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**St. MOTHER THERESA ENGINEERING COLLEGE**

**COMPUTER SCIENCE ENGINEERING**

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**TO DO LIST APPLICATION**

**SUBMITTED BY:**

**REGINA BEULA. P**

**8754266260**

## **Problem Statement**

In the fast-paced digital era, managing daily tasks effectively has become increasingly challenging for individuals, students, and professionals. With multiple commitments, deadlines, and responsibilities, it is easy to overlook important tasks or struggle with prioritization. Traditional methods such as handwritten notes or simple reminders often prove insufficient, as they lack flexibility, accessibility, and the ability to organize tasks in a structured manner. This creates a pressing need for a reliable, user-friendly digital solution that can help users plan, organize, and monitor their activities efficiently.

A To-Do List Application addresses this gap by offering a centralized platform for task management. Users can create, update, and delete tasks, categorize them based on priority or deadlines, and track their progress systematically. Unlike manual methods, such an application ensures tasks are always accessible, editable, and synchronized across devices, enhancing productivity and reducing the chances of missed deadlines. Furthermore, the application can be customized to suit different user needs: students can manage assignments, professionals can organize work deliverables, and individuals can plan personal activities such as shopping lists or event schedules.

The problem lies not only in the lack of effective tools but also in the growing complexity of managing multiple roles in modern life. Without a structured system, individuals face decreased efficiency, increased stress, and poor time management. Therefore, a digital To-Do List Application is essential for addressing these challenges by providing an intuitive interface, robust functionality, and adaptability to varied user scenarios.

In summary, the problem is the absence of a reliable, accessible, and structured task management tool that helps users stay organized, prioritize efficiently, and achieve their goals without unnecessary stress. The To-Do List Application seeks to solve this by acting as a smart assistant for task organization and productivity enhancement.

## **Users and Stakeholders**

The To-Do List Application is developed with the aim of providing an efficient and organized solution for task management, and its success depends largely on identifying its users and stakeholders clearly. Understanding their roles, needs, and expectations ensures that the application is designed to meet real-world requirements while maintaining long-term sustainability.

Users are the primary focus of the application. They are the individuals who directly interact with the system to plan, organize, and track their tasks. Among them, students represent a significant group. Students today manage multiple responsibilities, such as academic assignments, project submissions, exam preparations, and participation in extracurricular activities. Without a structured system, they may struggle with deadlines and workload. The To-Do List Application provides a platform for students to break tasks into

smaller, manageable goals, prioritize them by urgency, and monitor progress. This helps reduce stress and improve academic performance.

Another major user group is working professionals. In corporate and business environments, professionals deal with tight schedules, frequent meetings, and overlapping tasks. The application assists them in organizing their workload, setting reminders, and ensuring that no responsibility is overlooked. For managers and team leaders, it can serve as a personal productivity assistant, ensuring timely delivery of projects and maintaining professional efficiency.

Apart from students and professionals, general users also form an important user base. These include homemakers, freelancers, entrepreneurs, and individuals who want to manage personal commitments. Examples include creating shopping lists, planning events, scheduling appointments, or even tracking personal goals such as fitness activities. For this group, the application provides an easy-to-use, customizable platform that supports both personal and family needs.

Alongside users, the application also involves several stakeholders who contribute directly or indirectly to its success. The development team comprising frontend and backend developers, UI/UX designers, and testers are essential stakeholders who transform requirements into a functioning, user-friendly product. They ensure that the application is technically sound, visually appealing, and reliable. The project manager plays a pivotal role as a stakeholder by overseeing the development process, allocating resources, ensuring deadlines are met, and aligning the product with its goals.

The technical support team is another critical stakeholder group. Once the application is deployed, these individuals are responsible for providing assistance to users, resolving issues, fixing bugs, and implementing updates. Their role ensures smooth operation and user satisfaction in the long term.

In a broader context, educational institutions and organizations can also be considered stakeholders. Schools, colleges, and companies may adopt the application to help students and employees manage their responsibilities better. By integrating the tool into their ecosystem, these institutions gain a structured way to improve productivity and accountability. Additionally, investors and clients are vital stakeholders. They provide financial and strategic support for development and expect the application to deliver value, both in terms of usability and market potential.

In summary, while users rely on the application for daily productivity, stakeholders ensure its creation, operation, and sustainability. Addressing the needs of both groups ensures that the To-Do List Application remains practical, reliable, and scalable in the long term.

## **User Stories**

User stories are short, simple descriptions of features from the perspective of the end users. They represent the needs, goals, and expectations of individuals who will interact with the To-Do List Application. By capturing these stories, the development team can design features that are user-centric and ensure the application solves real problems in practical ways.

As a student, I want to create a list of assignments, projects, and exam schedules so that I can manage my studies without missing important deadlines. I want the ability to set due dates and receive reminders that notify me ahead of time. This will allow me to plan my workload and avoid last-minute stress. I also want to categorize my tasks by subjects, such as mathematics, science, or language, which will help me stay organized and focus on what matters most at any given time. Additionally, I want to track completed tasks, giving me a sense of achievement and helping me measure progress toward my academic goals.

As a working professional, I want to create and manage my daily work tasks, such as meetings, report submissions, and client deadlines, so that I can stay on top of my responsibilities. I want to quickly add tasks during a meeting and set reminders to ensure nothing is overlooked. I also need the option to prioritize tasks as high, medium, or low so that I can address the most urgent matters first. Furthermore, I want my task list to sync across devices, allowing me to access it from my office computer, home laptop, or mobile phone. This cross-platform accessibility will help me manage work seamlessly, even when I am on the move.

