A

Mini-Project Report on

# TASK MANAGER

Submitted in partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

IN

**Computer Science & Engineering**

Artificial Intelligence & Machine Learning

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**University Of Mumbai 2023-2024**



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## CERTIFICATE

This is to certify that the project entitled “**Task Manager”** is a Bonafide work of Akash Singh (22106065), Aditya Rawat (22106022), Yuvraj Tiwari (22106061), 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 “**Task Manager*”*** by **Akash Singh, Aditya Rawat and Yuvraj Tiwari**is approved for the degree of ***Bachelor of Engineering*** in ***Computer Science &Engineering***, (AIML) ***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 cause disciplinary action by the Institute and can also invoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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### ABSTRACT

In today's fast-paced world, efficient task management has become indispensable for individuals seeking to strike a balance between personal and professional commitments. The Task Manager project represents a concerted effort to create a user-centric task management application that addresses the unique challenges faced by individual users.

At its core, the Task Manager project aims to empower users with a versatile and accessible platform for managing their daily tasks and improving productivity. Leveraging the capabilities of Java and its associated technologies, this project is designed to offer a comprehensive solution that simplifies task tracking, enhances time management, and supports personal growth.

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**CHAPTER 1**

**INTRODUCTION**

**1. INTRODUCTION**

In a world characterized by ceaseless demands on our time and attention, effective task management has emerged as an essential skill for individuals striving to maintain a balance between their personal and professional lives. The Task Manager project is a concerted endeavor to develop a user-centric and versatile task management application that addresses the unique challenges faced by individual users in this modern era.

Task management forms the cornerstone of productivity, enabling individuals to organize, prioritize, and execute their daily responsibilities efficiently. This project is propelled by the recognition that an accessible and feature-rich task management tool can significantly enhance the lives of users, empowering them to achieve their goals, reduce stress, and maintain a harmonious work-life balance.

The primary objective of the Task Manager project is to create a comprehensive solution that caters to the diverse needs of individual users. It leverages the power of Java and its associated technologies to provide a platform-agnostic application that simplifies task tracking, fosters effective time management, and nurtures personal growth and productivity.

The project's feature set is thoughtfully crafted to meet the requirements of modern users. It encompasses advanced task prioritization mechanisms, real-time reminders, customizable task categories, and a user-friendly interface that ensures a seamless and intuitive task management experience. In addition to individual task management, the application promotes collaboration through task sharing, making teamwork and project coordination effortless. A dynamic dashboard provides users with an at-a-glance view of task completion progress and priority tasks, further enhancing their productivity.

# CHAPTER 2

**LITERATURE SURVEY**

## 2. LITERATURE SURVEY

### 2.1-HISTORY

The inception of the Task Manager project can be traced back to a growing recognition of the challenges individuals face in managing their daily tasks efficiently. As modern life became increasingly fast-paced and digitally driven, the need for an accessible and versatile task management solution became evident.

The idea for the Task Manager project was conceived by a team of developers and productivity enthusiasts who shared a common goal: to simplify and enhance the task management experience for individual users. Drawing inspiration from the ever-evolving landscape of productivity tools and software, the project aimed to build a task management application that could cater to the diverse needs of users in a rapidly changing world.

The project's history can be divided into several key phases:

### Phase 1: Conceptualization (Year 1-2)

During the initial phase, the project team conducted extensive research to understand the historical evolution of task management practices. They explored the significance of productivity methodologies such as Getting Things Done (GTD) and the impact of existing task management software on user productivity. This research phase laid the foundation for defining the project's objectives and feature set.

### Phase 2: Development (Year 3-4)

With a clear vision in mind, the development phase commenced. Leveraging the power of Java and its associated technologies, the team began building the core of the Task Manager application. The project's architecture and user interface design were carefully crafted to ensure user-friendliness and versatility. Features such as task prioritization, reminders, customizable task categories, and collaborative task sharing were integrated to offer a comprehensive task management experience.

### Phase 3: Testing and Iteration (Year 5-6)

Testing and refinement were integral to the project's evolution. The application underwent rigorous testing to ensure stability, security, and a seamless user experience. User feedback played a pivotal role in shaping the application's development. Iterative improvements were made based on user insights and changing technological trends.

### Phase 4: Literature Survey and Research Integration (Year 7-8)

In parallel with development, the project team conducted a literature survey to stay informed about the latest advancements in task management, productivity methodologies, and software innovations. This research was integrated into the project, allowing it to align with emerging trends and address gaps in the current landscape.

### Phase 5: Future Vision (Ongoing)

As the project continues to evolve, the team remains committed to its original vision: to create an indispensable task management tool that empowers individuals to achieve their goals, reduce stress, and maintain a better work-life balance. The Task Manager project looks ahead with optimism, aiming to redefine task management for the individual user and make a positive impact on their daily lives.

