

# **“DESIGN AND IMPLEMENTATION OF A WORK PLANNER”**

**A**

***Project Report***

*submitted*

*in partial fulfillment*

*for the award of the Degree of*

***Bachelor of Technology***

***in Department of Information Technology***



**Project Mentor:**

Nikhar Bhatnagar

Assistant Professor - 2

**Submitted By :**

Rishabh Jain(21ESKIT094)

Param Soni(21SKIT079)

Mohit Agarwal(21SKIT073)

**Department of Information Technology**

**Swami Keshvanand Institute of Technology, M & G, Jaipur**

**Rajasthan Technical University, Kota**

**Session 2024-2025**

## Outline

- 1 Team Introduction
- 2 Introduction
- 3 Problem Statement
- 4 Objective
- 5 Literature Survey
- 6 Research Gap
- 7 Proposed Work
- 8 Tools and Technology
- 9 Expected Outcome

## Team Introduction

**Team Name:** Quantum

We are a team of three members:

- **Member 1:** Rishabh Jain
- **Member 2:** Mohit Agarwal
- **Member 3:** Param Soni

# Introduction

- The **Work Planner Manager** aims to bridge the gap between managers and team members, enabling efficient task management and collaboration in the areas of task assignment, progress tracking, and approval workflows.
- Focused on matching tasks to team members based on their expertise, workload, and project requirements. Managers can assign, approve, and monitor tasks, while team members can suggest tasks and track their progress.
- Provides features such as task assignment, task approval by managers, progress tracking, and a project dashboard for monitoring team performance and task completion.

# Problem Statement

## ❶ Challenge for Managers:

- Managers often face difficulties in assigning tasks based on team members' skills and availability, leading to inefficiencies in project execution.
- They need a comprehensive way to track the progress of multiple tasks and projects, ensuring deadlines are met and work is progressing as planned.

## ❷ Challenge for Team Members:

- Team members often do not have a clear understanding of which tasks are their responsibility or which tasks have been approved, leading to confusion and inefficiency.
- They may struggle to keep track of their assigned tasks' progress and provide timely updates to their manager.
- Lack of a structured task assignment system can result in redundant work or missed tasks, impacting team performance.

## ❸ Current Situation:

- Existing task management systems either lack sufficient oversight from managers or are too complex, making them difficult for team members to use.

## Objective

- To develop an interactive platform that streamlines task assignment, approval, and progress tracking between managers and team members.
- Enable managers to efficiently assign tasks, approve team members' suggestions, and monitor task completion across multiple projects.
- Provide team members with a clear interface to suggest tasks, view assigned tasks, and track their progress, ensuring better transparency and communication.
- Foster a collaborative work environment that ensures timely project completion, improves productivity, and aligns team efforts with organizational goals.



# Literature Survey

## ❶ Research on Task Management Systems:

- Studies show efficient task management platforms improve productivity by enhancing task allocation and progress tracking.
- The Journal of Business Research indicates integrated task assignment and approval workflows reduce delays and improve collaboration.

## ❷ Existing Platforms:

- Platforms like Trello and Asana lack advanced features such as task suggestion by team members and approval by managers.
- Many platforms focus on basic task tracking, missing an integrated system for approval and performance monitoring.

## ❸ Relevant Case Studies:

- Case studies show that integrated tools like Microsoft Teams and Monday.com improve team collaboration and project delivery.
- Research from PMI shows task tracking systems correlate with higher project success rates.

## Research Gap

### ❶ Lack of Integrated Task Approval and Tracking:

- Current task management platforms lack integrated systems that combine task assignment, approval, and progress tracking within a unified workflow.

### ❷ Limited Features for Team Collaboration:

- Existing platforms focus on basic task management but fail to support the full lifecycle of collaboration, including task suggestion, manager approval, and progress monitoring.

### ❸ Need for Streamlined Communication Between Managers and Team Members:

- Many tools do not facilitate real-time communication between managers and team members, leading to delays and misalignment in task completion.

### ❹ Gaps in Performance Analytics:

- Few platforms provide detailed analytics on task progress and team performance, which are essential for project optimization and decision-making.



## Proposed Work

- **Development of Platform:** An interactive platform for task management, where managers can assign, approve, and track tasks, while team members can suggest tasks and track progress.
- **Task Assignment and Approval Workflow:** Implementation of an intuitive task assignment system that allows managers to approve or reject tasks suggested by team members, ensuring smooth workflow.
- **Progress Tracking:** A feature that enables team members to mark the progress of tasks, which managers can monitor in real-time to ensure project timelines are met.
- **Team Collaboration Tools:** A communication system within the platform to streamline interactions between managers and team members, facilitating task updates and progress discussions.

# Tools and Technology

- **Frontend:**

- HTML, CSS, and JavaScript: Core web technologies for structuring, styling, and adding interactivity to the user interface.
- React.js: A modern JavaScript library for building dynamic, component-based user interfaces with efficient state management.
- React Router: Enables dynamic routing in React applications for seamless navigation between pages.
- Lucide React: A collection of beautiful, customizable React icons used to enhance UI visuals.
- Tailwind CSS: A utility-first CSS framework for designing fast, responsive, and customizable layouts.

- **Backend / BaaS (Backend as a Service):**

- Supabase: An open-source Firebase alternative providing backend services like authentication, databases, and APIs using PostgreSQL.

# Tools and Technology

- **Build Tools and Configuration:**

- Vite: A fast modern build tool and development server for frontend projects, improving performance and developer experience.
- TypeScript: A strongly typed superset of JavaScript used to improve code quality and maintainability.

- **API Integration:**

- Supabase RESTful APIs: Used for client-backend communication, handling data storage, authentication, and real-time updates.

## Expected Outcome

### 1 For Managers:

- Streamlined task assignment and approval process, enhancing project management efficiency.
- Real-time monitoring of task progress to ensure timely project completion.

### 2 For Team Members:

- A clear view of assigned tasks, deadlines, and progress tracking, improving task management.
- Ability to suggest tasks and track their approval and progress.

### 3 Overall Impact:

- Increased collaboration, productivity, and timely project deliveries due to improved task management and communication.

Thank you!