|  |  |
| --- | --- |
|  | **AI Advancements** |

Medivox Prototype Development

|  |  |
| --- | --- |
| **PROJECT TITLE** | Medivox Prototype Development |
| **COMPANY NAME** | Supanova Health |
| **CLIENT** | Not specified |
| **PROJECT MANAGER** | Samuel Cunningham |
| **AUTHOR** | Sean Oldenburger |
| **START DATE** | Not specified |
| **END DATE** | Not specified |
| **PROJECT DESCRIPTION** | Development of a basic prototype for Medivox, an AI speech-to-speech translation agent for healthcare. |

Client Approval and Sign-Off

Name:  
Date:  
Signature:

Contractor Approval and Sign-Off

Name:  
Date:  
Signature:

Contents

Change Logs  
1.0 Scope  
2.0 Contract Structure  
3.0 Key Deliverables  
4.0 Plan  
5.0 Assumptions  
6.0 Timeline  
7.0 Budget  
8.0 Delivery Team  
9.0 Past Projects

Change Logs

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision** | **Change Description** | **Approval Date** | **Author** |
| 1.0 | Initial Draft |  | AI Agent |
|  |  |  |  |

1.0 Scope

This project is focused on the development of a basic prototype for Medivox, an AI speech-to-speech translation agent designed specifically for healthcare settings. The prototype will utilize a combination of speech recognition and machine translation technologies, integrating commercial AI solutions to facilitate reliable communication between healthcare providers and patients. The initial focus will be on translating between English and Mandarin, as well as English and Italian, ensuring that the system can effectively manage medical language and context. The project will also incorporate a template-based translation approach to enhance the accuracy and speed of translations.  
  
AI Advancement's role in the project involves the integration of advanced AI models, such as OpenAI's Realtime API for translation functionalities and Google Healthcare Translation API for back translation. The development will leverage these AI capabilities to create a seamless user experience, allowing for real-time speech translation while maintaining the quality and safety required in healthcare communication. The project aims to establish a scalable architecture that can be expanded in the future, utilizing generative AI to further enhance the system's capabilities.

2.0 Contract Structure

Not specified

3.0 Key Deliverables

* Basic prototype of Medivox showcasing speech-to-speech interface and one-directional translation engine.

4.0 Plan

Phase 1: Requirements Gathering  
- Collaborate with Supanova Health to finalize the requirements for the Medivox prototype.  
- Review the provided documentation to ensure all functional and non-functional requirements are understood.  
- Identify any additional needs or clarifications from the client.  
  
Phase 2: Frontend Development  
- Develop a web-based user interface using React.js for the Medivox application.  
- Implement session login functionality to allow users to join a session using a code.  
- Create a language selection feature for users to choose their preferred language at the start of the session.  
- Design and integrate a button-activated turn system for users to indicate when they are speaking.  
  
Phase 3: Backend Development  
- Set up a Python backend to manage the speech-to-speech translation pipeline.  
- Integrate the LiveKit speech-to-speech agent with OpenAI Realtime API for translation functionalities.  
- Develop the basic one-directional translation engine focusing on English to Mandarin and English to Italian.  
- Implement a basic translation quality checker to identify the type of translation being used.  
  
Phase 4: Testing and Quality Assurance  
- Conduct testing of the prototype to ensure all functionalities work as intended.  
- Collaborate with Supanova Health to gather feedback and make necessary adjustments.  
- Validate the translation quality and user experience through user testing sessions.

5.0 Assumptions

* Supanova Health will provide necessary access to their web domain for hosting the application.
* The client will supply any required API keys for the OpenAI and Google Healthcare Translation APIs.
* Project stakeholders from Supanova Health will be available for scheduled meetings to provide feedback and clarifications.
* Supanova Health will assist in the testing phase by providing access to potential users for user testing sessions.
* The client will provide pre-translated templates for the system to enhance translation accuracy.

6.0 Timeline

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Description** | **Estimated Time (Days)** |
| 1 | Requirements Gathering | 3 |
| 2 | Frontend Development | 5 |
| 3 | Backend Development | 5 |
| 4 | Testing and Quality Assurance | 3 |

Total Duration: 16

7.0 Budget

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Time (Days)** | **Day Rate** | **Cost ($)** |
| Developer Effort | 16 | 1600 | 25600 |
|  |  | Total Cost | 25600 |
|  |  | + 10% GST | 28160.0 |

8.0 Delivery Team

|  |  |
| --- | --- |
|  | Sam is an experienced AI Engineer and the Director of AI Advancements. He has led numerous AI projects including chatbots, document processing systems, and automated reporting tools. Sam specializes in large language models and conversational AI. |

Samuel Cunningham

|  |  |
| --- | --- |
|  | Sean is an AI Engineer with expertise in machine learning and data science. He has developed multiple AI solutions including ECG analysis systems and automated document generation tools. |

Sean Oldenburger

9.0 Past Projects

No similar past projects were identified for the current requirements.