TASK MANAGEMENT SYSTEM

A

Mini Project Report submitted to Savitribai Phule Pune University, Pune

In partial Fulfillment for the awards of Degree of Engineering in Information Technology

Submitted by

Ms. Dhumal Payal Bhimraj [S511026]
Ms. Chavan Khushi Yogesh [S511015]
Ms. Ithape Shweta Sharad [S511047]
Ms. Kendre Anuja Aanteshwar [S511061]

Under the Guidance of

Prof. Jyostna A. Nanajkar

Department of Information Technology

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ZEAL COLLEGE OF ENGINEEIRNG AND RESEARCH, NARHE, PUNE

Department of Information Technology

(2024-25)

Certificate

This is to certify that,

Ms. Dhumal Payal Bhimraj S511026

Ms. Chavan Khushi Yogesh S511015

Ms. Ithape Shweta Sharad S511047

Ms. Kendre Anuja Aanteshwar S511061 have successfully completed the Mini project entitled " **Task Management System**" under my guidance in partial fulfillment of the requirements for the Second Year of Engineering in Information Technology under the Savitribai Phule Pune University during the academic year 2024-2025

Date : …….

Place:…….

Prof. Jyostna A. Nanajkar
Guide

Prof. Balaji Chaugule
H.O.D

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Project Members:

Ms. Dhumal Payal Bhimraj

Ms. Chavan Khushi Yogesh

Ms. Ithape Shweta Sharad

Ms. Kendre Anuja Aanteshwar

Abstract

In today's competitive environment, students have to manage a great variety of tasks, and sometimes, due to poor time management, they fall behind in completing the tasks well and on time. This **Task Management System** provides an innovative solution by combining intuitive **UI/UX design** with powerful backend functionalities. It allows users to **categorize tasks** into **Personal** and **Professional** and advanced functionality of **Live News** through API and feature of **Google Calendar .** The aim is to increase productivity, reduce procrastination, and provide a satisfying experience in managing tasks through a **Desktop application.**

The application enables users to create, edit, and mark tasks as completed. It supports the organization of tasks into personal and professional categories, providing flexibility and clarity in task handling. Enhanced interactivity is achieved through dynamic components that allow real-time updates and seamless user experiences.

The system is designed to support multilingual interfaces, making it accessible to a diverse range of users. It is also built with scalability and extensibility in mind, allowing for future enhancements such as notifications, reminders, task priority levels, or even team collaboration features.

This project is ideal for anyone looking to increase productivity, improve task visibility, and maintain better control over daily responsibilities in both personal and professional environments.

Keywords : News API, Task Management System, Google Calendar, Mood Tracker

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List of Abbreviations

- **API** - Application Programming Interface
- **TMS –** Task Management System
- **UI** - User Interface
- **UX** - User Experience
- **DBMS** - Database Management System
- **SRS** - Software Requirement Specification
- **HTTP** - HyperText Transfer Protocol
- **HTTPS** - HyperText Transfer Protocol Secure
- **GUI** – Graphical User Interface

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Chapter 1

Introduction

1.1 Overview

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1.1 Overview

In today's fast-paced digital world, managing tasks efficiently is essential for maintaining productivity and meeting deadlines. A Task Management System (TMS) provides users with a structured platform to plan, track, and execute their personal or professional responsibilities. Also this system contains the Live News through API and Google Calendar to enhance the accessibility. This project introduces a web-based task management solution that simplifies the process of organizing tasks, improves time management, and enhances user accountability.

1.2 Aim / Motivation

The primary motivation behind developing this system is to provide a minimal yet powerful solution that can help individuals and small teams streamline their workflow. With distractions and disorganization being common challenges, the aim is to create a focused space where users can track their to-do lists, categorize tasks, set deadlines, and mark their progress without overwhelming interfaces or complex setups.

1.3 Objective

The main objectives of this project are:

- To provide users with a simple and clean interface to create, edit, and manage tasks.
- To allow categorization of tasks into personal and professional sections.
- To support features like task completion status, deadlines, and reminders.
- To improve productivity through better task visibility and organization.

- To create a responsive, user-friendly application that can be used across devices.

1.4 Organization of Report

This report is structured as follows:

Chapter 1: Introduction – Covers an overview, motivation, objectives, and report structure.

Chapter 2: Literature Survey – Reviews existing task management system and related technologies.

Chapter 3: **Problem Statement –** Covers problem statement and features

Chapter 4: **Software Requirement Specification –** Gives software and hardware requirements

Chapter 5: System Design– Describes the architecture, modules, and workflow of the project.

Chapter 6: Conclusion & Future Scope – Summarizes findings and possible improvements.

Chapter 2

Literature Survey

2.1 Introduction

A literature survey helps understand the background, significance, and progress made in the field of task management systems. It explores how various tools have approached the problem, their limitations, and how this project proposes improvements. Effective task management has been a core challenge in both personal productivity and organizational project planning, leading to a diverse range of software solutions.