As a general user, I want to create simple lists for my personal life, such as groceries, household chores, health routines, and upcoming appointments. I want the application to be intuitive and easy to use, so I don't waste time learning complicated features. I also need the flexibility to edit or delete tasks as my plans change, ensuring that the tool adapts to my lifestyle. For example, if I postpone a doctor's appointment, I should be able to update it quickly. Additionally, I would like recurring tasks, such as paying bills or exercising, to repeat automatically, so I don't have to re-enter them every time.

These user stories emphasize the diverse needs of different groups: students, professionals, and general users. Each story demonstrates how features such as task creation, categorization, prioritization, reminders, cross-device accessibility, and recurring tasks directly support users in achieving their goals. By addressing these requirements, the To-Do List Application can provide a reliable, flexible, and practical tool that enhances time management, boosts productivity, and reduces stress across all user groups.

## **Minimum Viable Product (MVP) Features**

The Minimum Viable Product (MVP) for the To-Do List Application focuses on delivering the essential features required to provide value to users while keeping the system simple and efficient. These features ensure that the application is functional, user-friendly, and capable of solving the core problem of task management from the very first release.

The primary MVP feature is task creation, which allows users to quickly add tasks they want to complete. Each task should include a title, description, and optional due date. This ensures users can record their responsibilities immediately and in detail if needed. Alongside creation, the task editing and deletion feature is essential to give users flexibility to modify their plans as situations change.

Another important MVP feature is task categorization or prioritization. Users should be able to classify tasks into categories (e.g., work, personal, academic) or set their priority level (e.g., high, medium, low). This helps them organize their workload effectively and focus on the most important items first.

The mark as complete functionality is also vital, allowing users to track progress and gain motivation from completing tasks. Completed tasks can either remain visible for review or be archived for future reference.

Additionally, the MVP should include a basic reminder/notification system that alerts users of upcoming deadlines. This ensures timely completion of tasks and reduces the chances of missing important activities. Finally, a simple, intuitive interface must be provided to make the application easy to use for all user groups, from students to professionals.

By focusing on these core features task creation, editing, deletion, categorization, completion, reminders, and simplicity the MVP ensures that the To-Do List Application delivers immediate value, establishes a foundation for future improvements, and addresses the basic productivity needs of its users.

## **Wireframes (Conceptual Overview)**

Wireframes provide a visual blueprint of the application's interface and user flow. For the To-Do List Application, the following wireframes outline the core screens:

### **a) Home / Dashboard Screen**

- Displays all tasks in a list view.
- Options: Add Task, Edit Task, Delete Task, Mark as Complete.
- Filter or sort tasks by priority, due date, or category.

### **b) Add Task Screen**

- Input fields: Task Title, Description, Due Date, Priority (High/Medium/Low), Category.
- Buttons: Save and Cancel.

### **c) Task Detail Screen**

- Shows complete information about a selected task.
- Options: Edit, Delete, Mark as Complete.

#### d) Completed Tasks Screen

- List of all completed/archived tasks.
- Option to restore or permanently delete.

#### e) Settings / Profile Screen

- User preferences (theme, notification settings).
- Account management (login/logout if backend exists).

## API Endpoint List

If the application has a backend, it will expose RESTful APIs for communication. Below are the key endpoints:

### Authentication Endpoints (if login system is used)

- POST /api/auth/register → Register a new user.
- POST /api/auth/login → Authenticate user and return token.
- POST /api/auth/logout → Log out user and invalidate token.

### Task Management Endpoints

- GET /api/tasks → Fetch all tasks of the logged-in user.
- POST /api/tasks → Create a new task (title, description, due date, priority, category).
- GET /api/tasks/{id} → Get details of a specific task by ID.
- PUT /api/tasks/{id} → Update an existing task (edit title, description, priority, etc.).
- DELETE /api/tasks/{id} → Delete a specific task permanently.
- PATCH /api/tasks/{id}/complete → Mark a task as completed.

### Category/ Filter Endpoints

- GET /api/categories → Retrieve all categories (e.g., work, personal, study).
- POST /api/categories → Add a new category.

## Notification Endpoints

- POST /api/notifications → Create a reminder for a task.
- GET /api/notifications → Fetch all active reminders for the user.

## Acceptance Criteria

Acceptance criteria define the conditions that must be met for the To-Do List Application to be considered complete, functional, and ready for use. They provide measurable standards against which the application is evaluated, ensuring that it delivers the intended value to users and meets stakeholder expectations.

The first criterion is task management functionality. The application must allow users to create, edit, delete, and view tasks with essential details such as title, description, due date, and priority level. Tasks should be displayed clearly on the dashboard, and users must be able to organize or filter them by category or deadline.

Another important criterion is task completion tracking. Users must be able to mark tasks as completed, with completed tasks either archived or moved to a separate section for reference. This feature should function smoothly without data loss or errors.

The application must also meet reminder and notification requirements. Users should receive timely alerts for upcoming tasks or deadlines, ensuring they remain on track. Notifications must be reliable and customizable according to user preferences.

In terms of usability, the application must have a simple, intuitive interface that is easy for students, professionals, and general users to navigate. All features should work seamlessly across supported devices and browsers.

From a technical standpoint, the system must ensure data integrity and persistence. Task data should be stored securely and remain accessible even after application restarts. If authentication is implemented, user credentials must be protected through proper security measures.

Finally, the application should meet performance standards, including quick task loading, smooth transitions, and minimal downtime. When all these conditions are fulfilled, the To-Do List Application will be considered successful and acceptable for deployment.