FINAL YEAR PROJECT MANAGEMENT SYSTEM FOR FACULTY OF COMPUTING

NURAYUNI BINTI NORDIN SIN

Bachelor of Computer Science (Computer Systems & Networking) with Honours

UNIVERSITI MALAYSIA PAHANG

CHAPTER 4

IMPLEMENTATION, RESULT AND DISCUSSION

4.1 Introduction

The development of the Project Management System for Faculty of Computing will be implemented using the programming language including frameworks such as Laravel and JavaScript. Basically, all the interfaces of the Project Management System for Faculty of Computing will be developed using Laravel. Meanwhile, the validation of the system and form will be developed using the JavaScript language.

Moreover, the development of the Project Management System for Faculty of Computing also will consist of create, retrieve, update, and delete functions. In addition, the project system will implement the database execution in order to store the important data of users.

Once the development of the Project Management System for Faculty of Computing has been completed, the system will be launched using the UMP server. Then, the Project Management System for Faculty of Computing will be tested by the PTA and PSM coordinator, final-year students, and lecturers of Faculty of Computing. The project system will go through 2 testing plans which are User Acceptance Test and Final Acceptance Test. The feedback and result of users during the testing phase will be included in this chapter.

4.2 Implementation Process

In the implementation process will be discussed the development of the create, update, retrieve, and delete functions in the modules of the Project Management System for Faculty of Computing. Moreover, the implementation process also will be explained in detail about the database execution. Lastly, all the interfaces in the Project Management System for Faculty of Computing will be shown and explained its functionality.

4.2.1 Create Function

The create functions in the Final Year Project Management System for Faculty of Computing will be displayed in the form for the users to create the important data. Once the users has been fill up the required data in the form, all the information will be securely stored in the database. In the Final Year Project Management System for Faculty of Computing, the create function has been implemented in the form of sign-up, supervisor application, appointment meeting, logbook, and task.

Figure 4.1 shows the sign-up form for the users to create their account by filling up and submitting their personal information in the database of the Final Year Project Management System for Faculty of Computing. Once the users have submitted their personal information, they will obtain their account and has the authorization to access the Final Year Project Management System for Faculty of Computing according to their category. Each user's category such as supervisor, supervisee, and admin has different authorisation functions based on their requirement.

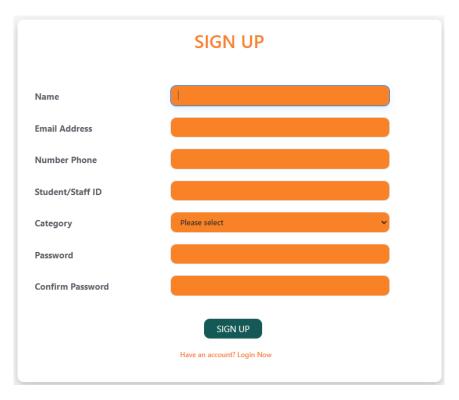


Figure 4.1 The sign-up form

Moreover, Figure 4.2 and 4.3 shows the interface of the supervisor application form. Creating and applying the supervisor application is important for the final year students that are taking the PTA 1 and PSM 1 to get their preferred lecturer to become the supervisor for

their final year project. As usual, the supervisor application data that has been filled up by the users will be inserted into the database table of the supervisor application.

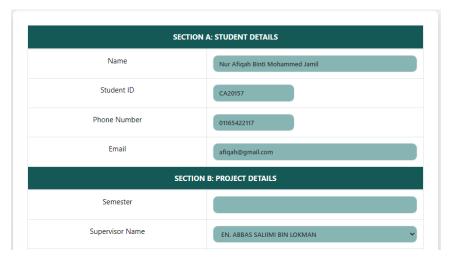


Figure 4.2 Supervisor application form

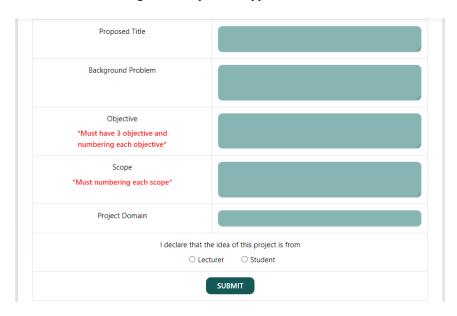


Figure 4.3 Continue supervisor application form

In the Final Year Project Management System for Faculty of Computing, users can create an appointment meeting between supervisor and supervisee using the appointment meeting form. Figure 4.4 shows the interface of the appointment meeting form.