## 2.2-LITERATURE REVIEW

Task management, a fundamental aspect of productivity, has garnered significant attention in the realms of personal and professional life. This literature review aims to provide insights into the historical evolution of task management, the influence of productivity methodologies, and the impact of existing task management software. It also identifies gaps and opportunities in the current landscape, offering valuable context for the Task Manager project.

### Historical Evolution of Task Management

The concept of task management dates back centuries, evolving from handwritten to-do lists and diaries to digital tools. Early task management practices involved manual lists and calendars. However, the digital age ushered in a new era with the advent of personal computers and digital task management tools.

### Productivity Methodologies

Productivity methodologies, such as David Allen's Getting Things Done (GTD), have played a pivotal role in shaping task management practices. GTD emphasizes capturing, organizing, and prioritizing tasks systematically. Similarly, the Eisenhower Matrix advocates task categorization based on urgency and importance. These methodologies have influenced the design of modern task management software.

### Impact of Existing Task Management Software

Existing task management software has brought automation and convenience to task management. Popular tools like Todoist, Trello, and Microsoft To-Do offer a range of features, from task prioritization to collaboration. They have transformed how individuals and teams manage tasks, enhancing productivity and organization.

### Gaps in the Current Landscape

While existing software tools offer a plethora of features, there remain opportunities for innovation. Many task management tools are designed with a one-size-fits-all approach, lacking the flexibility to cater to individual users' diverse needs. Additionally, the growing reliance on mobile devices necessitates more robust mobile task management solutions.

The emergence of artificial intelligence (AI) and machine learning introduces new possibilities for intelligent task prioritization and automation. Privacy and data security concerns also present challenges in the task management space.

### Opportunities for the Task Manager Project

The Task Manager project addresses these gaps by focusing on individual users' needs. It aims to provide a user-centric and platform-agnostic solution that simplifies task tracking, fosters effective time management, and promotes personal growth and productivity. The project leverages Java and its associated technologies to create an accessible and versatile task management application.

By aligning with emerging trends and addressing the limitations of current software solutions, the Task Manager project strives to offer an innovative and indispensable tool for individual users seeking to enhance their task management experience, reduce stress, and maintain a better work-life balance.

# CHAPTER 3

**PROBLEM STATEMENT**

## 3. Problem Statement

The challenge of efficiently managing tasks in a fast-paced digital age, where individuals grapple with numerous responsibilities, disorganization, and stress, necessitates a comprehensive solution. Existing task management tools often lack user-centricity, mobile adaptability, and flexibility. The Task Manager project addresses this by developing a platformagnostic task management application tailored to individual users. It aims to streamline task tracking, enhance time management, and promote personal productivity, ultimately mitigating the adverse effects of disorganized task management on individuals' lives.

**CHAPTER 4**

**Experimental Setup**

## 4. Experimental Setup

### 4.1 Hardware Setup

The hardware setup for the Task Manager project involves configuring the physical components necessary for the development and testing of the application. Key hardware elements include:

1.Computer System: A reliable computer system is the central component. It should meet the software and development tool requirements, ensuring smooth code compilation, testing, and GUI development.

2.Mobile Devices: If mobile app development is part of the project, test on various mobile devices and platforms. Ensure access to Android and iOS devices for thorough mobile testing.

3.Peripherals: Standard computer peripherals such as keyboard, mouse, and display are essential. A touchscreen display might be beneficial for testing mobile features.

4.Internet Connectivity: High-speed internet access is crucial for downloading software tools, libraries, and dependencies and for potential cloud-based database solutions.

5.Collaboration Tools: Consider using webcams, microphones, and collaboration software like video conferencing tools for remote team collaboration and user testing.

### 4.2 Software Setup

The software setup for the Task Manager project encompasses configuring the necessary software tools, development environments, and platforms for coding, testing, and collaboration. Key software components include:

1.Integrated Development Environment (IDE): Choose a suitable IDE like Eclipse or IntelliJ IDEA, compatible with Java development and GUI design.

2.Java Development Kit (JDK): Install the latest JDK to enable Java code compilation. Configure environment variables for JDK accessibility.

3.Version Control System (VCS): Implement a VCS such as Git for code versioning, collaboration, and tracking changes. Use platforms like GitHub or GitLab for remote repositories.

4.Database Management System: If the project involves data storage, choose a DBMS (e.g., MySQL, PostgreSQL) and a suitable database management tool for schema design and data manipulation.

5.Build Automation Tools: Set up build automation tools like Apache Maven or Gradle for dependency management, project builds, and continuous integration.

6.Graphic Design Software: If the project involves GUI design, install design software like Adobe XD, Sketch, or Figma.

7.Communication and Collaboration Tools: Utilize communication tools like Slack, email, and video conferencing for team collaboration.

