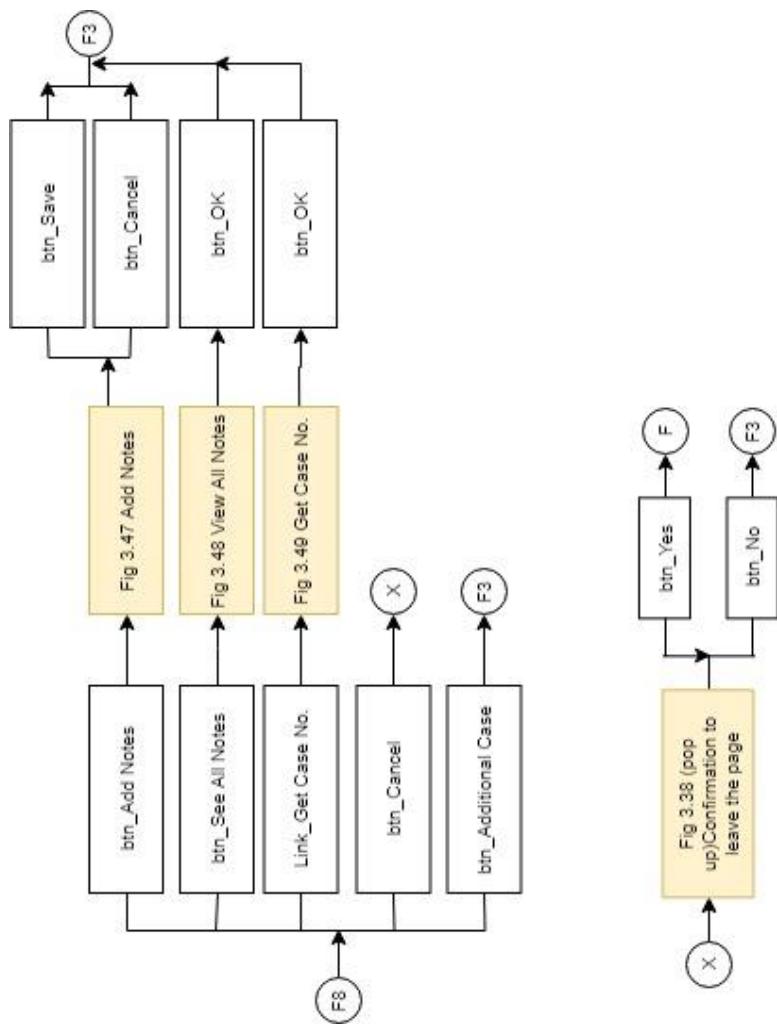


Figure 3.19 Student Hierarchy (B)

Figures 3.18 and 3.19 show the hierachal processes of the student user. It contains the elements utilized from the student menu page as well as the case page.

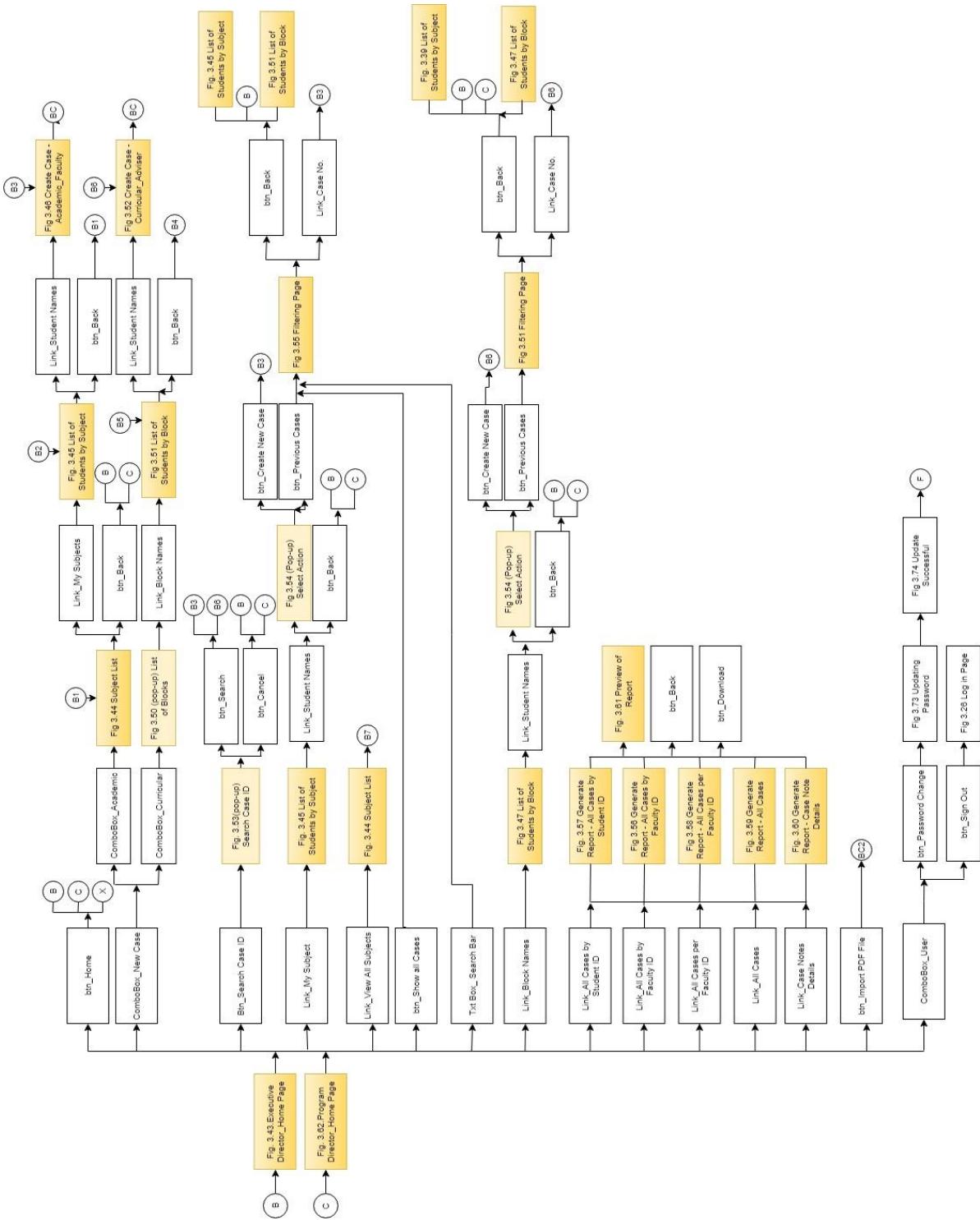


Figure 3.20 Executive Director and Program Director Hierarchy (A)

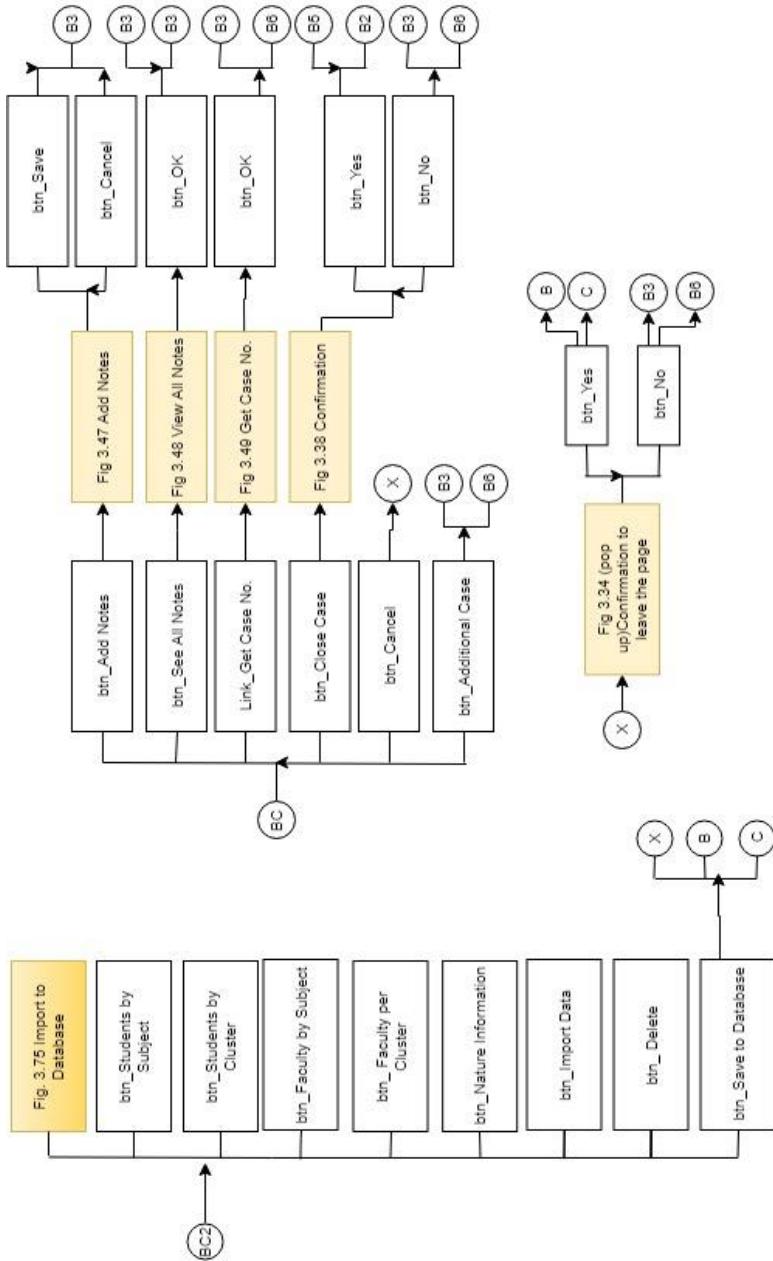


Figure 3.21 Executive Director and Program Director Hierarchy (B)

The figure 3.20 and 3.21 show the hierachal processes of the XD or PD user. It contains the elements utilized from the XD or PD menu page as well as the case page, reports page, and import page.

3.5 User Interface

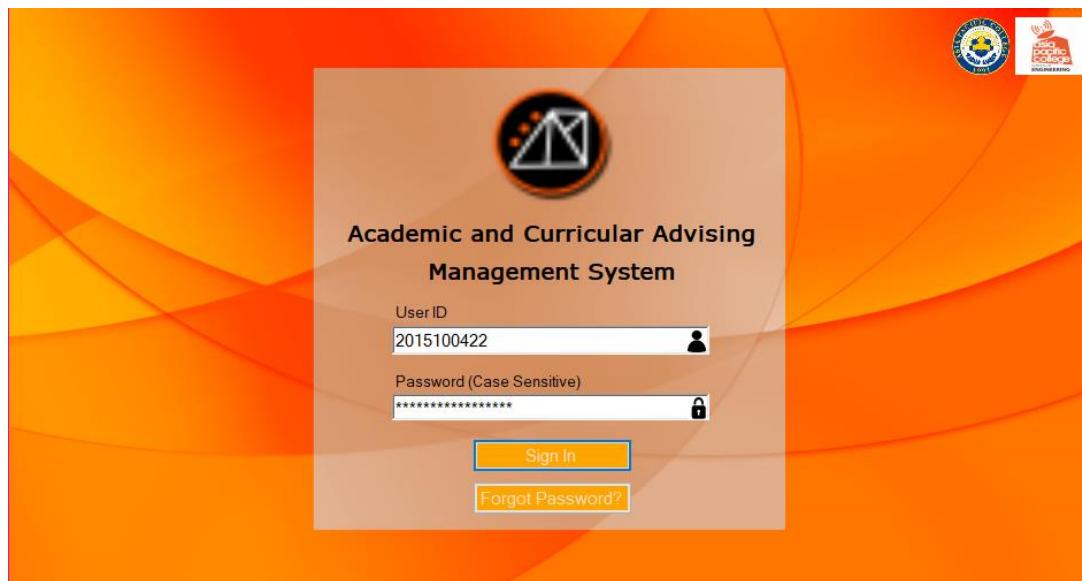


Figure 3.22 Log in Page

Figure 3.22 is the user login page. The page allows all users to enter login information such as User ID and Password. The user ID is automatically the school ID number of the user. There is also a hyper link available in case the user has forgot the password.



Figure 3.23 Invalid Log in Information (Pop up)

If the input in User ID and password is incorrect, this pop-up message will display.

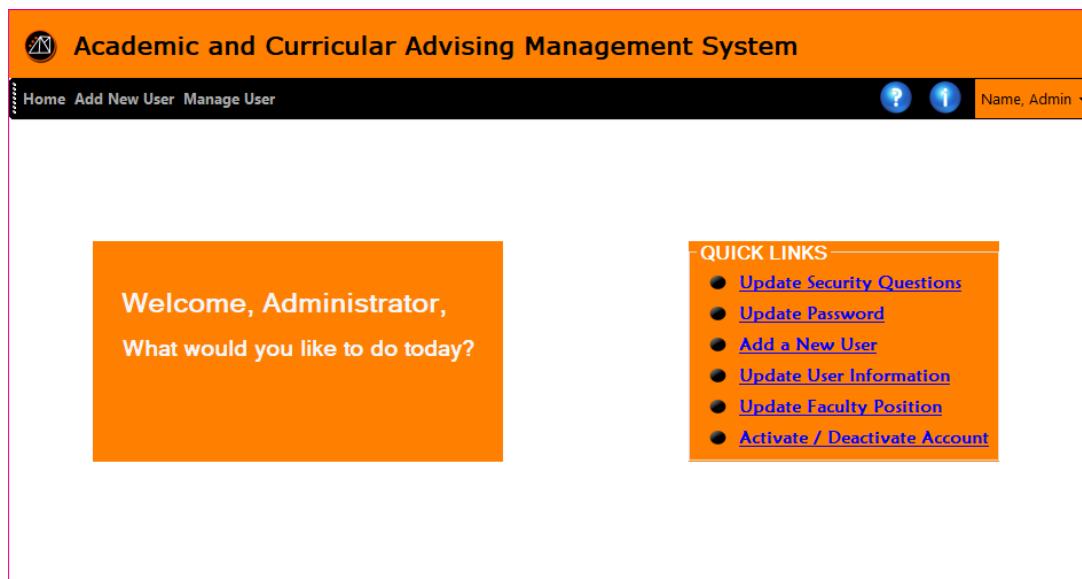


Figure 3.24 Admin Homepage

Figure 3.24 is the admin homepage. This is the portal where admin can access the registration module and user information module. It also has quick links that directs to the most visited page.

The screenshot shows the Registration Account Verification page. The top navigation bar is identical to the Admin Homepage. The main form area contains two radio buttons: one selected for 'Student' and another for 'Faculty'. Next to the radio buttons is a text input field containing the school ID '2015100422'. Below the input field is a greyed-out text input field. At the bottom right is a 'Submit' button with a green checkmark icon.

Figure 3.25 Registration Account Verification

Registration Account Verification page allows the admin to enter the desired school ID for registration. It has a radio button to identify either the user is a student or a faculty. The system is programmed to search for existing account before proceeding to the registration to avoid multiple account under same ID number.

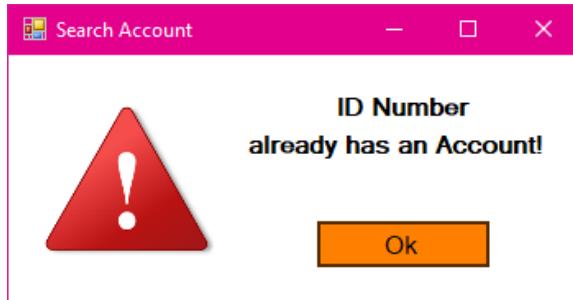


Figure 3.26 Existing Account Detected (Pop up)

If the account registering is already registered, this pop-up message will display.

