COMP 693: INDUSTRY PROJECT PROPOSAL

AI-Generated Guided Meditation Web App

Independent Project

Submitted by

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1. Background

Overview

The mindfulness and meditation industry is experiencing significant growth, with apps like The Mindfulness app, Calm, and Headspace leading the market. These applications provide guided meditations to help users manage stress, improve sleep, and enhance overall well-being. This project aims to develop a minimalist web application that generates unique, AI-driven guided meditation content based on user-selected categories, ensuring a clean and intuitive user experience.

Problem

Users often seek fresh and personalized content to keep their meditation practice engaging and effective (Wasil et al., 2022). Existing applications may have a limited library of guided meditations, leading to repetitive experiences. There is a need for a solution that generates new, unique content on demand, tailored to the user's needs and preferences, while maintaining a minimalistic and user-friendly interface.

Project Team

n/a

2. Goal and requirements

Primary Goal

Develop a minimalist web application that generates AI-driven guided meditation content based on user input, offering the best user experience with a clean, intuitive interface.

Sub-goals

- Develop AI models to generate meditation content (text, audio, and visuals).
- Create a minimalist, user-friendly interface for selecting meditation categories and accessing content.
- Implement usage reporting and gamification features.

Metrics of Success:

• User adoption rates

• User feedback and satisfaction

• Frequency and duration of meditation sessions

• Revenue from subscription payments

3. Method

3.1 Overview

The project will adopt an agile project management approach, utilizing iterative sprints to deliver incremental improvements. The development will leverage AI models for content generation, Flask for the backend, and HTML/CSS/JavaScript for the frontend. Usage reporting will be implemented to track user engagement.

3.2 Design

The application architecture will include:

- Frontend: HTML/CSS/JavaScript for the user interface.
- Backend: Python & Flask to handle user data, authentication, and interaction with AI models.
- AI Integration: Models for generating meditation scripts, converting text to speech, and generating visuals.
- Usage Reporting: Tracking user engagement and providing reports.
- Gamification: Adding features like progress tracking, achievements, and streaks to increase user engagement.

3.3 New and Advanced Skills to be Gained

- Advanced Python programming and Flask development
- AI model integration for text, audio, and visual content generation
- Frontend development with Typescript/React
- Project management and agile methodologies

3.3 Risks and Challenges

- **Technical Challenges:** Integrating multiple AI models and ensuring they work seamlessly.
- **User Engagement:** Ensuring the generated content is engaging and valuable to users.
- **Data Privacy:** Securing user data and complying with privacy regulations.
- **Payment Integration:** Implementing and securing payment processing.

3.4 Implementation

- Setup development environment and repository.
- Develop core features: user authentication, payment processing, AI integration.
- Create the frontend interface for user interaction.
- Implement usage reporting and gamification features.
- Conduct testing and gather user feedback.
- Finalize adjustments and perform extensive validation.

4. Results and Outcomes

4.1 Evidence of Deliverables

- Functional application demo
- User feedback reports
- Documentation of code and features

4.2 Testing/validation

- Utilize both unit and integration testing.
- Gather user feedback for validation and iterate based on insights.

5. Milestone

Milestone	Deadline
Complete project setup	August 4, 2024
Implement core features	October 1, 2024
Initial testing and feedback	October 15, 2024
Final adjustments and testing	October 29, 2024

6. Schedule of Activities – Timeline for completion

Adjusted Project Schedule Gantt Chart
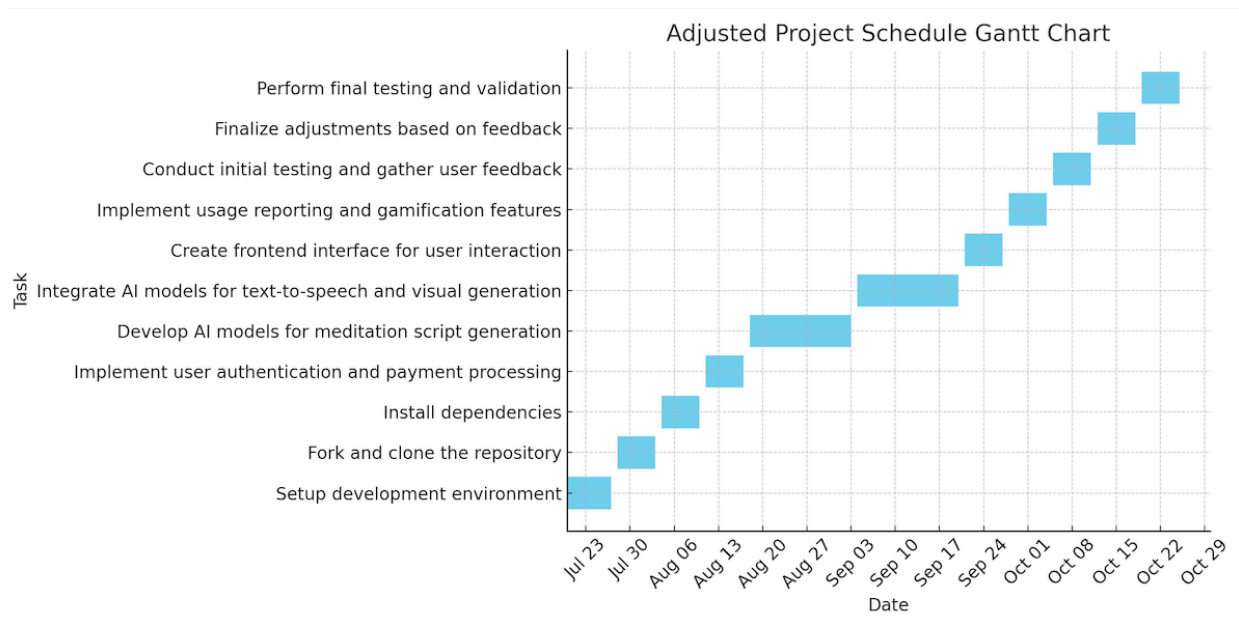
7. References

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