# A PROJECT REPORT ON PROJECT MANAGEMNT SYSTEM

BACHELOR'S OF SCIENCE
IN
COMPUTER SCIENCE

# SUBMITTED BY ADIL MANIYAR



S.K. COLLEGE OF SCIENCE AND COMMERCE, PLOT NO.31, SEC.25, SEAWOODS, NAVI MUMBAI – 400706 2024-25

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**SEAT NO:** 

PROJECT GUIDE MS. B.SHINDE

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## **ABSTRACT**

With the growing need for efficient project management in dynamic work environments, traditional methods often fall short in addressing the complexities of team coordination, task allocation, and progress tracking. This abstract introduces an innovative Project Management System (PMS), designed to tackle these challenges through streamlined workflows and real-time monitoring.

The PMS leverages a robust architecture incorporating advanced web technologies and intuitive interfaces to enhance user experience and operational efficiency. It enables administrators to manage projects, assign tasks, and oversee team activities through a centralized dashboard. Real-time data visualization tools, such as progress charts and status trackers, provide actionable insights, while CRUD functionalities ensure flexibility in handling project details.

Key features of the PMS include employee and user management, task allocation, and ongoing project tracking. The system also supports collaborative workflows by offering seamless project updates and role-based access controls for secure operations. Administrative tools further aid in strategic planning by offering analytics on resource utilization and project timelines.

Implementing the PMS improves organizational efficiency by fostering collaboration, ensuring timely task completion, and optimizing resource allocation. It is particularly beneficial for project managers, team leads, and organizations seeking to streamline processes and enhance productivity.

In summary, the Project Management System is a comprehensive solution for modern project management challenges, delivering practical benefits while enhancing team coordination and operational effectiveness.

## **ACKNOWLEDGEMENT**

I would like to express my special thanks of gratitude to my project guide **Ms. B.Shinde** for their guidelines and support in making my project successful.

I am very thankful to our principal **Dr. Swati Vitkar** for their kind cooperation in completion of my project.

I am also grateful to **Mrs Vrushali Ghatpande**, head of department for being very much resourceful, kind and helpful. And also thankful for their positive attitude, time and efforts she provided to us. Your useful advices gives us confidence to do project successfully.

I also wish to thanks our lab assistant and all my friends and entire **computer department** who helped me in completion of my project.

Last but not the list I would like to thank my family without whose support, motivation and encouragement it would not have been possible.

## **PREFACE**

It gives me great pleasure to present the project on "PROJECT MANAGEMENT SYSTEM" prepared sincerely, punctually and with utmost efforts.

The contents of this book are presented into many chapters, in order to ease reading. The project has been illustrated with precise data elucidated with neat Sequence Diagram and Activity Diagram that simplify the understanding of the project. The project includes the software development tools like Visual Studio Code and the integration of various APIs.

Meticulous care has been taken to make this project perfect and useful in every respect.

ADIL MANIYAR

## **DECLARATION**

I the undersigned **Mr. ADIL MANIYAR** hereby, declare that the work embodied in this project work titled "**PROJECT MANAGEMET SYSTEM**" forms my own contribution to the research work carried out under the guidance of **MS. B.SHINDE** is a result of my own research work and has not been previously submitted to any other University for any other Degree/ Diploma to this or any other University.

Wherever reference has been made to previous works of others, it has been clearly indicated as such and included in the bibliography.

I will abide and take all responsibility of all issues related to plagiarism/self-plagiarism mentioned under UNIVERSITY GRANTS COMMISSION (PROMOTION OF ACADEMIC INTEGRITY AND PREVENTION OF PLAGARISM IN HIGHER EDUCATIONAL INSTITUTIONS) REGULATIONS, 2021.

I, here by further declare that all information of this document has been obtained and presented in accordance with academic rules and ethical conduct.