2.2 Existing Systems

2.3 Research Papers and Related Works

Name of System / Application	Task Categorization	Reminder Feature	Time Tracking	Collaboration Support	Cloud Sync	Gamification / Rewards	AI-based Suggestions	Offline Support
Trello	TRUE	TRUE	FALSE	TRUE	TRUE	FALSE	FALSE	TRUE
Asana	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE
Todoist	TRUE	TRUE	TRUE	LIMITED	TRUE	TRUE	TRUE	TRUE
Microsoft To Do	TRUE	TRUE	FALSE	LIMITED	TRUE	FALSE	FALSE	TRUE
Proposed System	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE

Several academic works have also focused on task management and productivity:

- "Task Management Application to Improve Productivity" – This paper explores how mobile and web apps can influence human behaviour and productivity through reminders, visual cues, and gamification.

- "Automated Task Scheduling and Prioritization using Machine Learning" – This research introduces intelligent systems that can suggest or reschedule tasks based on behaviour patterns and deadlines.
- "Collaborative Task Management Systems for Agile Teams" – It emphasizes the importance of communication, transparency, and accountability in software teams and how task tools support agile methodologies.

These papers point to the growing need for not only organizing tasks but also understanding the behavioural and team-based factors that influence effective task management.

2.4 Summary

The literature reveals a strong presence of both commercial tools and academic research aimed at improving task management. However, many existing systems are either too simple for team use or too complex for personal productivity. This project fills that gap by offering a balanced solution that:

- Combines ease of use with necessary features like categorization, timers, and completion tracking.
- Is adaptable for both personal and professional.
- Has Live News section for better understanding of things happened in the world around to tackle a daily knowledge.
- Also has advanced feature of Google Calendar for better understanding of the allotted task,

The proposed Task Management System leverages modern web technologies to deliver an accessible and efficient solution that meets current user expectation through the organization of the tasks.

Chapter 3

Problem Statement

3.1 Introduction

A problem statement is a clear description of the issue that needs to be addressed. It includes a **vision**, **issue statement**, and the **method** used to solve the problem. The problem should be well-defined, relevant to the users, and solvable within a reasonable timeframe using available technology and design methodologies.

In today's fast-paced and multitasking environments, users often juggle multiple responsibilities across different life domains—personal, professional, academic, etc. However, most existing task management solutions either focus only on one area (like work tasks) or fail to offer integration with live information and scheduling systems. This results in fragmented workflows, missed deadlines, and reduced productivity.

3.2 Problem Description Using the 5W Approach Who

does the problem affect?

The problem affects a broad user base including:

- **Students**, who need to balance assignments, study schedules, and personal commitments.
- **Professionals**, who manage meetings, project deadlines, and work-life tasks.
- **Freelancers and remote workers**, who rely heavily on structured workflows.
- **General users**, who wish to improve personal productivity and stay informed.

What is the issue?

The issue lies in the **lack of an all-in-one, intelligent, and organized task management system**. Users are forced to use multiple apps (to-do lists, news apps, calendars), leading to:

- Task fragmentation and confusion between personal and professional obligations
- No integration with **Google Calendar**, which makes scheduling ineffective
- Lack of real-time information or **live news** that could impact plans

- Poor motivation due to unengaging interfaces and lack of reward mechanisms
- No support for **smart reminders**, categorization, or analytics

Additional Challenges:

- Overwhelm caused by task overload without priority support
- No visual separation between task types (work vs. personal)
- Low user engagement due to boring or cluttered interfaces

When does the issue occur?

- Throughout the day, as users try to switch contexts between apps
- During work hours (for professional task tracking)
- During evenings/weekends (for personal tasks, errands, and events)
- When users need to sync events across calendars or stay informed through news alerts

Where is the issue occurring?

- Across mobile and desktop environments where users use **disjointed productivity tools**
- In workplaces and educational settings where task tracking isn't standardized
- In personal spaces where users rely on memory or manual lists to manage activities

Why is it important to fix the problem?

Fixing this issue is essential because:

- It enables **seamless organization** of tasks across life domains
- It enhances **time management**, reducing mental fatigue and decision overload
- It increases **productivity and motivation** through smart reminders, rewards, and progress tracking
- It supports **context switching** and scheduling by syncing with **Google Calendar**
- It provides **valuable, real-time information** (via live news) to help users make informed decisions

3.3 Problem Definition

The current approach to managing personal and professional responsibilities is inefficient due to the following limitations:

- **Fragmented tools** leading to lack of centralized task visibility
- **No integration** with Google Calendar or third-party services
- **Limited customization** in terms of task views, categories, and visual feedback
- **No built-in news updates**, which leads to users switching to separate apps
- **Lack of engaging features** like task completion rewards, analytics, or visual animations
- **Difficulty in prioritizing** or separating tasks across different domains

Proposed Solution:

To overcome these challenges, a **comprehensive Task Management System (TMS)** is proposed. This system will offer:

- **Separate dashboards** for personal and professional tasks
- **Live news integration**, showing curated, relevant updates
- **Google Calendar sync** for real-time event coordination
- **Smart reminders**, **task timers**, and **completion rewards** to keep users engaged
- A **visually pleasing UI** with animations, color-coded categories, and modern design elements

Chapter 4

Software Requirements Specification

4.1 Hardware Requirements

The hardware requirements for the Task Management System (TMS) are as follows:

For Server (Development & Hosting):

- Processor: Intel Core i5 or higher
- RAM: 8GB or more
- Storage: 256GB SSD or higher
- Operating System: Windows 10/11, macOS, or Linux
- Internet Connection: Required for API integration (Google Calendar, News API)

For Users (Accessing the TMS):

- PC with a modern web browser

-Users need any device capable of accessing web pages

-Tasks, news, and calendar events will be accessible via the browser interface

- Internet Connection: Required to sync tasks, view live news, and connect with Google Calendar

4.2 Software Requirements

The software requirements for the system include:

Frontend Technologies:

- HTML5, CSS3, JavaScript – For designing the user interface

- jQuery – For simplifying DOM manipulation and handling asynchronous operations

Backend Technologies (Optional / For Enhanced Features):

- Can be developed as a fully frontend-based app using **Local Storage**

APIs & Integrations:

- Google Calendar API – For syncing tasks and events with the user's calendar
- News API - For displaying live news updates

