# A Mini Project Synopsis on

# PROJECT MANAGEMENT SYSTEM

## S.E. – Computer Science and Engineering-Data Science

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## **CERTIFICATE**

This to certify that the Mini Project report on **Project Management System** has been submitted by <u>PRIYANSHU WORLIKAR</u> (22207001), <u>HARSHAD RAURALE</u> (22207002), <u>SNEHA SABAT</u> (22207008) and <u>VINEET MHATRE</u> (22207009) who are a Bonafide students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in <u>Computer Science and Engineering (Data Science)</u>, during the academic year <u>2022-2023</u> in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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## **Introduction**

A project management system is a combination of methodologies and technologies that assist you with the planning, organizing, and scheduling everything that contributes to the success of a project. A Project Management System (PMS) is a software tool that helps you organize, manage, and track your projects.

The first thing to understand about a PMS is that it's not just one thing—it's a whole system of tools, procedures, processes, and other features all built into the same software platform. This is why it can be so helpful for people who are involved in multiple projects at once or who have a lot going on in their lives outside of work.

Project management is the use of specific knowledge, skills, tools and techniques to deliver something of value to people. The development of software for an improved business process, the construction of a building, the relief effort after a natural disaster, the expansion of sales into a new geographic market—these are all examples of projects.

To understand project management, we must look deeper into what constitutes a project. Essentially, projects are temporary efforts to create value through unique products, services, and processes. Some projects are engineered to quickly resolve problems. Others require extended timelines to produce outcomes that will not need major improvements outside of projected maintenance.

Of course, some projects will be a mixture of both these things.

This applies to everything from developing new software to planning disaster relief efforts. Still, this is all very general information concerning what a project is. When we break them down more specifically, we see that projects are amalgamations of tasks, activities, and deliverables that must be structured and executed carefully to achieve a desired outcome.

## 1.1 Purpose

A project management system provides a structure for project managers to oversee the work for which they're responsible. A project management system provides organization and can help a project manager be more efficient with their time and resource allocation. If you work as a project manager, learning to work with project management systems can be beneficial for your career advancement.

It provides a framework for managing expectations, delegating responsibilities and creating procedures. A project management system may use specialized project management software or make use of common professional software packages.

A project management system covers a broad range of elements in a project plan. The system helps you to organize and access the required information.

Project management software is a tool that helps companies manage resources, goals and deadlines. It can be used to coordinate various activities, teams and projects. These systems have specific features that make them suitable for managing different types of projects – whether they're small, large or worldwide in scope.

## 1.2 Objectives

#### 1. Increases Productivity

Project management systems allow you to automate administrative project work, such as assigning tasks to team members, passing work down the line, and sending out notifications and reminders. This leads to increased productivity, since you now have time to focus on more meaningful tasks.

In addition, project management software makes it easier for you to identify bottlenecks that would have held back the project and resolve them before they become actual problems.

#### 2. Better Visibility

Project management systems provide you with a central place to maintain oversight over your entire project.

You can view the progress across all project tasks, compare actual progress against planned progress, monitor resource allocation, and track team performance in real-time.

#### 3. Improved Accountability And Transparency

With a project management system, all team members can see all project tasks, the team members assigned to these tasks, and the status and progress on the tasks. This kind of

transparency leads to improved accountability and better team performance, since team members can monitor each other's actions and hold each other to account.

### 4. Improved Communication And Team Collaboration

Instead of having disjointed communication across multiple platforms, project management systems provide your team with a central place for all project communication.

You can add comments to project tasks, tag the relevant team members, attach files and documents to tasks, make project-wide announcements, and so on.

This means that it is very unlikely that something will get overlooked, since all the communication is done in one place. It also makes it easier for team members to understand the context behind every piece of communication, since they can easily refer to previous threads within the project management system and access task attachments.

## 1.3 Scope

Setting a clearly defined scope for a project is important. It defines the expectations for the project and ensures that all parties understand these expectations. Clearly outlining your scope within your project management system can help to avoid scope creep, in which a client or stakeholder attempts to add new elements without corresponding allowances.

#### Success measures

Understanding how stakeholders judge the success of a project at its completion is important when planning and executing that project.

### **Deliverables**

At the end of the project, if stakeholders expect specific deliverables from the project, it's important to include this in the project management system.

#### Work breakdown structure

The work breakdown structure defines the tasks required in order to complete the project and meet all the goals and expectations for it.

