1. **User Stories**
   1. **Epic 1: Speech Recognition Engine**
      1. **User Story 1: Accurate Transcription for Users**

* **Title:** As a user, I want the application to accurately transcribe my spoken words into text so that I can easily convert my speech into written form.
* **Description:** The application should leverage advanced speech recognition algorithms to ensure high accuracy in transcription.
* **Acceptance Criteria:**
  + High transcription accuracy (above 95% for clear speech).
  + Ability to handle different accents and speech patterns.
  + Display transcribed text clearly and accurately.
* **Priority:** High
  + 1. **User Story 2: Reliable Speech Recognition Integration for Developers**
* **Title:** As a developer, I want to integrate a reliable speech recognition engine to ensure high transcription accuracy.
* **Description:** Developers need to select and integrate a robust speech recognition API (like Google Speech-to-Text) to achieve reliable transcription.
* **Acceptance Criteria:**
  + Integration of a proven speech recognition engine.
  + The engine supports various languages and dialects.
  + The engine provides high accuracy and performance.
* **Priority:** High
  1. **Epic 2: Real-time Transcription**
     1. **User Story 3: Real-time Transcription for Users**
* **Title:** As a user, I want to see the text transcription updating in real-time as I speak so that I can immediately review and edit the transcribed text if needed.
* **Description:** The application should transcribe speech in real-time, displaying the text as the user speaks.
* **Acceptance Criteria:**
  + Real-time transcription with minimal delay.
  + Text updates dynamically as speech is recognized.
  + Users can edit the text during or after transcription.
* **Priority:** High
  + 1. **User Story 4: Real-time Transcription Implementation for Developers**
* **Title:** As a developer, I want to implement a real-time transcription feature for a seamless user experience.
* **Description:** Developers should ensure that the application processes and displays transcriptions in real-time.
* **Acceptance Criteria:**
  + Implementation of real-time data processing.
  + Efficient handling of data streams.
  + User interface updates without lag.
* **Priority:** High
  1. **Epic 3: Multi-language Support**
     1. **User Story 5: Multi-language Transcription for Users**
* **Title:** As a user, I want to transcribe speech in different languages into text so that I can work with a variety of languages using the application.
* **Description:** The application should support multiple languages for transcription, allowing users to select their preferred language.
* **Acceptance Criteria:**
  + Language selection option in the UI.
  + Accurate transcription for selected languages.
  + Support for major languages and dialects.
* **Priority:** Medium
  + 1. **User Story 6: Multi-language Support for Developers**
* **Title:** As a developer, I want to add support for multiple languages in the speech recognition engine.
* **Description:** Developers should integrate language packs or APIs that support multi-language transcription.
* **Acceptance Criteria:**
  + Integration of language support libraries.
  + Accurate language detection and transcription.
  + Easy addition of new languages as needed.
* **Priority:** Medium
  1. **Epic 4: Customization Options**
     1. **User Story 7: Customizable Language Models for Users**
* **Title:** As a user, I want to choose the language model that best suits the spoken language so that I can improve the accuracy of the transcription.
* **Description:** Users should be able to select or customize language models to optimize transcription accuracy for their specific needs.
* **Acceptance Criteria:**
  + Language model selection interface.
  + Improved accuracy with selected models.
  + Option to revert to default settings.
* **Priority:** Medium
  + 1. **User Story 8: Customization Settings for Developers**
* **Title:** As a developer, I want to implement customizable settings for transcription.
* **Description:** Developers should provide options for users to customize settings such as language models, punctuation, and formatting.
* **Acceptance Criteria:**
  + Implementation of customizable settings in the UI.
  + Changes in settings reflected in transcriptions.
  + User-friendly interface for setting adjustments.
* **Priority:** Medium
  1. **Epic 5: Accessibility Features**
     1. **User Story 9: Audio Feedback for Accessibility Users**
* **Title:** As a user with visual impairments, I want the application to provide audio feedback to assist me in using the transcription feature so that I can use the application effectively.
* **Description:** The application should include audio feedback options to guide visually impaired users.
* **Acceptance Criteria:**
  + Audio feedback for all major actions (e.g., start/stop recording, transcription complete).
  + Clear and understandable audio prompts.
  + Customizable audio feedback settings.
* **Priority:** Medium
  + 1. **User Story 10: Text Highlighting for Better Accessibility**
* **Title:** As a developer, I want to implement text highlighting for better accessibility.
* **Description:** Developers should ensure that transcribed text is highlighted to aid users with visual impairments or dyslexia.
* **Acceptance Criteria:**
  + Implementation of text highlighting features.
  + Customizable highlight colours and styles.
  + Clear distinction between spoken words and transcribed text.