A screenshot of a web-based application. The header says "Academic and Curricular Advising Management System". The navigation bar includes "Home", "Add New User", "Manage User", and "Name, Admin". Below the header, there's a navigation menu with four tabs: "Step 1 User Position", "Step 2 User Information", "Step 3 Account Login Information", and "Step 4 Confirmation". The "Step 1 User Position" tab is active. The main content area asks "User Type:" with radio buttons for "Student" (selected) and "Faculty". It then asks "Position:" with checkboxes for "Faculty", "Adviser", "Program Director", and "Executive Director". At the bottom is a "Submit" button with a checkmark icon.

Figure 3.27 Step 1 Account Type

Step 1 of registration allows the administrator to select the user type. If student is selected the position will not be available for selection.

In figure 3.28, the Registration page step 2 will allow the user to enter the user information. The ID and the School is not editable from this part of the registration. The rest are user defined information which are required to fill out before proceeding to the next steps

The screenshot shows the 'Step 2 User Information' page of the Academic and Curricular Advising Management System. The page has a header with tabs for 'Step 1 User Position', 'Step 2 User Information' (which is active), 'Step 3 Account Login Information', and 'Step 4 Confirmation'. Below the tabs, there are input fields for personal information:

ID Number:	2015100422
First Name:	Shella Mae
Middle Name:	Santiago
Last Name:	Manongsong
School:	School of Engineering
BS Program:	Computer Engineering
Email Address:	ssmanongsong@student.apc.edu.ph
Contact Number:	09493048715

At the bottom right is a 'Submit' button with a green checkmark icon.

Figure 3.28 Step 2 User Information

The screenshot shows the 'Step 3 Account Log in Information' page of the system. The page has a header with tabs for 'Step 1 User Position', 'Step 2 User Information', 'Step 3 Account Login Information' (which is active), and 'Step 4 Confirmation'. Below the tabs, there are input fields for account login information and security questions:

User ID:	2015100422
Password:	*****
Confirm Password:	*****
Security Q #1:	What is your mother's maiden name?
Answer:	*****
Security Q #2:	What is your first pet's name?
Answer:	*****
Security Q #3:	What is your favorite food?
Answer:	*****e

At the bottom right is a 'Submit' button with a green checkmark icon.

Figure 3.29 Step 3 Account Log in Information

Registration page step 3 – Account login information allows the user to setup his password and reconfirm it. There is also an area to setup for 3 security question and password. This information will be used in resetting password in case forgotten.

The screenshot shows the 'Step 4 Confirmation' page of the registration process. At the top, there's a navigation bar with links for Home, Add New User, Manage User, and a user profile icon. Below the navigation is a tabs menu with Step 1 (User Position), Step 2 (User Information), Step 3 (Account Login Information), and Step 4 (Confirmation). The Step 4 tab is active.

User ID:	2015100422	Password:	*****
First Name:	Shella Mae	Security Q #1:	What is your mother's maiden name?
Middle Name:	Santiago	Answer:	*****
Last Name:	Manongsong	Security Q #2:	What is your first pet's name?
School:	School of Engineering	Answer:	*****
BS Program:	Computer Engineering	Security Q #3:	What is your favorite food?
Email Address:	ssmanongsong@student.apc.edu.ph	Answer:	*****
Contact Number:	09493048715		
User Type:	Student		
User Role:	N/A		

At the bottom right of the form is a 'Confirm' button with a checkmark icon.

Figure 3.30 Step 4 Account Log in Information

Registration Page Step 4 – Account Login Information page allows the user to review all the user's information before completing the registration.

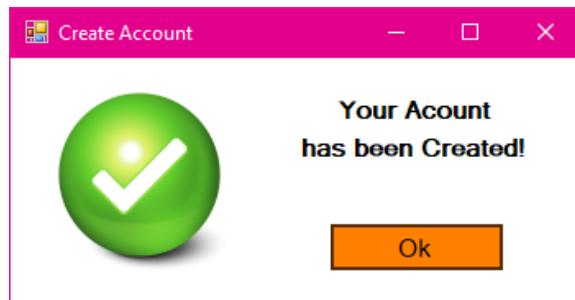


Figure 3.31 Account Created (Pop up)

When the user is finished registering, this pop-up message will display indicating the account is created successfully.

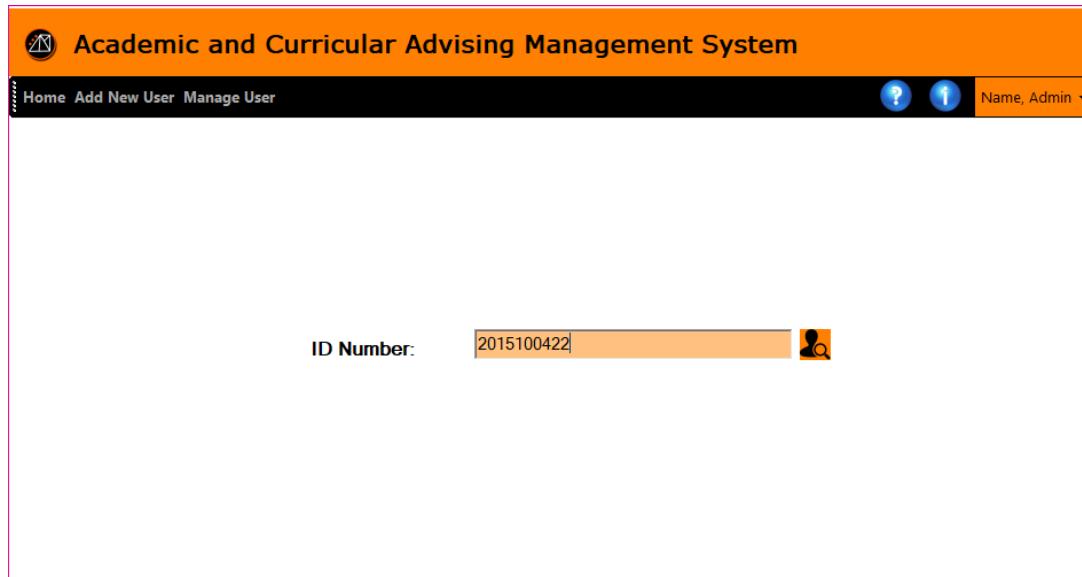


Figure 3.32 Search School ID

The Search School ID page allows the admin user to enter a user ID to search for a specific student.

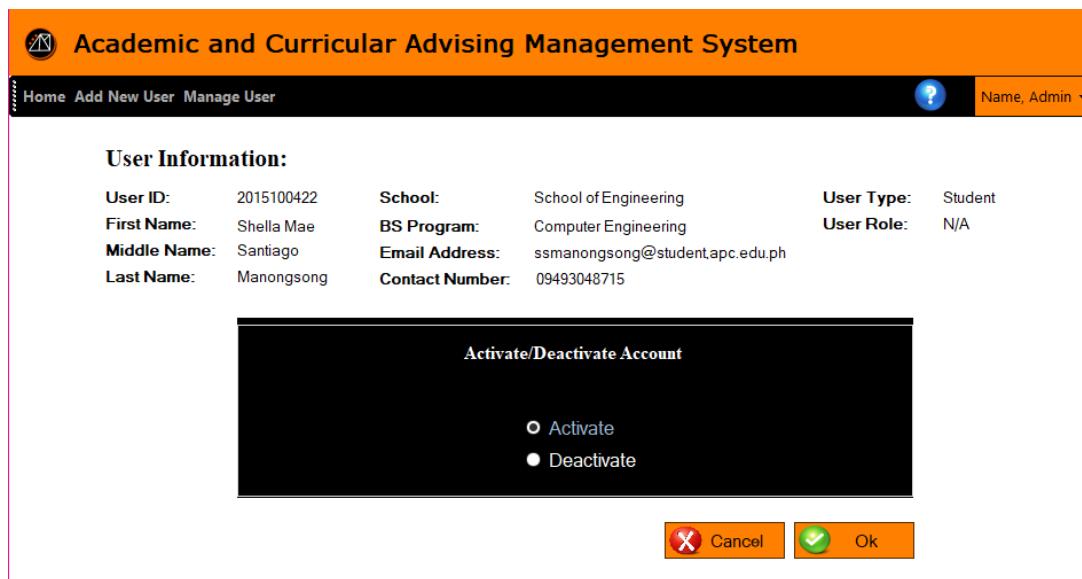


Figure 3.33 Activate/Deactivate Account

The Activate/Deactivate account Page allows the administrator to change the account status.



Figure 3.34 Confirmation (Pop up)

This page is to confirm if the user is certain before proceeding on the next step.

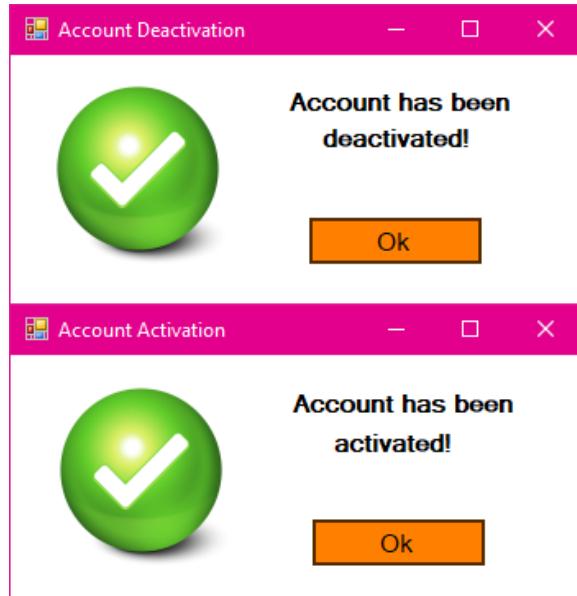


Figure 3.35 Account activated/deactivated Confirmation (Pop up)

This confirmation screen is to notify the admin that the request in changing the account status has successfully been processed.

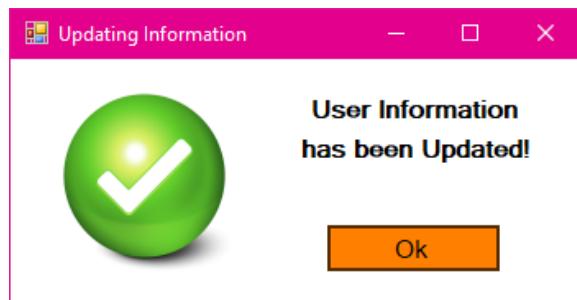


Figure 3.36 User Information Updated (Pop up)

This popup will notify the admin that the user information edited has been updated.

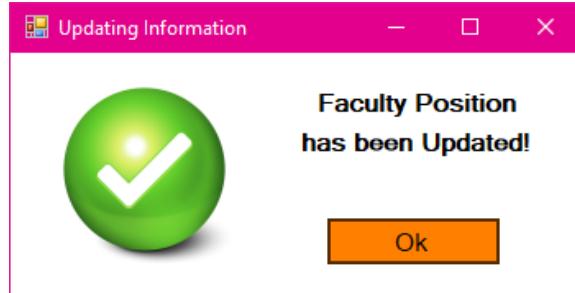


Figure 3.37 Faculty Position Updated (Pop up)

After editing a faculty user's position or account type with its privileges, this pop-up will notify the user that the position has been updated.

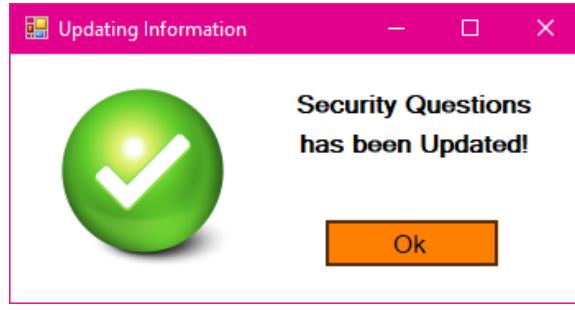


Figure 3.38 Security Questions Updated (Pop up)

After editing the security questions this pop-up message will display indicating the change is successful.

The Executive Director homepage for the Academic and Curricular Advising Management System (ACAMS) displays various management tools and reports. At the top, there is a navigation bar with links for Home, New Case, Search Case ID, Show All Cases, Import from Excel File, and a search bar. A dropdown menu shows the user is Stanley Glenn Brucal, Executive Director. Below the navigation is a table titled "Case ID" showing student cases. To the right of the table are two pie charts: "Case Priority" and "Case Age". The "Case Priority" chart shows segments for > 14 days (grey), < 7 days (blue), and > 7 days (orange). The "Case Age" chart shows segments for Normal (3), High Priority (4), and Hot (3). On the left, there are three expandable sections: "MY SUBJECTS" (listing Subjects and Sections like ELEXLC1, CpE151, etc.), "MY CLUSTER (Block)" (listing clusters like ECE151, ECE131), and "MY REPORTS" (listing reports like All Cases by Student ID, All Cases by Faculty ID, etc.).

Figure 3.39 Executive Director Homepage

The form in figure 3.39 displays the home page of the Executive Director. This is where the summarized table of all cases is shown, and the pie chart of case priorities and its age. There is also a list of the subjects that the Executive Director is handling. There is also a cluster that has a list of all engineering students. And the reports have four types. And there is a toolbar for returning to home page, creating new case, search case ID, and showing all the cases created.

The screenshot shows a web-based application titled "Academic and Curricular Advising Management System". The top navigation bar includes links for "Home", "New Case", "Search Case ID", and "Show All Cases". On the right side of the header is a user profile for "Leonardo Samaniego Jr., Faculty". Below the header, a toolbar features icons for search, help, and other functions. The main content area is titled "List of All Subjects". A table lists five subjects with their respective sections:

No.	Subjects	Section
1.	FLEXLC1	CpE151
2.	FLEXLC1	ECE151
3.	LOGLAB1	CpE151
4.	DIFFQUA	ECE141
5.	CPMEMTH1	CpE131

At the bottom right of the content area is a "Back" button.

Figure 3.40 Subject List

The screen allows the user to view the list of subjects that he handles before proceeding to the next page which is the list of students enrolled in the subject.

The screenshot shows the same application interface as Figure 3.40. The title bar and header are identical. The main content area is titled "List of Students". A sub-header "Subject Selected:" shows "SYSADLC (System Analysis and Design)". Below this, a list of nine students is displayed:

- 1. [Arbis, Glenn C.](#)
- 2. [Alejandro, Rosemarie L.](#)
- 3. [Bundoc, Lance](#)
- 4. [Dabo, John Vincent](#)
- 5. [Fernandez, Patrick Justin](#)
- 6. [Gecale, Gerald Matthew C.](#)
- 7. [Marinda, Hamill O.](#)
- 8. [Manongsong, Shella Mae S.](#)
- 9. [Martin, Jude Nico](#)

At the bottom right of the content area is a "Back to All Subjects" button.

Figure 3.41 List of Students by Subject

This page allows the user to view the list of students who are currently enrolled in the subject.

The screenshot shows the 'Case Page – Academic Faculty' interface. At the top, there's a navigation bar with links for Home, New Case, Search Case ID, Show All Cases, and user information (Leonardo Samaniego Jr., Faculty). Below the navigation is a grid of student information fields: Student ID (2015100422), First Name (Shella Mae), Last Name (Manongsong), Middle Name (Santiago), and BS Program (Computer Engineering). To the right of these are Contact Information fields (Email Address: ssmarongsong@student.apc.edu.ph, Contact No.: 09493048715) and Account Information fields (Account Status: Active, Account Type: Student). A large central area is labeled 'Case Detail'. It includes dropdown menus for Nature (Academic), Category (Tutorial), Sub-Category (Current Subject), Case Title (Inductor in Series and Parallel Problem), Case Priority (Normal), Subject (CIRCUITS2), and Faculty (Sergio Peruda Jr.). Below this is a 'Current Case Notes' section with a text area and buttons for 'Add Notes' and 'See All Notes'. At the bottom of the page are buttons for Additional Case, Get Case No., Close Case, Cancel, and Save.

