Hackathon Project Phases Template

Project Title:

AI STUDY PLANNER

Team Name:

Ai Study planner

Team Members

- P Nagarjuna
- C Rakesh Goud
- V RaviVarma

Phase-1: Brainstorming & Ideation

Objective:

- To Identify the problem statement.
- To define the purpose and impact of the project.

Key Points:

1. **Problem Statement:** Students struggle to manage study schedules and maintain focus, often leading to inefficiency.

2. **Proposed Solution:**

An AI-powered web app that helps users create, manage, and track study tasks with smart suggestions and a built-in timer for focused sessions.

3. **Target Users:**
   Students and professionals preparing for exams.

4. **Expected Outcome:**
   Improved time management, increased productivity, and a structured approach to achieving learning goals.

Phase-2: Requirement Analysis

Objective:

- Define technical and functional requirements.

Key Points:

1. **Technical Requirements:**
   - HTML, CSS, JavaScript for front-end development.
   - LocalStorage for data persistence.
   - No external frameworks or APIs required

2. **Functional Requirements:**
   - Add, remove, and prioritize study tasks.
   - Generate AI-based study suggestions.
   - Create a study plan from a learning goal.
   - Timer for study sessions with pause/resume functionality.
   - Session summary with completed tasks.

   Constraints & Challenges:
   - Limited time to implement advanced AI (using predefined suggestion templates instead).
   - Browser compatibility for LocalStorage and timer accuracy.

Phase-3: Project Design

Objective:

- Create the architecture and user flow.

Key Points:

1. **System Architecture Diagram:**

- Simple client-side app:

  HTML Structure → Static layout (dashboard, session, modal).
  CSS → Styling and responsiveness.
  JavaScript → Logic for task management, timer, and suggestions.
  LocalStorage → Persistent task storage.

2. **User Flow:**
   - User lands on dashboard → Adds tasks or enters a goal → Generates plan → Starts session → Tracks progress with timer → Reviews summary.
3. **UI/UX Considerations:**
   - Clean, minimalistic design with a gradient header.
   - Responsive grid layout for desktop and mobile.
   - Color-coded priorities (red for high, orange for medium, green for low.

Phase-4: Project Planning (Agile Methodologies)

Objective:

- Break down the tasks using Agile methodologies.

Key Points:

1. **Sprint Planning:**
    - Sprint 1 (2 hours): Build HTML structure and basic CSS.
    - Sprint 2 (3 hours): Implement task management and LocalStorage.
    - Sprint 3 (2 hours): Add AI suggestions and study session timer.
    - Sprint 4 (1 hour): Finalize UI and test functionality.
2. **Task Allocation:**
    - Nagarjuna: HTML structure and CSS styling.
    - Rakesh Goud: Task management logic (add/remove tasks, LocalStorage).
    - Ravi Varma: AI suggestion generation and study plan functionality.
    - (Ravi,Nagarjuna,Rakesh): Timer implementation and session summary.
3. **Timeline & Milestones:**
    - Hour 1-2: Basic UI completed.
    - Hour 3-5: Core functionality (tasks, suggestions) done.
    - Hour 6-7: Timer and polish UI.
    - Hour 8: Testing and fixes.

Phase-5: Project Development

Objective:

- Code the project and integrate components.

Key Points:

1. **Technology Stack Used:**
    - HTML5, CSS3, vanilla JavaScript.
    - LocalStorage for saving tasks.
2. **Development Process:**
    - Created static HTML structure with dashboard, session,

and modal sections.
- Styled with CSS using grid layout and priority-based colors.
- Implemented JavaScript for task CRUD operations, timer logic, and suggestion generation.
- Integrated LocalStorage for persistence across refreshes.

3. **Challenges & Fixes:**
    - **Challenge:** Timer accuracy during pauses.
    - **Fix:** Adjusted start time after pauses using pause duration.

Phase-6: Functional & Performance Testing

Objective:

- Ensure the project works as expected.

Key Points:

1. **Test Cases Executed:**
    - Adding/removing tasks updates the list and LocalStorage.
    - Generating a plan from a goal populates relevant tasks.
    - Timer counts down accurately and pauses/resumes correctly.
    - Suggestions appear based on tasks and goals.
    - Session summary displays completed tasks correctly.
2. **Bug Fixes & Improvements:**
    - Fixed timer reset issue after completing a task by resetting startTime.
    - Improved suggestion variety by ensuring random selection from templates.
    - Adjusted CSS for mobile responsiveness (input fields stacking).
3. **Final Validation:**

- Meets requirements: task management, AI suggestions, and session tracking functional as planned.

4. **Deployment (if applicable):**
    - Hosted on GitHub Pages with a live demo link: [https://github.com/goudr554/studyplanner].

Final Submission

1. **Project Report Based on the templates**
2. **Demo Video (3-5 Minutes)**
3. **GitHub/Code Repository Link**
4. **Presentation**