Veeery Accessible Ebook Product Requirements Document

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1. Introduction

1.1 Document Objective
The Product Requirements Document (PRD) provides a complete requirements definition for accessible Ebooks functionality in the Veeery platform, based on market requirements.

1.2 Market Problem
In 2019, there were approximately 285 million visually impaired people worldwide, of whom 39 million were blind and 246 million had low vision. Among these, a significant portion were students who faced numerous challenges in accessing traditional educational materials. Standard ebook and audiobook platforms often do not provide sufficient accessibility features, making it difficult for visually impaired students to engage with educational content effectively. This results in an education gap where visually impaired students cannot keep up with their peers due to the lack of accessible learning resources.

1.3 Market Opportunity
Given the 285 million visually impaired individuals globally in 2019, with many being students in need of accessible educational materials, there is a substantial market opportunity. Schools and colleges are increasingly seeking inclusive solutions to support visually impaired students. By creating a dedicated platform that offers accessible ebooks and audiobooks, Veeery can address this underserved market. The demand for educational tools that cater specifically to the needs of visually impaired students is growing, and Veeery has the potential to become a key player in this niche by providing a seamless, accessible learning experience.

1.4 Product Concept
Veeery is an ebook and audiobook platform tailored for visually impaired students in educational institutions. It provides an intuitive, accessible interface with features such as screen reader support, text-to-speech, and customizable accessibility settings. The platform ensures that visually impaired students can access their educational materials seamlessly.

1.5 Unique Selling Proposition
Veeery's unique selling proposition lies in its dedicated focus on accessibility for educational purposes. Unlike general ebook platforms, Veeery is designed from the ground up to meet the educational needs of visually impaired students, offering a seamless and inclusive learning experience.

2. Product Project Overview

2.1 Section Objective
To outline the project scope, target market, and customer description.

2.2 Target Market Description
The primary target market for Veeery includes visually impaired students in schools and colleges, as well as the educational institutions that support them. This market includes students at various educational levels who face challenges with traditional educational ebook and audiobook platforms.

2.3 Target Customer Description
- Students: Visually impaired students in primary, secondary, and higher education needing accessible educational materials.
- Educational Institutions: Schools, colleges, and universities looking to provide accessible learning resources for their visually impaired students.
- Educators: Teachers and professors seeking accessible content to support visually impaired students in their classes.

3. **Product Environment**

3.1 Section Objective
To define the environment in which the product will operate, including constraints and dependencies.

3.2 General Constraints
- Platform Compatibility: Must support multiple operating systems (iOS, Android, Windows, macOS).
- Internet Access: Requires internet access for downloading and syncing content.
- Accessibility Standards: Must adhere to WCAG 2.1 Level AA standards.

3.3 Assumption and Dependencies

Assumptions:
- Users have basic familiarity with using digital devices.
- Internet connectivity will be available for initial content download and sync.
- Educational institutions will support the implementation and use of the platform.

Dependencies:
- Reliance on third-party screen readers and accessibility tools.
- Content providers must supply accessible formats of educational ebooks and audiobooks.

4. **Product Requirements**

4.1 Section Objective
To outline the detailed product requirements, focusing on the functionalities that the Veeery Accessible Ebook platform must have to meet the needs of visually impaired students across web, mobile web, Android, and iOS apps.

4.2 Functional Requirement

4.2.1 User Authentication and Profile Management

Requirement	Description
PR Identifier	VEEERY.PR001
Directive	Product shall provide user registration and login functionality using email, social media accounts, or institution credentials.
Constraints	Must support secure password storage and recovery options. Multi-factor authentication (MFA) should be considered for additional security. Feature should be available on web, mweb, Android, and iOS.
MR Identifier	MRD001

Requirement	Description
PR Identifier	VEEERY.PR002
Directive	Product shall provide profile management features, allowing users to manage personal information and accessibility settings.
Constraints	Must adhere to data privacy regulations like GDPR. Feature should be accessible on web, mweb, Android, and iOS.
MR Identifier	MRD001

4.2.2 Accessibility Features

Requirement	Description
PR Identifier	VEEERY.PR003
Directive	Product shall support popular screen readers like JAWS, NVDA, VoiceOver, and TalkBack.
Constraints	Ensure compatibility with the latest versions of screen readers across web, mweb, Android, and iOS platforms.
MR Identifier	MRD002