Figure 3.42 Case Page –Academic Faculty

- This is where the user will create a new case. The text box that are tinted with grey color cannot be edited, and automatically generated by the searched student's information. The Open Cases on the right corner of Case Detail displays the total cases that the student has.
- The Case Detail must be all filled before it allows to click done.
- The Nature indicates if the case is Academic or Curriculum.
- The Category is if it is about a subject tutorial, academic outcome, behavior concern, project, pre-registration, enrollment or flow chart.
- The Sub-Category indicates if it is a current subject or past subject, Passed or Failed subject, attendance, grade consultation, deliverables, project output, subject advising, load revision, flowchart advising, or flow chart changing.
- The Case Title is simply the title of the new case.
- Case Priority indicates if the case is in High Priority, Normal or Hot. Hot means the case created for the student is at risk. While the other priority depends on the faculty's note.
- Subject is the list of subjects that the faculty is handling with the specific student.
- Faculty is the name of other faculty member that you will message for a tutorial or consultation, etc.
- Current Case Notes displays all the notes sent by the student and the faculty in a small note box.

- Add Note is when the faculty wants to send the student another note, the note will just add up to the notes sent.
- See All Notes will view all the notes on a larger window.
- Get Case Number is for generating a case number whenever the user is done filling up the form.
- Close Case is a command button when the case opened is already done.
- Done is for creating the case.
- Clear is for removing all the data inputted in Case Details.
- Back is for returning to the List of Students page.

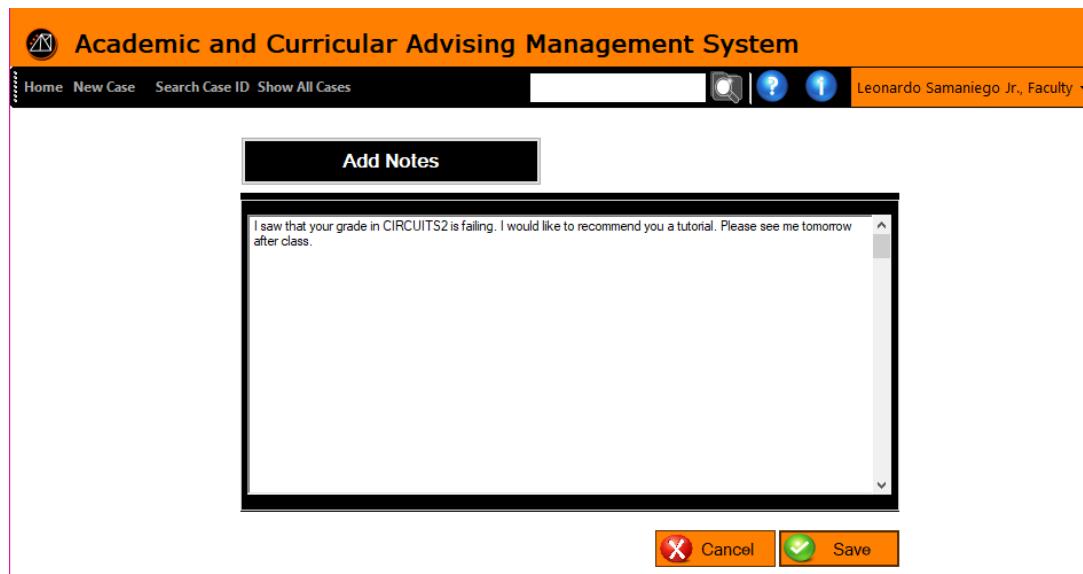


Figure 3.43 Add Notes

The figure 3.43 window lets the user construct a note and add to the history of their conversation. Save button is when the user is done typing and ready to add his/her note. It also has a vertical scroll bar in case the user typed a long note.

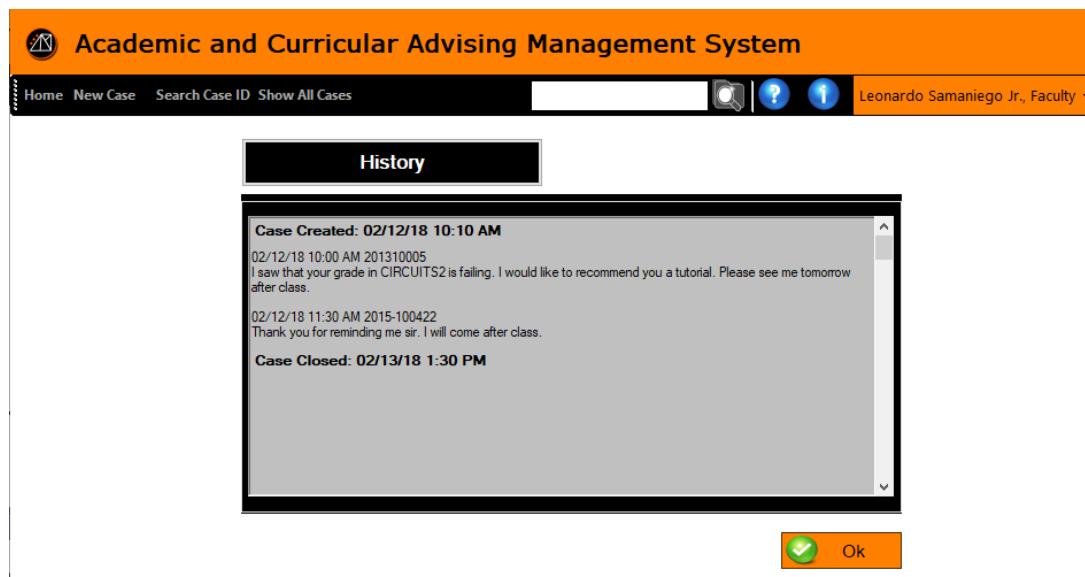


Figure 3.44 View All Notes

This page displays the history of the notes sent by the two users.

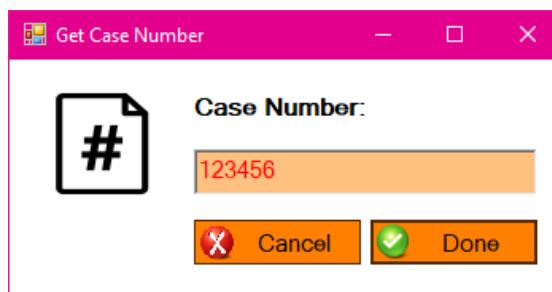


Figure 3.45 Get Case Number (Pop up)

This pop-up window will display whenever Get Case No. button is clicked to generate a unique case ID number when creating a new case.

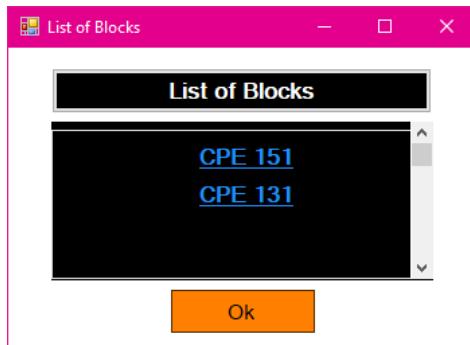


Figure 3.46 List of Blocks (Pop up)

This page allows the user to view all block he/she handles.

The screenshot shows a Windows application window titled "Form1". The title bar has the text "Academic and Curricular Advising Management System". The menu bar includes "Home", "New Case", "Search Case ID", "Show All Cases", and a user profile "Einstein Yong, Adviser". Below the menu is a toolbar with icons for search, help, and other functions. The main content area is titled "List of Students". It displays a list of students under the heading "Block Selected: CPE151". The list contains 7 items, each with a blue hyperlink:

1. [Arbis, Glenn C.](#)
2. [Alejandro, Rosemarie L.](#)
3. [Bundoc, Lance](#)
4. [Dabo, John Vincent](#)
5. [Fernandez, Patrick Justin](#)
6. [Manongsong, Shella Mae S.](#)
7. [Martin, Jude Nico](#)

At the bottom right of the content area is a button labeled "Back to Home" with a left arrow icon.

Figure 3.47 List of Students by Block

This window displays the list of students in a block that is hyperlinked to decide whether to create a new case to the student or view all his/her cases.

The screenshot shows a Windows application window titled "Academic and Curricular Advising Management System". The title bar has the text "Academic and Curricular Advising Management System". The menu bar includes "Home", "New Case", "Search Case ID", "Show All Cases", and a user profile "Einstein Yong, Adviser". Below the menu is a toolbar with icons for search, help, and other functions. The main content area is divided into three sections: "Student Information", "Contact Information", and "Account Information".

Student Information:		Contact Information:		Account Information:	
Student ID:	2015100422	Email Address:	ssmanongsong@student.apc.edu.ph	Account Status:	Active
First Name:	Shella Mae	Contact No.:	09493048715	Account Type:	Student
Last Name:	Manongsong				
Middle Name:	Santiago				
BS Program:	Computer Engineering				

Below these sections are fields for "Case Number" (with an "Open Cases" dropdown), "Case Detail" (Nature: Curricular, Category: Flowchart, Sub-Category: Change), "Case Title" (Failed Subjects), "Case Priority" (High Priority), "Subject" (dropdown), "Faculty" (Sergio Peruda Jr.), and "Current Case Notes" (a rich text editor with "Add Notes" and "See All Notes" buttons). At the bottom are buttons for "Additional Case", "Get Case No.", "Close Case", "Cancel", and "Save".

Figure 3.48 Case Page – Curricular Adviser

The buttons and displays are the same with figure 3.37. This page allows the adviser to create a case intended only in the nature of curricular.

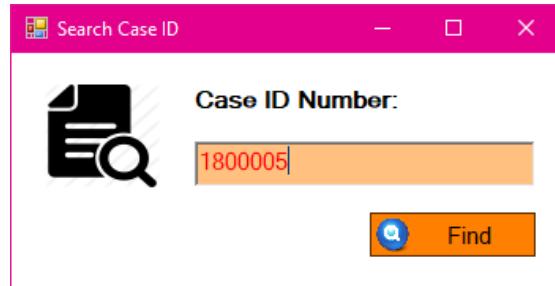


Figure 3.49 Search Case ID (Pop up)

The page allows the user to enter the case ID prior to pulling up the case.

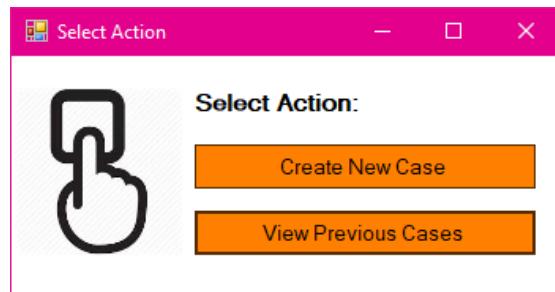


Figure 3.50 Select Action (Pop up)

This page allows the user to select he would like to create a new case or view previous cases.

A screenshot of the Academic and Curricular Advising Management System (ACAMS) filtering page. The top navigation bar includes links for Home, New Case, Search Case ID, Show All Cases, and user information (Leonardo Samaniego Jr., Faculty). The main search area contains fields for User ID, First Name, Last Name, Course, and BS Program, along with a "Search" button. To the right is a "Filter By" sidebar with dropdown menus for Case Status (Close), Date Range (01/07/18 - 03/07/18), Nature (Academic), Category (All), Sub-Category (All), and a "Filter" button. Below the search area is a table listing cases with columns: Case ID#, Case Title, Nature, Category, Sub-Category, Priority, Status, and Faculty. The table contains four rows of data.

Case ID#	Case Title	Nature	Category	Sub-Category	Priority	Status	Faculty
1800008	Excessive Absences	Academic	Behavior	Attendance	Normal	Closed	Leonardo Samaniego Jr.
1800007	algebra problem	Academic	Outcome	Failed	Hot	Closed	Leonardo Samaniego Jr.
1800006	ELEXLC tutorial	Academic	Tutorial	Past Subject	Hot	Closed	Stanley Brucal
1800002	ENGECON	Academic	Tutorial	Current Subject	High Priority	Closed	Einstein Yong

Figure 3.51 Filtering Page

This page allows any faculty level user to search for case by entering either the user ID, first name, last name, course, or BS Program. It will produce a queue of results that are related information provided. It also has a section to further filter the search result.

All Cases by Faculty ID

Faculty ID: 201310005

Case Status: Open

Date Range: 01/01/17 - 01/01/18

Nature: All

Category: All

Sub-Category: All

Generate Report

Figure 3.52 Generate Report – All Cases by Faculty ID

The page allows the PD/XD user to enter the information that will be needed in generating a report. The form needs to be filled up if the user is looking for case related to one faculty only.

All Cases by Student ID

Student ID: 2015100422

Case Status: All

Date Range: 01/01/18 - 03/01/18

Nature: Curricular

Category: All

Sub-Category: All

Generate Report

Figure 3.53 Generate Report – All Cases by Student ID

The page allows the PD/XD user to enter the information that will be needed in generating a report. The form needs to be filled up if the user is looking for case related to one student only.

The screenshot shows a web-based application titled "Academic and Curricular Advising Management System". At the top, there is a navigation bar with links for "Home", "New Case", "Search Case ID", "Show All Cases", "Import from Excel File", and user information "Sergio Peruda Jr., Program Director". Below the navigation bar, a title "All Cases per Faculty ID" is displayed in a black-bordered box. Underneath this, there is a form with five dropdown menus for filtering cases:

- Case Status: Open
- Date Range: 01/01/17 - 01/01/18
- Nature: All
- Category: All
- Sub-Category: All

At the bottom right of the form area is a yellow "Generate Report" button with a bar chart icon.

Figure 3.54 Generate Report – All Cases per Faculty ID

The page allows the PD/XD user to enter the information that will be needed in generating a report. The form needs to be filled up if the user is looking for all faculty related cases within a date range.

This screenshot shows the same web-based application interface as Figure 3.54. The title "All Cases" is displayed in a black-bordered box. The filter form below includes the following dropdowns:

- Case Status: Open
- Date Range: 01/01/18 - 02/02/18
- Nature: Curricular
- Category: Project
- Sub-Category: All

A yellow "Generate Report" button with a bar chart icon is located at the bottom right of the form area.

Figure 3.55 Generate Report – All Cases

The page allows the PD/XD user to enter the information that will be needed in generating a report. This form needs to be filled up if the user would like to pull up all case within a date range for a specific case status.

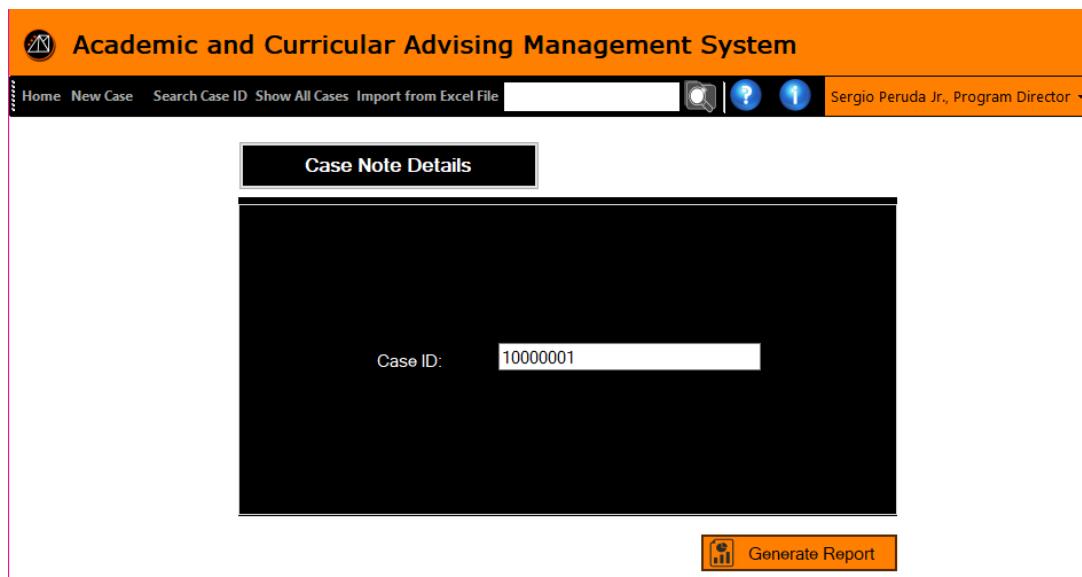


Figure 3.56 Generate Report – Case Note Details

This allows the PD/XD user to search for a specific case to create a report with.

