

Project Report
On
Project Management
Solution

Submitted in partial fulfillment for the award of
Diploma in Advance Computing(E-DAC) from
C-DAC, Hyderabad



Guided by:
Mr. Kale Sandip Shivaji

Presented by:

PRN
230950320050
230950320051
230950320052
230950320053
230950320054
230950320055
230950320056

Name
NAIKAWADI BHAVANA
NAMIT DEVIDAN
NEHA MISHRA
NIDHI HITESH TIDKE
NIHAR SURESH AGRAWAL
NIKOSE RONAK RAJKUMAR
NOMESH SURESH CHAKOLE

Centre for Development of Advanced Computing
(C-DAC), Hyderabad

ACKNOWLEDGEMENT

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230950320050	NAIKAWADI BHAVANA
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230950320055	NIKOSE RONAK RAJKUMAR
230950320056	NOMESH SURESH CHAKOLE

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1. Introduction of Project:

In the fast-paced world of project management, efficient coordination, delegation, and monitoring are paramount for successful project execution. With the advent of modern technologies, the integration of robust software solutions has become indispensable in streamlining these processes. Welcome to our Project Management Solution – a comprehensive tool designed to empower administrators, team leads, managers, and team members in effectively managing tasks and projects from inception to completion.

Our full-stack solution, crafted using React JS for the frontend and Spring Boot for the backend, offers a seamless user experience and robust functionality. Whether you're a seasoned project manager or a budding CS or IT student eager to delve into the intricacies of project coordination, our platform provides a fertile ground for learning and practical application.

Our Project Management Solution offers a holistic approach to project coordination and execution, catering to the diverse needs of administrators, managers, and team members alike. Whether you're navigating the complexities of real-world project management or honing your skills as a future IT professional, our platform provides the tools and resources you need to succeed. Join us on this journey of innovation and efficiency, and unlock the full potential of your projects with our robust solution.

❖ Product Overview and Summary

- Key Features:

- i. Administrator Dashboard:

The heart of our system, the administrator dashboard, provides a centralized hub for initiating and overseeing projects. Administrators can add new projects, assign them to respective managers, and monitor overall progress.

- ii. Managerial Roles:

Within our ecosystem, managers play a pivotal role in project delegation and supervision. They receive assigned projects from administrators and further distribute tasks among team members based on skill sets, availability, and project requirements.

- iii. Team Collaboration:

Collaboration lies at the core of successful project execution. Our platform facilitates seamless communication and collaboration among team members, fostering synergy and maximizing productivity.

- iv. Task Assignment and Monitoring:

Managers can efficiently assign tasks to team members, set deadlines, and monitor progress in real-time. This ensures accountability and enables timely intervention in case of delays or bottlenecks.

- v. Employee Empowerment:

Team members are empowered to manage their tasks efficiently, update task statuses, and communicate any challenges or roadblocks they encounter. This fosters a sense of ownership and accountability, driving motivation and productivity.

❖ **Technical Feasibility:**

Technologies Used in Project Management System Project

1. Spring Boot (REST APIS)
2. React JS (Frontend)
3. MySQL for Database
4. Maven for project management
5. Bootstrap (Styling)

Software Used in Project Management Solution Project

1. STS (Spring Tool Suite)

For developing our backend, task management system project using Spring Boot, we have used STS (Spring Tool Suite) or Eclipse Ide. But yes, we can use other IDEs also like IntelliJ Idea, NetBeans, etc.

2. VS Code (Visual Studio Code)

For developing our frontend, task management system project using react js, we have used VS Code (Visual Studio Code).

3. MySQL Workbench

For efficient querying and manipulation of our Project's information, we have used MySQL Workbench.

Functional Modules in Task Management System Project:

1) User Authentication Module:

The registration and Login system has been added so that only authenticated users (Admin, Manager & Customer) can perform their functionalities.

2) Manager Module:

Register Team lead, View Team lead, Delete Team lead, Change Password.

3) Team lead Module:

Register Teammate, View Teammate, Delete Teammate, Change Password.

