Scope of Work: Smart Day Planner

1. Timetable Planning

Develop a user-friendly interface that allows users to easily input their tasks and generate a personalized daily schedule. This interface will support task prioritization and time allocation, ensuring a smooth and intuitive planning experience for the end-user.

2. Task Difficulty Highlighting

Implement a feature that automatically identifies tasks that may be particularly challenging for the user. These tasks will be visually marked or flagged, helping users prioritize and focus on the tasks that require more attention or effort.

3. Time Estimation Analysis

Create a time estimation analysis tool that reviews user-inputted tasks and identifies potential discrepancies in the allocated time. This feature will notify users if certain tasks are under- or over-estimated, allowing them to adjust their schedules for more realistic timelines.

4. Task Breakdown

Introduce an AI-driven task breakdown feature that assists users in decomposing complex tasks into smaller, manageable steps. This will help users organize their workload more effectively and ensure that all parts of a project are accounted for and planned in detail.

5. Schedule Generation

Develop an automated schedule generation system that produces a detailed, easy-to-follow plan based on the tasks entered by the user. The schedule will reflect task priorities, deadlines, and estimated times, providing a clear roadmap for daily productivity.

6. Dynamic Timetable Adjustment

Integrate real-time adaptability into the timetable. The system will automatically adjust the user's schedule when delays or early completions occur, ensuring that the timetable remains accurate and up-to-date without requiring manual intervention.

Functional Requirements for Smart Day Planner

1. User-Friendly Timetable Creation

- **FR 1.1:** The system shall provide an intuitive interface for users to input their tasks, deadlines, and priorities.

- **FR 1.2:** The system shall allow users to specify task durations and time blocks for each task.

- **FR 1.3:** The system shall offer easy navigation for users to modify, delete, or reschedule tasks.

2. Task Evaluation with AI (Gemini)

- **FR 2.1:** The system shall automatically evaluate each task for complexity and difficulty using AI (Gemini).

- **FR 2.2:** The system shall highlight difficult or complex tasks based on the AI's evaluation.

- **FR 2.3:** The system shall provide information on why a task has been marked as difficult (e.g., task length, dependencies).

3. Task Breakdown

- **FR 3.1:** The system shall allow users to click on highlighted complex tasks to trigger the task breakdown feature.

- **FR 3.2:** The system shall suggest breaking complex tasks into smaller, manageable subtasks.

- **FR 3.3:** Users shall have the option to accept, modify, or manually break down tasks into subtasks.

4. Optimized Scheduling

- **FR 4.1:** The system shall allow users to request an AI-generated (Gemini) optimized timetable based on their inputted tasks.

- **FR 4.2:** The system shall provide users with a default optimized schedule that takes into account task prioritization, difficulty, and time constraints.

- **FR 4.3:** The system shall allow users to rearrange tasks manually and create a custom timetable if desired.

- **FR 4.4:** Users shall be able to override or adjust the AI-generated timetable as per their preferences.

5. Time Management Alerts

- **FR 5.1:** The system shall analyze task durations and highlight tasks where time allocation is insufficient or excessive.

- **FR 5.2:** The system shall provide AI-based suggestions for adjusting the time allocated to tasks based on their complexity and estimated effort.

- **FR 5.3:** The system shall notify users of potential time conflicts or misallocations in their schedule.

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6. Completion Comparison

- **FR 6.1:** The system shall track and compare the expected completion time versus the actual time taken for each task.

- **FR 6.2:** The system shall generate reports summarizing discrepancies between expected and actual task completion times.

- **FR 6.3:** Based on completion comparison, the system shall automatically adjust future timetables, with the user's approval, to account for actual performance.

- **FR 6.4:** The system shall notify users of significant discrepancies between planned and actual performance and provide recommendations for improvement.