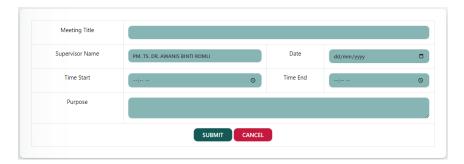


Figure 4.4 Appointment meeting form

Once the meeting between the supervisor and supervisee has been completed, the users especially the supervisee are required to create the logbook information. Logbook information will store all the meeting information details in the database. For instance, week, date, time start, time end, and progress of the meeting. Figure 4.5 shows the interface of the logbook form.

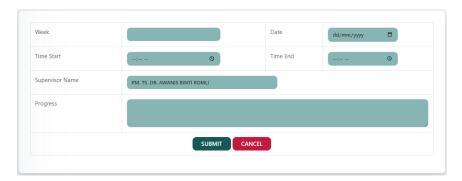


Figure 4.5 Logbook form

The users is able to create the project task using the task form as shown in Figure 4.6. The project task information will be stored in the database table of task.

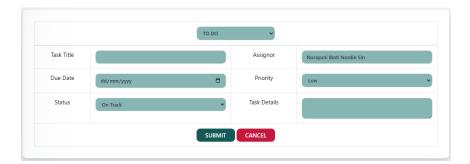


Figure 4.6 Task form

4.2.2 Retrieve Function

In the Final Year Project Management System for Faculty of Computing, the retrieve function will be obtained the data from the database and display it on the interfaces. Figure 4.7 shows the supervisor quota information that retrieves from the database table of supervisor quota.

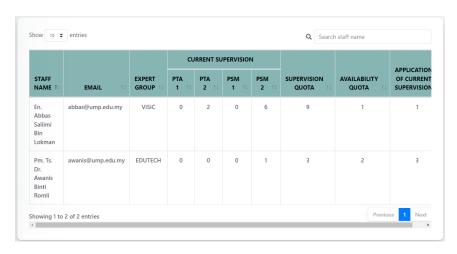


Figure 4.7 Supervisor quota information

Once the supervisee has completed applying the supervisor application, the Final Year Project Management System for Faculty of Computing will be displayed the supervisor application information as shown in Figure 4.8. The supervisor application information such as supervisor name, proposed title, and status application has been retrieved from the database table of supervisor application.



Figure 4.8 Supervisor application information

Besides, the appointment meeting data that created and stored in the appointment database table will be displayed in the appointment meeting interface as shown in Figure 4.9.



Figure 4.9 Appointment meeting information

Likewise, all the logbook data in the database that has been created by the supervisee will be displayed in the interface of the logbook module as shown in Figure 4.10.



Figure 4.10 Logbook information

In addition, the task information in the database table of tasks will be displayed in the task module interface as shown in Figure 4.11. The displayed task data will make it easier for the users to review the project task that they have created.

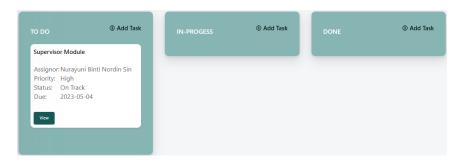


Figure 4.11 Task information

In the reporting module, the task and project submission information will be displayed using the visualisation graph. Based on Figures 4.12 and 4.13, the task information such as total status, total priority, and total task completion will be displayed in the pie and doughnut charts. Meanwhile, the project submission data will be displayed in the numbering. All the displayed data has been retrieved from the database tables of task and project submission.

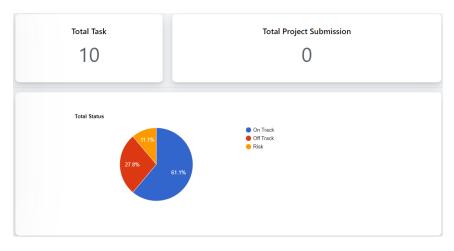


Figure 4.12 Reporting data

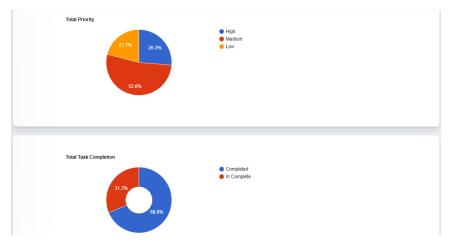


Figure 4.13 Continue reporting data

Figure 4.14 shows the interface that displayed the evaluation information that retrieve from the database table of evaluation.



Figure 4.14 Evaluation information

Once the supervisor and coordinator have approved the supervisor application, the information of students' final year project will be displayed on the FYP library interface as shown in Figure 4.15. The final year project information has been retrieved from the database table of supervisor applications.