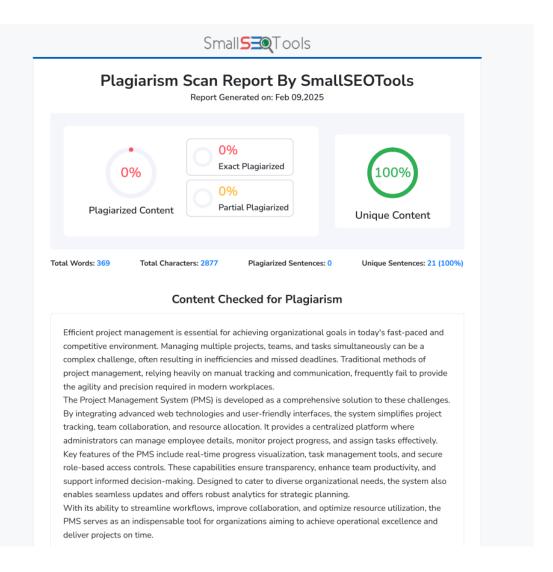
Submitted by ADIL MANIYAR

Certified by MS. B.SHINDE

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## PLAGIARISM REPORTS



## 1. PRELIMINARY INVERTIGATION

## INTRODUCTION

Efficient project management is essential for achieving organizational goals in today's fast-paced and competitive environment. Managing multiple projects, teams, and tasks simultaneously can be a complex challenge, often resulting in inefficiencies and missed deadlines. Traditional methods of project management, relying heavily on manual tracking and communication, frequently fail to provide the agility and precision required in modern workplaces.

The **Project Management System (PMS)** is developed as a comprehensive solution to these challenges. By integrating advanced web technologies and user-friendly interfaces, the system simplifies project tracking, team collaboration, and resource allocation. It provides a centralized platform where administrators can manage employee details, monitor project progress, and assign tasks effectively.

Key features of the PMS include real-time progress visualization, task management tools, and secure role-based access controls. These capabilities ensure transparency, enhance team productivity, and support informed decision-making. Designed to cater to diverse organizational needs, the system also enables seamless updates and offers robust analytics for strategic planning.

With its ability to streamline workflows, improve collaboration, and optimize resource utilization, the PMS serves as an indispensable tool for organizations aiming to achieve operational excellence and deliver projects on time.

## **OBJECTIVE**

The **Project Management System (PMS)** aims to provide a comprehensive platform for streamlining project management tasks and improving organizational efficiency. The primary objectives of the system are:

- 1. **Enhance Task Management:** To simplify the creation, assignment, and tracking of tasks for teams and individuals.
- 2. **Streamline Project Monitoring:** To offer real-time insights into project progress, deadlines, and resource utilization.
- 3. **Improve Team Collaboration:** To facilitate better communication and coordination among team members through centralized management tools.
- 4. **Enable Efficient Resource Allocation:** To optimize the distribution of resources across various projects to maximize productivity.
- 5. **Support Decision-Making:** To provide analytics and data-driven insights that assist administrators in making strategic decisions.
- 6. **Ensure Data Security:** To implement secure authentication and role-based access controls for protecting sensitive project information.
- 7. **Increase Productivity:** To reduce inefficiencies by automating routine tasks and minimizing manual intervention.
- 8. **Adapt to Organizational Needs:** To create a flexible system that caters to various industries and scales seamlessly with organizational growth.

These objectives collectively aim to empower organizations to manage their projects effectively, ensuring timely delivery and optimal utilization of resources.

## 2. SCOPE OF THE PROJECT

The **Project Management System (PMS)** is designed to cater to the needs of organizations looking for an efficient platform to manage their projects, teams, and resources. Its scope extends across various aspects of project management, ensuring a seamless workflow from task allocation to project completion.

#### 1.Administrative Control:

Administrators can monitor ongoing projects, assign tasks, and manage employee records through a centralized dashboard.

Role-based access ensures secure handling of sensitive information and tailored access permissions.

#### 2. Project Management Features:

The system provides tools for real-time tracking of project progress, including visual representations like charts and graphs.

It supports CRUD operations for project details, allowing updates to adapt to changing requirements.

#### 3.Team Collaboration:

Enables better communication among team members by centralizing updates and task assignments.

Provides transparency in workflow, ensuring all stakeholders stay informed about project timelines and responsibilities.

#### 4. Resource Allocation:

Optimizes the use of resources by allowing dynamic assignment of tasks based on team capacity and project demands.

#### **5.Scalability:**

The system is flexible and scalable, making it suitable for organizations of different sizes and industries.