* **Priority:** Medium
  1. **Epic 6: Secure Data Handling**
     1. **User Story 11: Secure Transcribed Data for Users**
* **Title:** As a user, I want my transcribed text data to be securely handled and protected so that my data remains private and secure.
* **Description:** The application should ensure the secure storage and transmission of transcribed data to protect user privacy.
* **Acceptance Criteria:**
  + Data encryption during storage and transmission.
  + Compliance with data protection regulations (e.g., GDPR).
  + User authentication for accessing transcribed data.
* **Priority:** High
  + 1. **User Story 12: Secure Data Handling Implementation for Developers**
* **Title:** As a developer, I want to implement data encryption and compliance measures for secure data handling.
* **Description:** Developers should integrate encryption and security protocols to safeguard user data.
* **Acceptance Criteria:**
  + Implementation of encryption algorithms.
  + Secure handling of data throughout the application.
  + Regular security audits and updates.
* **Priority:** High
  1. **Epic 7: Integration with Other Applications**
     1. **User Story 13: Integration with Note-taking Applications for Users**
* **Title:** As a user, I want to integrate the transcription feature with my note-taking application for easy documentation so that I can seamlessly incorporate transcribed text into my notes.
* **Description:** The application should offer integration options with popular note-taking apps to enhance user productivity.
* **Acceptance Criteria:**
  + Easy export of transcriptions to note-taking apps (e.g., Evernote, OneNote).
  + Seamless integration through APIs.
  + User-friendly interface for integration setup.
* **Priority:** Medium
  + 1. **User Story 14: API Integration for Developers**
* **Title:** As a developer, I want to provide APIs for seamless integration with third-party applications.
* **Description:** Developers should create and document APIs to allow other applications to integrate with the transcription service.
* **Acceptance Criteria:**
  + Well-documented and easy-to-use APIs.
  + Secure and efficient data transfer.
  + Support for major third-party applications.
* **Priority:** Medium
  1. **Epic 8: Performance Optimization**
     1. **User Story 15: Fast and Responsive Transcription for Users**
* **Title:** As a user, I want the transcription process to be fast and responsive so that I can transcribe speech quickly and efficiently.
* **Description:** The application should be optimized for performance to ensure quick and responsive transcription.
* **Acceptance Criteria:**
  + Minimal lag in transcription updates.
  + Efficient processing of audio data.
  + Smooth user experience without delays.
* **Priority:** High
  + 1. **User Story 16: Performance Optimization for Developers**
* **Title:** As a developer, I want to optimize the application for improved performance.
* **Description:** Developers should focus on optimizing the code and infrastructure to enhance application performance.
* **Acceptance Criteria:**
  + Implementation of performance optimization techniques.
  + Regular performance testing and monitoring.
  + Quick response times for user actions.
* **Priority:** High
  1. **Epic 9: Continuous Improvement**
     1. **User Story 17: User Feedback for Transcription Accuracy**
* **Title:** As a user, I want to provide feedback on the transcription accuracy to help improve the service so that the application can continuously improve its transcription capabilities.
* **Description:** Users should be able to provide feedback on transcription accuracy to help improve the application.
* **Acceptance Criteria:**
  + Feedback mechanism integrated into the application.
  + User feedback is collected and analysed.
  + Continuous improvement based on feedback.
* **Priority:** Medium
  + 1. **User Story 18: Automated Feedback Collection and Model Retraining for Developers**
* **Title:** As a developer, I want to implement automated feedback collection and model retraining.
* **Description:** Developers should create systems to automatically collect user feedback and use it to retrain the speech recognition models.
* **Acceptance Criteria:**
  + Automated feedback collection system.
  + Regular retraining of models based on feedback.
  + Improved transcription accuracy over time.
* **Priority:** Medium
  1. **Epic 10: Cross-Platform Compatibility**
     1. **User Story 19: Cross-Platform Compatibility for Users**
* **Title:** As a user, I want to use the application on different devices without compatibility issues so that I can access the transcription feature from any device.
* **Description:** The application should be compatible with multiple platforms, including Windows, macOS, Android, and iOS.
* **Acceptance Criteria:**
  + Consistent functionality across different platforms.
  + Seamless user experience on all supported devices.
  + Regular updates to maintain compatibility.
* **Priority:** Medium
  + 1. **User Story 20: Ensuring Cross-Platform Compatibility for Developers**
* **Title:** As a developer, I want to ensure cross-platform compatibility for a broader user reach.
* **Description:** Developers should ensure that the application runs smoothly on various platforms and devices.
* **Acceptance Criteria:**
  + Use of cross-platform development frameworks (e.g., React Native, Flutter).
  + Thorough testing on all supported platforms.
  + Consistent performance and features across platforms.
* **Priority:** Medium