

SCIMPA FYP Management System

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Abstract: The Final Year Project (FYP) is a mandatory course to complete the study at the degree level. It is a final course for students and a platform where students can showcase and apply the knowledge and skills they obtained during classes and prepare for their internship in the industry. SCIMPA FYP is a web-based system for the management of FYP developed for the School of Creative Industry Management and Performing Arts (SCIMPA). The development of the system is to overcome the problems of the manual process of managing the FYP. The current practice is inefficient in terms of time and management of milestones to the students, inconvenience for supervisors and lecturers to safely manage the FYP documentation and submissions, the marking process, and lastly, the problem of archiving and retrieving past projects. Therefore, the objectives are to improve the efficiency of managing the current FYP and facilitate the archival and retrieval of past projects. The FYP system's advantages can help users access online submission and retrieval, ensure data consistency within the community, improve efficiency in the management of FYP, and facilitate the archival and retrieval of past projects.

Keywords: Final Year Project, Web-Based System, The Repository System

1. Introduction

SCIMPA FYP is a web-based system for managing Final Year Project (FYP) developed for the School of Creative Industry Management and Performing Arts (SCIMPA), Universiti Utara Malaysia. SCIMPA's only undergraduate program is Bachelor in Creative Industry Management (BCIM). The program aims to generate scholarly and creative works in creative industry management, and BCIM majoring consists of four exciting domains: film, music, animation, and media interactive. Each major has its requirements, and the students need to prepare the final year project based on their major. FYP is a long process involving students and their supervisors to accomplish a theme-based project. It is crucial to employ technologies to allow different parties to communicate more efficiently [1]. In reality, some students find FYP hard to follow, hence end up with a low-quality project and sometimes do not

fulfill the minimum requirement of the FYP [2]. The students are usually required to fulfill different milestones at various stages within the semester to complete the FYP. Currently, everything is done manually, which is relatively inefficient. Some students are often unaware of the timeline, confused about what documents to send, and have other issues concerning the FYP submission process. On the other hand, lecturers and supervisors also face difficulties systematically retrieving and safely storing their students' submissions, hence making the marking process sometimes unorganized and hard to manage. Furthermore, the absence of a systematic repository of the past FYPs making it a difficult task every time the school needs to search and retrieve the past project, which is being stored physically in a room at the school office.

Due to all the discussed problems, the FYP system has been proposed to manage students' projects that consist of four exciting domains: film, music, animation, and media interactive with twofold objectives: firstly, to improve the efficiency in managing the FYP, and secondly, to facilitate the archival and retrieval of past projects. In addition, the FYP management system also allows project supervisors to keep track of the progress of the project through the system [3]. Therefore, both students and supervisors will benefit from the system functionalities and allow the students' project to run smoothly even the face-to-face meeting are not held frequently. The system's innovations can help users access online submission and retrieval, ensure data consistency within the community, improve efficiency in the management of FYP, and facilitate the archival and retrieval of past projects.

2. Materials and Methods

The development of the system utilized a six-phase prototyping methodology, starting with requirements gatherings and analysis of the system. During the first phase, the coordinator and lecturers of the FYP at SCIMPA are interviewed to gain their system's expectations. Then, a simple system design is created during the quick design phase to get some idea of the overall system. The third phase involved designing an actual system based on the information gathered from the previous phases. The next phase was an initial user evaluation phase to find out the strength and weaknesses of the working model. Then, the prototype was refined according to the feedback and suggestion. Lastly, the system implementation took place once everything ran smoothly; and the FYP management system will be maintained accordingly. Figure 1 illustrates the phases conducted in the development process of the FYP management system.

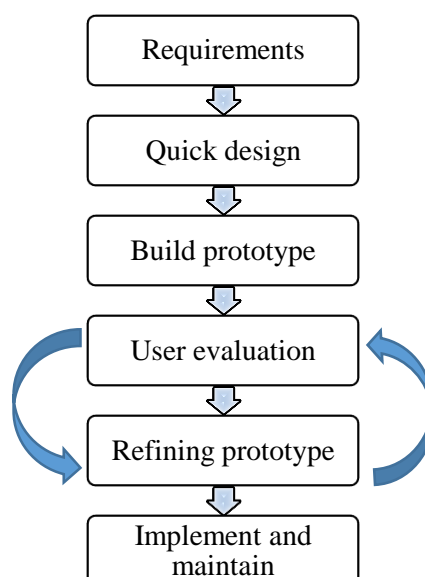


Figure 1: Prototyping methodology used to develop SCIMPA FYP Management System

3. Results and Discussion

SCIMPA FYP management system was developed to support three categories of users; Student, Supervisor/Lecturer, and Administrator. Figure 2 shows the main page of the system. Online management systems have been progressively developed and adopted by most higher institutions. The development of the system can facilitate most of the management process while benefiting the individuals involved [4]. Therefore, the development of this FYP system will be beneficial to students, lecturers, and administrators.



