

Milestones List:

Milestone 1: Project Initiation and Planning

- Deliverable 1: Project charter and scope document.
- Deliverable 2: Detailed project plan, including timelines, resources, and budget estimates.

Explanation: This initial phase involves defining the project's scope, objectives, and resources required. The project charter and plan serve as guiding documents for the entire development process.

Milestone 2: Research and Requirement Gathering

- Deliverable 3: User personas and use cases.
- Deliverable 4: Comprehensive list of functional and non-functional requirements.

Explanation: Understanding user needs and expectations is crucial. User personas and use cases help in shaping the voice assistant's features and capabilities. The requirements document outlines what the system must achieve.

Milestone 3: Technology Stack Selection

- Deliverable 5: Selection of the underlying technology stack, including programming languages, frameworks, and tools.

Explanation: Choosing the right technology stack is vital for building a robust and scalable voice assistant. This milestone ensures that the development team has the necessary tools and platforms in place.

Milestone 4: Natural Language Processing (NLP) Integration

- Deliverable 6: Integration of NLP libraries and frameworks.

Explanation: NLP is the core technology enabling chatGPT capabilities. This milestone focuses on integrating NLP components to understand and generate human-like text responses.

Milestone 5: Voice Recognition and Synthesis

- Deliverable 7: Implementation of voice recognition and synthesis capabilities.

Explanation: To mimic Siri-like functionality, the voice assistant needs to recognize and generate voice responses. This milestone ensures the system can understand and produce speech.

Milestone 6: ChatGPT Integration

- Deliverable 8: Successful integration of the chatGPT model.

Explanation: This milestone is the heart of the project, as it involves integrating the chatGPT model, fine-tuning it for conversational use, and ensuring it generates meaningful and context-aware responses.

Milestone 7: User Interface Design

- Deliverable 9: User-friendly voice assistant interface.

Explanation: Designing an intuitive user interface is essential for a positive user experience. This milestone focuses on creating an interface that users can interact with seamlessly.

Milestone 8: Testing and Quality Assurance

- Deliverable 10: Test plan and test cases.
- Deliverable 11: Bug-free and stable voice assistant.

Explanation: Rigorous testing is crucial to identify and fix any issues. This milestone ensures that the voice assistant operates smoothly and reliably.

Milestone 9: User Acceptance Testing (UAT)

- Deliverable 12: UAT plan and results.

Explanation: UAT involves real users testing the assistant to ensure it meets their needs and expectations. The results help in making final adjustments and improvements.

Milestone 10: Deployment and Launch

- Deliverable 13: Deployed voice assistant.

Explanation: This is the culmination of the development process, where the voice assistant is deployed for public use.

| Timeline | | | |
|----------|---|------------|-----------------|
| No | Milestones and Tasks | Start Date | Completion Date |
| 1 | Project Initiation and Planning | 10/09/2023 | 10/16/2023 |
| 2 | Research and Requirement Gathering | 10/17/2023 | 11/01/2023 |
| 3 | Technology Stack Selection - Specify what accessibilities will be needed from the user to ensure that the program runs smoothly | 11/02/2023 | 11/09/2023 |
| 4 | Natural Language Processing (NLP) Integration - Investigate which API will be used for Text-To-Speech | 11/10/2023 | 11/19/2023 |
| 5 | Voice Recognition and Synthesis - Research which API will be needed for Speech-To-Text | 11/20/2023 | 11/29/2023 |
| 6 | ChatGPT Integration - Look into how to use ChatGPT API to handle any queries from the user | 11/30/2023 | 12/08/2023 |
| 7 | User Interface Design - Brainstorm and design the layout/User Interface of the application - Build application prototype | 12/09/2023 | 12/23/2023 |
| 8 | Testing and Quality Assurance - Build the actual Voice Assistant with all of the mentioned functionalities - Test run app to look out for any potential bugs/issues | 12/24/2023 | 12/31/2023 |
| 9 | User Acceptance Testing (UAT) - Verify that the program meets all requirements | 01/01/2024 | 01/08/2024 |
| 10 | Deployment and Launch - Upload the application so that other people can access and download | 01/09/2024 | 01/15/2024 |

| Effort Matrix | | | |
|----------------|--|-----------|----------|
| No | Task | Trien Dau | Haru Chu |
| 1 | Brainstorm and design the layout/User Interface of the application | 5 | |
| 2 | Build application prototype | 10 | |
| 3 | Specify what accessibilities will be needed from the user to ensure that the program runs smoothly | 5 | |
| 4 | Research which API will be needed for Speech-To-Text | | 6 |
| 5 | Investigate which API will be used for Text-To-Speech | | 6 |
| 6 | Look into how to use ChatGPT API to handle any queries from the user | | 6 |
| 7 | Build the actual Voice Assistant with all of the mentioned functionalities | | 10 |
| 8 | Verify that the program meets all requirements | 5 | |
| 9 | Test run app to look out for any potential bugs/issues | 5 | |
| 10 | Upload the application so that other people can access and download | | 2 |
| Total (Hours): | | 30 | 30 |