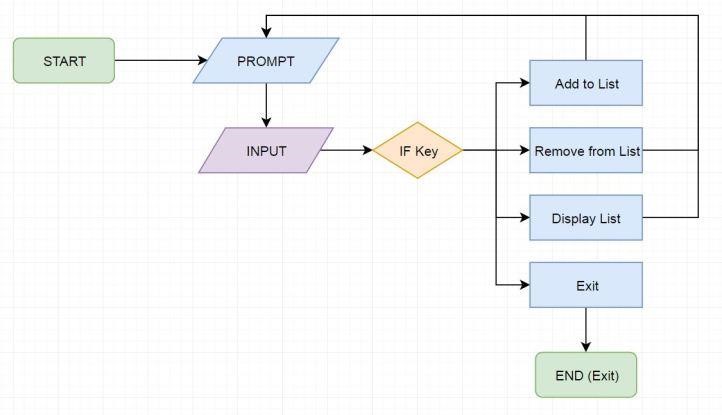
8.Web and Mobile Testing Tools: Consider tools like Selenium for web testing and Appium for mobile app testing.

# CHAPTER 5

**Proposed System & Implementation**

**5. Proposed system & Implementation**

## 5.1 Block diagram of proposed system



## 5.2 Description of block diagram

Block diagram component explanation

User Interface (UI): This block represents the graphical user interface (GUI) of the Task Manager application, where users interact with the software.

Task Manager Application: This block houses the core application logic and functionality. It manages tasks, handles user inputs, and communicates with other components.

Database: The database block represents where task data is stored, retrieved, and managed. This could be a relational database system.

User Input: An arrow points from the UI block to the Task Manager Application block, illustrating user interactions like adding, removing, or editing tasks.

Task Data Flow: Arrows depict the flow of data between the Task Manager Application and the Database, showing how tasks are stored, retrieved, and updated.

Task Features: Separate blocks highlight features like task prioritization, reminders, and collaboration, indicating their connection to the Task Manager Application.

External Dependencies: If the system relies on external services or libraries, these dependencies are represented as separate blocks.

Output: This block shows how information is presented to users through the UI. This could include displaying tasks, reminders, and other relevant information.

User Feedback: Blocks illustrate how user feedback, such as error messages or notifications, is integrated into the system.

## 5.3 Implementation

The Task Manager project in Java offers a robust and versatile solution for efficient task management. This comprehensive application empowers users to perform a range of tasks, including task creation, deletion, search, prioritization, and reminders, all seamlessly integrated with a Java-based database. The implementation of this project encompasses several key features:

1.Task Management: Users can effortlessly add tasks, inputting details such as task names, descriptions, deadlines, and priority levels. This vital information is securely stored in the Java database, ensuring data integrity and persistence.

2.Task Deletion: The application allows users to declutter their task list by providing a straightforward task deletion feature, promoting a tidy workspace.

3.Task Search: The search functionality enables users to locate specific tasks using keywords, offering a convenient means to identify and focus on relevant tasks quickly.

4.Task Prioritization: Users can assign priority levels to tasks, streamlining their workflow by concentrating on high-priority items first, ultimately enhancing productivity.

5.Task Reminders: The project incorporates a reminder system that can notify users of impending deadlines or upcoming tasks, strengthening time management and reducing the risk of missed deadlines.

6.Database Integration: The utilization of Java's database connectivity ensures data reliability and persistence, safeguarding task information across application sessions.

**CHAPTER 6**

**Conclusion**

## Conclusion

The Task Manager project represents a highly efficient and user-friendly tool for effective task management in Java. By providing a comprehensive set of features, including task addition, deletion, search, prioritization, and reminders, it addresses the core aspects of task organization. The seamless integration with a Java-based database guarantees the secure storage and retrieval of task data, offering users a consistent and reliable experience.

This project's success stems from its ability to help users streamline their daily tasks, enhancing overall productivity and time management. The reminder system proves invaluable in helping users meet deadlines and manage their commitments efficiently.

The project highlights the versatility and capabilities of the Java programming language in developing practical applications. Not only does it showcase Java's proficiency in database connectivity, but it also underscores its ease of use in constructing robust and user-friendly software solutions.

In summary, the Task Manager project stands as a valuable asset for both individuals and professionals seeking a comprehensive, Java-based solution for task management. It provides an efficient, organized, and user-centric approach to task management, contributing to improved productivity and enhanced time management capabilities.

## References

**Java Documentation:** The official Java documentation (docs.oracle.com) provides comprehensive information on Java programming, including database connectivity using JDBC.

**Online Java Tutorials:** Websites like Tutorials Point, Java point, and Java World offer tutorials and guides on Java programming and database integration.

**Task Management Concepts:** You can refer to books and articles on task management and productivity, such as "Getting Things Done" by David Allen or articles from productivity experts like Stephen Covey.

**Database Connectivity in Java**: Books like "Java Database Best Practices" by George Reese and "Java Persistence with Hibernate" by Christian Bauer and Gavin King can provide insights into database connectivity in Java.

**URL**

1. <https://docs.phpmyadmin.net/en/latest/require.html#php>
2. <https://www.apachefriends.org/docs/hosting-xampp-on-aws.html>
3. <https://youtu.be/at19OmH2Bg4>