LONDON METROPOLITAN UNIVERSITY

islington college
(इस्लिङ्टन कलेज)

Module Code & Module Title

CS6P05NI Final Year Project

Assessment Weightage & Type

5% FYP Proposal

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Assignment Submission Date: 2020/11/27

Word Count (Where Required):

I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.

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Institute Management System

1. Introduction:

This system is a web application for educational institute specially for those institute which provides education to various types of students. As being a developing country, education system is also in the phase of development so that most of works are manually done in the field of education. There are various sources that provide education such as school, college, institute. This project is focused on educational institute that provides education to people who get enrolled to compete in exams of government jobs/ public service.

1.1. Problem statement:

In educational institute, there are many students and their records are almost manual in most of education system. Educational institute have problem due to:

1. Manual record of students
2. Depend on paper / register/ brain to remember type of student
3. No proper track of students
4. Difficulty in sending SMS to students
5. Manual billing of fee payment

1.2. Project as a solution:

This project will help people who will have educational institute by working as solution:

1. Digital record of students
2. Allocates students at the time of admission
3. Sending SMS to students to give information about class
4. Digital billing of fees
5. Generate manual/month/annual report
6. Digital billing of books related to study materials by using barcode.

2. Aim and Objectives

2.1. Aim

The main aim of project to make work digitalize more than manual in the field of educational institute.

2.2. Objectives

Some objectives of project are:

- To learn about scope of digitalization
- To manage manual works of institute.
- To learn about API programming.
- To make work easier for people involving in educational institute
- To get knowledge on programming concept

3. Expected Outcomes and deliverables

The expected outcome of this project would be a web-based application which will have features of educational institute management. The first look of this project will be as a dashboard in which admin/ user can entry details of students regarding admission. User can also send SMS and get annual report with the help of navigation. User can register books through navigation and later on sell that particular book.

4. Project risks, threats and contingency plans

4.1. Risk and threats

- Security is main threat of this project. This project should be simple and secure enough so that user who have no technical knowledge should be able to use this project, but it should be also secure so that other outsider couldn't get access to whole system in absence of user/admin.

- Lack of technical knowledge is also one of the main problems of this project as this project should be used by direct owner of educational institute or staff of those institutions and they may not be familiar to computer like stuffs.
- Convincing user to move manual working system to digital system as they might find it difficult for first time and think manual work will be easier than this.

4.2. Contingency plans

- Providing different layers of security such as password protection in various functions in order to prevent outsider to access to system.
- Making user comfortable by giving enough information about system and making them aware of advantages of using digital system on manual system of working.
- Providing simple manual books in order to give information about operating system or giving simple training to them.

5. Methodology

There are many methodologies for software development. Some of them are; waterfall, agile, scrum, spiral, joint application, rational unified process etc. We are using Rational Unified Process (RUP) for development of this project.

Rational Unified Process (RUP) is one of the techniques used for software development. RUP provides a disciplined approach to assigning tasks and responsibility within a development organization. Its main goal is to ensure the production of high- quality software that meet the need of end-users within a predictable schedule and budget. (Kruchten, 2004) There are four phases of RUP methodology. They are:

- Inception:

In this phase, requirement analysis is done. This is the phase which describes schedule, estimation of overall system and risk assessment of project. It also describes scope and goals of the system along with identifying interaction with systems (t4tutorials, 2020).

- Elaboration:

Architecture of system is evaluated in this phase of rational unified process. This phase is considered important as it includes analysis of problem domain. Use case diagrams are made in this phase (Christensson, 2006).

- Construction:

In this phase, major coding is done along with extensive testing. In big projects, construction phase can be repeated or there may be several constructions phases in order to divide use cases into segments so that it will be smaller and manageable. At the end of this stage, the project team should have user manuals and a beta version of the system ready to be evaluated. (ANWAR, 2014)

- Transition:

Transition is the last phase of rational unified process in which analysis of system along with its maintenance is done. This is the phase where product is released. (Scott, 2001) .

6. Resource requirement

6.1. Software Requirements

- PHP/ Laravel Framework
- MySQL for Database
- Html/CSS
- Code editor i.e. Visual Studio / PHP storm
- API for SMS integration.
- Bar code reader app if scanner is not available

6.2. Hardware Requirements

- PC with windows 10
- Web cam/ phone with camera/ bar code scanner for scanning bar code of books.

7. Work breakdown Structure

The figure of work breakdown structure is given below:

Phases	Inception	Elaboration	Construction	Transition
Activities	• Research on selected topic • Gathering Requirement and find client for requirement • Research on similar project • Develop Project proposal • Approval of project proposal	• Wireframe development • Planning on design • Use case Diagram development • Collecting required resources • Asking client for additional requirements • Review project to supervisor	• Development of web application • Use of API • Making user manual • Completing coding part • Test and review to supervisor	• Asking for feedback • Proper documentation • Finalizing project • Submit the project

Figure 1 Work Breakdown Structure

8. Milestones

- **Milestone 1:** Proposal Submission
- **Milestone 2:** Interim Report Submission
- **Milestone 3:** UI design and wireframe
- **Milestone 4:** Develop Use Case
- **Milestone 5:** Development of Web application
- **Milestone 6:** Testing
- **Milestone 7:** Documentation
- **Milestone 8:** Submit final Year project