Figure 2: Main page of SCIMPA FYP Management System

The evaluation of the suitability and usability was conducted for the SCIMPA FYP system. The objective of the assessment was to evaluate the functional suitability and usability of the system. Table 1 shows the demographic profile of the respondents.

Table 1: Demographic profile of the respondents

| | Frequency | Percentage |
|-----------------------|-----------|------------|
| Users | | |
| Student | 16 | 80% |
| Lecturer | 3 | 15% |
| Administrator | 1 | 5% |
| Age | | |
| 20 – 25 year old | 15 | 75% |
| 26 – 30 year old | 1 | 5% |
| 31 – 35 year old | 1 | 5% |
| 36 year old and above | 3 | 15% |

The respondents' details are divided by user types and age. The majority of the respondents (80%) were from the students' category, followed by the lecturer (15%) and administrator (5%). In terms of frequency of age, most of the respondents were 20 – 25 years old (75%). The table indicated that most of the respondents were among students who are the primary users of the FYP system. The respondents were contacted individually to ensure the confidentiality of the evaluation. The instruments that were used for the assessment were:

1. **SCIMPA FYP Management System**
The prototype for SCIMPA FYP Management System was used for the evaluation. The respondents accessed the system through their device using the link provided (<http://saujanaeclipse.com/scimpafyp/>).
2. **Test Plan**
The respondents were required to read and follow the test plan before starting the evaluation. The test plan included an information sheet, participant consent form, and test case scenario.
3. **Post-task questionnaire**
After completing the tasks in the test plan, the respondents were required to answer a post-task questionnaire. The questionnaire can be answered through Google Form.
4. Some evaluations were performed through Google Meet or Webex UUM to assist the session.

Figure 3 illustrates the results of the evaluation based on functional suitability and functional usability. The Likert Scale ranges from 1 to 5, where 1 indicates Strongly Disagree, and 5 indicates Strongly Agree. Functional suitability measures the degree to which a system's functionality satisfies specified and implied criteria when used under specific circumstances. Figure 3 (a) showed that most respondents strongly agreed that the system is helpful overall, meets their needs, and does what it does right. However, a minority of the respondent disagreed that the system was complete. Figure 3 (b) showed functional usability. The usability section evaluated how well a specific person can use the system to accomplish a specific goal with productivity, efficacy, and satisfaction. The majority of the respondents (80% and 75%, respectively) strongly agreed that the system is easy to learn and use. Most of them also strongly agreed that the system requires few steps to achieve their goal and is user-friendly. 55% of them strongly agreed that the system is flexible. Overall, the system received adequate satisfaction from the respondents.

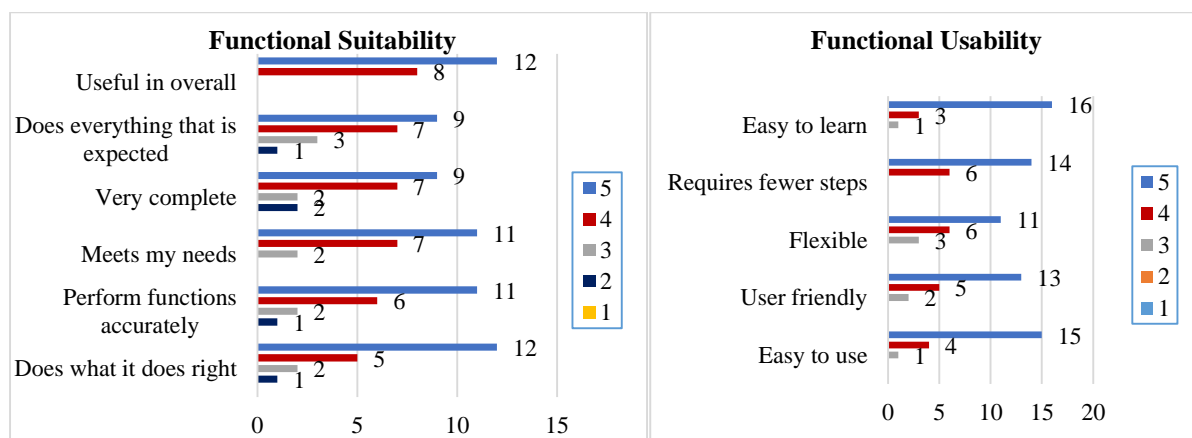


Figure 3: (a) Functional suitability and (b) Functional usability of the SCIMPA FYP System

4. Conclusion

SCIMPA FYP Management System was developed to overcome the manual process of managing the FYP. The performance of the developed system has been successfully demonstrated. The majority of the respondents have shown a positive reaction due to its many advantages. SCIMPA FYP Management System gives a new perception into FYP supervision and is expected to help students and lecturers manage the FYP projects more competently and successfully. The system is also able to help

students to manage their milestones and finish the work on time. The system can be improved by generating a report to the Head of Department to monitor the FYP progress for future work. Therefore, the development of this system will continue while considering the inputs and responses obtained from the survey.

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