Requirement	Description
PR Identifier	VEEERY.PR004
Directive	Product shall provide text-to-speech (TTS) functionality with customizable voice options (speed, pitch, etc.).
Constraints	Must offer multiple voice options and languages to cater to diverse user needs. Feature should be available on web, mweb, Android, and iOS.
MR Identifier	MRD002

Requirement	Description
PR Identifier	VEEERY.PR005
Directive	Product shall support Braille displays to cater to users who rely on them.
Constraints	Ensure seamless integration with various models of Braille displays. Feature should be supported on web and desktop versions.
MR Identifier	MRD002

Requirement	Description
PR Identifier	VEEERY.PR006
Directive	Product shall allow users to adjust text size, font style, and color contrast.
Constraints	Must comply with WCAG 2.1 Level AA standards. Feature should be customizable on web, mweb, Android, and iOS.
MR Identifier	MRD002

Requirement	Description
PR Identifier	VEEERY.PR007
Directive	The app shall support all kinds of accessible gestures, such as swiping to go back, swiping to go forward, and swiping for next/previous content.
Constraints	Ensure compatibility with the latest versions of operating systems on web, mobile web, Android, and iOS.
MR Identifier	MRD002

Requirement	Description
PR Identifier	VEEERY.PR008
Directive	The app shall provide various modes of reading, including reading word by word, sentence by sentence, paragraph by paragraph, and entire page modes.
Constraints	Users should be able to switch between modes seamlessly across all platforms (web, mobile web, Android, and iOS).
MR Identifier	MRD002

4.2.3 Content Management

Requirement	Description
PR Identifier	VEEERY.PR009
Directive	Product shall provide a searchable and browsable library of accessible ebooks and audiobooks categorized by subjects and grade levels.
Constraints	Ensure content is properly categorized and easy to navigate on web, mweb, Android, and iOS.
MR Identifier	MRD003

Requirement	Description
PR Identifier	VEEERY.PR010
Directive	Product shall allow users to download content for offline access.
Constraints	Implement DRM (Digital Rights Management) to prevent unauthorized distribution. Feature should be available on Android and iOS apps.
MR Identifier	MRD003

Requirement	Description
PR Identifier	VEEERY.PR011
Directive	Product shall provide bookmarking and annotation features for users to mark important sections and add notes.
Constraints	Ensure bookmarks and annotations are synchronized across web, mweb, Android, and iOS devices.
MR Identifier	MRD003

Requirement	Description
PR Identifier	VEEERY.PR012
Directive	The app shall include a "Recently Read" section where users can access their recently read content.
Constraints	Ensure the section is easily accessible and properly updates on web, mobile web, Android, and iOS platforms.
MR Identifier	MRD003

Requirement	Description
PR Identifier	VEEERY.PR013
Directive	The app shall have an option to resume reading from where the user last left off.
Constraints	Ensure synchronization of reading progress across all devices (web, mobile web, Android, and iOS).
MR Identifier	MRD003

Requirement	Description
PR Identifier	VEEERY.PR014
Directive	The app shall provide a "Capture to Read" feature, allowing users to take pictures and read the information from the images.
Constraints	Implement OCR (Optical Character Recognition) technology to extract text from images and support it on mobile web, Android, and iOS.
MR Identifier	MRD003

Requirement	Description
PR Identifier	VEEERY.PR015
Directive	The app shall allow users to browse and read downloaded documents.
Constraints	Ensure compatibility with various document formats on web, mobile web, Android, and iOS.
MR Identifier	MRD003

4.2.4 Educational Tools

Requirement	Description
PR Identifier	VEEERY.PR016
Directive	Product shall include interactive quizzes and exercises within the ebooks.
Constraints	Ensure compatibility with various types of educational content on web, mweb, Android, and iOS.
MR Identifier	MRD004

Requirement	Description
PR Identifier	VEEERY.PR017
Directive	Product shall provide study aids such as summaries, flashcards, and practice tests.
Constraints	Tailor study aids to the needs of visually impaired students on all platforms (web, mweb, Android, and iOS).
MR Identifier	MRD004

Requirement	Description
PR Identifier	VEEERY.PR018
Directive	Product shall allow users to share notes and highlights with peers and educators.
Constraints	Ensure shared content is accessible and easy to understand on all platforms (web, mweb, Android, and iOS).
MR Identifier	MRD004

