A

Mini-Project Report on

The Dojo – Project Management Website

Submitted in partial fulfillment of the requirements
for the degree of
BACHELOR OF ENGINEERING
IN
Computer Science & Engineering
Artificial Intelligence & Machine Learning

by

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CERTIFICATE

This is to certify that the project entitled "**The Dojo – Project Management Website"** is a bonafide work of Soham Waradkar (23206002), Jay Yadav (23206007), Pranal Vernekar (23206008), Manas Jagtap (23206011) submitted to the University of Mumbai in partial fulfillment of the requirement for the award of **Bachelor of Engineering** in **Computer Science & Engineering (Artificial Intelligence & Machine Learning).**

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Project Report Approval

This Mini project report entitled "**The Dojo -Project Management Website"** by **Soham Waradkar, Jay Yadav, Manas Jagtap and Pranal Vernekar** is approved for the degree of ***Bachelor of Engineering*** in ***Computer Science &Engineering***, (AI&ML) ***2023-24***.

External Examiner: _____

Internal Examiner: _____

Place: APSIT, Thane
Date:

Declaration

We declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission hasnot been taken when needed.

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ABSTRACT

In today's fast-paced software development landscape, efficient project assignment and management are pivotal for meeting deadlines and delivering high-quality products. This project introduces a web-based application designed to streamline the process of assigning projects to developers by project managers. The system leverages modern software development and project management methodologies to enhance productivity and transparency within the organization. Key features of the system include a user-friendly interface that allows project managers to create and define new projects, specify project requirements, set deadlines, and assign tasks to developers. Developers, in turn, can access their task assignments, view project details, and track their progress directly through the platform. The system also includes real-time notifications and communication tools to facilitate seamless collaboration and keep all stakeholders informed about project updates.

This project assignment system optimizes resource allocation, reduce project bottlenecks, and enhance project tracking and reporting. By automating the assignment process, it minimizes the risk of task duplication and enhances accountability. Additionally, it provides valuable data and analytics to support strategic decision-making and resource allocation within the organization. By implementing this project assignment solution, companies can improve their project management efficiency, accelerate project delivery, and ultimately, achieve better results in the competitive software development industry. The platform's adaptability ensures it can be tailored to meet the unique requirements of various organizations, making it a valuable asset for project managers and developers alike.

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CHAPTER 1

INTRODUCTION

1. INTRODUCTION

In the dynamic realm of software development, efficient project management plays a pivotal role in the success of any organization. One of the critical aspects of project management is the seamless assignment of tasks and projects to the right developers by project managers. This process, when executed with precision, not only ensures optimal resource utilization but also results in timely project completion and the delivery of high-quality software products.

This project introduces a web-based application that addresses the intricate challenge of project assignment within software development teams. Designed to enhance the efficiency, transparency, and collaboration of project management, this application offers a sophisticated solution for project managers and developers alike.

By leveraging contemporary software development and project management methodologies, the system enables project managers to create, define, and allocate projects to developers efficiently. It provides a user-friendly interface that allows project managers to specify project requirements, set deadlines, and assign tasks to the most suitable developers within the team.

For developers, this platform offers a centralized workspace to access their task assignments, view comprehensive project details, and meticulously track their progress. Furthermore, real-time notifications and integrated communication tools facilitate seamless collaboration, ensuring that everyone remains informed and aligned throughout the project's lifecycle.

The primary objectives of this project assignment system are to optimize resource allocation, minimize project bottlenecks, and enhance the tracking and reporting of project status. By automating the assignment process, it mitigates the risk of task duplication and strengthens accountability at every level. Additionally, the system generates valuable data and analytics, providing project managers and organization leaders with the insights necessary for informed decision-making and efficient resource allocation.