#### **6.Strategic Decision-Making:**

Provides actionable insights through data analytics, helping management identify trends and make informed decisions.

## **PURPOSE**

The purpose of the Project Management System (PMS) is to provide a reliable and efficient platform for managing projects, tasks, and resources within an organization. This system is designed to address the challenges faced in traditional project management approaches by offering a centralized and automated solution.

- 1. **Enhance Project Oversight**: To enable administrators and project managers to monitor project progress, deadlines, and resource allocation effectively.
- 2. **Streamline Workflow:** To simplify and organize the processes of task assignment, progress tracking, and team coordination.
- 3. **Improve Productivity**: To reduce manual effort and eliminate inefficiencies by automating routine tasks and providing real-time updates.
- 4. **Facilitate Collaboration**: To promote transparency and effective communication among team members, ensuring everyone is aligned with project goals.
- 5. **Support Decision-Making**: To provide detailed analytics and insights that assist in making informed decisions regarding project planning and execution.
- 6. **Ensure Scalability and Flexibility**: To cater to organizations of varying sizes and adapt to their evolving project management needs.

By fulfilling these purposes, the PMS helps organizations achieve better project outcomes, improve resource utilization, and create a more collaborative and efficient work environment.

## **APPLICABILITY**

The **Project Management System (PMS)** is a versatile tool with applications across various industries and organizational setups. Its robust features make it suitable for managing tasks, projects, and resources effectively. The key areas of applicability include:

#### 1. Corporate Organizations:

- o Facilitates the management of multiple projects and teams within departments.
- o Enhances coordination and resource allocation across large-scale operations.

#### 2. Small and Medium Enterprises (SMEs):

- Offers a cost-effective solution for managing limited resources and ensuring timely project delivery.
- o Simplifies task delegation and progress tracking for small teams.

#### 3. IT and Software Development:

- o Tracks development milestones, bug fixes, and feature rollouts.
- Supports agile methodologies by providing tools for sprint planning and task prioritization.

#### 4. Educational Institutions:

- o Manages academic projects, research activities, and administrative tasks.
- o Allocates resources efficiently for events and institutional programs.

#### 5. Construction and Manufacturing:

- o Tracks progress, deadlines, and material usage in real-time.
- o Ensures efficient collaboration between on-site and off-site teams.

The PMS can be adapted to various scenarios, providing organizations with a streamlined and effective approach to managing their projects and enhancing overall productivity.

# 3. REQUIREMENT ANALYSIS

# SOFTWARE REQUIREMENTS

#### 1. XAMPP Control Panel:

- o Purpose: Provides a local web server environment including Apache, MySQL, and PHP.
- Version: Latest stable version compatible with project needs.

## 2. phpMyAdmin:

- o Purpose: Manages MySQL databases through a web interface.
- Version: Latest version compatible with MySQL in XAMPP.

## 3. MySQL:

- o Purpose: Relational database management system for data storage.
- Version: Included with XAMPP or specified version for compatibility.

#### 4. PHP:

- o Purpose: Server-side scripting language for web development.
- Version: Version included with XAMPP that meets project requirements.

#### 5. Web Browser:

- o Purpose: To access and test web-based components of the application.
- o Version: Latest version of major browsers like Chrome, Firefox, or Edge.

#### **Additional Requirements:**

- Operating System: Compatible with the OS running XAMPP (Windows, macOS, or Linux).
- Hardware: Adequate resources for running XAMPP and a web browser.

## HARDWARE REUIREMENRTS

#### 1.Processor (CPU):

- **Requirement:** A modern multi-core processor (e.g., Intel Core i5 or AMD Ryzen 5 or equivalent).
- **Purpose:** To handle the demands of running XAMPP, PHP, MySQL, and the web browser efficiently.

#### 2. Memory (RAM):

- **Requirement:** Minimum 4 GB of RAM.
- **Purpose:** To ensure smooth operation of XAMPP, phpMyAdmin, and web browsing, especially during development and testing.

#### 3. Storage:

- **Requirement:** At least 2 GB of free disk space for XAMPP and additional space for project files and data.
- **Purpose:** To accommodate the installation of XAMPP, project databases, and development files.

