A Minor Project Final Report On

Project Management System

Submitted in Partial Fulfillment of the Requirements for
the Degree of **Bachelor of Engineering in Information Technology**
under Pokhara University

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ABSTRACT

Project Management System is an innovative idea that enables students to submit their proposals and projects on time, all with the click of a button. The main focus of this mission is to make the process of submitting projects easier and hassle-free. This web-based application's objective is to facilitate with systematic arrangement, the review of academic projects – from submission to completion. We aspire to build a bridge between the students and faculty members, by proposing an efficient system that is easy to use. Modern times require modern solutions. The traditional system of submitting projects is inconvenient and outdated. With this handy application, students can get information about the deadlines, and the process of project submission. Not only that, transparency about the student project report can be obtained as well. It provides a platform of interaction between students and the teachers. Students no longer need to go through the hectic process of manual project submission. They can just use our system to look up their deadlines and submit their projects accordingly. The project coordinator acts as admin, and they have authority over the deadlines and submission dates. We believe this is a major step in introducing smart learning in colleges and universities. This small approach contributes immensely, especially in the colleges inside the Kathmandu valley. The completed project delivers a system that permits students to submit their projects, and allows project supervisor to review those projects. This system will be designed using PHP, JavaScript, CSS, Bootstrap, and MYSQL as its database.

Keywords: Project, Management, Online, PHP, MYSQL, Bootstrap

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1. Introduction

The purpose of this paper is to gain an understanding of project management and to give a brief overview of the methodology that underpins most formally run projects. Many organizations do not employ full time Project Managers and it is common to pull together a project team to address a specific need. While most people are not formally skilled in project methodology, taking a role in a project team can be an excellent learning opportunity and can enhance a person's career profile.

What is Project Management?

Project management is the discipline of managing all the different resources and aspects of the project in such a way that the resources will deliver all the output that is required to complete the project within the defined scope, time, and cost constraints. These are agreed upon in the project initiation stage and by the time the project begins all faculty team members will have a clear understanding and acceptance of the process, methodology and expected outcomes.

2. Problem Statement

- Even with the immense improvement in the technological field, there hasn't been a well-organized scheme for project management systems in colleges and universities.
- Students do not have a proper system through which they can view the deadlines and interact with their supervisors regarding their project and proposal submission.
- With this system, multiple reviewers can observe and give feedback concerning the projects that students have undertaken.
- Students can initiate the projects and complete them in time by taking note of the deadline timer on the web application.

3. Project Objectives

- To provide a platform for interaction between the team over taking the project and the reviewer.
- To make it possible to upload the project documents by team over taking the project to be reviewed by the interested reviewers.
- To make it easier to review the project from anywhere in the globe.
- To conduct project defense reviews and feedback entirely in web.

4. Significance of the Study

This project by the name of 'Project Management System', is the visualization of a web-based tool that is expected to be extensively used in schools and colleges. The main objective of this project is to make the tiresome process of submitting projects easier and stress-free. By using this tool, students are creating a platform through which they can interact with their projects supervisors.

This research has been carried out to ensure that the process of submitting and reviewing projects becomes efficient, to not only the students, but the teachers as well. It has been designed in way, so as to display our technical knowledge and expertise in the field of IT. It is also one of the essential steps in introducing smart learning in colleges.

5. Scope and Limitations

Project scope:

With our system Students' Team over taking the project will be able to

1. Upload the proposal, midterm and final project documents and additional system's demo.
2. Answer the queries by reviewer and resubmit the documents as demanded by reviewers.

With our system Reviewers will be able to

1. Ask questions and give feedback.
2. Instruct project team for minor or major revision.
3. Review if the project is in track.
4. Accept or Reject the project.