By implementing this project assignment solution, organizations can anticipate improved project management efficiency, expedited project delivery, and ultimately, more successful outcomes in the fiercely competitive software development industry. The adaptability of the platform ensures it can be tailored to the specific needs and workflows of diverse organizations, making it a valuable asset for project managers and developers looking to streamline and enhance their project assignment and management processes.

CHAPTER 2

LITERATURE SURVEY

2. LITERATURE SURVEY

2.1-HISTORY

The project's history is a compelling journey through the ever-evolving landscape of software development. Initiated in response to the pressing need for an efficient and transparent project assignment and management system, the project embarked on a mission to redefine how tasks and projects are allocated to developers by project managers.

In its early stages, the project initiation was marked by clear objectives and an unwavering commitment to addressing the challenges faced by project managers in the highly competitive software development industry. It became evident that the assignment of tasks and projects needed to be a well-structured and efficient process, ensuring that the right developers were assigned to the right projects.

The project planning phase that followed was characterized by meticulous attention to detail. Key milestones were established, and the foundation of the project's development was carefully laid. The project team, comprising a seasoned project manager and a dedicated group of developers, came together with a shared vision for a system that would revolutionize project management.

Team formation was a pivotal moment in the project's history. The project manager brought leadership and strategic thinking, while the developers contributed their diverse skills and expertise. The synergy within the team was palpable, and they began the journey of transforming the project into a reality.

The development and implementation phase marked the transition from vision to reality. Challenges arose, as is often the case with innovative endeavors. These challenges ranged from resource allocation dilemmas to addressing project bottlenecks and ensuring accountability. However, each challenge served as a catalyst for innovation, pushing the project team to adapt and find creative solutions.

The project's commitment to excellence was evident during the testing and quality assurance phase. Rigorous testing procedures were employed to ensure that every aspect of the system met the highest industry standards. It was a phase where functionality was not enough; it had to be complemented by exceptional quality.

The deployment and launch of the project were pivotal moments. These events symbolized the project's transition from development to real-world application. The capabilities of the system were introduced to a wider audience, bringing the promise of more efficient and streamlined project management to fruition.

In the post-deployment phase, the project's dedication to improvement shone through. User feedback, gathered from real-world usage, became the driving force behind ongoing enhancements. Regular updates and refinements demonstrated the project's adaptability and commitment to meeting the evolving needs of its users.

2.2-LITERATURE REVIEW

[1] Dr. Alamelu Mangai Raman et al. suggest that the utilization of techniques, methods, skills, knowledge, and experience is fundamental in achieving specific project objectives in alignment with predefined project acceptance criteria while operating within established boundaries. The successful culmination of a project necessitates that deliverables meet rigorous schedule and financial constraints. Unlike management, which constitutes an ongoing and continuous process, project management leads to the creation of a tangible output within a specified timeframe. This characteristic distinguishes project management from general management and underscores the multifaceted skill set required of professionals engaged in project work.

[2] Rukayat Pelumi et al. suggest that achieving project success, as viewed from the perspectives of both the project sponsor and beneficiaries, hinges on addressing not only the explicitly stated quality requirements but also the implicit ones. Quality, in this context, is articulated as "Conformance to requirements or fitness for use," signifying that products or services must align with the project's intended objectives, thereby adding value for both the sponsor and the beneficiaries. The core of quality management lies in ensuring adherence to the project's design and specifications while consistently meeting or even surpassing the expectations of stakeholders.

[3] Raymond John Uzwyshyn suggests that academic libraries must embrace Agile project management techniques to adapt to modern technology paradigms and leverage new library possibilities. With the growing complexity of IT implementation expectations, academic libraries face a range of diverse projects, from technology-enhanced learning commons to data research repositories, AI, and algorithmic literacy centers. To effectively handle the rapid pace of IT implementation and integration, a structured and Agile approach to IT project management is essential.