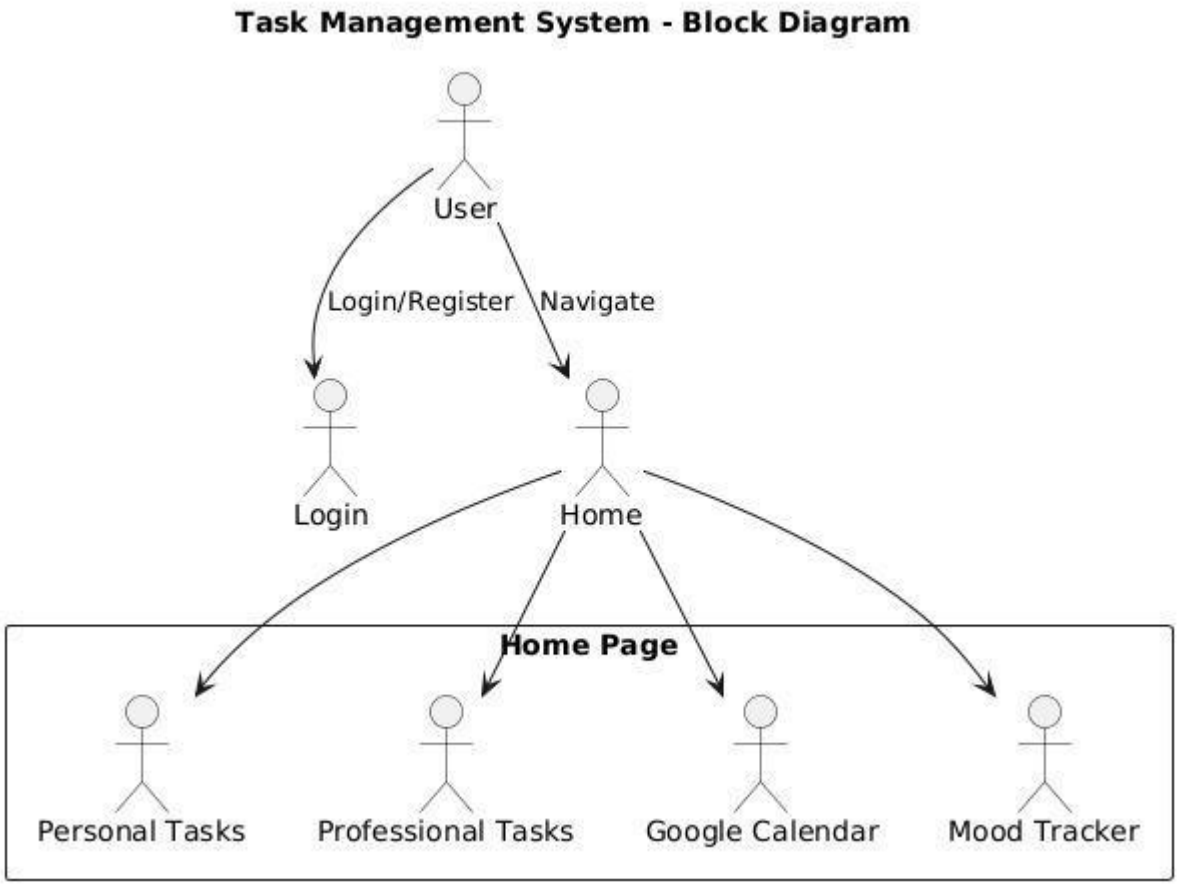
Chapter 5

System Design

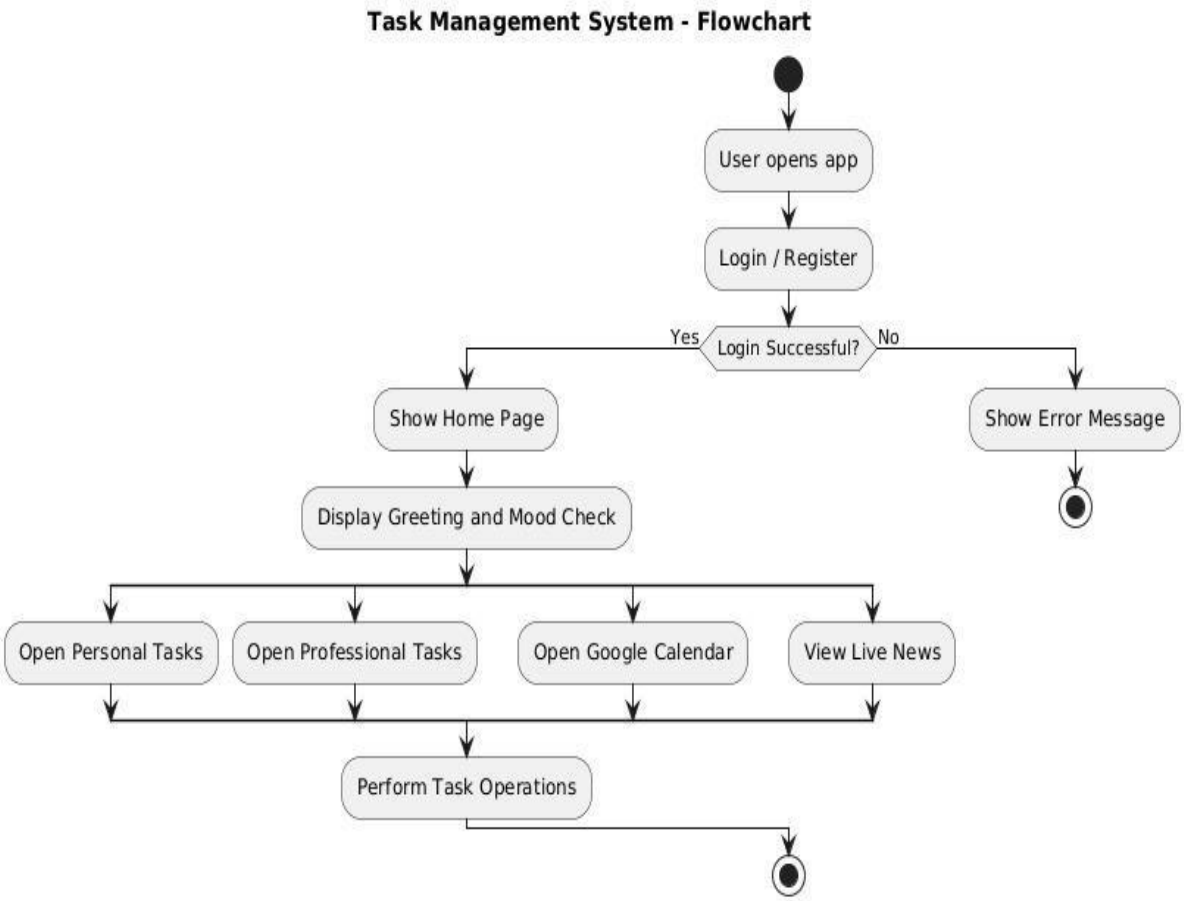
1.Project Block Diagram

The Project Block Diagram provides a high-level visual representation of the functional flow and core components of the Task Management System (TMS). It illustrates how various modules interact with each other, from user input on the frontend to the processing and display of tasks. This diagram helps in understanding the architecture of the system, making it easier to grasp the relationship between different parts of the application and how they contribute to the overall functionality.

Below is the Project Block Diagram of the system:

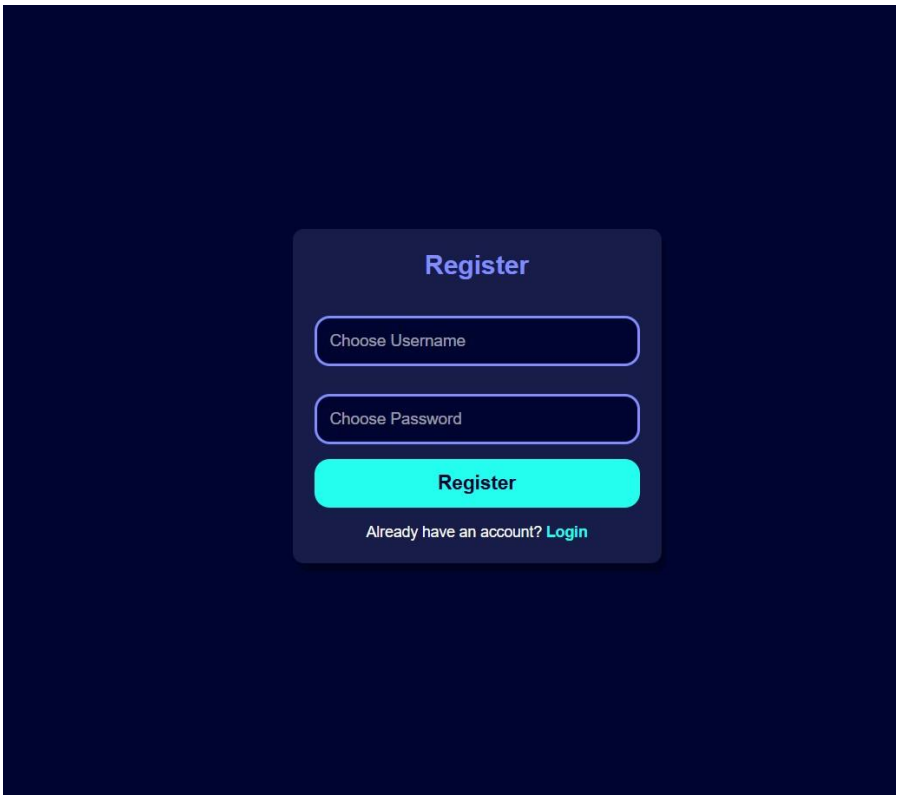


Simple Flowchart Diagram

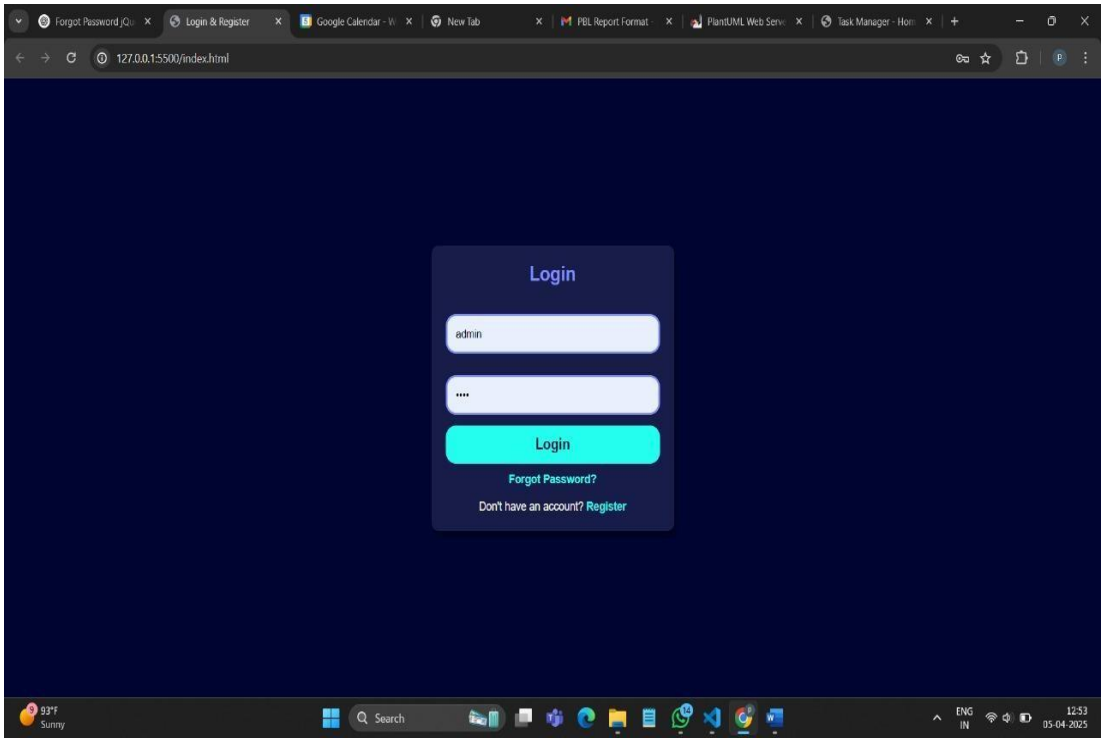