Limitations:

1. Notification isn't available when user is not using the internet.
2. Lack of available and/or reliable data
3. Self-reported data
4. Lack of visibility on a wider scale

6. Literature Review

While there are several definitions of projects in the literature, one of the best has been offered by Tuman (1983), who states:

"A project is an organization of people dedicated to a specific purpose or objective. Projects generally involve large, expensive, unique, or high risk undertakings which have to be completed by a certain date, for a certain amount of money, with some expected level of performance. At a minimum, all projects need to have well defined objectives and sufficient resources to carry out all the required tasks."

In lines of the definition provided by Pinto & Slevin (1988), and accepted for the purpose of this research, a project can be defined as possessing the following characteristics:

- A defined beginning and end (specified time to completion)
- A specific, preordained goal or set of goals (performance expectations)
- A series of complex or interrelated activities
- A limited budget

Diallo & Thuillier (2003) reviewed the project management literature outlined a set of evaluation dimensions which appear regularly although not with the same occurrence:

- Respect to the three traditional constraints
- Satisfaction of the client
- Satisfaction of the objectives as outlined in the logical framework
- Project impacts
- Institutional or organizational capacity built in the organization by the project
- Financial returns (in the case of productive projects) or the economic or social benefits (in the case of public sector projects), and
- Project innovative features (outputs, management or design)

Characteristics of a Project

Typically, most projects share most if not all of the five characteristics listed below.

1. A start and a finish
2. A time frame for completion
3. An involvement of several people on an ad-hoc basis
4. A limited set of resources
5. A sequencing of activities and phases

Classification of Projects within Categories and Sub-Categories

- Project size
- Project complexity
- External or internal customer
- Degree of customer involvement in the project
- Levels of risk in projects

- Major and minor projects within a category

According to Gareis and Huemann (2000) the Project-oriented Company (POC) is an organisation which defines "Management by Projects" as an organisational strategy, applies temporary organisations for the performance of complex processes, manages a project portfolio of different project types, has specific permanent organisations to provide integrative functions, applies a "New Management Paradigm", has an explicit project management culture, and perceives itself as being project-oriented. Thus POCs do have specific processes, such as assignments of projects and programmes, project management, programme management, quality management of projects and programmes, project portfolio co-ordination, networking between projects, personnel management in the POC and organisational design of the POC.

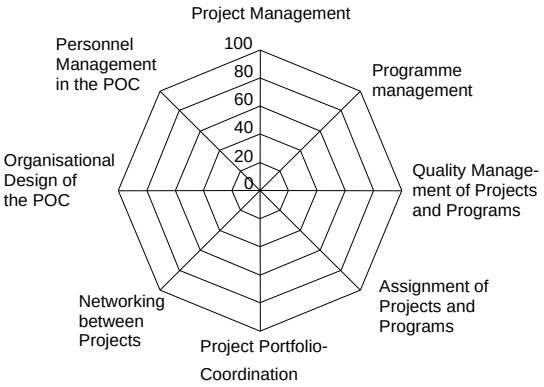

Exhibit 1: Specific Processes of the Project-oriented Company, Gareis and Huemann (2000).

Project Management Tools

What these tools are used for?

Good project management deals with three factors: time, cost and performance. Projects are successful if they are completed on time, within budget, and to performance requirements. In order to bring the many components of a large project into control there is a large toolkit of techniques, methodologies, and tools. These techniques provide the tools for managing different components involved in a project: planning and scheduling, developing a product, managing financial and capital resources, and monitoring progress. However, the success of a project will always rest on the abilities of a project manager and the team members.

Work Breakdown Structure (WBS)

This tool is related to planning and scheduling a project. Basically, it is a functional decomposition of the tasks of the project. The total work of the project is broken down into the major subtasks. It starts with the end objective required and successively subdividing it into manageable components in terms of size and complexity: program, project, system, subsystem, components, tasks, subtasks, and work elements.

Gantt charts

Developed by Harry Gantt in 1916, these charts give a timeline for each activity. They are used for planning, scheduling and then recording progress against these schedules.