CHAPTER 3

Problem Statement

3. Problem Statement

The effective management and assignment of software development projects to developers is a critical and multifaceted challenge in contemporary project management. Within this complex landscape, project managers face a myriad of issues that impact the efficiency and ultimate success of software development initiatives. One of the foremost challenges is the pervasive problem of skill mismatch, where tasks are not aligned with the skillsets and expertise of developers, often leading to delays, suboptimal results, and frustrated team members. Additionally, the assignment process frequently lacks systematic task prioritization, which results in unbalanced workloads, suboptimal resource utilization, and unpredictable project timelines

This solution encompasses an array of strategies and tools, starting with the development of accurate developer skill profiles. These profiles provide the foundational data required for the systematic alignment of developers with tasks that match their competencies. Furthermore, the system incorporates dynamic resource allocation mechanisms to efficiently manage and distribute developer resources. It should respond to the evolving project requirements and strive to maintain equitable workloads across the team, resulting in improved overall project efficiency.

CHAPTER 4

Experimental Setup

4. Experimental Setup

4.1 Hardware Setup

Processor: Intel i5 8th gen

Ram: 4GB

Storage: 256 GB SSD or more

OS: Windows 10 or MacOS or Linux

4.2 Software Setup

Visual Studio Code
Node Package Manager