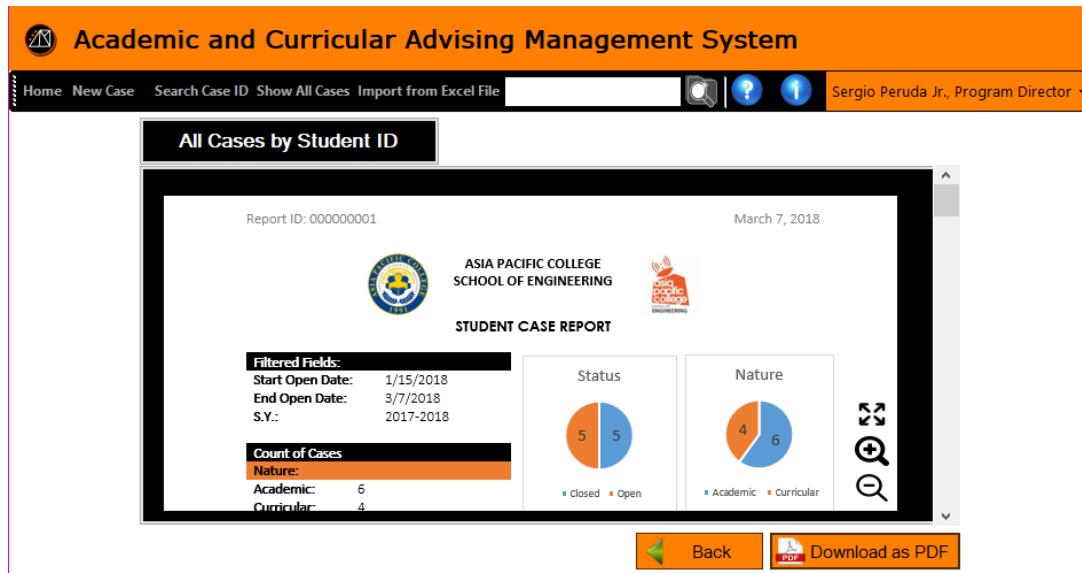


Figure 3.57 View Report

The page shows the preview of the report that the user created.

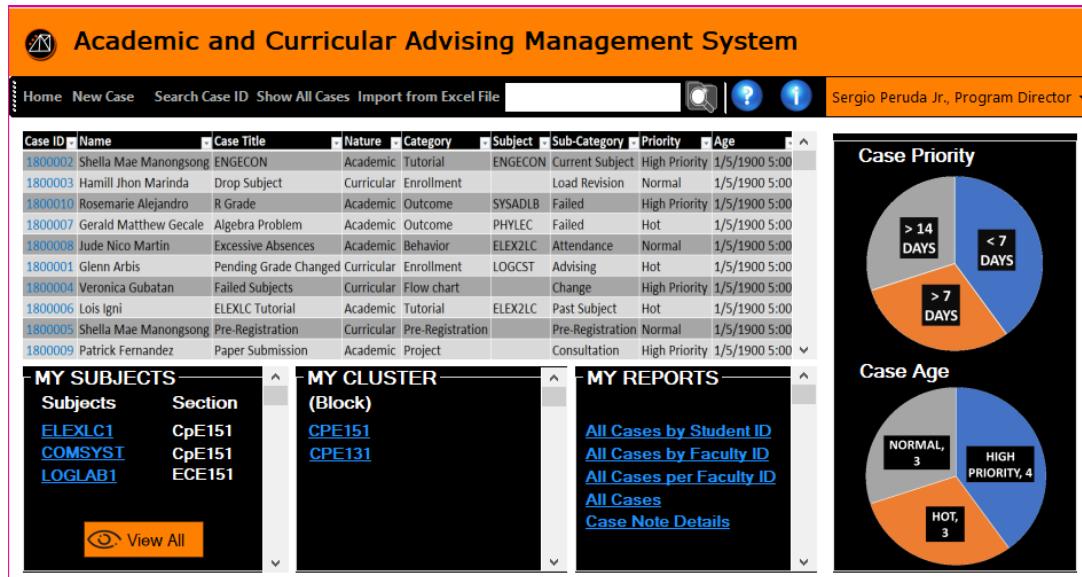


Figure 3.58 Program Director Homepage

Fig 3.56 is a form similar to the Executive Director's privilege, which displays the home page of the Program Director. This is where the summarized table of all cases is shown, and the pie chart of case priorities and its age. There is also a list of the subjects that the Program Director is handling. There is also a cluster that has a list of all engineering students. The reports have 4 types. The user can create a new case, search case ID, and show all the cases created.

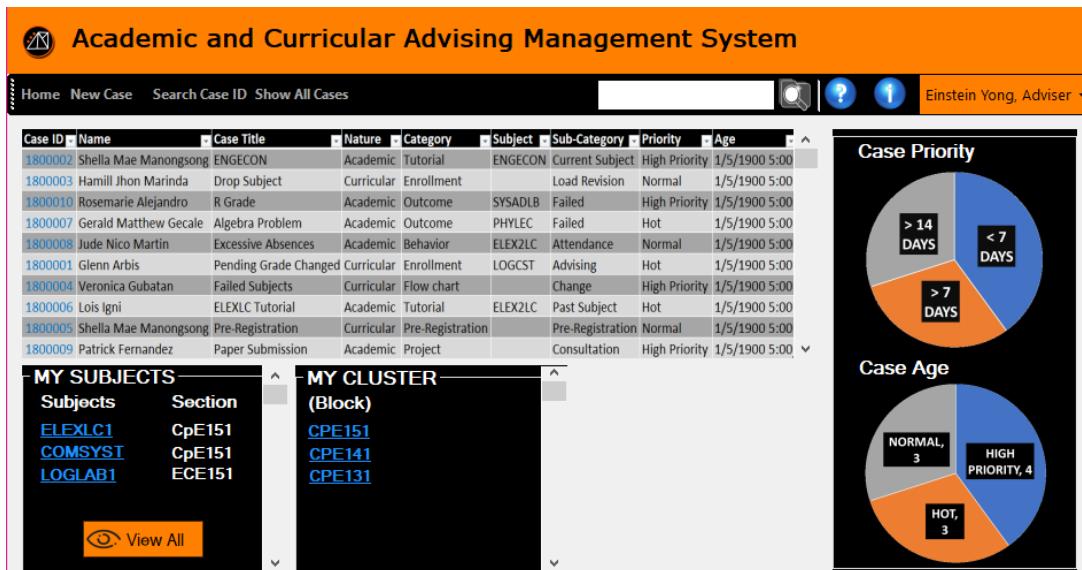


Figure 3.59 Adviser Homepage

The page shows the homepage for adviser. This page is similar to the faculty page. The added section is My Cluster that displays the hyperlinks of the blocks he/she handles.

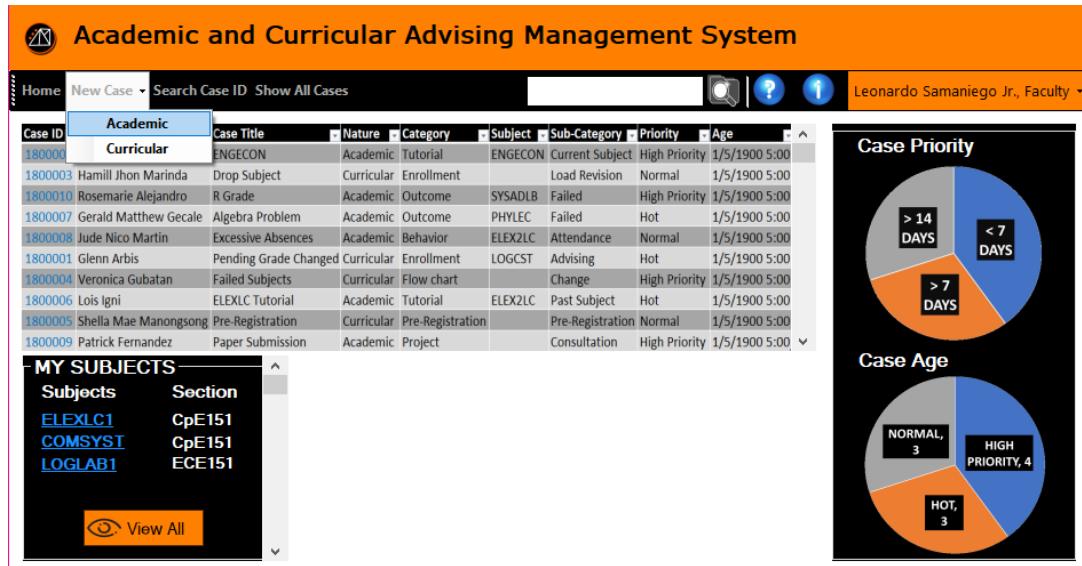


Figure 3.60 Faculty Homepage

This is the faculty's homepage after logging in successfully.

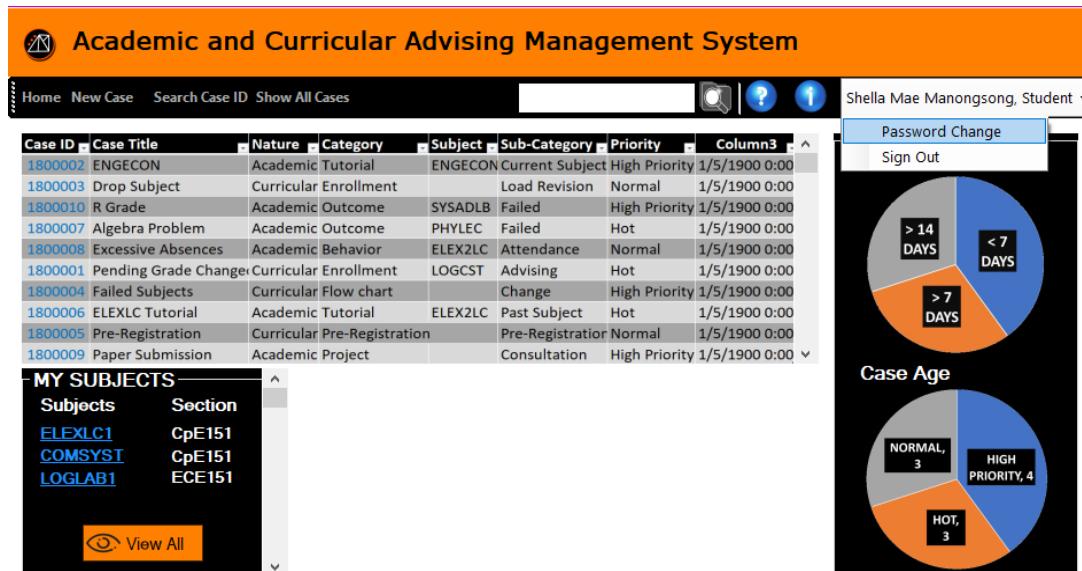


Figure 3.61 Student Homepage

This is the homepage of the student with my subject box and pie graph to see the summary of case priority and case age. He can create a case, search case ID and show all cases.

Figure 3.62 Case Page – Academic / Curricular Student

Fig 3.62 is the case page where in the student allows to create a case but cannot create additional case, because the faculty can only decide if it is an additional case and the case created by student is still in request until the faculty accepts it.

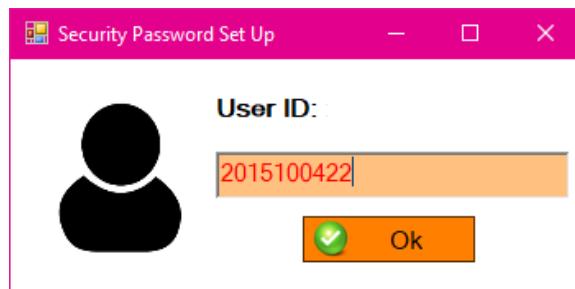
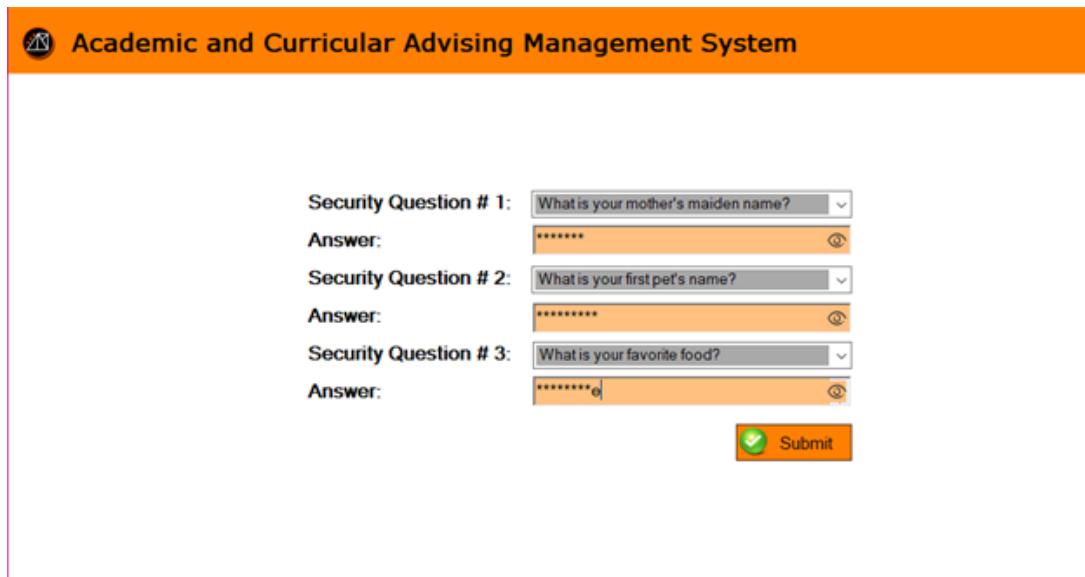


Figure 3.63 Forgot Password – School ID (Pop-up)

When the user clicked the Forgot Password button, this pop-up window will display. The user have to enter his/her user ID to identify which account is it.



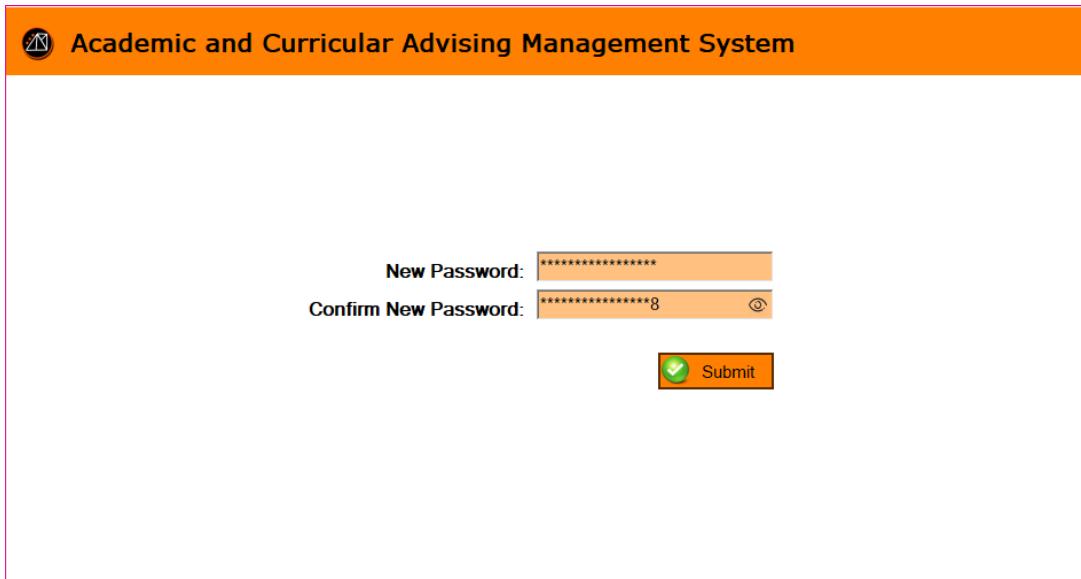
The screenshot shows a web page titled "Academic and Curricular Advising Management System". Below the title, there are three security questions with their answers filled in:

Security Question # 1:	What is your mother's maiden name?
Answer:	*****
Security Question # 2:	What is your first pet's name?
Answer:	*****
Security Question # 3:	What is your favorite food?
Answer:	*****e

At the bottom right is an orange "Submit" button with a green checkmark icon.