Schedule
Setting a timeline is an important step for any project plan. The project management system helps
to manage scheduling throughout the execution of a project by providing timelines for both the overall project and individual elements.

## **Problem Definition**

We have often seen that, it is very difficult to handle the documentary track of each and every task related to the project, it creates a confusion among the team members too.

## o Lack of data visibility

Poor visibility of project-related data is definitely one of the most common problems that project management professionals face:

Which projects are in the pipeline?

How are the various projects that are in-flight right now?

Which specific issues might they be facing?

How do these projects contribute to the realization of the firm's objectives?

#### o Poor collaboration across Project teams

When teams do not speak the same language and do not use the same tools, metrics, and baselines to produce reports and dashboards, the resulting inconsistencies can gnaw away at the value of your project portfolio.

Good collaboration across teams is indispensable to successful project delivery. The quantity and quality of interactions can be boosted significantly thanks to collaboration-friendly PPM tools with built-in communication, notification, and sharing features — and such features are becoming increasingly important with the spread of remote working, as geographically-dispersed teams are becoming the norm.

## **Proposed System**

To overcome the problem we have developed Project Management System, which will help the user to keep a proper track of his/her tasks, allows project managers to accomplish their everyday responsibilities easily, effectively, and quickly. The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features:

- Creation and assignment of project tasks
- Project scheduling and deadline tracking
- Cost estimation, budgeting, and cost control
- Project communication and coordinating team collaboration
- Creation of project reports
- Resource allocation
- Project risk management
- Document sharing and management
- Time tracking and management
- Bug and error management
- Project performance analysis
- Change management

#### 3.1 Features and Functionalities

### 1. Risk management

A risk is any uncertain condition that might affect your project. There is no particular project without risks. From the start to the stages of development, there is a chance for unforeseen situations to emerge and leave big impacts on the project. Therefore, project managers use the process of risk management to minimize any potential problems that may impact a project's timeline.

#### 2. Resource management

Resource allocation planning is the process that describes what type of resource is needed and at what time that is critical for resource management. So, it is convenient to use a tool that offers resource management. For every project, resource management is an integral part that will make aware of the whole project cost and other related things.

#### 3. Ease of use

Ease of use is a priority requirement for project managers who unquestionably have to juggle numerous projects and people at the same time. They generally don't like using tools that can be difficult to use and drain the resources of small businesses. A project management system should be easily accessible to employees using multiple devices, it should have a minimalistic design with a simple drag-and-drop interface, easy functionality, and smooth maintenance and support.

#### 4. Using boards to manage projects

Project management boards are the decision-makers that will be helpful in connecting people who are working on the project. It focuses on the status of tasks, by which the task can be moved through different stages of the project. The teams working on projects can track what's the progress of it.

#### 5. Effective time tracking

More and more managers are longing for time tracking as an important feature for better planning, accurate time estimation, and working with great precision on project tasks.

#### 6. Collaborate easily

Collaboration is a big part of project management, and when you're using a project management system, it should be easier for you to collaborate on all the projects. The system should allow you to share documents, files, status, timelines, and tasks easily and quickly with a large number of people.

## 7. Delegate tasks easily

When you're managing a group of people, it's good to delegate tasks to each individual to ensure the successful completion of the project. Your project management system should let you easily assign tasks across all team members. You can assign roles to each person in the team and provide them access to the relevant task information.