4) Project Module:

Add Project, View Project, Assign Project to Manager, Assign Project To Team lead, Update Project Status.

1. Overall Description:

1.1 Features.

- ❖ **User Authentication:**
Secure login with role-based access.
- ❖ **Project Creation & Assignment:**
Managers create projects and assign to team leaders.
- ❖ **Task Management:**
Team leaders delegate tasks to teammates.
- ❖ **Progress Tracking:**
Visual dashboards for project progress and reporting.
- ❖ **Customizable Workflows:**
Adaptability to different project structures and methodologies.
- ❖ **Scalability & Performance:**
Designed for scalability and optimized performance.
- ❖ **User-Friendly Interface:**
Intuitive design for easy navigation and minimal learning curve..

Technology Used

❖ BACK END

Spring Boot

MYSQL for storage of data.

❖ FRONT END

React CSS REDUX

Platform:

Web Development: J2EE Spring Boot, React, MySQL J2EE Spring Boot

Spring Boot has been built for Rapid Application Development. The goal of Spring Boot is to provide a way to create Java applications quickly and simply, through an embedded server. By default, it used an embedded version of Tomcat and hence eliminating the need of Java EE containers.

It is a framework to ease the bootstrapping and development of new Spring Applications. Bootstrapping with defaults included in the configuration/ jar-dependencies. Easy to create standalone applications with embedded Tomcat/Jetty/Undertow. It provides defaults for code and annotation configuration to quick start new spring projects within no time. Plenty of Spring Boot Starter to quickly get up and running.

No code generation and no requirement for XML configuration. It reduces lots of development time and increases productivity.

React

React is a JavaScript library for building user interfaces. It has transformed the way we think about front-end development. React.js has clasped the engagement of the open-source community. And its demand is irreversible in the coming future. It is here to stay.

Improved performance: React uses Virtual DOM, thereby creating web applications faster. Virtual DOM compares the components' previous states and updates only the items in the Real DOM that were changed, instead of updating all of the components again, as conventional web applications do.

MySQL

MySQL is an open-source relational database management system (RDBMS).

A list of commonly used MySQL queries to create database, use database, create table, insert record, update record, delete record, select record, truncate table and drop table etc.

MySQL is a relational database management system based on SQL – Structured Query Language.

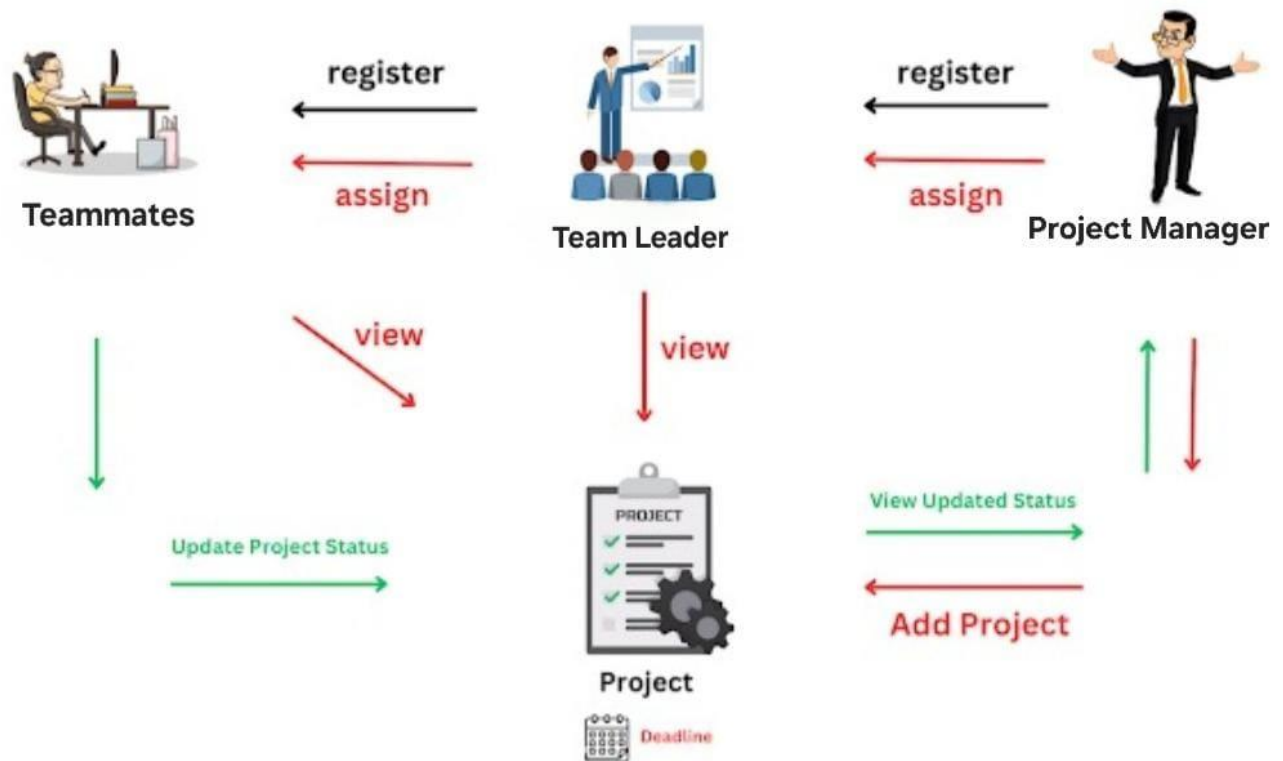
The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications.

