StudyPal AI

Team: HTTP 418 TEAPOT

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Problem Statement & Motivation

University students frequently face challenges in managing study workloads, balancing multiple deadlines, and maintaining long-term motivation. Existing productivity tools are often too generic and fail to adapt to individual learning patterns. **StudyPal AI** is a database-backed web application designed to intelligently organize study tasks, generate adaptive study schedules, and visualize progress through data analytics. The goal is to enhance learning efficiency and self-discipline through a personalized, user-friendly interface.

User Problems

- Lack of clear structure when organizing multiple courses and assignments.
- Limited guidance on which tasks should be prioritized.
- Absence of visual feedback to track learning progress.
- Low engagement and motivation when studying independently.

Basic Interactions

- Secure user authentication and personalized dashboards.
- Create, edit, and track study tasks with deadlines and priorities.
- AI-generated study plans using a free LLM API (Gemini 1.5 Flash or DeepInfra).
- Visual progress reports with charts and weekly performance summaries.

Similar Applications

Notion, **Todoist**, and **Google Calendar** provide task and schedule management features but lack personalized study recommendations, data-driven feedback, and motivational design tailored to students.

How StudyPal AI Differs

- Integrates AI-based learning plan generation customized to user performance and schedule.
- Combines analytics and gamification to maintain motivation.
- Emphasizes clean, responsive, and accessibility-focused UI/UX design.