TaskMate

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Topic Introduction

TaskMate is a lightweight project management application built for programmers to organize tasks efficiently using a Kanban-style board system. It focuses on visualizing workflow stages — "To-Do", "In-Progress", and "Done" — while integrating a built-in time tracking feature that records how long each task takes to complete. TaskMate is useful for monitoring productivity, managing priorities, and maintaining time awareness during daily development activities.

Use-Cases

- Load and save board and task data from a local JSON file or database.

- Add, edit, move, and delete task cards across phases.

- Start, pause, and stop an individual task timer.

- Generate daily/weekly time summary reports.

- Search or filter tasks by priority, tag, or assigned user.

- Sync project progresses through a REST API or local network backup.

Data Model Structure

- **Task:**

  - `String id` — unique task ID

  - `String title` — task name

  - `String description` — task details

  - `String status` — stage (To-Do / In-Progress / Done)

  - `String priority` — low, medium, or high

  - `float timeSpent` — total hours logged

  - `String startTime` — time recording began

  - `String endTime` — time recording stopped

  - `List<String> tags` — optional categories

  - `String assignedTo` — team member (optional)

User Story

When Bhavik opens TaskMate, the saved Kanban board data loads automatically. He checks the "To-Do" column and drags the "Implement login system" task to "In-Progress", starting a timer to track time worked. Once complete, he moves the task to "Done", pausing the timer and logging total time spent. Then he creates a new "Fix dashboard alignment" task, assigns a high priority, and schedules it for tomorrow. Before exiting, TaskMate generates a summary report displaying hours worked across tasks for the day and saves it automatically.