7. Use Case Diagram

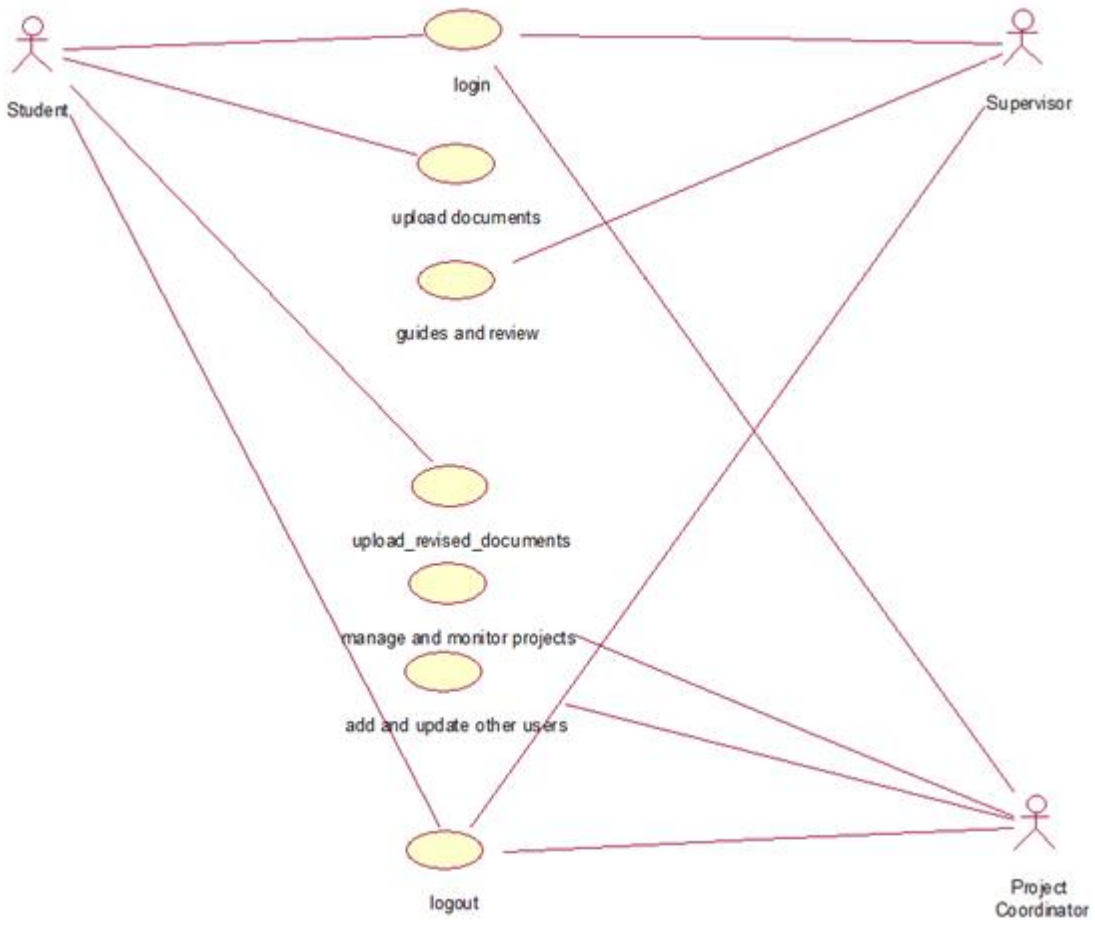

FIGURE 1: USE CASE DIAGRAM

8. Sequential Diagram

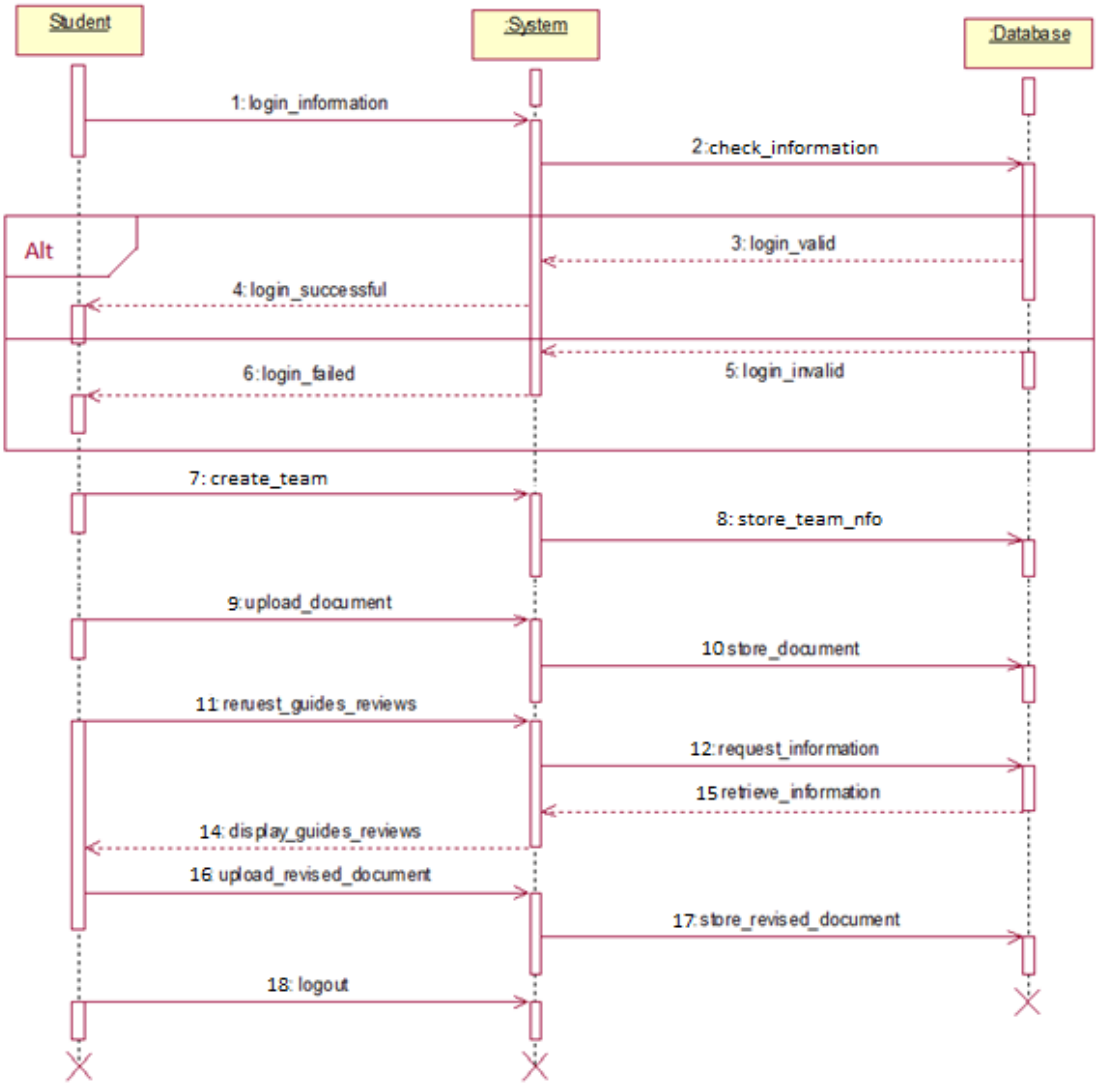

FIGURE 2: SEQUENTIAL DIAGRAM FOR STUDENT

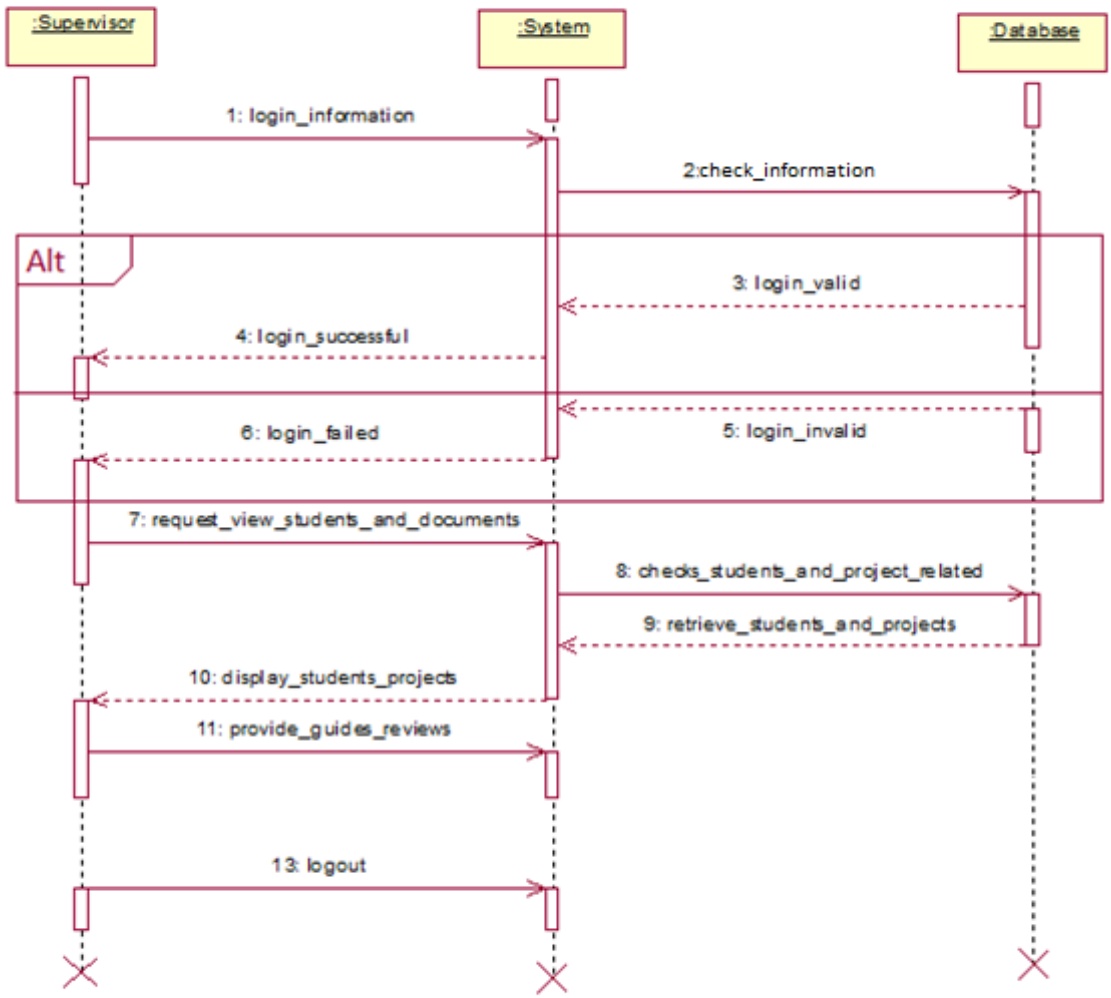

