General Sir John Kotelawala Defense University

Faculty of Computing

Department of Computer Science

Group Project Undertaken in partial fulfillment of the requirement for the

BSc Computer Science / Computer Engineering / Software Engineering Degree

Intake 36

PROJECT PROPOSAL

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Project Details		
Project Title	Final Year Project Coordinating System	
Supervisor		
Co-Supervisor		

Contents

1.0 Introduction

The purpose of this project is to examine a problem related to final year project coordination of faculty of computing Kotelawala Defence University. Along with this analytical review, the researchers plan to create and develop more effective ways to solve the problems regarding the final year project coordinating process.

A considerable amount of the study is based on the existing ways of final year project coordinating and the final year students' and lecturers' thoughts on this process. Nowadays, most of the coordination processes around the world is computerized as it makes the process more efficient and easier to approach. So, we decided to create and develop a computerized system to manage the final year project coordination process. The problem, the aim and the objectives of this project is listed and stated in this proposal.

1.1 Background and Motivation

The computerized system described in this proposal is motivated by the idea of making the final year of a student stress free by coordinating their project plan by a computerized system. Overall this project will be effectively helpful for the lecturers and the project coordinators as well.

This system is aimed to enhance the communication between the lecturers and students regarding the final year project, and for the students to get a clear idea of the time limitations of their projects. This will also help them to choose their supervisor more easily and correctly.

As final year students of faculty of computing spend their last 6 months in industrial training, it is impossible for them to build and maintain a seamless communication with their supervisors manually.

In our project we plan to overcome this issue by contacting the supervisors with the students in a more efficient way. [1]

1.2 Problem Domain

The existing manual project coordination process does not support the essential needs of the university undergraduates and the lecturers. It is quite difficult to update a file based approach as the data processing and scheduling takes more time than anticipated, and normally it showed that many conflicts had been faced by the students and the staff annually regarding the time limitation and communication between the lecturers and the students.

There is no efficient way to manage final year projects if it is file based and is manually updated.

1.3 Aim

The aim of this project is to design and develop - an effective coordinating and evaluating process for the final year project.

1.4 Objectives

1.4.1 Objectives regarding the students

- An entrusted supervisor-student communication
- Notifying student through an alert system
- Student being able to upload their proposals and norm forms as any type of file
- A calendar system with the due dates and deadlines
- Improving student's ability to choose their supervisors directly
- A detailed description about the available lecturers and their field of interest

1.4.2 Objectives regarding the supervisors

- Being able to download all the uploaded files at once
- Supervisors receive the summary of student's activities (submissions).
- Being able to send emergency messages to students.

2.0 Literature review

Our system is aimed to coordinate the final year projects among final year students, project coordinators and supervisors. In this section, we are discussing about the existing systems and problems that we came across after discussing with lecturers and students.

2.1 Existing Event Planning System

Current existing event planning systems have key features like online registration process in an easy, dynamic way and, complete and customizing the reports of the system with real time data making the users easily edit the reports and files. It also has a feature called on-site functionality such as managing an event and meeting, creating a list of attendees and updating the event on social media. This event planning systems are easily accessible by the attendee and the organizing committee. These systems help to manage a small meeting or a large gathering easily.

2.2 Existing final year project management process

Activities and Procedures Throughout this course module students required to attend the following activities.

1. Project norm submission
2. Project proposal submission
3. Project proposal presentation
4. Apply for final year research project
5. Supervisor meetings
6. Interim report 1 submission
7. Progress Review 1
8. Interim report 2 submission
9. Progress Review 2
10. Publish your research work
11. Draft thesis submission
12. Final presentation + VIVA
13. Final Thesis submission

1. Project Norm Submission

As the initial step of the individual research project student should require submitting their one-page project norms including problem, solution, technology and the area of the research project. This should be done in the first week of the first semester. At this point, a student should be able to present their project ideas including a suitable title of the project, a problem solution and an area of the research. This norm form should be submitted as a printed document manually.

2. Project Proposal Submission

After allocating a supervisor, the student should require submitting their project proposal including introduction to project, the area of the research with some motivation, problem, solution, the significance of the project, aim and objectives, requirements, action plan and ethical clearance. At the end of the research student should able to present innovative and / or a creative product as a solution to a real-world problem. The proposal is also the first document that should require describing proposed activities clearly. This document should be submitted as a pdf and a printed document. [2]

3. Project proposal presentation

The student should be able to present their project proposal with incorporating supervisor's comments. The scope of the project and the suitability will be considered in the proposal evaluation. Project proposal should evaluate by two examiners with supervisor's observation. If the proposed project is not in the proper standard, student should able to re-submit another proposal and an evaluation panel decides whether the student is able to re-present or not.

4. Apply for final year research project

After accepting the project proposal student and supervisor should require submitting dually completed project proposal application to the project coordinator for further approval. After getting this approval student is not allowed to do any modifications.

5. Supervisor meetings

After project proposal presentation, student must meet their supervisor regularly (at least once per 2 weeks) and handle a research diary to collect all the required materials. The student also needs to maintain supervisor signed student feedback form. Note that student is required to present this feedback form for coordinators and examiners when they are required.