#### 4. Graphics:

- **Requirement:** Integrated graphics or a dedicated graphics card capable of supporting modern web standards.
- **Purpose:** To handle the graphical requirements of web browsers and development tools.

#### 5. Network:

• **Requirement:** A stable internet connection.

# **FUNCTIONAL REQUIREMENTS**

#### 1. User Authentication and Authorization

- Secure login for admins and employees with password authentication.
- Password recovery option for both admins and employees.

#### 2. Dashboard

- Admin dashboard displaying active projects and team performance.
- Employee dashboard showing tasks, deadlines, and assignments.

#### 3. Project Management

- Admins can create, edit, and delete projects.
- View project details, deadlines, and status for both admins and employees.

### 4. Task Management

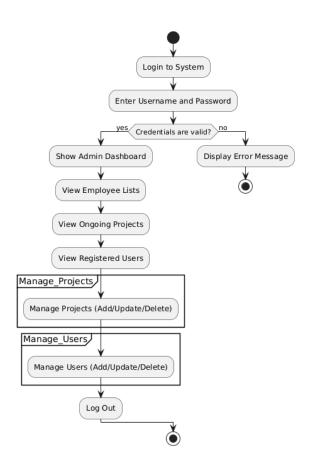
- Admins assign tasks to employees with due dates and priorities.
- Employees update task status and receive task notifications.

## 5. Employee Management

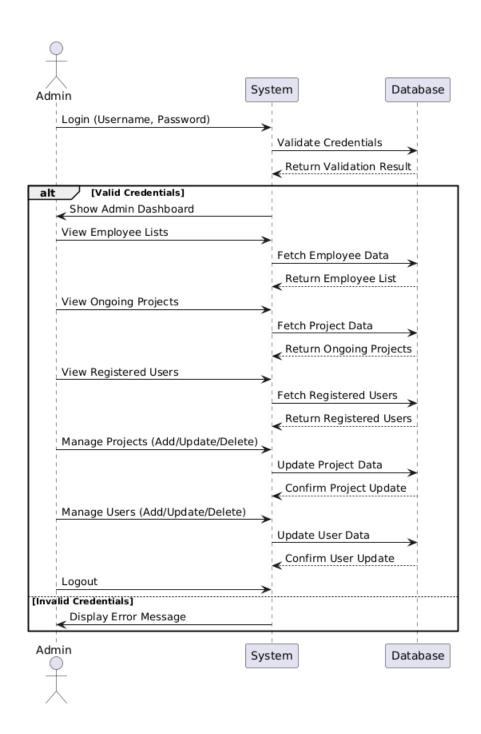
- Admins manage employee lists, roles, and task assignments.
- Admins can add, edit, or delete employees.

# 4. SYSTEM ANALYSIS

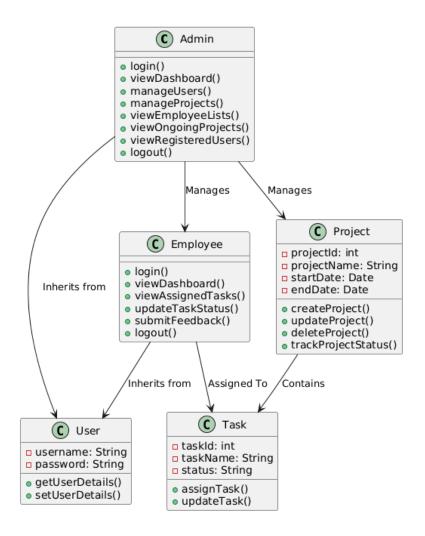
## - Activity Diagram:



### - Sequence Diagram



### - Class Diagram



# 5. IMPLEMENTATION & DESIGN

• CODE:

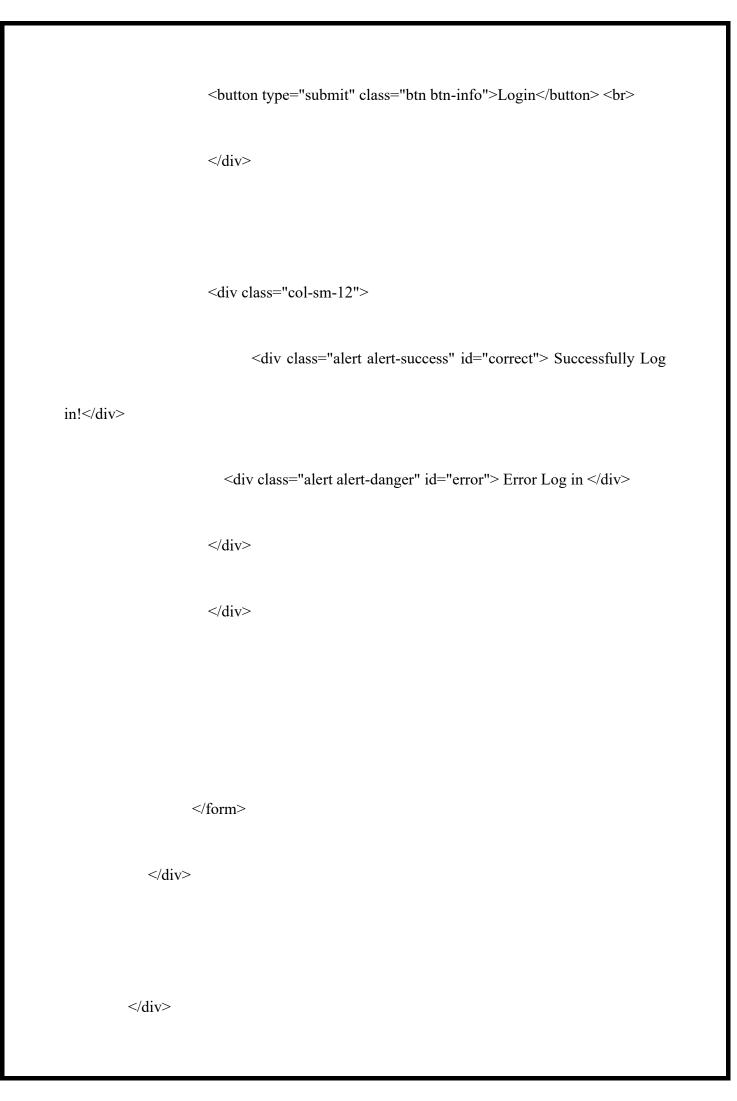
# **Admin validation:**

```
<?php
session_start();
include 'includes/header2.php';
if(isset(\$\_SESSION['UID']))
header('location:pages/index.php');
?>
<style>
  #title1 {
    display: block;
    width:50%;
```

```
height:90px;
  background-color: white;
  padding:1px;
  border-radius:5px;
  position:fixed;
  top:30%;
  z-index: 1000px;
}
#main-bod{
    background: url(images/1930875.jpg);
    background-repeat: no-repeat;
    background-size: cover;
    display:flex;
    height:calc(100%);
```

```
width:calc(100%);
       align-items:center;
       justify-content:center;
       top: 0;
       margin:unset
  }
</style>
<body id="main-bod">
    <div class="col-lg-4">
       <div class="panel panel-info" style="">
         <div class="panel-heading">
           Login
```

```
</div>
<div class="panel-body">
   <div class="container-fluid">
  <form class="form-horizontal" method="POST" id="login form">
           <div class="form-group" id="form-login">
              <label for="" class="control-label">Username</label>
              <input class="form-control" id="user" name="user" type="text">
           </div>
           <div class="form-group">
              <label for="" class="control-label">Password</label>
            <input type="password" name="pass" id="pass" class="form-control">
           </div>
           <div class="form-group" id="msg">
           <div class="col-sm-8 col-sm-offset-8">
```