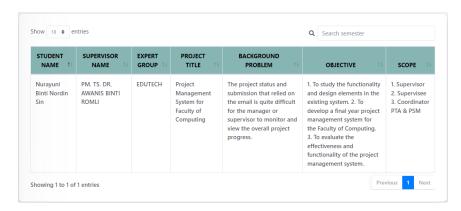


Figure 4.15 FYP library

4.2.3 Update Function

The users have been given the authority to change the data in the database by using the update function. In the Final Year Project Management System for Faculty of Computing, the users are able to update the appointment meeting if, the status of the appointment is still in progress. Once the status appointment has been approved, the users are not being able to update the appointment meeting information. Figure 4.16 shows the appointment form for updating the appointment meeting data.

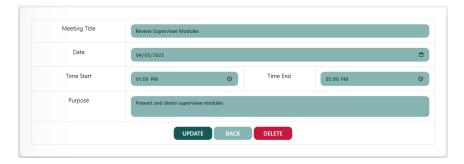


Figure 4.16 Update function in appointment meeting

In addition, the users also can edit the logbook information as shown in Figure 4.17. The logbook information can be edited if, the status logbook is still 'In Progress' only.

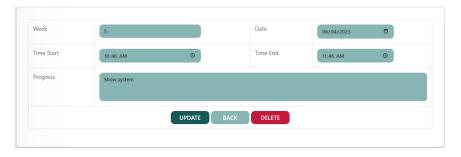


Figure 4.17 Update function in the logbook

Moreover, the Final Year Project Management System for Faculty of Computing provides flexibility for the users which are supervisors and supervisees to update the task information. For example, update the progression, task title, due date, status, priority, task details, and attach the file as shown in Figure 4.18.

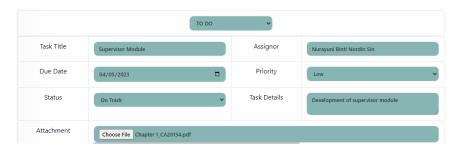


Figure 4.18 Update function in task

4.2.4 Delete Function

The Final Year Project Management System for Faculty of Computing has given the opportunity for the users to remove the wrong data by utilizing the delete function. Figure 4.19 shows that the user is able to delete the appointment mmeting data. The appointment meeting data can be deleted if, the status appointment is 'In Progress' only. Otherwise, the appointment meeting data cannot be deleted.

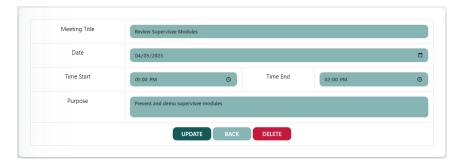


Figure 4.19 Delete function in appointment meeting

Meanwhile, Figure 4.20 shows that the users are also able to delete the logbook data. Likewise the appointment, the logbook data also can be deleted if the status logbook is 'In Progress'.



Figure 4.20 Delete function in the logbook

4.2.5 Database Implementation

During the development of the Final Year Project Management System for Faculty of Computing, the project system will use phpMyAdmin as the database in order to store all users' required data. The Final Year Project Management System for Faculty of Computing has 6 tables in the database that are named fypfk. Those 6 tables are appointment, infoprofile, logbook, supervisorapply, task, and users.

Figure 4.21 shows the users table in the fypfk database. The users table will store all the user's personal information that has been filled up and submitted using the sign-up form. Once the user's personal information has been stored in users table, they can access the Final Year Project Management System for Faculty of Computing.

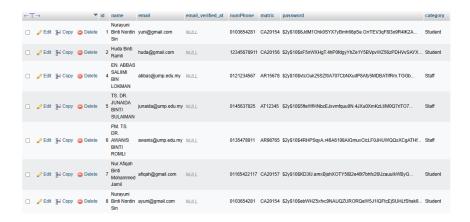


Figure 4.21 Users table

Figure 4.22 shows the appointment table. The appointment table will contain the appointment information of the meeting between the supervisor and supervisee. The appointment meeting information has been received from the appointment meeting form.



Figure 4.22 Appointment table

Figure 4.23 shows the infoprofile table that only has the additional information of users. If the users are supervisees, they are required to store their course information whether PTA 1, PTA 2, PSM 1 or PSM 2. If the users are supervisors, they need to store their expert group information whether ViSiC, MIRG, EDUTECH or so on.



Figure 4.23 Infoprofile table

Figure 4.24 shows the logbook table that will store the activity or progression of the meeting between the supervisor and supervisee. All the data in the logbook table will be obtained from the logbook form.



Figure 4.24 Logbook table

Figure 4.25 shows the supervisorapply table that will store all the supervisor application and final year project information. The data in the supervisorapply table will be gained from the supervisor application form.