2.GUI of Working system

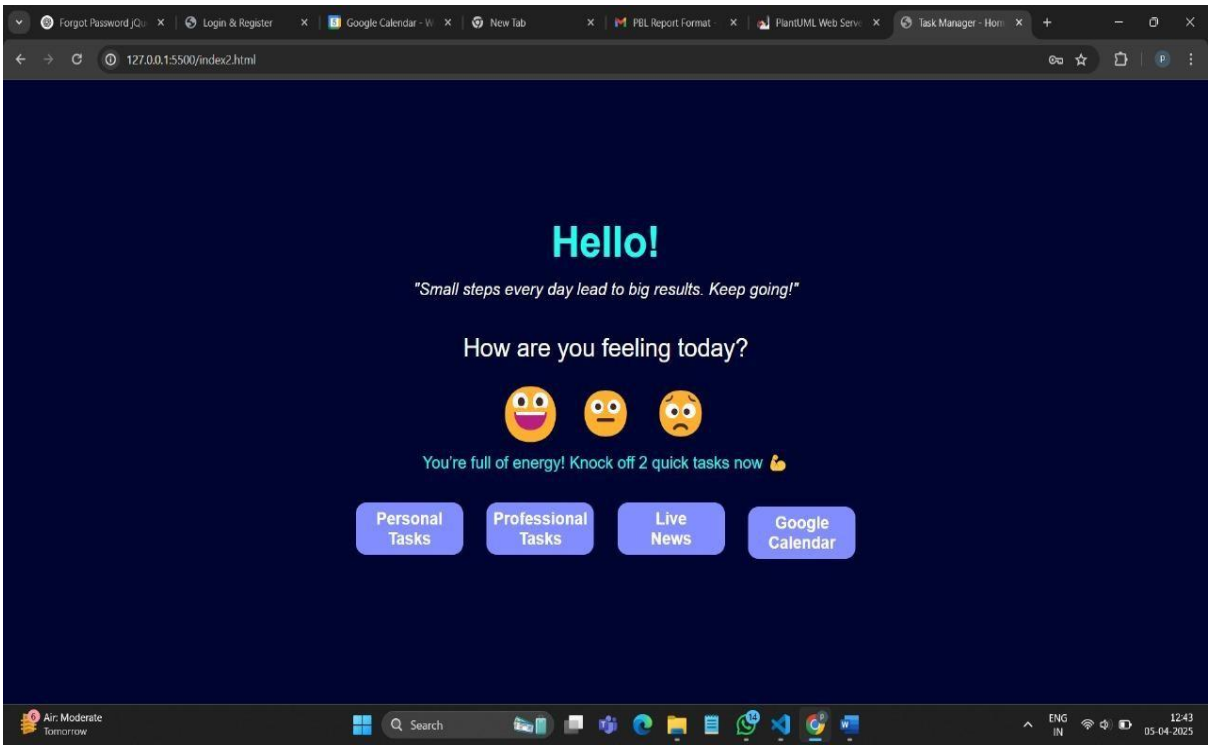
1. Registration Page



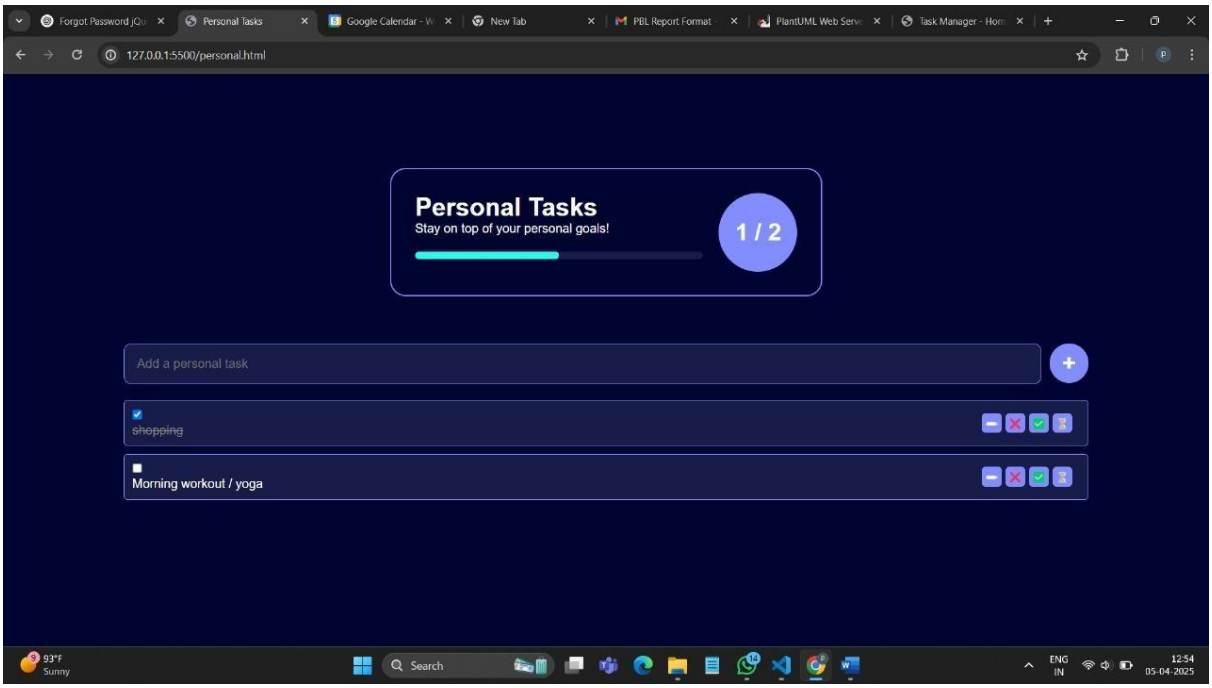