Firebase
React JS

CHAPTER 5

Proposed System & Implementation

5. Proposed system & Implementation

5.1 Block diagram of proposed system

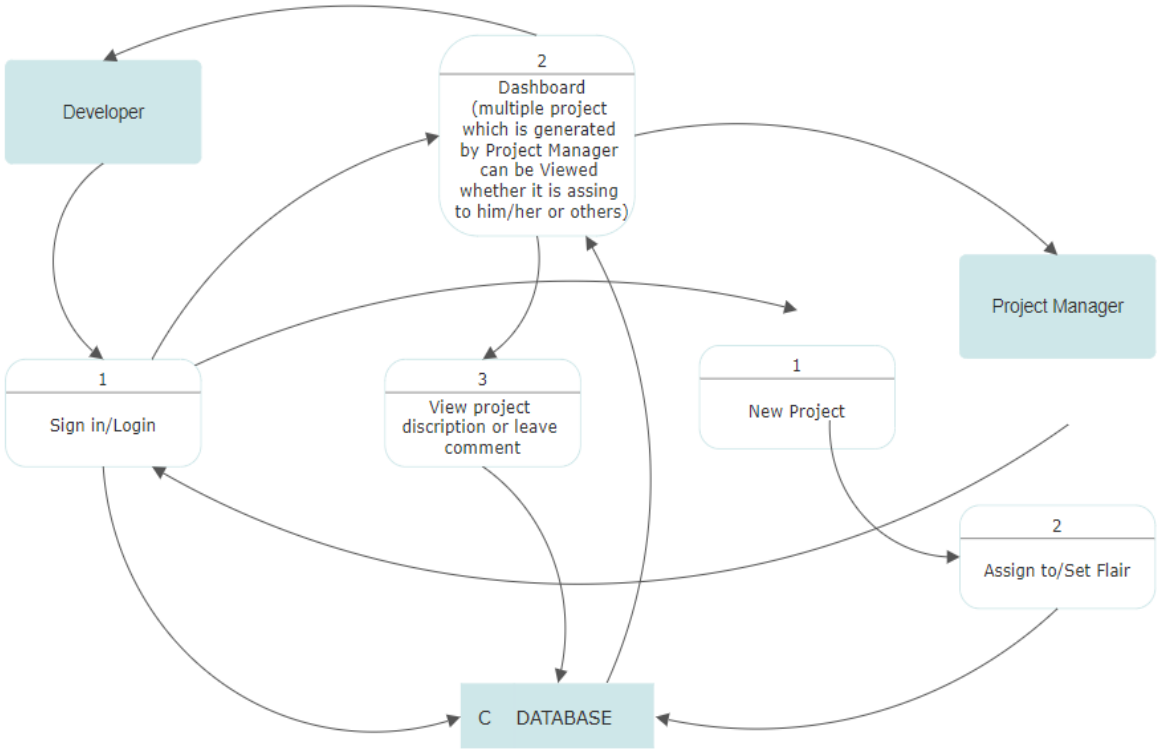

Fig. 5.1 (a) Proposed system

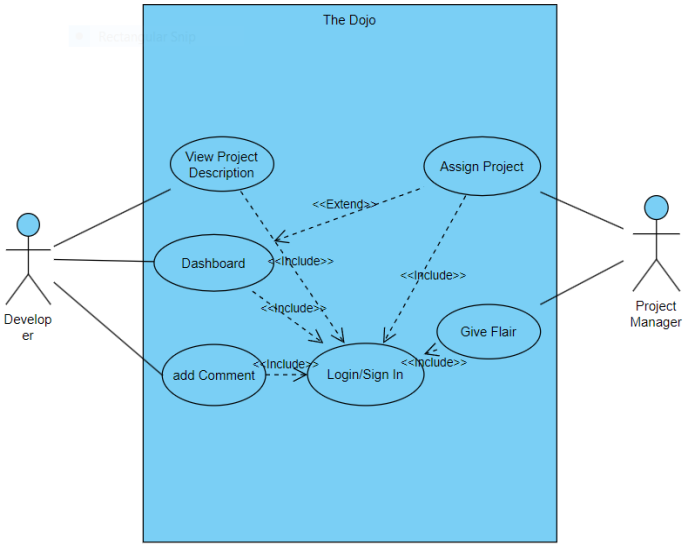

Fig. 5.2 (b) Proposed system

5.2 Description of block diagram

In DFD, there a process which specify Login/Sign In which flows from developer to database. if valid then developer can view the projects that are assign to him/her and can also check the project that are assign to other and can leave a comment about their work

Whereas, Project Manager can Login/Sign up and check the Project assign to them, and can Create new Project and Assign to the developer that are well suitable if project was developed in time then he/she can assign early flair else he/she can assign late flair to the assign developer which will affect his/her bonus

In Use Case, it shows how Developer and Project manager can interact between **The Dojo-Project Management Website**. Here there are process such as project description, dashboard, add comments, set Flair & Assign Project there are included with login means it can only be used if the developer or the project manager is login/sign in else he cannot use the process. The actors are represented as Developer and Project manager where the oval is the process to be performed and the dotted line specify include which is must before performing any process

5.3 Implementation

Implementation of proposed system must be included here. Students can explain implementation using screen shots of output.