The most common use for MySQL, however, is for the purpose of a web database. It can be used to store anything from a single record of information to an entire inventory of available products for an online store.

In association with a scripting language such as PHP or Perl (both offered on our hosting accounts) it is possible to create websites which will interact in real-time with a MySQL database to rapidly display categorized and searchable information to a website user.

1.1.1 Complete System:

PROJECT OVERVIEW



USER INTERFACE REQUIREMENTS

Home Page

BEFORE LOGIN



AFTER LOGIN



LOGIN Page:



Handle Multiple Projects Efficiently

Handling multiple projects efficiently is a skill that requires effective organization, prioritization, and time management. The key to success lies in establishing a systematic approach to balance and execute tasks across various projects. Breaking down each project into manageable tasks, setting clear deadlines, and prioritizing based on urgency and importance can help prevent feeling overwhelmed.

Utilizing project management tools, such as online project management solution, can centralize all project-related information, enabling seamless collaboration and progress tracking. Regularly reviewing and updating project status, communicating with stakeholders, and adapting to changing circumstances ensures that all projects stay on track.

[Get Started](#)

PROJECT MANAGEMENT SOLUTION

A Project management system is a powerful tool designed to help individuals and teams efficiently organize, track, and accomplish their tasks and projects. Additionally, the system's data analytics provide valuable insights into productivity trends, enabling users to identify areas for improvement and optimize their workflows. Whether for personal use or within organizations, a task management system enhances productivity, reduces stress, and empowers individuals and teams to achieve their goals efficiently.

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User Role

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PROJECT PAGE:


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All Projects

Project Name	Project Description	Project Requirement	Team Lead Assign Status	Team Lead Name	Team Member Assign Status	Team Member Name	Project Created Date	Project Assign Date	Project Deadline	Project Status	Action
			Not Assigned	Not Assigned	Not Assigned	Not Assigned	2024-02-53	Not Assigned		Not Assigned to TeamLead	Assign To Team Lead
React js	React js demo	Node	Not Assigned	Not Assigned	Not Assigned	Not Assigned	2024-02-53	Not Assigned	2024-02-29	Not Assigned to TeamLead	Assign To Team Lead
Spring Boot	Spring Boot Using STS	STS/ Eclipse IDE	Not Assigned	Not Assigned	Not Assigned	Not Assigned	2024-02-53	Not Assigned	2024-02-27	Not Assigned to TeamLead	Assign To Team Lead
PMS	project management solution	spring boot, react js	Not Assigned	Not Assigned	Not Assigned	Not Assigned	2024-02-53	Not Assigned	2024-02-29	Not Assigned to TeamLead	Assign To Team Lead