## **Project Outcomes**

> Task Management

Employees can manage their allocated task

> Time Tracking

Employees can check and track their deadlines

Project Scheduling

Easy scheduling of Project

➤ Meeting Scheduling

Easy scheduling of meetings

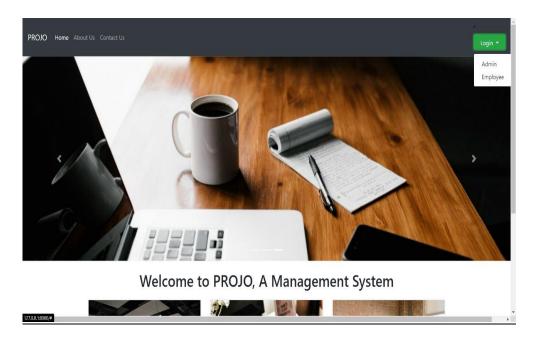
> Communication

Approaching becomes easy

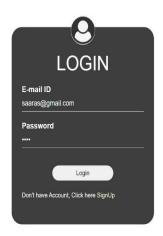
> Reporting

Reporting the task status

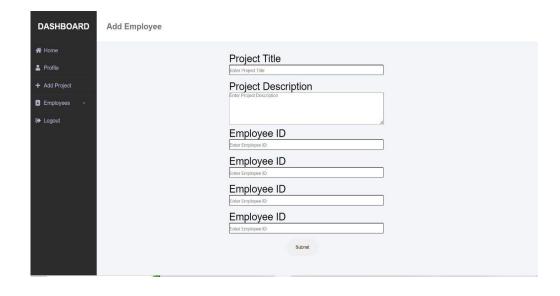
## **OUTPUT:**

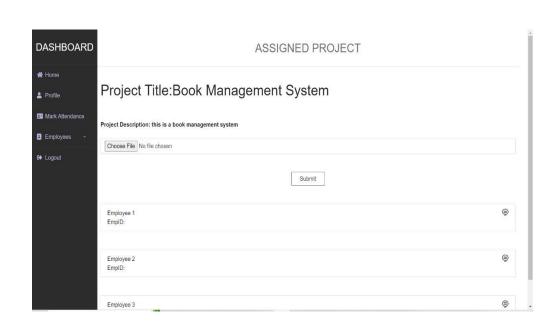






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# **Software Requirements**

The Software Requirements for developing our project are:

Operating system: Windows 11.

o Front end: Html, Css

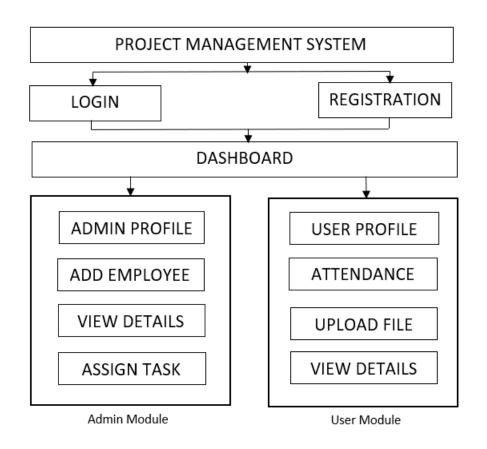
o Backend: Python

o Platform : Django Framework

o Integrated development environment(IDE): Visual STUDIO

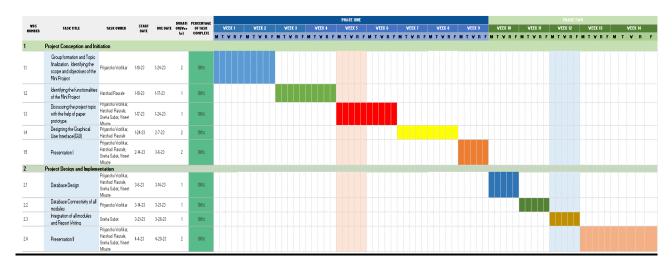
o Database : MySQL

# **Project Design**



# **Project Scheduling**





## **Conclusion**

The term "project management system" is widely used to describe two major pieces of the overall project management puzzle. The first piece is essentially an approach to getting work done. The second piece refers to various tools and technologies that help drive this approach. In this article, we will explore both aspects that combine to create a solid, fundamental project management system definition.

A project management system is a combination of methodologies and technologies that assist you with the planning, organizing, and scheduling everything that contributes to the success of a project.

A Project Management System (or PMS) is a software tool that helps you organize, manage, and track your projects.

## **REFERENCES**

We used a few references during the process of building our project. The references used are from Websites, Books etc.

The references used are:

WEBSITES:

What is Project Management | PMI

Project Management System: Definition & Key Features (founderjar.com)

[2023 | Project Management System: Definition & Features [UPDATED] (proofhub.com)

Management System Projects | 200+ Projects - ProjectsGeek

Best Project Management Systems 2023 | Definition & Examples (project-management.com)

Project Management Systems: Key Components and Benefits | Indeed.com

Simple MS Project Alternative – Project Plan 365

#### **VIDEOS**

<u>Library Management System Project in PHP - PHP Projects - Bing video</u>

Project Management Tutorial: 11 Years of Experience in 45 Minutes - Bing video

Project & Task management Php/Laravel , JQuery/AJAX - Bing video

SPM(Software Project Management) with real life examples - Bing video

My Project Management System: Microsoft To-Do - Bing video

<u>Introduction to Project Management Information System | PMIS | PMP Training | Invensis</u> Learning - Bing video

## **ACKNOWLEDGEMENT**

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