**CHAPTER 1**

**PROJECT OVERVIEW**

# 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. **Objectives**
     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. **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. **Scope and Delimitation**
     1. **Scope**
* The system will be a web-based application.
* The users are the following:
  + SOE Executive Director
  + SOE Program Director
  + Adviser
  + APC Faculties
  + SOE Students
  + Administrator
* The user access to module is defined by their user role:

**Table 1.1 User Roles and Module**

|  |  |
| --- | --- |
| **USER ROLE** | **MODULE** |
| 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. **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. **Assumptions and Constraints**
     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. **Constraints**
* The APC-ITRO might not be able to accommodate hosting the system due to limited resources.
  1. **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** | **End 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** | **End 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** | **End 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** | **End 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. **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. |