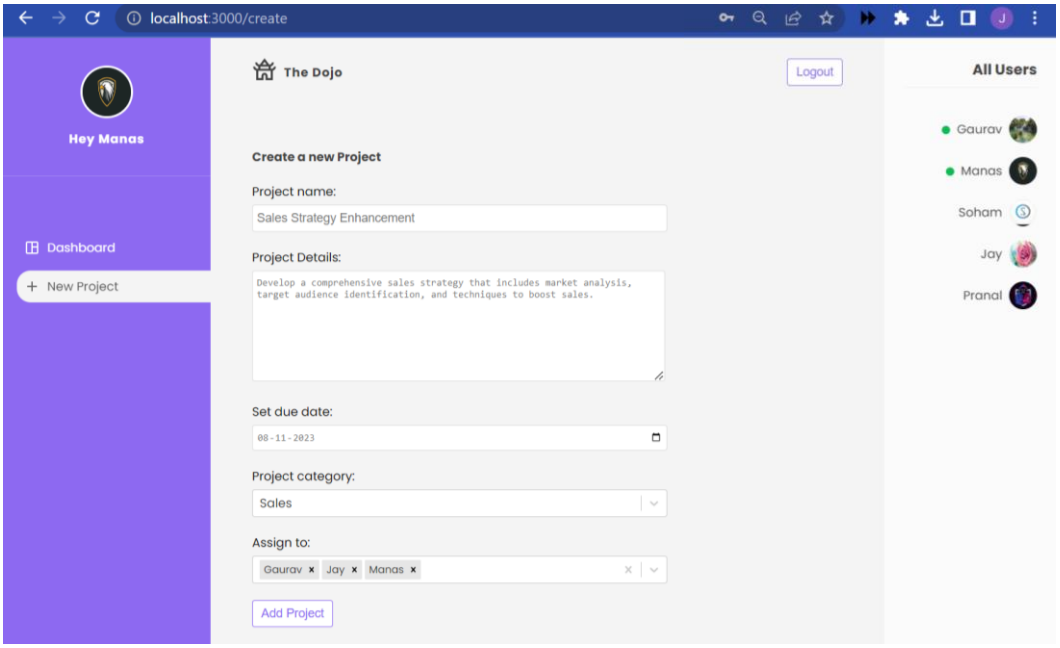

Fig 5.3 (a) Implementation

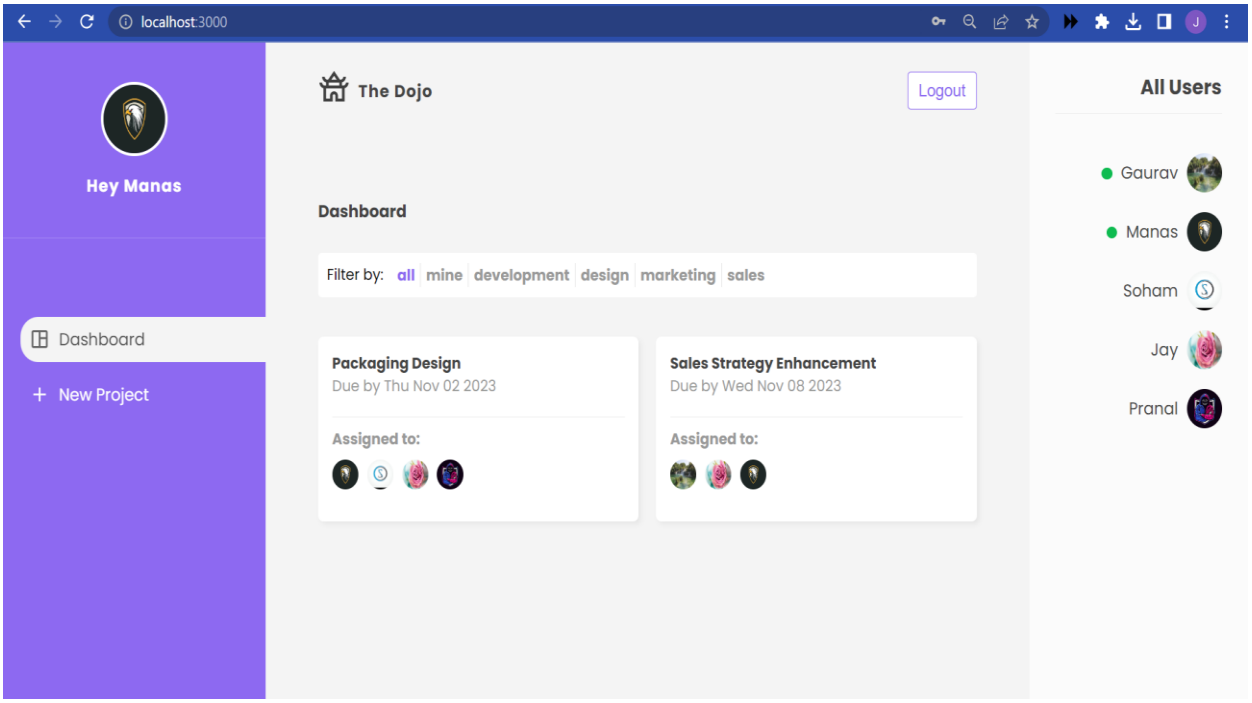

Fig 5.3 (b) Implementation

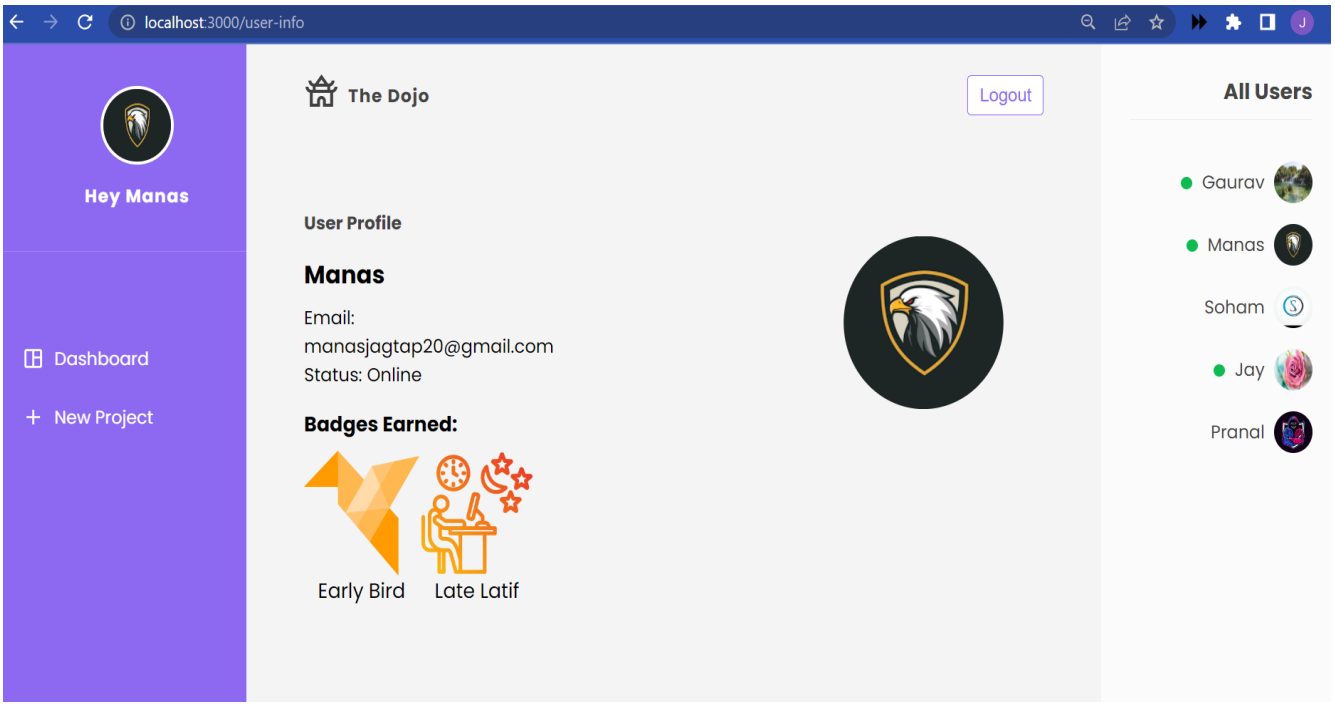

Fig 5.3 (c) Implementation

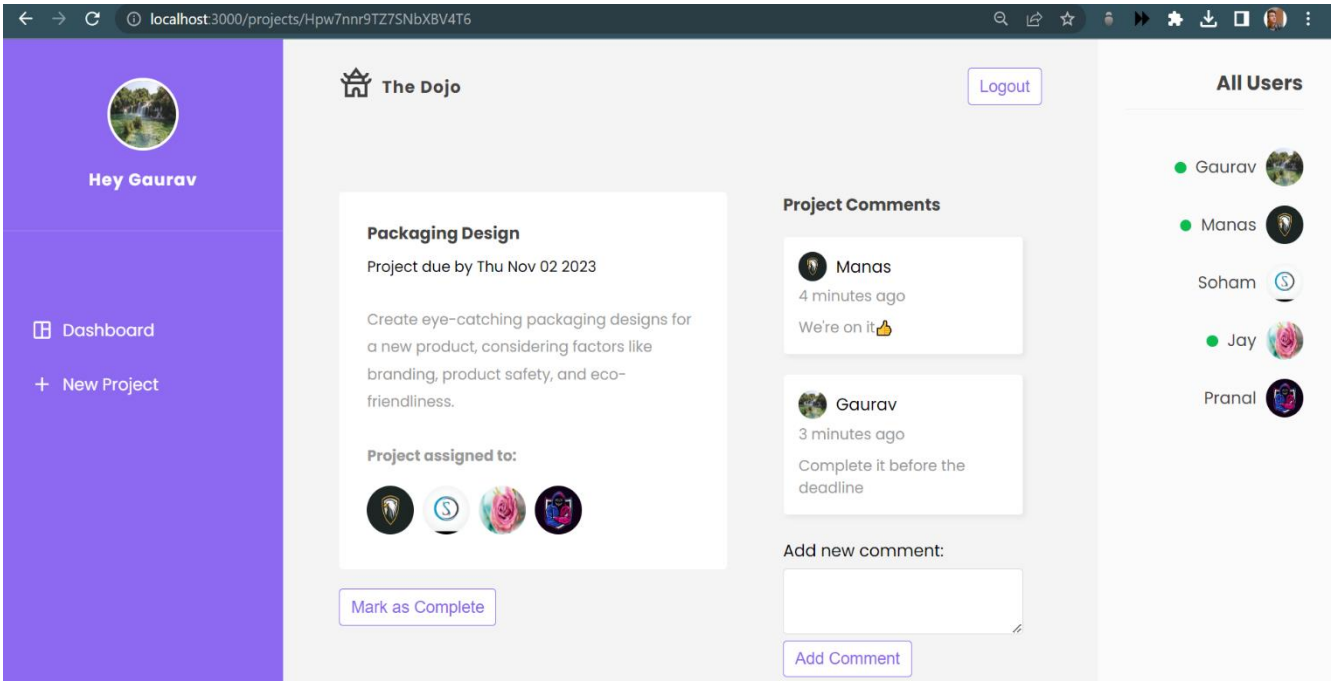

Fig 5.3 (d) Implementation

5.4 Advantages:

- This project offers a multitude of advantages to the realm of software project management.
- It optimizes resource allocation, ensuring that developers are assigned tasks that align with their skills and expertise, leading to improved project efficiency.
- The incorporation of task prioritization methodologies enhances project planning, enabling project managers to make informed decisions regarding task importance and their impact on project timelines.
- Motivation enhancement strategies keep the development team engaged and committed, resulting in higher productivity.
- The project's dynamic adaptability ensures that projects can respond to changing requirements in real-time, reducing disruptions.
- Furthermore, integration with modern project management and collaboration tools facilitates effective communication among team members.
- In the end, these advantages translate to higher project success rates, reduced delays, and minimized rework, ultimately leading to more efficient and successful software development projects.

CHAPTER 6

Conclusion

6. Conclusion

In the ever-evolving landscape of software project management, the assignment of tasks to developers is a critical determinant of success. This project has addressed a myriad of challenges that project managers encounter when distributing tasks, such as skill mismatch, task prioritization, developer motivation, resource optimization, and dynamic project requirements. It empowers project managers to make informed decisions, ensuring that tasks are assigned to the most qualified developers. The incorporation of modern project management and collaboration tools further streamlines communication and facilitates real-time adaptability. With these advancements, this project stands as a pivotal step toward a future where software development projects are consistently efficient, successful, and responsive to the demands of a dynamic industry.

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