Figure 3.64 Forgot Password – Security Question

The user is required to answer the security questions he/she has chosen during his/her registration. Answering them all correctly will give the user the privilege in changing his/her password.



The screenshot shows a web page titled "Academic and Curricular Advising Management System". It contains two input fields for entering a new password:

New Password:	*****
Confirm New Password:	*****8

At the bottom right is an orange "Submit" button with a green checkmark icon.

Figure 3.65 Forgot Password – Entering the New Password

The user can now enter his/her new desired password twice for confirmation/case sensitivity purposes.



Figure 3.66 Forgot Password – Update Successful (Pop up)

Confirmation and a notification popup where the user will be redirected to their homepage.

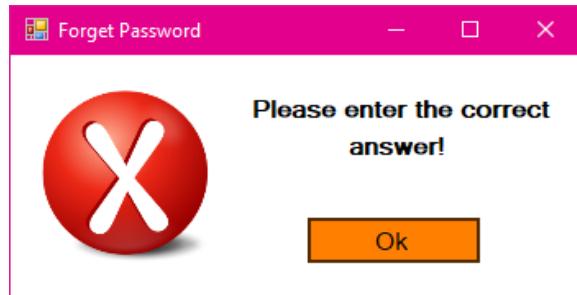


Figure 3.67 Forgot Password – Invalid Answer(s) Prompt (Pop up)

A popup notifying the user that his/her answers in the security questions are incorrect.



Figure 3.68 Forgot Password – New Password Input Mismatch (Pop up)

A popup notifying the user that his/her newly entered passwords are mismatched.

The screenshot shows a web-based form titled "Academic and Curricular Advising Management System". The form includes fields for three security questions and their answers, as well as fields for the old password, new password, and confirmation of the new password. At the bottom are "Cancel" and "Submit" buttons.

Security Question # 1:	What is your mother's maiden name?
Answer:	*****
Security Question # 2:	What is your first pet's name?
Answer:	*****
Security Question # 3:	What is your favorite food?
Answer:	*****
Old Password:	*****
New Password:	*****
Confirm New Password:	*****s

Figure 3.69 Updating Password

When the user wants to change his/her password, the user needs to comply this form for security purposes.

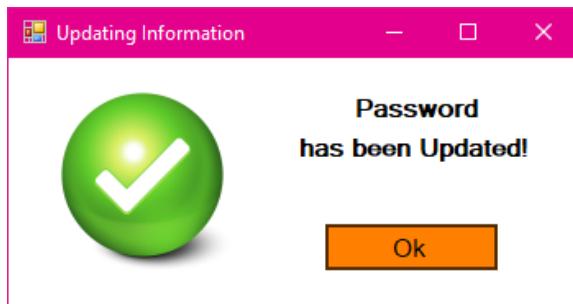


Figure 3.70 Updating Password – Update Successful (Pop up)

When the user is done with the form this pop-up message will display indicating the user's password is updated successfully.

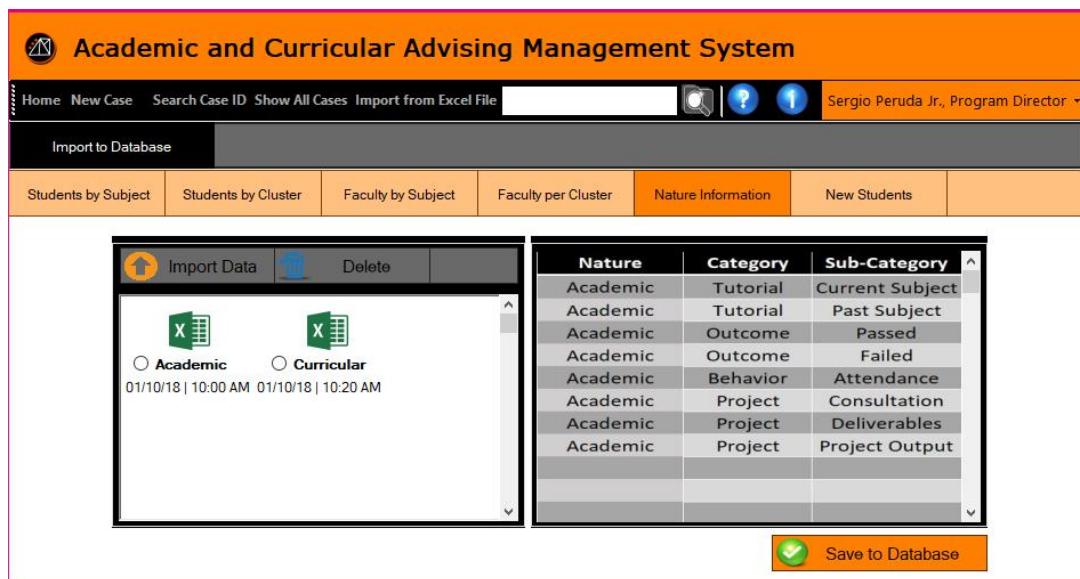


Figure 3.71 Import from Excel File to Database

This is the sample of user interface when the user picked a section where he/she wanted to add the information from the excel file he/she imported.

Academic and Curricular Advising Management System Online Registration

ACAMS<ACAMS@apc.edu.ph>
Today, 12:37 PM
Hamill Marinda

Dear Mr./ Ms. <Student_Last_Name>,
Please click on the link to proceed with your online registration.
[http://www.ACAMS.apc.edu.ph.abcgefg%jfsld\\$ljdfojklojasdf/Student_ID?%klajsdfoef](http://www.ACAMS.apc.edu.ph.abcgefg%jfsld$ljdfojklojasdf/Student_ID?%klajsdfoef)
Should you encounter any problems, please visit Mr. Stanley Brucal or Mr. Sergio Peruda Jr. on the faculty area in 4th floor.
Thank you for using the ACAMS Website.
This is a system Generated email. Please do not reply.

Figure 3.72 Email

After importing the list of students by the Executive and Program Directors, a default email will be sent to the APC email of the students listed. The students will receive an email containing a link direct to the registration of the system.

The screenshot shows a web-based user interface for the Academic and Curricular Advising Management System. At the top, there's a navigation bar with links for Home, Add New User, Manage User, and a user profile icon labeled 'Name, Admin'. Below the navigation is a horizontal menu bar with four tabs: Step 1 (User Position), Step 2 (User Information, which is currently selected), Step 3 (Account Login Information), and Step 4 (Confirmation). The main content area displays a form with the following data:

ID Number:	2015100422
First Name:	Shella Mae
Middle Name:	Santiago
Last Name:	Manongsong
School:	School of Engineering
BS Program:	BS Computer Engineering
Email Address:	ssmanongsong@student.apc.edu.ph
Contact Number:	09493048715

At the bottom right of the form is a yellow 'Submit' button with a green checkmark icon.

Figure 3.73 Step 2 User Information not edited

After clicking the link from the email sent by the system, this page will display. The text boxes with grey highlights are not editable, the information stored in it is bases on the data imported by the executive/program director, and the student will only fill the data for their contact number.

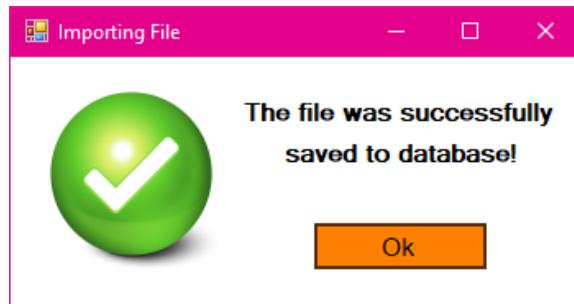


Figure 3.74 Successful Saving of data (Pop-up)

After importing of excel file containing data that will be added to the database, this pop-up window will display indicating that the data uploaded is saved successfully.

3.6 Reports

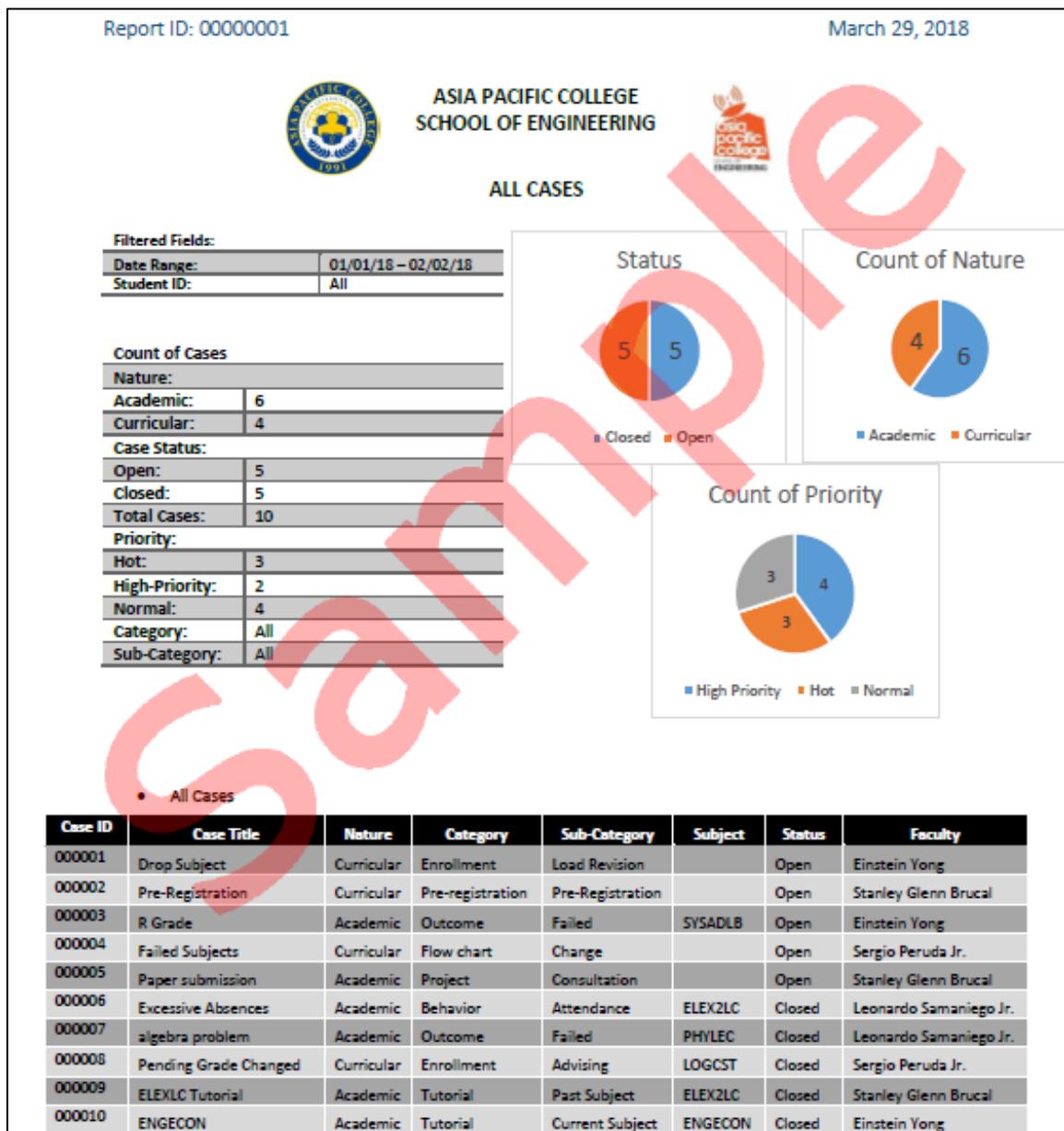
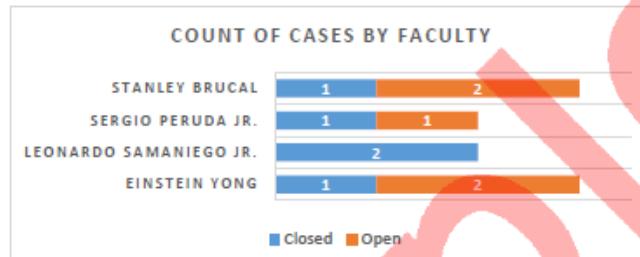


Figure 3.75 All Cases A

The figures 3.75 and 3.76 are examples of a multiple case generated report. It consists of the list of cases selected by the XD and PD from their inputted date range and categories.

- Faculty List of Cases by Status



- Einstein Yong

Case ID	Case Title	Nature	Category	Subject	Sub-Category	Priority	Status	Faculty
1800002	ENGECON	Academic	Tutorial	ENGECON	Current Subject	High Priority	Closed	Einstein Yong
1800003	Drop Subject	Curricular	Enrollment		Load Revision	Normal	Open	Einstein Yong
1800010	R Grade	Academic	Outcome	SYSADLB	Failed	High Priority	Open	Einstein Yong

- Leonardo Samaniego Jr.

Case ID	Case Title	Nature	Category	Subject	Sub-Category	Priority	Status	Faculty
1800007	Algebra Problem	Academic	Outcome	PHYLEC	Failed	Hot	Closed	Leonardo Samaniego Jr.
1800008	Excessive Absences	Academic	Behavior	ELEX2LC	Attendance	Normal	Closed	Leonardo Samaniego Jr.

- Sergio Peruda Jr.

Case ID	Case Title	Nature	Category	Subject	Sub-Category	Priority	Status	Faculty
1800001	Pending Grade Changed	Curricular	Enrollment	LOGCST	Advising	Hot	Closed	Sergio Peruda Jr.
1800004	Failed Subjects	Curricular	Flow chart		Change	High Priority	Open	Sergio Peruda Jr.