Add project

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Add Project


Project Name

Project Description

Project Requirement

Project Deadline

Assign project

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Assign Project To Team Lead

Project Name

Project Description

Project Created Date

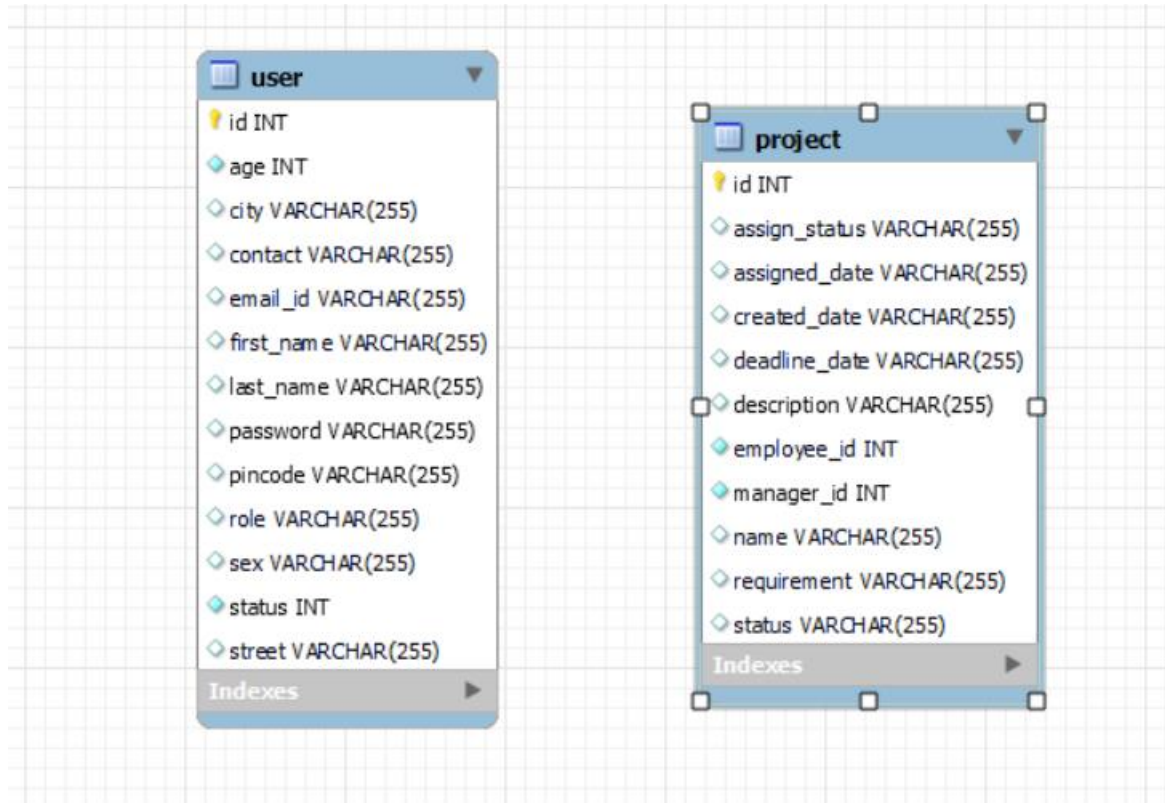
Project Deadline Date

Assign Project To Team Lead

❖ Database Design

The following table structures depict the database design.

ER Diagram



Project Management Methodology:

Scrum Agile Methodology was used.

FUTURE SCOPE :

- 1) Mobile App Development: Extend to native mobile platforms.
- 2) Blockchain Integration: Ensure secure and transparent project management.
- 3) Advanced Analytics: Provide actionable insights from project data.
- 4) Enhanced User Experience: Focus on UI/UX refinement.
- 5) Globalization: Support multiple languages and localization.
- 6) Continuous Improvement: Regularly update and innovate features.
- 7) AI and Automation: Implement AI for task automation and risk prediction.

Thank You