FIGURE 3: SEQUENTIAL DIAGRAM FOR SUPERVISOR

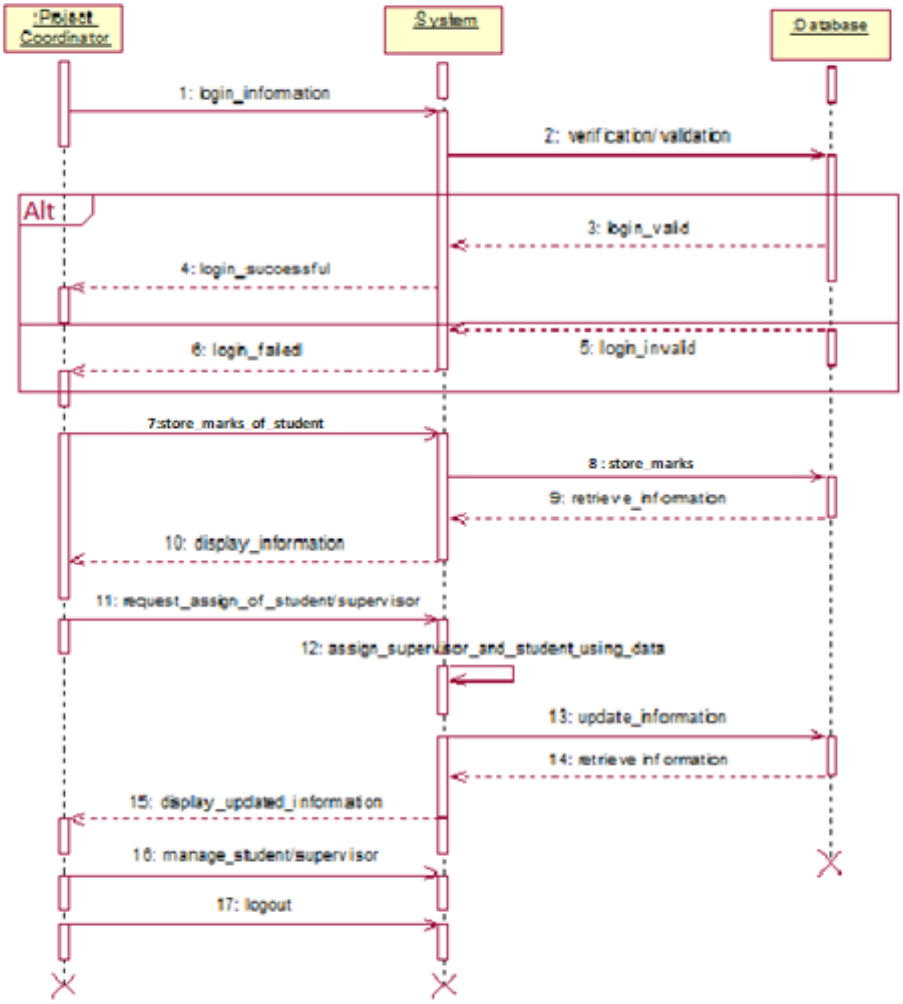

FIGURE 4: SEQUENTIAL DIAGRAM OF PROJECT SUPERVISOR

9. Gantt Chart

FIGURE 4: Gantt chart.

10. Proposed Methodology

The method we are going to follow in developing this project is incremental model, which is a use of linear sequential model in an iterative manner. New functionalities are added each increment was developed. Linear sequential model is applied to develop each increment. The phases of the linear sequential model are: Analysis, Design, Coding and Testing. The software repeatedly passes through these phases in iteration and an increment is delivered with progressive changes.