- Stanley Glenn Brucal

Case ID	Case Title	Nature	Category	Subject	Sub-Category	Priority	Status	Faculty
1800006	ELEXLC Tutorial	Academic	Tutorial	ELEX2LC	Past Subject	Hot	Closed	Stanley Glenn Brucal
1800005	Pre-Registration	Curricular	Pre-registration		Pre-Registration	Normal	Open	Stanley Glenn Brucal
1800009	Paper submission	Academic	Project		Consultation	High Priority	Open	Stanley Glenn Brucal

Figure 3.76 All Cases B

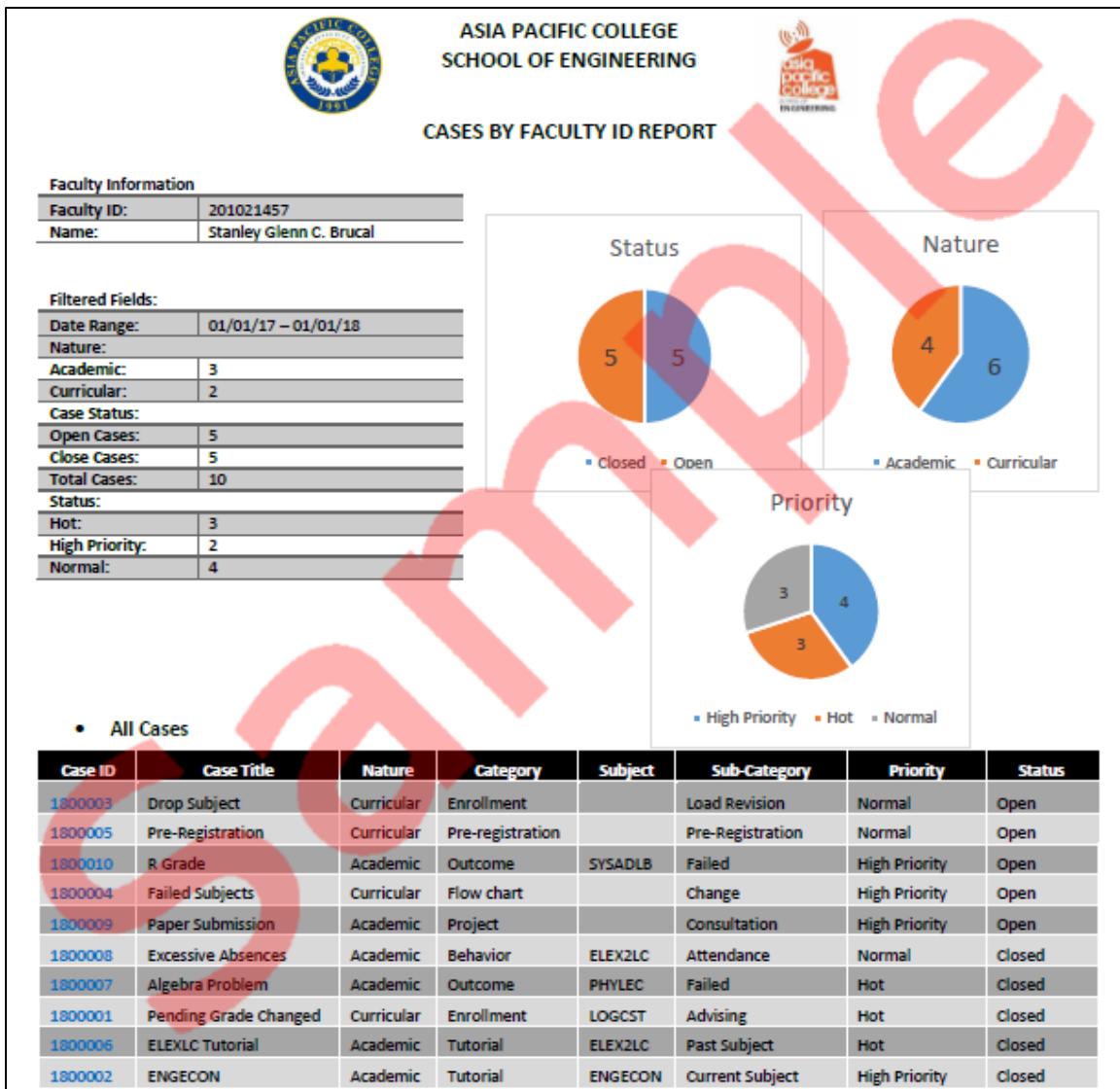


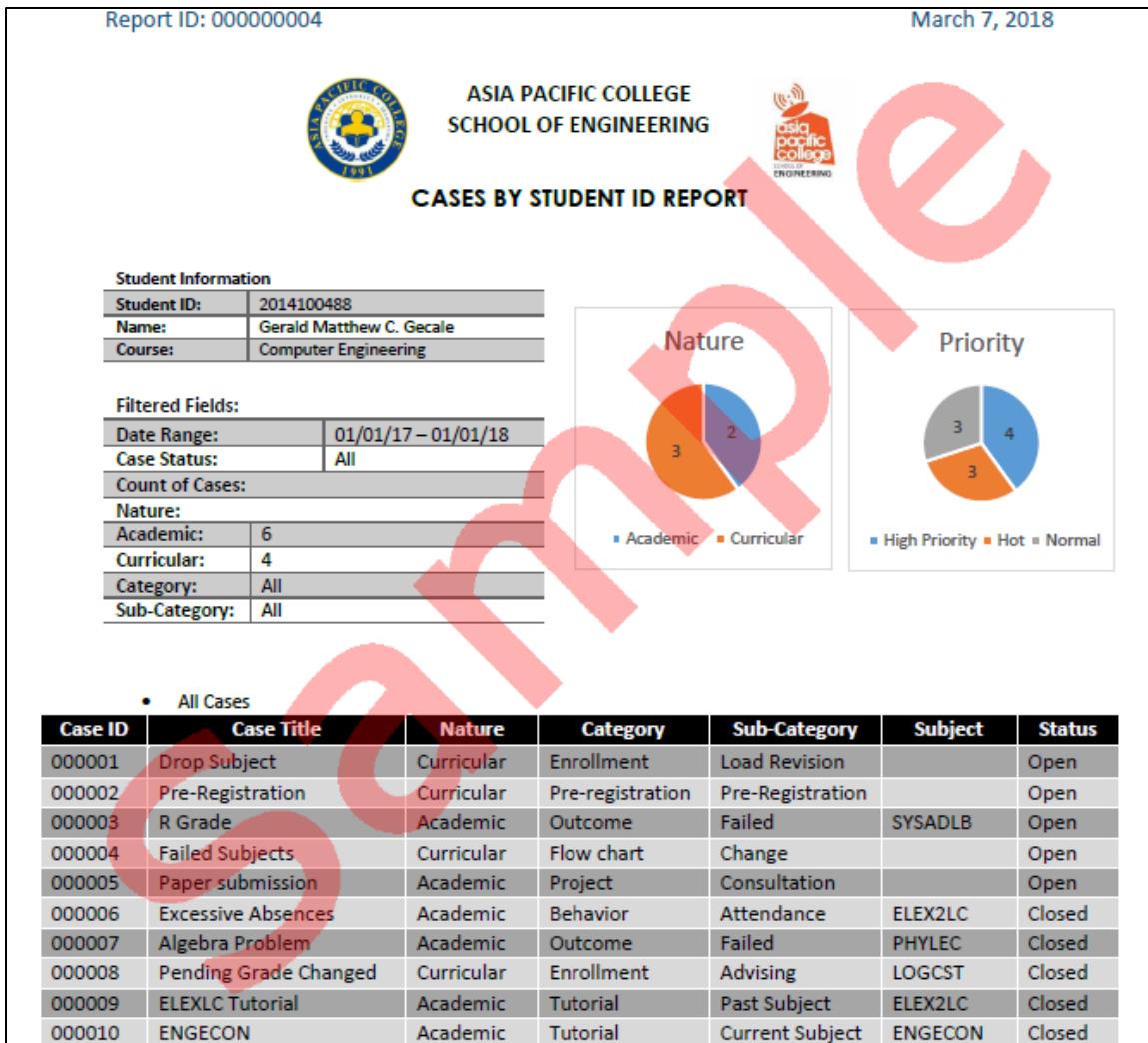
Figure 3.77 Cases by Faculty ID Report

In figure 3.77, the report generated a report from the XD, or PD user. A report that shows all the reports open or closed involving themselves.

Report ID: 00000002	April 29, 2018	
 ASIA PACIFIC COLLEGE SCHOOL OF ENGINEERING 		
CASE NOTE DETAILS		
Student Information:		
Student ID: 2015100422	Email: ssmangongsong@student.apc.edu.ph	
Name: Manongsong, Sheila Mae S.	Contact No.: 09493048415	
BS Program: Computer Engineering	Account Status: Active	
Account Type: Student		
Case Details:		
Case No.: 0000001	Category: Tutorial	
Nature: Academic	Subject: ELEXLC1	
Case Title: BT and FET Problem	Sub-Category: Past Subject	
Case Priority: Hot	Faculty: Stanley Glenn Brucal	
Case Owner: Stanley Glenn Brucal		
Case Created: 3/3/2018		
Notes:		
User ID	Date/ Time	Note
2015100422	03/03/2018 4:00 PM	I saw that your grade in ELEXLC1 is failing. I would like to recommend you a tutorial. Please see me tomorrow after class.
2015100005	03/03/2018 4:15 PM	Thank you for reminding me, sir. I will see you after class.

Figure 3.78 Case Note Details Report

The generated report in figure 3.79 is a report of an individual student selected by either the XD, or PD, showing all the case details along with the interaction via case notes between the case owner and the selected student.

**Figure 3.79 Cases by Student ID Report**

The figure 3.80 is a generated report that shows both open and closed cases of a selected student with the case details. The report shows only the cases from the selected date range.

3.7 Methods, Tools, and Techniques

Table 3.2. Methods

Methods	Tools	Techniques
Automated	Computer Internet Connection Database Server	User Database Management System
Automated	Computer Internet Connection Case Database Server	Case Database Management System
Automated	MySQL Workbench Draw.io	Entity Relationship Diagram: Crowfoot Notation
Automated	Draw.io	Business Process Model: Data Flow Diagram (LvL0, LvL1, LvL2)
Automated	Microsoft Excel	Data Dictionary: Normalization

3.7.1. Tools

- MySQL Workbench – the group used MySQL Workbench to create the system's Entity Relationship Diagram. This software helped us in properly placing the mandatory forms of the entities with the crowfoot method.
- Draw.io - this online drawing tool was used for creating the extended Entity Relationship Diagram, and the Data Dictionary, from the Context Diagram (LvL0), LvL1, and LvL2.
- Microsoft Visual Studio (2013-2016) - this software was our vital tool in creating the group's user interfaces.
- Microsoft OneNote – this online file collection and collaboration tool was used for the organization and arrangement of our documentation, as well as our images or figures for the documentation.

3.6.2. Techniques

The proponent conducted interviews with the client in order to fully understand the processes and functions needed in the system. People who are involved in the system was distinguished from the interviews as well. For the refinement of the processes and specifications of the system,

follow-up consultation and interviews were actively conducted in order for the additional changes that were needed are clarified and verified.

- Crowfoot Notation – a database management method used in the Entity Relationship Diagram to assign the relationship of entities with other entities. The lines used to connect the entities have certain figures at the ends of the lines depending on the nature of the relationship. Figures that looks like a crow's foot getting the name Crowfoot Notation.
- Normalization of Tables – the processes of reconstructing a database system's tables to reduce data redundancy and makes the tables more organized and accessible in an orderly fashion.

3.8 Infrastructure

From the figure 3.81, the minimum requirements of the Academic & Curricular Advising Management System that being the system to be an intranet, a server, typically a basic workstation server for schools with sufficient internet speeds for optimal data transfer. Yes, the system is an intranet web-based system, but it is still necessary to have proper internet connection inside the network for maximum throughput of the networks file transfer speed.

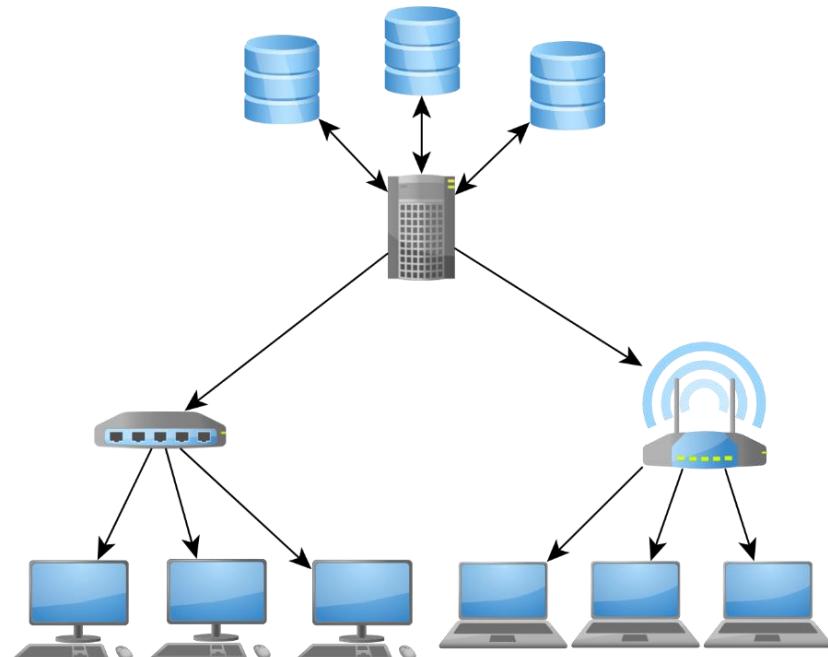


Figure 3.80 Infrastructure

Internet and Network Speed Minimum System Requirements (For a small population e.g. 100 Users)

Internet:

- Upload Speed: 15 Megabits per second
- Download Speed: 15 Megabits per second

Network:

- Cable: CAT5E with the rating of 1000 Megabits per second, Ethernet 1000Base-T.

Server's Minimum System Specifications Required for Possible Outside Deployment

OS: Linux (Oracle, Slackware, etc. Any basic server-type Linux OS would suffice)

Processor Specifications: Multicore/Multi-threaded CPU (4 Cores/8 Threads)

The more threads the better depending on the quantity of the population that will use the system.

RAM: 16GB, frequency higher than the old 1600MHz. DDR3 is still good for optimal performance but if the platform of the motherboard and processor supports DDR4, DDR4 would be most optimal for the system.

Storage: Hard Disk Drive with the rating of 7200RPM would be the minimum, but the utilization of an SSD, although expensive, would provide the best performance for the system.

Graphics Card: The system being a basic file and reports system, no powerful graphics card is necessary. The Server's System Unit needs a graphics processing unit because majority of server processors don't come with integrated graphics processing unit.

Possible minimum requirements for graphics are the following:

- NVidia GTX1030 2GB GDDR5
- AMD RX550 2GB GDDR5

Power Supply: Depends on the power required to power the CPU + GPU + Motherboard.

Recommended Wattage: 600W or higher, with 80% Efficiency Rating preferably with a Bronze Rating or Higher.

User's Minimum System Specification Requirements for his/her computer

Processor: Intel Pentium 4th generation or higher,

Recommended Processor: Intel i3-4th generation or higher.

RAM: 4GB DDR3 1600MHz+ or DDR4 2133MHz+

Recommended RAM Capacity: 8GB

GPU: Intel HD Graphics (Integrated) / AMD Radeon Graphics (Integrated)

Recommended: Any Discrete Graphics whether the user is using a desktop computer or portable computer (Notebook/Laptops, etc.).

OS: Windows 7 (64-bit) or higher versions of windows

Web Browser: Microsoft Edge 10, Google Chrome

CHAPTER IV
MANAGERIAL PROCESS PLAN

4.1 Start-Up Plan

4.1.1 Estimates

Table 4.1 Estimates

PERSONNEL	RATE/HR	# PERSONNEL	HOUR RENDERED	COST
Project Manager	500	1	315	157500
Analyst	400	1	306	122400
Database Manager	400	3	306	122400
Programmer	300	5	503	150900
Graphic Designer	200	1	660	132000
Trainer	100	1	4	400
QA Analyst	100	1	115	11500
Documentarist	100	1	22	2200
TOTAL		14	2231	699300

Table 4.1 specifies the estimated cost of the personnel, the estimated wages, headcount, hours, and cost in conducting the project. The estimation is based on analogy, rule of thumb, standard unit of size, cost mode, and historical data.

4.1.2 Staffing

Table 4.2 Staffing

PERSONNEL	# PERSONNEL
Project Manager	1
Analyst	1
Database Manager	3
Programmer	5
Graphic Designer	1
Trainer	1
QA Analyst	1
Documentarist	1
TOTAL	14

Table 4.2 specifies the number of staff required per position for the whole project. The estimation is based from the number of personnel needed per project phase and duration of personnel requirement. Data from 4.3 is the main basis for estimation.

