Hackathon Project Phases Template

Project Title:

Trans Lingua : AI-Powered Multi-Language Translator

Team Name:

CODE CLAN

Team Members:

- Abhinaya
- Sathvika
- Greeshma
- Sai Sanjana
- Hemika

Phase-1: Brainstorming & Ideation

Objective:

Develop an AI-powered language translator expert tool using chatgpt to help users to translate the words into their desired language

Key Points:

1. **Problem Statements:**
   In an increasingly globalized world, effective communication across languages remains a major challenge. Traditional translation tools often struggle with contextual accuracy, cultural nuances, and domain-specific terminology. Many existing solutions provide word-for-word translations without capturing the true intent or tone of the conversation.

2. **Proposed Solution:**

   The proposed system is an AI-powered multilingual translator that leverages ChatGPT and natural language processing (NLP) to provide accurate, context-aware translations. Unlike traditional translation tools, this system ensures semantic accuracy, cultural relevance, and real-time adaptability for various use cases such as business communication, education, tourism, and content localization.

3. **Target Users:**

   a. **General users and Travelers**
   b. **Business and corporate**
   c. **Education and academia**

4. **Expected Outcome:**

   a. A highly accurate, context-aware, and real time Ai powered language translator for seamless multilingual communication

Phase-2: Requirement Analysis

Objective:

Define the technical and functional requirements for the AutoSage App.

Key Points:

1. **Technical Requirements:**

   a. Programming Language: **java script ,html ,CSS**
   b. Backend: **java script**
   c. Frontend: **Html,css**
   d. Database: **Not required initially (API-based queries)**

2. **Functional Requirements:**

   a. Multi language support
   b. Text to Text translation
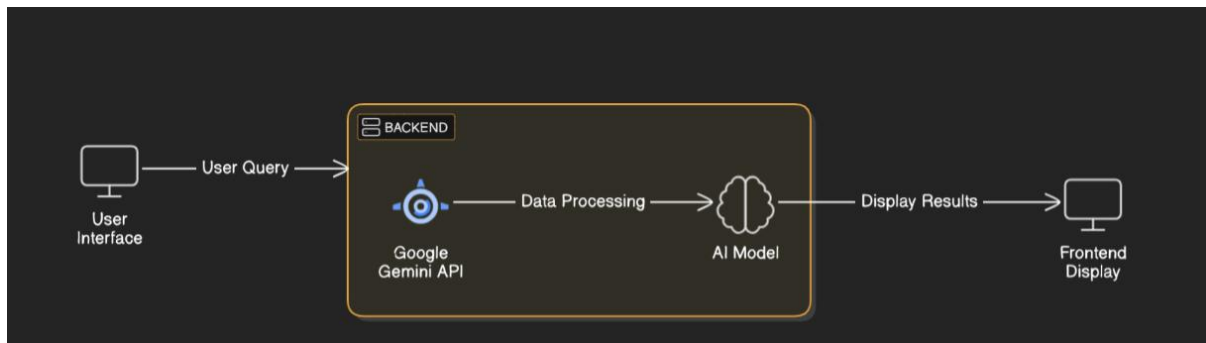
      c.   Real time translation

3. **Constraints & Challenges:**

      a.   Offline functionality
      b.   No text to speech translation

Phase-3: Project Design

Objective:

Develop the architecture and user flow of the application.

Key Points:

1. **System Architecture:**

      a.   User interface (UI)layer
      b.   Query is processed using chatgpt, API
      c.   AI model fetches and processes the data.

2. **User Flow:**

      a.   Step 1: User enters a desired language
      b.   Step 2: The backend **calls the chatgpt ai** and translate the data
      c.   Step 3: The app processes the data and **displays results** in an easy-to-read format.

3. **UI/UX Considerations:**

      a.   **Minimalist, user-friendly interface** for seamless navigation.

b. **Filters** for regional languages
c. **Light** mode for better user experience

Phase-4: Project Planning (Agile Methodologies)

Objective:

Break down development tasks for efficient completion.

Sprint	Task	Priority	Duration	Deadline	Assigned To	Dependencies	Expected Outcome
Sprint 1	Environment Setup & API Integration	◉ High	6 hours (Day 1)	End of Day 1	Sanjana & abhinaya	chatgpt, java script	Chatgpt connection established & working
Sprint 1	Frontend UI Development	◎ Medium	2 hours (Day 1)	End of Day 1	Sathvika	Chatgpt response format finalized	Basic UI with input fields
Sprint 2	Text Search & Comparison	◉ High	3 hours (Day 2)	Mid-Day 2	Greeshma	Chatgpt response, UI elements ready	Search functionality with filters
Sprint 2	Error Handling & Debugging	◉ High	1.5 hours (Day 2)	Mid-Day 2	Sathvika & Sanjana	Chatgpt ,UI inputs	Improved chatgpt code stability
Sprint 3	Testing & UI Enhancements	◎ Medium	1.5 hours (Day 2)	Mid-Day 2	Hemika	Chatgpt response, UI layout completed	Responsive UI, better user experience
Sprint 3	Final Presentation & Deployment	◎ Low	1 hour (Day 2)	End of Day 2	Entire Team	Working prototype	Demo-ready project

Sprint Planning with Priorities

Sprint 1 – Setup & Integration (Day 1)

(◉ **High Priority**) Set up the **environment** & install dependencies.
(◉ **High Priority**) Integrate **ChatGPT**
(◎ **Medium Priority**) Build a **basic UI with input fields**.

Sprint 2 – Core Features & Debugging (Day 2)

(⬤ **High Priority**) Implement **search & comparison functionalities**.
(⬤ **High Priority**) Debug code issues & handle **errors in queries**.

Sprint 3 – Testing, Enhancements & Submission (Day 2)

(◕ **Medium Priority**) Test code responses, refine UI, & fix UI bugs.
(◕ **Low Priority**) Final **demo preparation & deployment**.

Phase-5: Project Development

Objective:

Implement core features of the AutoSage App.

Key Points:

1. **Technology Stack Used:**

    a. **Frontend:** HTML,CSS
    b. **Backend:** JAVA SCRIPT
    c. **Programming Language:** JAVASCRIPT, CSS,HTML
2. **Development Process:**

    a. Gathered the information from chatgpt
    b. Develop **translation code and text to text translation**
    c. Optimize **search queries for performance and relevance**
3. **Challenges & Fixes:**

    a. **Challenge:** Delayed code response times.
        Fix: Implement **caching** to store frequently queried results.

Phase-6: Functional & Performance Testing

Objective:

Ensure that the AutoSage App works as expected.

Test Case ID	Category	Test Scenario	Expected Outcome	Status	Tester
TC-001	Functional Testing	Query" choose the language to be displayed "	Options of the .language to be displayed	☑ Passed	Sathvika
TC-002	Functional Testing	Query "translated language to be displayed "	List of languages to be translated will be displayed	☑ Passed	Greeshma
TC-003	Performance Testing	chatGPt response time under 2s	chatGPT should return results quickly.	⚠ Needs Optimization	Sanjana
TC-004	Bug Fixes & Improvements	Fixed incorrect ChatGPT responses.	Data accuracy should be improved.	☑ Fixed	Hemika
TC-005	Final Validation	Ensure UI is responsive across devices.	UI should work on mobile & desktop.	☑ Passed	Abhinaya
TC-006	Deployment Testing	Host the app using ChatGPT Sharing	App should be accessible online.	🚀 Deployed	DevOps

Final Submission

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