2.Login Page



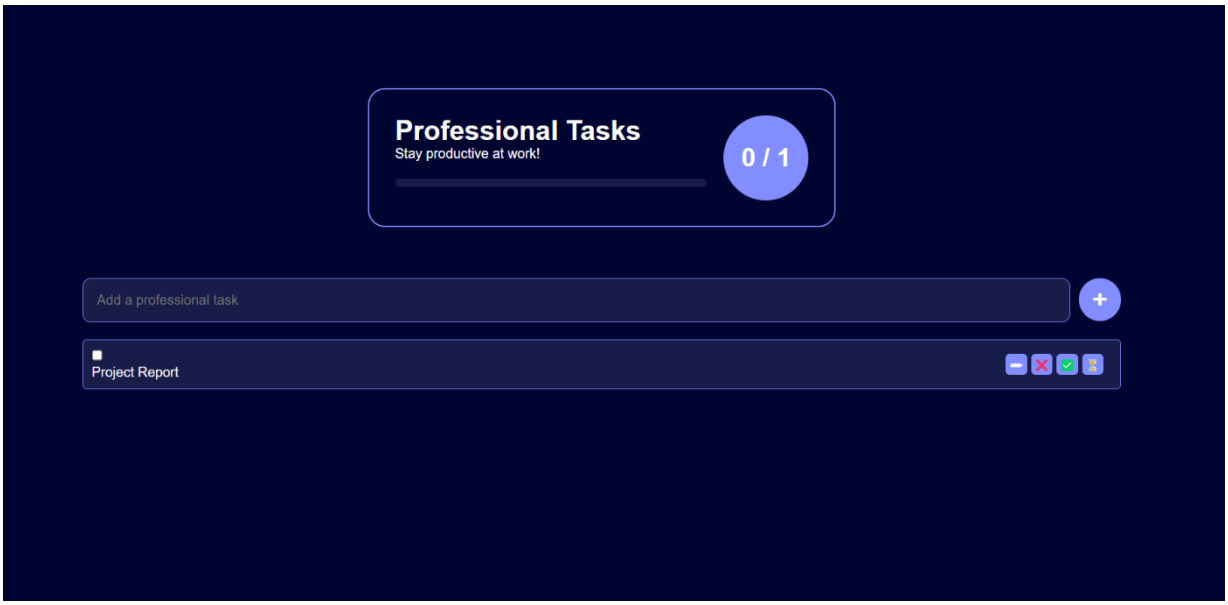
3.Home page with Greeting and Mood Check