4.1.3 Resource Acquisition

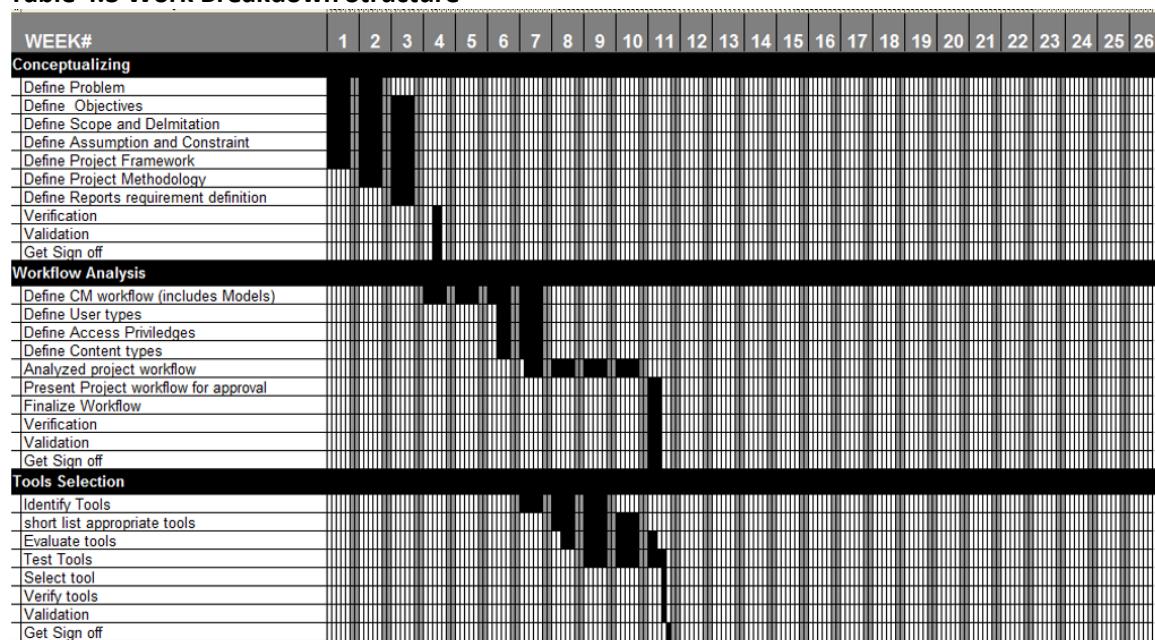
Since the system is a web-based system with PHP as its language, the proponent will utilize any PhpStorm as the integrated development environment. MySQL is used for the Entity Relationship Diagram, but the actual database will utilize Microsoft Access or MySQL Server. The resources have installers available in the market or in the internet. The server that the system will use once implemented will be provided by the Information and Technology Resource Office (ITRO) of Asia Pacific College.

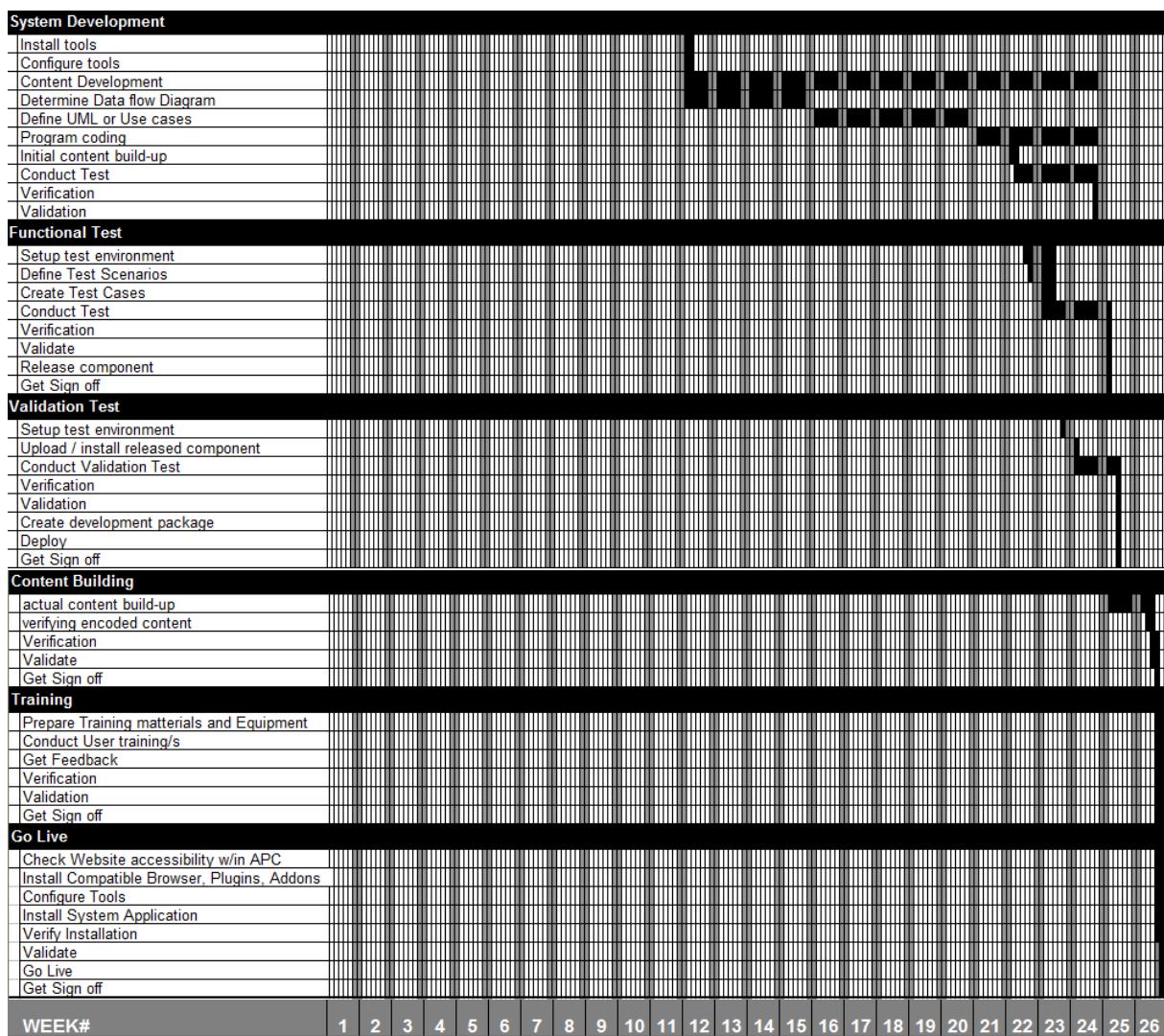
4.2 Work Plan

4.2.1 Work Breakdown Structure

Table 4.3 shows the Work Breakdown Structure in a graphical illustration of the phases of the project. The rows in the tables shows the major activities and its actual activities. The column is divided by weeks and a week is divided by days with corresponding date. If an activity is expected to start and end to date range, it will be highlighted on the table allowing the reader to easily manage the project and view the project status.

Table 4.3 Work Breakdown Structure





4.6. Schedule Allocation

Table 4.4 Work Breakdown Structure per Major Activity

MAJOR ACTIVITY	START DATE	END DATE	DAYS
Conceptualizing	15-Jan-18	26-Jan-18	12
Workflow Analysis	05-Feb-18	28-Mar-18	52
Tools Selection	26-Feb-18	30-Mar-18	33
System Development	02-Apr-18	01-Jul-18	91
Functional Test	14-Jun-18	02-Jul-18	19
Validation Test	22-Jun-18	04-Jul-18	13
Content Building	02-Jul-18	12-Jul-18	11
Training	12-Jul-18	12-Jul-18	1
Go Live	12-Jul-18	13-Jul-18	2

Table 4.4 shows the specified start and end estimated date per major activity and the expected days for completion.

Table 4.5 Work Breakdown Structure per with Actual Activity

Conceptualizing	Start Date	End Date	Man Hours
Define Problem	15-Jan-18	01-Feb-18	12
Define Project Objectives	15-Jan-18	02-Feb-18	12
Determine requirements	15-Jan-18	02-Feb-18	12
Define Business Process	15-Jan-18	02-Feb-18	12
Define Project Framework	15-Jan-18	02-Feb-18	12
Define Project Methodology	19-Jan-18	02-Feb-18	24
Define Reports requirement definition	22-Jan-18	02-Feb-18	12
Verification	07-Feb-18	08-Feb-18	1
Validation	07-Feb-18	08-Feb-18	1
get sign off	07-Feb-18	08-Feb-18	1
Workflow Analysis	Start Date	End Date	Man Hours
Define CM workflow	05-Feb-18	02-Mar-18	96
Define User types	21-Feb-18	02-Mar-18	12
Define Access privileges	22-Feb-18	02-Mar-18	18
Define Content types	23-Feb-18	02-Mar-18	18
Analysed project workflow	27-Feb-18	23-Feb-18	138
Present Project workflow for approval	26-Mar-18	28-Mar-18	3
Finalize Workflow	26-Mar-18	28-Mar-18	15
Verification	26-Mar-18	28-Mar-18	8
Validation	26-Mar-18	28-Mar-18	8
get sign off	26-Mar-18	28-Mar-18	1
Tools Selection	Start Date	End Date	Man Hours
Identify Tools	26-Feb-18	16-Mar-18	81
short list appropriate tools	05-Mar-18	23-Mar-18	81
Evaluate tools	07-Mar-18	27-Mar-18	81
Test Tools	12-Mar-18	29-Mar-18	72
Select tool	29-Mar-18	29-Mar-18	3
Verify tools	29-Mar-18	29-Mar-18	3
Validation	29-Mar-18	29-Mar-18	3
get sign off	30-Mar-18	30-Mar-18	1
System Development	Start Date	End Date	Man Hours
Install tools	02-Apr-18	03-Apr-18	7
Configure tools	02-Apr-18	03-Apr-18	7
Content Development	02-Apr-18	29-Jun-18	669
Determine Data Flow Diagram	02-Apr-18	27-Apr-18	162
Define UML or Use cases	30-Apr-18	08-Nov-08	210

Program coding	02-Jun-18	29-Jun-18	159
Initial content build-up	11-Jun-18	12-Jun-18	4
Conduct Test	12-Jun-18	29-Jun-18	46
Verification	29-Jun-18	29-Jun-18	3
Validation	29-Jun-18	29-Jun-18	1
Functional Test	Start Date	End Date	Man Hours
Setup test environment	14-Jun-18	20-Jun-18	27
Define Test Scenarios	15-Jun-18	20-Jun-18	25
Create Test Cases	18-Jun-18	20-Jun-18	20
Conduct Test	18-Jun-18	02-Jul-18	38
Verification	02-Jul-18	02-Jul-18	3
Validate	02-Jul-18	02-Jul-18	1
Release component	02-Jul-18	02-Jul-18	1
Get Sign off	02-Jul-18	02-Jul-18	1
Validation Test	Start Date	End Date	Man Hours
Setup test environment	22-Jun	22-Jun	4
Upload / install released component	26-Jun	26-Jun	4
Conduct Validation Test	26-Jun	04-Jul	18
Verification	04-Jul	04-Jul	3
Validation	04-Jul	04-Jul	1
Create development package	04-Jul	04-Jul	6
Deploy	04-Jul	04-Jul	1
Get Sign off	04-Jul	04-Jul	1
Content Building	Start Date	End Date	Man Hours
Actual content build-up	03-Jul-18	11-Jul-18	18
Verifying encoded content	10-Jul-18	11-Jul-18	3
Verification	11-Jul-18	12-Jul-18	3
Validate	11-Jul-18	12-Jul-18	3
Get sign off	13-Jul-18	13-Jul-18	1
Training	Start Date	End Date	Man Hours
Prepare Training materials and Equipment	12-Jul-18	13-Jul-18	8
Conduct User training/s	12-Jul-18	13-Jul-18	3
Get Feedback	12-Jul-18	13-Jul-18	3
Verification	12-Jul-18	13-Jul-18	3
Validation	12-Jul-18	13-Jul-18	3
Get sign off	12-Jul-18	13-Jul-18	1
Go Live	Start Date	End Date	Man Hours
Check Website accessibility w/in APC	12-Jul-18	13-Jul-18	4
Install Compatible Browser, Plugins, Addons	12-Jul-18	13-Jul-18	2
Configure Tools	12-Jul-18	13-Jul-18	2
Install System Application	12-Jul-18	13-Jul-18	2

Verify Installation	12-Jul-18	13-Jul-18	4
Validate	12-Jul-18	13-Jul-18	3
Go Live	13-Jul-18	13-Jul-18	1
Get Sign off	13-Jul-18	13-Jul-18	1

Table 4.5 shows the specified start and end estimated date of completion per actual activity. The actual activity is grouped by major activity.

Table 4.6. Resource Allocation

	Project Manager	Analyst	Database Manager	Programmer	Graphic Designer	Trainer	QA Analyst	Documentalist
	Manpower							
Conceptualizing	PM	AN	DM	PR	GD	TR	QA	DO
Define Problem	1							
Define Project Objectives	1							
Determine requirements	1							
Define Business Process	1							
Define Project Framework	1							
Define Project Methodology	1							
Define Reports requirement definition	1							
Verification	1							
Validation	1							
Get Sign off	1							
Workflow Analysis	PM	AN	DM	PR	GD	TR	QA	DO
Define CM workflow	1	1	1					
Define User types	1	1	1					
Define Access privileges	1	1	1					
Define Content types	1	1	1					
Analysed project workflow	1	1	1					
Present Project workflow for approval	1							
Finalize Workflow	1	1	1					
Verification	1	1	1					
Validation	1	1	1					
Get Sign off	1							

Tools Selection		PM	AN	DM	PR	GD	TR	QA	DO
	Identify Tools	1	1	1					
	short list appropriate tools	1	1	1					
	Evaluate tools	1	1	1					
	Test Tools	1	1	1					
	Select tool	1	1	1					
	Verify tools	1	1	1					
	Validation	1	1	1					
	Get Sign off	1							
System Development		PM	AN	DM	PR	GD	TR	QA	DO
	Install tools	1	1	1	1				
	Configure tools	1	1	1	1				
	Content Development	1				5			
	Determine Data flow Diagram	1	1	1	3				
	Define UML or Use cases	1	1	1	3				
	Program coding	1	1	1	3				
	Initial content build-up								1
	Conduct Test	1	1	1	1			1	
	Verification	1	1	1					
	Validation	1							
Functional Test		PM	AN	DM	PR	GD	TR	QA	DO
	Setup test environment	1	1	1					1
	Define Test Scenarios	1	1	1					1
	Create Test Cases	1	1	1					1
	Conduct Test	1	1	1					1
	Verification	1	1	1					
	Validate	1							
	Release component								1
	Get Sign off	1							
Validation Test		PM	AN	DM	PR	GD	TR	QA	DO
	Setup test environment								1
	Upload / install released component								1
	Conduct Validation Test								1
	Verification	1	1	1					
	Validation	1							
	Create development package				3				
	Deploy				1				
	Get Sign off	1							
Content Building		PM	AN	DM	PR	GD	TR	QA	DO
	actual content build-up								1
	verifying encoded content	1	1	1					

Verification	1	1	1						
Validate	1	1	1						
Get Sign off	1								
Training	PM	AN	DM	PR	GD	TR	QA	DO	
Prepare Training materials and Equipment				3		1			
Conduct User training/s				1		1			
Get Feedback	1	1	1						
Verification	1	1	1						
Validation	1	1	1						
Get Sign off	1								
Go Live	PM	AN	DM	PR	GD	TR	QA	DO	
Check Website accessibility w/in APC				1					
Install Compatible Browser, Plugins, Addons				1					
Configure Tools				1					
Install System Application				1					
Verify Installation	1	1	1	1					
Validate	1	1	1						
Go Live	1								
Get Sign off	1								

4.2.4. Budget Allocation

Table 4.7 Budget Allocation

Conceptualizing	Cost
Define Project Objectives	3,600
Define Project Objectives	3,600
Determine requirements	3,600
Define Business Process	3,600
Define Project Framework	3,600
Define Project Methodology	7,200
Define Reports requirement definition	3,600
Verification	300
Validation	300
Get Sign Off	300
Total Conceptualizing	29,700
Workflow Analysis	Cost
Define CM workflow	24,000
Define User types	3,000
Define Access privileges	4,500
Define Content types	4,500
Analysed project workflow	34,500

Present Project workflow for approval	900
Finalize Workflow	3,600
Verification	1,950
Validation	1,950
Get sign Off	300
Total Workflow Analysis	79,200
Tools Selection	Cost
Identify Tools	18,900
Short List Appropriate Tools	18,900
Evaluate tools	18,900
Test Tools	16,800
Select tool	750
Verify tools	750
Validation	750
Get Sign Off	300
Total Selection	76,050
System Development	Cost
Install tools	1,550
Configure tools	1,550
Content Development	101,700
Determine Data Flow Diagram	33,300
Define UML or Use cases	43,500
Program coding	32,850
Initial content build-up	400
Conduct Test	6,300
Verification	750
Validation	300
Total System Development	222,200
Functional Test	Cost
Setup test environment	4,800
Define Test Scenarios	4,750
Create Test Cases	3,800
Conduct Test	5,600
Verification	750
Validate	300
Release component	100
Get Sign off	300
Total Functional Test	20,400
Validation Test	Cost
Setup test environment	400
Upload / install released component	400

Conduct Validation Test	1,800
Verification	750
Validation	300
Create development package	1,200
Deploy	200
Get Sign off	300
Total Validation Test	5,350
Content Building	Cost
actual content build-up	1,800
verifying encoded content	750
Verification	750
Validate	750
get sign off	300
Total Content Building	4,350
Training	Cost
Prepare Training materials and Equipment	1,400
Conduct User training/s	400
Get Feedback	750
Verification	750
Validation	750
get sign off	300
Total Training	4,350
Go Live	Cost
Check Website accessibility w/in APC	800
Install Compatible Browser, Plugins, Addons	400
Configure Tools	400
Install System Application	400
Verify Installation	950
Validate	750
Go Live	300
Get Sign off	300
Total Go Live	4,300
GRAND TOTAL	445,900

Table 4.8 Summary of Project Cost

PERSONNEL	RATE/HR	# PERSONNEL	HOUR RENDERED	COST
Project Manager	500	1	315	157500
Analyst	400	1	306	122400
Database Manager	400	3	306	122400
Programmer	300	5	503	150900
Graphic Designer	200	1	660	132000
Trainer	100	1	4	400
QA Analyst	100	1	115	11500
Documentarist	100	1	22	2200
TOTAL		14	2231	699300

Table 4.9 Staff Salary

Position	Position Code	Hourly rate
Project Manager	PM	300
Analyst	AN	250
Database Manager	DM	200
Programmer	PR	200
Graphic Designer	GD	150
Trainer	TR	100
QA Analyst	QA	100
Documentarist	DO	100

Table 4.9 Shows the staff position, the position code, and the corresponding hourly rate.