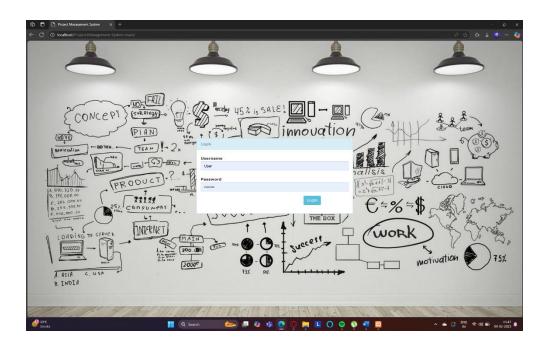
```
</div>
    </div>
</body>
<script>
    jQuery(document).ready(function()\{
            jQuery(document).ready(function(){
              $("#correct").hide();
              $("#error").hide();
              jQuery("#login_form").submit(function(e){
                   e.preventDefault();
                   var formData = jQuery(this).serialize();
                   $.ajax({
                     type: "POST",
                     url: "includes/login.php",
```

```
data: formData,
                      success: function(html){
                      if(html=='true' )
                      {
                        $('#error').hide();
                        $("#correct").slideDown();
                        var delay = 2000;
                                                setTimeout(function(){      window.location =
'pages/index.php?page=home'; }, delay);
                      }else{
                      $('#error').slideDown();
                        var delay = 2000;
                        setTimeout(function(){ $('#error').slideUp(); }, delay);
                      }
```

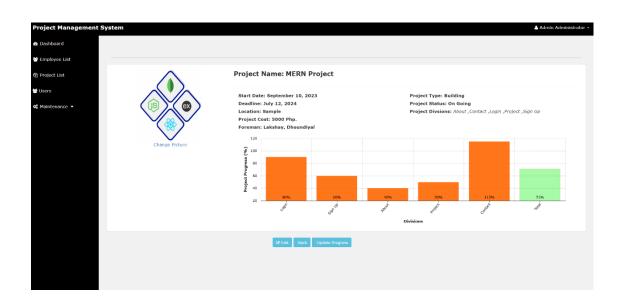
	)).
	<pre>});</pre>
	return false;
}	);
},	);
}	);

## • DESIGN:

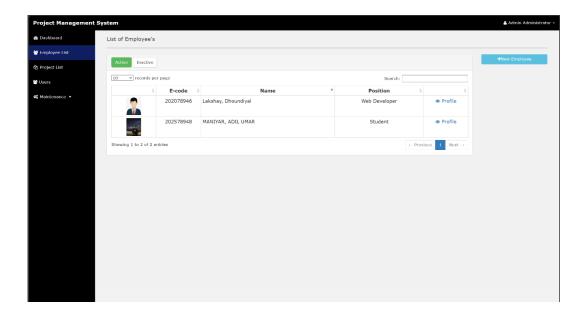
## 1. Admin login page



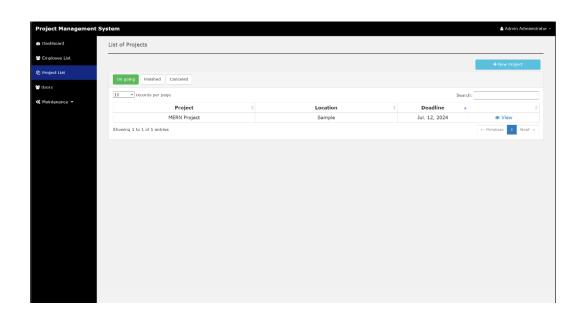
### 2.Admin Dashboard:



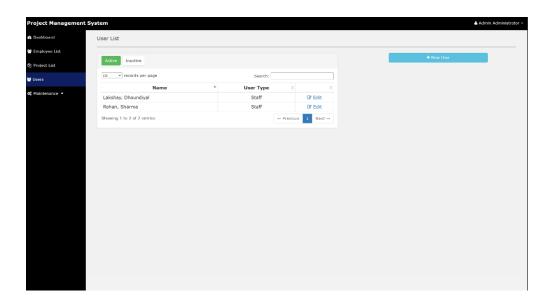
# 2. Employee list:



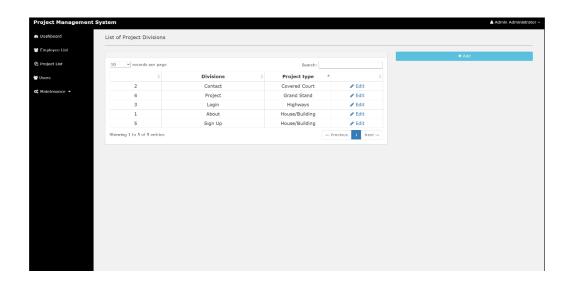
# 3. Project list:



### 4. Users:



# 5. List of projects:



## 6. FUTURE ENHANCEMENT

- 1. **AI-Powered Task Allocation**: Integrating machine learning algorithms to automate task allocation based on team members' skills, performance, and workload. This would optimize resource management and improve overall team efficiency.
- 2. Real-Time Collaboration Tools: Incorporating real-time chat, video conferencing, and document sharing features within the system to enhance team communication and collaboration across various projects.
- 3. **Mobile Application Support**: Developing a mobile version of the platform to allow users (both admins and employees) to manage projects, track tasks, and communicate on the go.
- 4. **Advanced Analytics and Reporting**: Introducing more sophisticated reporting and analytics tools, including predictive analytics, to forecast project timelines, budget allocation, and potential risks. This could help in better decision-making and proactive project management.
- 5. **Integration with External Tools**: Expanding the system's capabilities by integrating it with popular third-party tools, such as Google Drive, Microsoft Teams, and Slack, to streamline workflows and increase productivity.
- 6. **User Role Customization**: Enabling custom user roles and permissions, allowing the system to cater to different organizational structures and security needs. This would provide more flexibility and control over who can access and modify certain project data.
- 7. **Gamification**: Adding gamification elements such as badges, leaderboards, and achievements to increase employee engagement and motivation, especially for task completion and project milestones.
- 8. **Cloud Integration**: Allowing the system to be hosted on the cloud, ensuring greater scalability, data backup, and accessibility from anywhere. Cloud integration can also improve collaboration in remote teams.
- 9. **Automated Notifications and Alerts**: Implementing automated email and in-app notifications to keep users updated about task deadlines, project status changes, and other important updates, ensuring that no critical information is missed.
- 10. **Multilingual Support**: Adding multilingual capabilities to make the system accessible to a broader audience and enable global teams to use the platform in their native language, enhancing user experience and usability.

These enhancements would help to make the Project Management System more efficient, user-friendly, and capable of handling the growing needs of modern organizations.

## 7. SUMMARY & CONCLUSION

The Project Management System (PMS) is designed to streamline and improve the efficiency of managing projects, teams, and tasks within an organization. It offers a centralized platform for administrators and employees to track project progress, assign tasks, manage resources, and communicate effectively. The system provides essential features for admins, including login authentication, dashboard viewing, employee management, and project oversight. Employees can track tasks, update their progress, and communicate with team members. With the help of real-time data and intuitive interfaces, the system ensures efficient task management and smooth project execution.

In conclusion, the Project Management System (PMS) is a comprehensive solution that simplifies the management of projects and tasks within any organization. By automating and centralizing key project functions, the system enhances communication, resource allocation, and task tracking. Its flexibility and user-friendly interface make it an ideal tool for both administrators and employees. With the potential for future enhancements such as AI-powered task allocation, mobile app support, and advanced analytics, the system is well-positioned to meet the growing demands of modern project management, improving efficiency and productivity across teams and organizations.

## 8. REFERENCES AND BIBLIOGRAPHY

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  - This paper explores various features and benefits of project management software, discussing how these tools improve project tracking, task management, and team collaboration, which are essential for the functionality of your Project Management System.
- 2. **Pinto, J. K. (2016).** *Project Management: Achieving Competitive Advantage.* Pearson Education.
  - This book discusses the strategic importance of project management systems in organizations, highlighting how such tools enable efficient resource allocation, risk management, and tracking project progress, which are key to your system's objectives.
- 3. **Kerzner, H. (2013).** *Project Management: A Systems Approach to Planning, Scheduling, and Controlling.* Wiley.
  - Provides an in-depth approach to project management systems, focusing on the integration of scheduling, resource management, and reporting, which are critical features in your platform.
- 4. Verzuh, E. (2015). The Fast Forward MBA in Project Management. Wiley.
  - This book covers modern project management practices and tools that can be integrated into a project management system, offering insights into optimizing workflows, task allocation, and team management.
- 5. **Bannerman, P. L. (2008).** Risk and Risk Management in Software Projects: A Guide. Springer.
  - Focuses on managing risks in software projects, an essential aspect of any project management system. It provides strategies for minimizing project failure and maximizing successful delivery, relevant to your system's implementation.