Requirement	Description
PR Identifier	VEEERY.PR019
Directive	The app shall include a note-taking feature where users can record their voice notes and save them in audio or document format.
Constraints	Ensure voice recordings are clear and easily accessible on all platforms (web, mobile web, Android, and iOS).
MR Identifier	MRD004

Requirement	Description
PR Identifier	VEEERY.PR020
Directive	The app shall support various document types, including .txt, .pdf, .pub, .daisy, and .docs.
Constraints	Ensure seamless integration and proper rendering of all supported document types across all platforms.
MR Identifier	MRD004

4.2.5 Communication and Collaboration

Requirement	Description
PR Identifier	VEEERY.PR021
Directive	Product shall implement discussion forums for students to engage in content-related discussions.
Constraints	Moderate forums to ensure a safe and productive environment. Available on web and mweb.
MR Identifier	MRD005

Requirement	Description
PR Identifier	VEEERY.PR022
Directive	Product shall provide in-app messaging to facilitate communication between students and educators.
Constraints	Ensure messages are encrypted and private. Available on Android and iOS apps.
MR Identifier	MRD005

Requirement	Description
PR Identifier	VEEERY.PR023
Directive	Product shall send notifications to users about updates, new content, and upcoming quizzes.
Constraints	Allow users to customize notification preferences. Available on web, mweb, Android, and iOS.
MR Identifier	MRD005

4.2.6 Performance and Security

Requirement	Description
PR Identifier	VEEERY.PR024
Directive	Product shall ensure all user data is encrypted both in transit and at rest.
Constraints	Adhere to industry standards for data encryption and security. Applicable across all platforms.
MR Identifier	MRD006

Requirement	Description
PR Identifier	VEEERY.PR025
Directive	Product shall be optimized for quick loading times and smooth performance, even on lower-end devices.
Constraints	Regular performance testing and optimization are required across all platforms.
MR Identifier	MRD006

Requirement	Description
PR Identifier	VEEERY.PR026
Directive	Product shall undergo regular updates to address bugs, improve performance, and add new features.
Constraints	Ensure updates do not disrupt user experience. Applicable across all platforms.
MR Identifier	MRD006

4.2.7 Compliance and Standards

Requirement	Description
PR Identifier	VEEERY.PR027
Directive	Product shall comply with WCAG 2.1 Level AA accessibility standards.
Constraints	Regularly review and update accessibility features to maintain compliance across all platforms.
MR Identifier	MRD007

Requirement	Description
PR Identifier	VEEERY.PR028
Directive	Product shall comply with relevant privacy regulations such as GDPR for data protection.
Constraints	Implement necessary measures to ensure user data privacy across all platforms.
MR Identifier	MRD007

4.3 Development Requirements

Technology Stack:
- Frontend: React Native for cross-platform compatibility.
- Backend: Node.js with Express.js for server-side operations.
- Database: MongoDB for scalable data storage.

APIs:
- Integration with third-party APIs for text-to-speech, voice recognition, and screen reader support.
- Custom APIs for user management, content management, and synchronization.

Testing:
- Automated testing for all accessibility features.
- Manual testing with visually impaired users to ensure usability, particularly in educational settings.

4.4 Compatibility Requirements
Operating Systems: iOS 12.0+, Android 8.0+, Windows 10, macOS 10.15+.
Devices: Smartphones, tablets, laptops, and desktops.
Screen Readers: JAWS, NVDA, VoiceOver, and TalkBack.

5. Supporting Data
5.1 Assumptions
- The market for accessible educational ebooks and audiobooks will continue to grow.
- Technological advancements will support the integration of new accessibility features.
- Educational institutions will adopt the platform to better support their visually impaired students.

5.2 Research Information
- Market Research: Studies indicate that there were over 285 million visually impaired individuals worldwide in 2019, with a significant portion being students seeking accessible educational content.
- User Feedback: Surveys and interviews with visually impaired students and educators reveal a strong demand for an accessible, easy-to-use educational ebook and audiobook platform.
- Competitive Analysis: Current platforms like Kindle and Audible offer some accessibility features, but there is no comprehensive solution dedicated entirely to the educational needs of visually impaired students.