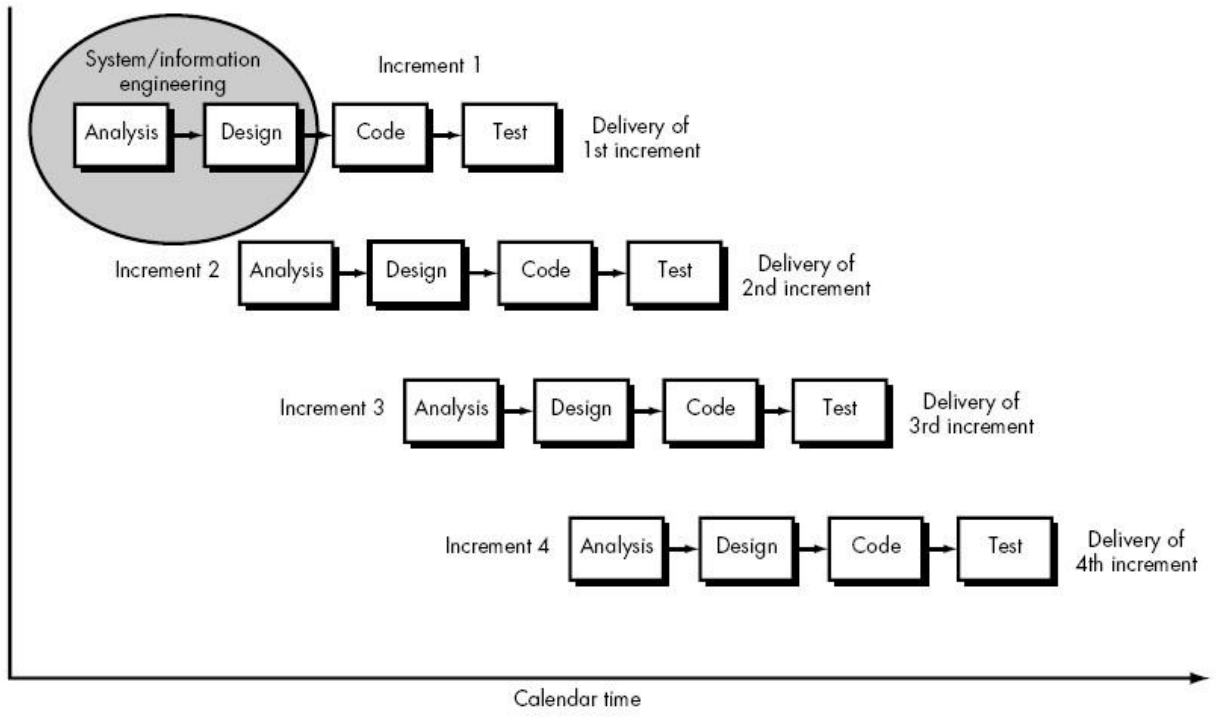

FIGURE 6: Incremental Model

Analysis Phase:

In this phase, analysis is done in order to find out the requirements of the system. The outcome of this phase is an SRS which is an acronym for “System Requirement Specifications”.

Design Phase:

In this phase the SRS is translated into the system’s design. Context Diagram, DFD, ER – Diagram, Use Case Diagram and Class Diagram are developed.

Coding Phase:

In this phase coding is to be done according to the design and a working system is to be developed by the end of this process.

Testing Phase:

In this phase, the system is to be tested. With each testing a list of changes to the system developed, is suggested and the changes are applied to the software and the software is delivered as a successive increment until a satisfying system is achieved.

11. Deliverable Output

- To allow users to register as students, project supervisor and project coordinator.
- To verify/validate the account of the users from their ID.
- To allow students to access the documents of past projects.
- To allow students to upload their documents (for proposal, mid-term and final) and know about their defense date.
- To allow students to interact with their Project supervisor after their proposal is accepted through web.

12. Project Task and Time Schedule

The project schedule has been designed as per requirement and constraints involved. This project is scheduled to be completed in about three months. Requirements analysis had been given more emphasis. Research is to be done first and well documented. Debugging and testing is to be done prior to the complement of the project.

Table 1. Task schedule

TASK	**PERSON**
Requirement analysis and specification	Hari, Image, Rusan
Undertake analysis of the system	Hari, Image, Rusan
Design system	Hari, Image, Rusan
Procedure requirement specification	Hari, Rusan
Testing and debugging	Image, Rusan
Test system modules	Hari, Rusan
Overall system test	Image, Rusan
Develop Documentation	Hari, Image, Rusan

Table 2. Time schedule

Working Days	**Work Done**
1-Week	**Analysis and Design**
4-Week	**Implementation**
	Web design and creation
	Database creation
	Login , user management functionality
	Data upload/delete functionality
	Backside admin functionality
2-Week	**Testing and debugging**

13. Conclusion

Project management is very diverse and a project manager should be well versed on limitations and factors surrounding initiation, execution, and completion of projects. Changes in projects are likely to slow down the progress of the project but with good leadership and management skills, it will be easy to complete it within the allocated resources and time.

The presence of many project methodologies should be taken as an advantage because of the perceived wide selection of methods. It is worth noting that the results are same and the vital thing will be to run the process wisely.

14. References

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