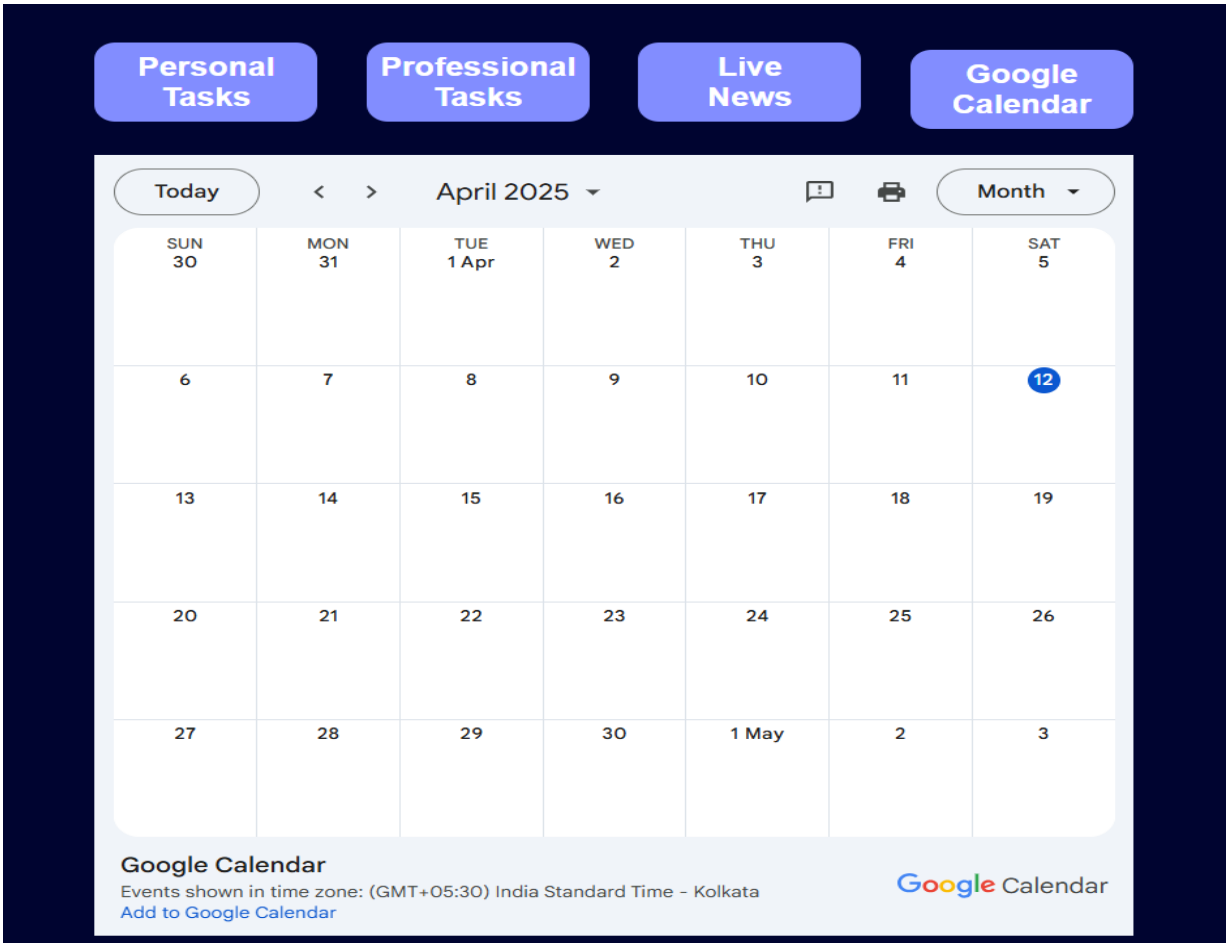
4.Personal Tasks Page



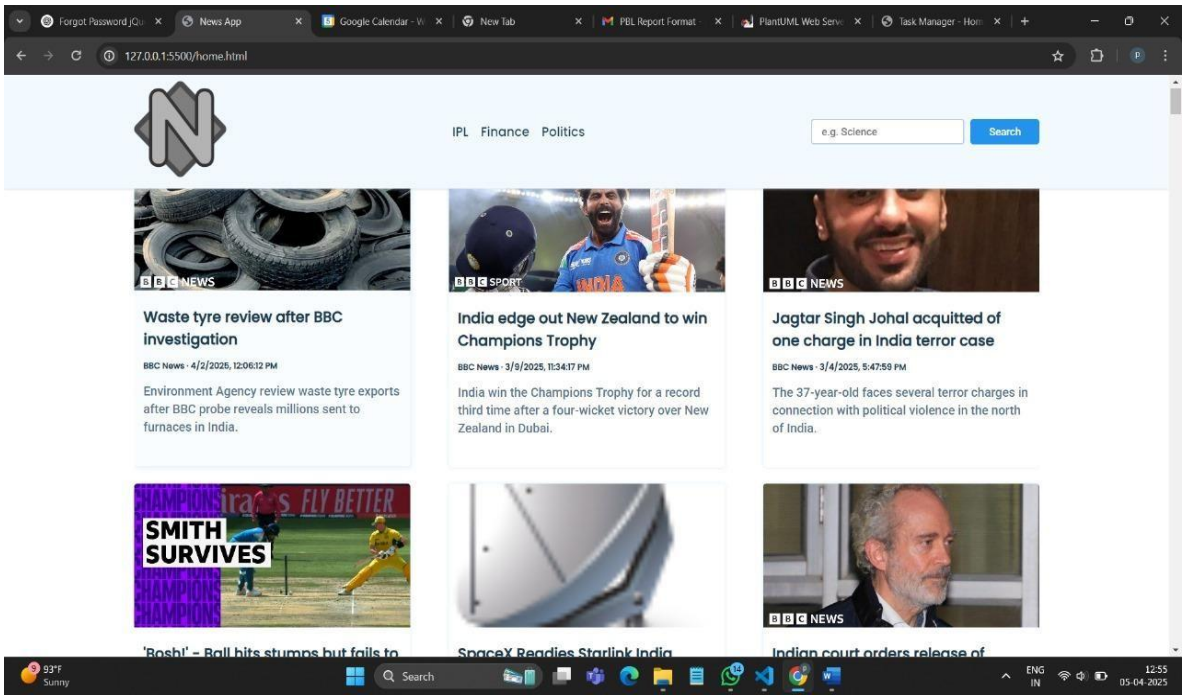
5.Professional Tasks Page



6.**Embedded Google Calender**



7.Live News Section



Chapter 7

Conclusion and Future Scope

1.Conclusion

The Task Management System (TMS) effectively addresses the need for a simple yet efficient tool to manage daily tasks and responsibilities. By offering core features such as task creation, categorization, completion tracking, and deadlines, it enhances productivity and promotes better time management for users. Developed using frontend technologies like HTML, CSS, JavaScript, and jQuery, the system provides a responsive and user-friendly interface suitable for both personal and professional use.

2.Future Scope

The Task Management System, in its current form, provides essential features for managing tasks effectively. However, there are several opportunities to enhance its functionality and make it more scalable and intelligent in the future:

- User Authentication: Introduce login and registration features to allow multiple users to maintain personal task data securely.
- Database Integration: Implement a backend with databases like SQLite or MySQL to store tasks persistently.
- Reminders and Notifications: Add automated reminders via email or push notifications for upcoming deadlines.
- Task Prioritization: Include task priority levels (High, Medium, Low) and sorting options for better organization.

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