4.3 Test Plan

4.3.1 Development Test Plan

4.3.1.1 Test Phases

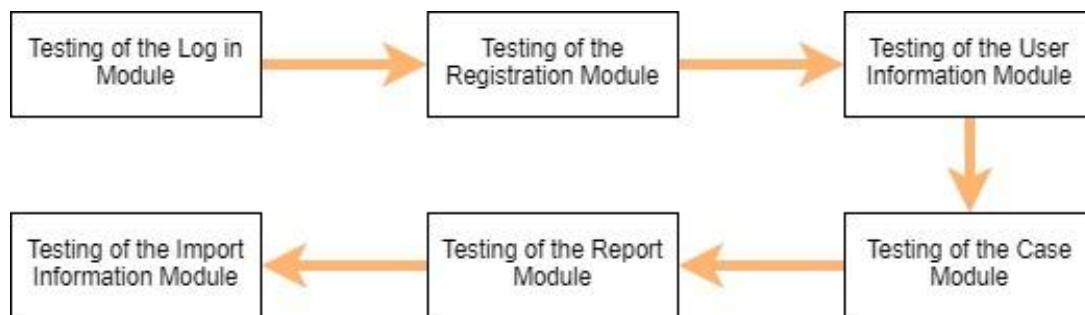
**Figure 4.1 Test Phases**

Figure 4.1 shows the major test phases. There will be 6 major phases in our Academic & Curricular Advising Module System. From the Login Module where the sign in, and password recovery are used. Next, we have the Registration Module where the Admin user creates new accounts. After that, we have the User Information Module which is one of the Admin's modules where account information can be updated. Another module which can be accessed by all users is the Case Module. It is a module where users can create, and view cases. Also, it is where the case notes are utilized. And we have the Reporting Module where only the Executive Director (XD) and Program Director (PD) has. It is a module where they can generate reports depending on how they want the attributes to be sorted and compiled the reports. Lastly, we have the Information Import Module where again, the XD and PD can import information from the databases: subjects, users(students), and cases.

4.3.1.2 Test Cases and Test Scripts

Table 4.10 Test Cases and Test Scripts

Test Phase 1:	
Test Case 1.1- Admin Login Test	This test is where the admin tests his/her login information.
Test Case 1.2- Student Login Test	This test is where the student test his/her login information.
Test Case 1.3- Adviser/Standard Faculty Login Test	This test is where the adviser or standard faculty test their login information.
Test Case 1.4- XD/PD Login Test	This test is where the XD or PD test their login information.
Test Case 1.5- Admin Login Failed Test (Wrong User ID)	This test is for the checking of the incorrect login popup in the admin login test.
Test Case 1.6- Student Login Failed Test (Wrong Password)	This test is for the checking of the popup for incorrect login using student information test account.
Test Case 1.7- Adviser/Standard Faculty Login Failed Test (Blank/Empty)	This test is for the adviser and or standard faculty incorrect login popup test.
Test Case 1.8- XD/PD Login Failed Test (Case Sensitivity)	This test is for the XD/PD incorrect login popup test.
Test Phase 2:	
Test Case 2.1- Add New Student User Test (1)	The first out of six steps in the user registration module for student users. The checking of the functionality of a quick link: Add New User
Test Case 2.2- Add New Student User Test (2)	The second out of six steps in the user registration module for student users. This is where the admin

	selects the account type as student and enters the new student ID.
Test Case 2.3- Add New Student User Test (3)	The third out of six steps in the user registration module for student users. Testing the button for submission.
Test Case 2.4- Add New Student User Test (4)	The fourth out of six steps in the user registration module for student users. This is where the admin enters the new student information. And the test of the button for submission.
Test Case 2.5- Add New Student User Test (5)	The fifth out of six steps in the user registration module for student users. Additional account information such as security questions and the user's password.
Test Case 2.6- Add New Student User Test (6)	The last step out of six steps in the user registration module for student users. It tests the button for confirmation.
Test Case 2.7- Add New Faculty(Standard)/Adviser/XD/PD User Test (1)	The first out of six steps in the user registration module for Faculty(Standard)/Adviser/XD/PD users. The checking of the functionality of a quick link: Add New User
Test Case 2.8- Add New Faculty(Standard)/Adviser/XD/PD User Test (2)	The second out of six steps in the user registration module for Faculty(Standard)/Adviser/XD/PD users. This is where the admin selects the account type as Faculty(Standard)/Adviser/XD/PD and enters the new faculty ID.
Test Case 2.9- New Faculty(Standard)/Adviser/XD/PD User Test (3)	The third out of six steps in the user registration module for Faculty(Standard)/Adviser/XD/PD users. Testing the button for submission.
Test Case 2.10- Add New Faculty(Standard)/Adviser/XD/PD User Test (4)	The fourth out of six steps in the user registration module for Faculty(Standard)/Adviser/XD/PD users. This is where the admin enters the new faculty information. And the test of the button for submission.
Test Case 2.11- Add New Faculty(Standard)/Adviser/XD/PD User Test (5)	The fifth out of six steps in the user registration module for Faculty(Standard)/Adviser/XD/PD users. Additional account information such as security questions and the user's password.
Test Case 2.12- Add New Faculty(Standard)/Adviser/XD/PD User Test (6)	The last step out of six steps in the user registration module for Faculty(Standard)/Adviser/XD/PD users. It tests the button for confirmation.
Test Case 2.13- Add New Student User Test: Case Sensitivity	This test is for the checking of the case sensitivity of the input of the user ID of a student user account.
Test Case 2.14- Add New Faculty(Standard)/Adviser/XD/PD User Test: Case Sensitivity	This test is for the checking of the case sensitivity of the input of the user ID of a Faculty(Standard)/Adviser/XD/PD user account.
Test Case 2.15- Add New Student User Test: Blank/Empty Input	This test is for the checking of the blank and empty fields in the user ID input upon entering the user ID.
Test Case 2.16- Add New Faculty(Standard)/Adviser/XD/PD User Test: Blank/Empty Input	This test is for checking the input if the fields are blank or empty.

Test Case 2.17- Invalid Student User Email Input Test (Wrong format)	This test is for the format of the email required and is checked in the algorithm of the program. A label message will popup once this test is enabled.
Test Case 2.18- Invalid Faculty(Standard)/Adviser/XD/PD Email Input Test (Does not exist)	This test is to check whether the email address exists in the email database.
Test Case 2.19- Blank input for Security Questions Test	This test is when the fields in the security questions are empty. A label message popup type will appear once the test is enabled.
Test Phase 3:	
Test Case 3.1- Update Password Test	This test is for the utilization of buttons in the update password quick link of the admin user.
Test Case 3.2- Update Security Questions and Password Test	This test is to see the transition of the security module of the admin page. Correct information is inputted in this test.
Test Case 3.3- Update Password Test: Mismatch	This test is when the admin incorrectly enters the password twice in the new password and confirm password textbox, an error input popup will be triggered once the button submit is clicked.
Test Case 3.4- Update Security Questions Test: Blank Input	This test is when the admin left a text empty in the new password and confirm password textbox, an error popup will be triggered once the button submit is clicked.
Test Phase 4:	
Test Case 4.1- Create a Case Test (Step 1)	This test is for the test of a tool button to launch the Case Module.
Test Case 4.2- Create a Case Test (Step 2)	This test is for the input of the new case information.
Test Case 4.3- Create a Case Test (Step 3)	This test is for the generation of a case number.
Test Case 4.4- Create a Case Test (Step 4)	This test is for the checking of the functionality of the Case Notes tool.
Test Case 4.5- Create a Case Test (Step 5)	This test is for the checking of the functionality of the popup of the Add Case button.
Test Case 4.6- Create a Case Test (Step 2): Blank Title	This test is for the checking for invalid input such as empty fields, etc. A label message will appear when the test is triggered.
Test Case 4.7- View Case by Case ID Test (Step 1)	This test is where the Case ID is checked for validity and existence.
Test Case 4.8- View Case by Case ID Test (Step 2)	This test is where the system is tested if it will generate a new Case ID.
Test Case 4.9- View Case by Case ID Test (Step 2): Case Sensitivity	This test is where the Case ID is checked for validity, format, and existence.
Test Case 4.10- View Case by Case ID Test (Step 2): Blank Input	This test is where the Case ID is checked for validity, format, and existence.

Test Phase 5:	
Test Case 5.1- View All Cases(Selected) Test	This test is for report generation depending on the specifications entered by the XD/PD. Specification: All Cases Per Faculty ID
Test Case 5.2- View All Cases Per Faculty ID Test	This test is for report generation depending on the specifications entered by the XD/PD. Specification: All Cases by Faculty ID
Test Case 5.3- View All Cases by Faculty ID Test	This test is for report generation depending on the specifications entered by the XD/PD. Specification: All Cases by Faculty ID
Test Case 5.4- View All Cases by Student ID Test	This test is for report generation depending on the specifications entered by the XD/PD. Specification: All Cases by Student ID
Test Case 5.5- View All Cases by Student ID (Can also be for Faculty ID): Case Sensitivity Test	This test is for case sensitivity test.
Test Phase 6:	
Test Case 6.1- View Case by Case ID Test (Step 1)	This is to test the importing of the cases depending on the specifications entered by a user. And exported via Generate Case button in the Report Module.
Test Case 6.2- View Case by Case ID Test (Step 2)	This test is the second step of the generation of cases for exporting.
Test Case 6.3- View Case by Case ID Test (Step 2): Case Sensitivity	This test is to check for case sensitivity in the input of the Case ID (special characters, etc.). The label message for invalid input is triggered.
Test Case 6.4- View Case by Case ID Test (Step 2): Blank Input	This test is to check for the label message if it will be triggered when not entering anything in the setting of the case specifications for export.

4.3.2 Functional Test Plan

Log in Module

Test Case: Login

Table 4.11 Test # 1 Test Instruction and Expected Output

Test Instruction	Expected Output
The user logs in his/her account using their User ID (School ID) and password.	The user will be directed to their designated homepage.

Test Case: Forgot Password

Table 4.12 Test # 2 Test Instruction and Expected Output

Test Instruction	Expected Output
The user clicks the “forgot password” button and answers the security questions	The user will be notified with a popup that their security question answers are correct and will be redirected to the enter new password page.

Test Case: Admin creating a new account

Table 4.13 Test # 3 Test Instruction and Expected Output

Test Instruction	Expected Output
Admin clicks the “create user” button and fills it with new user information.	The admin will be notified with a popup that the account is successfully created.

Test Case: Verifying the creation of a new account

Table 4.14 Test # 4 Test Instruction and Expected Output

Test Instruction	Expected Output
Usually the admin, but any user can check whether the new account that was created will show in the account/users list.	The newly created account will be shown in the users list.

User Information Module

Test Case: Updating a user’s information

Table 4.15 Test # 1 Test Instruction and Expected Output

Test Instruction	Expected Output
The admin selects the user he/she will update and clicks the corresponding “update information” button in the admin menu. The admin will then input the new account information.	The admin will be notified with a popup that the account is successfully updated.

Test Case: Verifying whether the information of the user was updated

Table 4.16 Test # 2 Test Instruction and Expected Output

Test Instruction	Expected Output
The admin will select the user he/she updated and check whether the newly inputted information will properly show.	Once searched by the admin what he/she updated recently, the new and correct information will show in the corresponding user’s account.

Case Module

Test Case: Creating a case

Table 4.17 Test # 1 Test Instruction and Expected Output

Test Instruction	Expected Output
Any faculty member will click the “create a case” button and will enter the case information along with the student involved.	A popup will notify the faculty member that their case is successfully created.

Test Case: Check if the case created and its information is the same with the corresponding information inputted in it

Table 4.18 Test # 2 Test Instruction and Expected Output

Test Instruction	Expected Output
Any user, preferably the one who created the case, will view the newly created case and check whether the details one had entered from the test case of creating a case will be correct. He/she can check it by pressing the “view cases” and search for their corresponding cases.	The newly created case will show the correct information inputted by its creator.

Test Case: Check if the case was created and if the people involved are notified

Table 4.19 Test # 3 Test Instruction and Expected Output

Test Instruction	Expected Output
For the people involved in the newly created case, they must check if there is a notification that a case that was newly created with them involved will show.	The notification in their menu page will show because of the newly created case that they are involved with.

Test Case: Viewing of the cases selected

Table 4.20 Test # 4 Test Instruction and Expected Output

Test Instruction	Expected Output
When searching for a case, the user must enter the case details he/she would like to view from the “view case” button and the following criteria/attributes of the case will show, and the user will enter and select their specifications.	The cases with the corresponding attributes selected by the user will be gathered/appended and will be showed to the user who called upon the cases.

Test Case: Adding Case Notes

Table 4.21 Test # 5 Test Instruction and Expected Output

Test Instruction	Expected Output
In adding case notes, a user must first select the case they want to add case notes on by viewing the case first, then pressing the “add case notes” button for them to create a thread for the case notes. Then the user will enter the notes he/she would like to enter.	A popup will show that the case notes is successfully added to the case notes thread of that case.

Test Case: Check if the case notes are properly created and people who are involved in the case are updated by the latest case notes created

Table 4.22 Test # 6 Test Instruction and Expected Output

Test Instruction	Expected Output
After creating the newly added case notes, the users involved in the case will be notified that the case notes thread for the case is updated.	Notifications in the user involved will appear in their corresponding menus.

Report Module

Test Case: Generating a report

Table 4.23 Test # 1 Test Instruction and Expected Output

Test Instruction	Expected Output
This test is only for the X.D. and P.D. users. They must press the “generate a report” button in their menus and select the attributes that they want to generate in the report.	A popup will notify the X.D./P.D. that their report is successfully generated.

Test Case: Check if the correct attributes called by the XD/PD are printed correctly

Table 4.24 Test # 2 Test Instruction and Expected Output

Test Instruction	Expected Output
The X.D./P.D. can view their newly created reports in an exported file (document/pdf/etc.)	The exported file after the generation of the report has the correct information entered in it.