Figure 4.25 Supervisorapply table

Figure 4.26 shows the task table that obtains the data from the task form. The task table will consist of the supervisees' project tasks.



Figure 4.26 Task table

4.2.6 Interfaces

Supervisor Modules

Supervisee Modules

The supervisee has 9 modules which are home, supervisor quota, supervisor application, appointment meeting, logbook, my task, reporting, evaluation, submission, and FYP library. Each module has a different functionality based on the users' requirements.

Figure 4.27 shows the home interface for the supervisee once they have successfully login the Final Year Project Management System for Faculty of Computing. In the home interface, the supervisee is able to review the announcement from the PSM and PTA coordinator on the announcement board section.

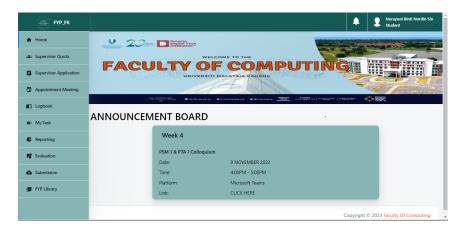


Figure 4.27 Home interface

Besides, Figure 4.28 shows the supervisor quota interface for the supervisee to view the list of supervisor including their total supervisee quota information.

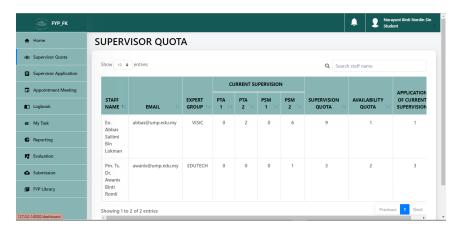


Figure 4.28 Supervisor quota interface

Figure 4.29 and 4.30 shows the supervisor application form interface to help the supervisee in applying their preferred staff as supervisor of their final year project. The supervisor application form interface will be displayed if, the supervisee did not apply and has the supervisor yet.

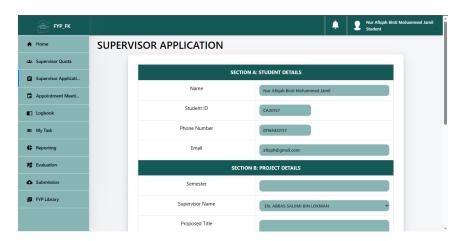


Figure 4.29 Supervisor application form interface

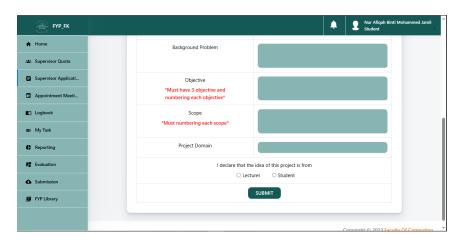


Figure 4.30 Continue the supervisor application form interface

However, the supervisee is able to view the supervisor application interface as shown in Figure 4.31 once the supervisee has applied the supervisor application. Basically, the supervisee is able to view the application of the supervisor's name, proposed title, and status application.

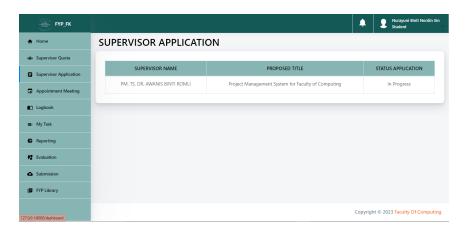


Figure 4.31 Supervisor application interface

Moreover, Figure 4.32 shows the meeting schedule interface. In the meeting schedule interface, the supervisee is able to create the appointment meeting by clicking the 'BOOK MEETING' button. Apart from that, the supervisee also is able to view the information of the meeting schedule. Based on Figure 4.32, the supervisee is able to view the meeting schedule that has been approved and in progress. If the meeting schedule is still in progress status, the supervisee is able to edit the appointment meeting information by clicking the title of the meeting appointment.



Figure 4.32 Meeting schedule interface

Figure 4.33 shows the logbook interface that consists of meeting information between the supervisor and supervisee. For example, the date, time start, time end, progress, supervisor comment, and approval of the meeting. Besides, the supervisee is able to create the logbook in the logbook interface by clicking the 'INSERT LOGBOOK' button. Furthermore, the supervisee also is able to update the logbook information data by clicking the 'UPDATE' button.