6. Interim Report 1

Student is required to submit first interim report including introduction, lecturer review, approach, design and discussion chapters. The supervisor should correct the report and handover it to the student at the progress review.

7. Progress Review 1

Student is required to present his progress for the panel with the supervisor. Up to this point, the student needs to complete and present their review, approach and system design. In addition to the above, student should have a demonstrating prototype system.

8. Interim Report 2

Student is required to submit their second interim report including introduction, lecturer review, approach and design, technology, implementation, evaluation (in complete) and discussion chapters. The supervisor should correct the report and handover to the student at the second progress review. (Use the thesis format as the interim report format)

9. Progress Review 2

Student required to present his/her progress for the panel with the supervisor. Up to this point student need to complete implementation and some part of the system.

10. Publishing Research work

The student can publish their research work according to their supervisors' comments. According to the content of the research paper and the index value of the publication marks are given for the publications.

11. Draft Thesis submission

The student should able be to submit 2 copies of their draft thesis with a Soft copy (MS-Word or Latex) and the complete source code of the project with project demonstration video of 10 minutes. Thesis guideline and sample template for MSWord and Latex is also given to the student.

12. Final Presentation +VIVA

The student should able to present their completed project work on the final viva. The final presentation should have held before the second-semester examination.

13. Final Thesis submission

Student should be able to submit their 3 copies of hard bind final thesis with CDs including the soft copy and the complete source code with project demonstration video (Maximum 5 min). The guideline is also given to the student.

3.0 Methodology

3.1 Hypothesis

Why this currently existing system of students' final year project coordinating process is chosen to computerize?

It is to function this process with a higher accuracy level and more efficiency by following the modern technology. Also, to tighten the bond and communication between the students and their supervisors. With the computerized system it will be easy to reschedule and know the scheduled dates to upload project norm forms and project proposals as the current system does not supply you with accurate dates or a proper way to upload norm forms and project proposals. With the current process, when the final year students of faculty of computing, go for their internships it is quite difficult for them to maintain a proper communication with their supervisors and mentors. With this system we allow them to communicate with their supervisors regularly.

3.2 Functional Requirements

Functional Requirements describe the tasks expected to be performed using our system. In our system we are going to provide following functions.

- Communication between Student, Supervisor and Coordinators.
- Alerts are sent to the students reminding the dates of submissions, deadlines and viva dates.
- Capability to upload any type of file
- Access calendar schedule
- Student can get details of supervisors related to their project topics.
- Supervisors can download all the files at ones.
- Supervisors can view summery of student's activities (submissions).

3.3 Non-Functional Requirements

- Usability: The system should be able to use without any extra effort. The initial configurations should be easy to learn.
- Reliability: since we are providing students and authorized people access to files and provide notifications to students, that information must be reliable and the user should be able to depend on those details.
- Performance: Must be efficient, accurate and reliable.
- Start-up-time: The start-up time of the system should be minimum in order to increase the efficiency.
- Security: unauthorized users should not be able to access marks and other details. Different levels of access given to identify the user and granting them the necessary access to the information. Need to take database backup in case of crashing database due to virus or OS failure. [3]

3.4 Technology

- Firebase
- Photoshop 2020
- JavaFX Scene Builder
- IntelliJ IDEA IDE
- Java

4.0 Time plan

TASK	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
Research and Analysis												
Problem Identifying												
Project proposal outline												
Proposal submission												
information gathering												
Feasibility Studying												
Requirement gathering												
System Development												
Front end design												
Back end design												
Testing												
Integration												
Documentation												

5.0 Conclusion

We presented a specific system to facilitate the implementation of the final year projects. The final year project coordinating system can significantly reduce the workload of program organizer. Lots of arrangement, announcement and assessment collection tasks can be done automatically in the system. At the same time, our system provides convenience for supervisor and students throughout the process of Final Year Project. Supervisors and students can communicate better. Supervisor can also easily keep track of the progress of students with the project coordinating module and file sharing functions. Finally, supervisors and examiners can quickly manage to obtain the deliverables of the project and provide grades on the system.[4]

6.0 References

[1] "(PDF) Final Year Project Report Event Management System University of Management and Technology C-II Johar Town Lahore Pakistan | NOMAN AKHTAR - Academia.edu." [Online]. Available: https://www.academia.edu/35460232/Final_Year_Project_Report_Event_Management_System_University_of_Management_and_Technology_C-II_Johar_Town_Lahore_Pakistan. [Accessed: 14-Feb-2020].

[2] S. Kale, A. Shewale, P. J. Sarang, P. S. Pawar, S. Sadruddin, and U. Scholar, "Project Management System (PMS)," vol. 5, no. 2, p. 5, 2017.

[3] "(PDF) Student Attendance Management System." [Online]. Available: https://www.researchgate.net/publication/323511629_Student_Attendance_Management_System. [Accessed: 14-Feb-2020].

[4] "College Management Module's Constructed by Advance Java in the ERP System | Computer Projects." [Online]. Available: https://computer.projectsqa.com/a/607-college-management-modules-constructed-by-advance-java-in-the-erp-system.html. [Accessed: 14-Feb-2020].