Graphical Representation of Milestone is presented below:

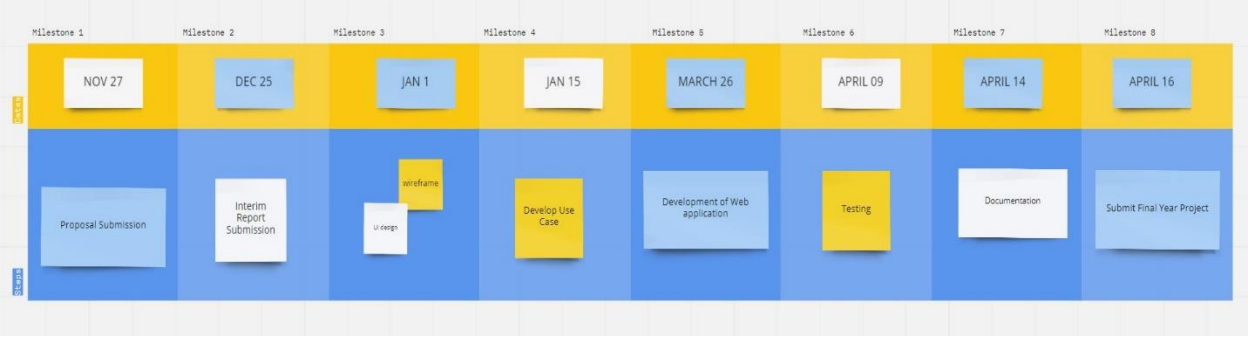

Figure 2 Milestone

9. Gantt Chart

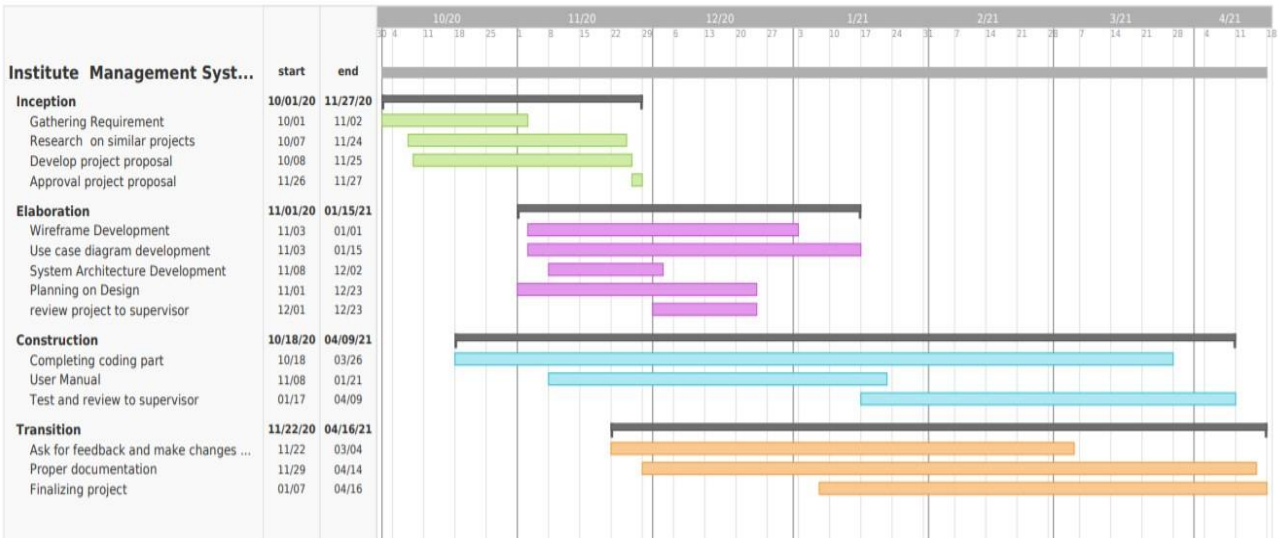

Figure 3 Gantt Chart

Tabular form of Gantt chart is provided below:

Activities	Start	End	Days
Inception	**10/1/2020**	**11/27/2020**	
Gathering Requirement	1-Oct	2-Nov	32
Research on Similar Projects	7-Oct	24-Nov	48
Develop Project Proposal	8-Oct	25-Nov	48
Approval Project Proposal	26-Nov	27-Nov	1
Elaboration	**11/1/2020**	**1/15/2021**	
Wireframe Development	3-Nov	1-Jan	59
Use case Diagram Development	3-Nov	15-Jan	73
System Architecture Development	8-Nov	2-Dec	24
Planning on Design	1-Nov	23-Dec	52
Review Project To supervisor	1-Dec	23-Dec	22
Construction	**10/18/2020**	**4/9/2021**	
Completing Coding Part	18-Oct	26-Mar	159
User Manual	8-Nov	21-Jan	74
Test And Review to Supervisor	17-Jan	9-Apr	82
Transition	**11/22/2020**	**4/16/2021**	
Ask for Feedback and Make changes	22-Nov	4-Mar	102
Proper Documentation	29-Nov	14-Apr	136
Finalizing Project	7-Jan	16-Apr	99

10. Conclusion

This Institute Management System will help many users who are directly or indirectly related to educational institute. This project primarily targets to make work digital in field of educational institute so that it saves time and effort in that field. This project will be built on Rational Unified Process methodology.

11. References

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