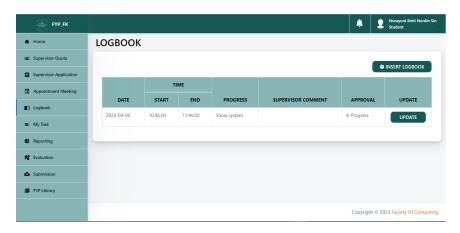


Figure 4.33 Logbook interface

In my task interface, the supervisee is able to review their project task as shown in Figure 4.34. The Final Year Project Management System for Faculty of Computing has implemented the Kanban-style in order to categorize the project task progression whether in the 'TO DO', 'IN PROGRESS' or 'DONE'. Furthermore, the supervisee also is able to create the project task by clicking the 'Add Task' that has been provided on each category. The Final Year Project Management System for Faculty of Computing also has provided the update and delete function to edit and delete the project task data by clicking the 'View' button.

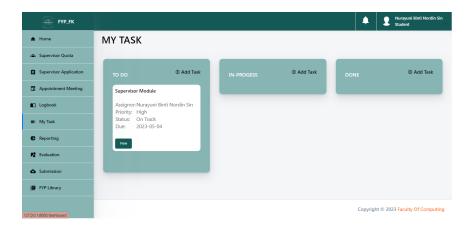


Figure 4.34 My task interface

Figure 4.35 and 4.36 shows the reporting of the supervisee's project in the graph visualization such as pie and doughnut chart. The reporting was generated from the data of project tasks and submission.

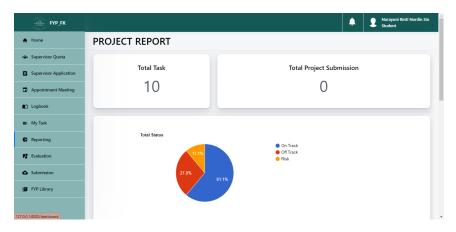


Figure 4.35 Reporting interface

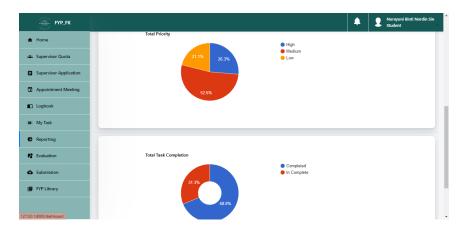


Figure 4.36 Continue reporting interface

Figure 4.37 shows the evaluation information interface for the supervisee to review about their evaluation information in more detail. For instance, the evaluation information of date, time, location, and evaluator's name.

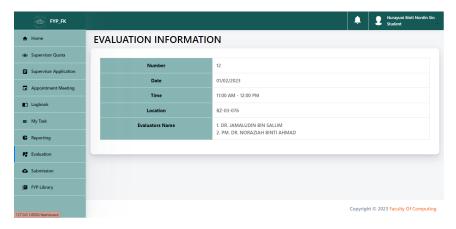


Figure 4.37 Evaluation information interface

Figure 4.38 shows the project submission interface. The project submission interface will provide the list of required submissions for the supervisee. The list of required

submissions has been created by the coordinator. Once the supervisee has clicking the title of the submission, the supervisee will directly go to the interface as shown in Figure 4.39.

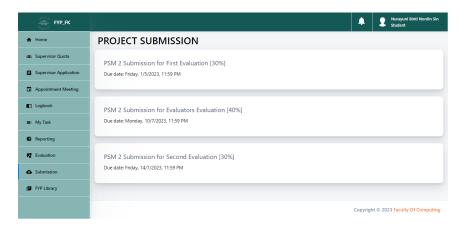


Figure 4.38 Project submission interface

Figure 4.39 shows the interface to create the submission project. In this interface, the supervisee is required to upload the project file and click the 'SUBMIT' button in order to create the submission.

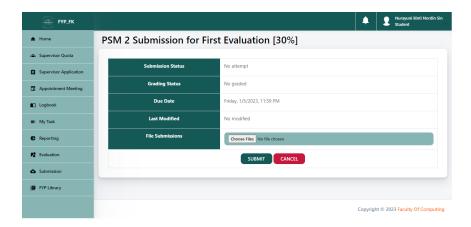


Figure 4.39 Submission interface

Lastly, Figure 4.40 shows the FYP Library interface for the supervisee to review and search the previous final year project that has been completed by alumni students of the Faculty of Computing.

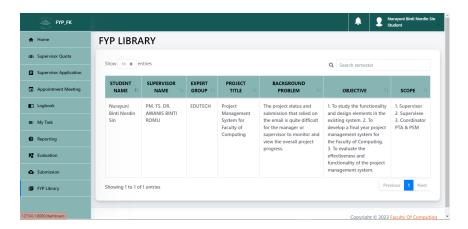


Figure 4.40 FYP Library interface

Admin Modules

4.3 Testing and Result Discussion