BlueBox Audiobook Lending System Supplementary Specification

Team Blue Steel

Introduction

Purpose

The purpose of this supplementary specification is to document the requirements of the BlueBox Audiobook lending system. This document will focus on the requirements that are not easily captured using the use-case model.

Scope

The scope of this document is the non-functional requirements of the BlueBox Audiobook system as well as identifying patterns of requirements across multiple functional requirements. The supplementary specification along with the use case specifications capture the complete system requirements as they are currently understood.

Definitions, Acronyms & Abbreviations

BBS – Bluebox Audiobook System

References

https://www.fcc.gov/guides/childrens-internet-protection-act

http://www.ala.org/acrl/standards/mediaresources

Overview

This document is organized to give a general understanding of the system and then to elaborate on the specifics of the BBS so as to give the reader a strong understanding of the design and requirements of the system.

General Description

Product Perspective

BBS will interact with the library's pre-existing customer database system to validate, update, and monitor the customer accounts

Product Functions

The BBS is composed of three main components:

- The kiosk is the main point of contact for the customer. The Kiosk allows for audiobooks to be picked up and dropped off. It also has local browsing and sorting capabilities.
- The consumer website allows for a customer to create an account, browse content on a system wide level and reserve audiobooks.
- The library website allows library staff to create customer accounts, and run various reports and change inventory levels system wide.

Both the kiosk and the consumer website will have the capability to check user accounts to ensure they are in good standing.

User Characteristics

The customer that uses the BBS is expected to range from young adults and above, will have a wide range of education level, and may include a higher percentage of seeing impaired individuals.

The employee is someone who has undergone the necessary training to maintain and troubleshoot the kiosks.

The manager will be someone familiar with the regional library system as well as individual library locations.

The librarian is someone who is familiar with the current library catalogue system and is able to assist customers with their questions regarding the audiobook collection.

General Constraints

System will be designed with accessibility in mind. Where possible the system will be usable by low vision and color blind customers along with customers with limited English skills.

When sensitive or personally identifiable information is stored or transmitted, the system will exercise industry standard security measures.

Assumptions & Dependencies

The BBS assumes that the library already has a fully functional digital database that maintains information about each of the users including their contact information, their library card number, their current book rentals and due dates, and any outstanding rentals or fees that they have.

Specific Requirements

Functional Requirements

These are the functional requirements that were not amenable to the use case organization.

When a machine encounters an error condition it should provide an informative error message along with suggestions on how to proceed.

Any operation that could take more than a few seconds should give the user feedback that the operation is in progress.

The user should be allowed to cancel a transaction at any point up to the point the transaction is completed.

The user should be allowed to delete their account from the system database if they desire.

The user will be allowed to add audiobooks to a wish list in order to keep track of future books to rent.

The user will be able to select the “sort by” method to sort audiobooks by either title or genre.

External Interface Requirements

User Interfaces

The kiosk interface will provide an appealing and basic interface that requires minimal effort for the customer to navigate.

The online interface will be modeled using the typical web application interface with a view to present the necessary information to the user and for the user to interact with.

Hardware Interfaces

Kiosk will have physical security in place to prevent unauthorized access to machine internals.

Kiosk will have network access in order to report on currently status such as inventory levels.

Software Interfaces

The websites should work well with popular browsers.

Communications Interfaces

Kiosk will use industry standard communication protocols and encrypt any potentially sensitive information.

Design Constraints

Standards Compliance

Minors will not be allowed to access materials that may be harmful to them in compliance with the Children's Internet Protection Act.

All media resources will be cataloged in accordance with current national standards and practices, including full subject access and classification.

Hardware Limitations

Kiosk will not have an internal power source.

Kiosk will only handle one transaction at a time.

Although there should be a means on site to listen to the media content, the kiosk itself will not have this ability.

The kiosk must be designed such that it will not damage or degrade the media.

Attributes

Other Requirements

Data Base

The system will utilize a database to store information regarding customer accounts as well as audiobook inventory. Database performance should be such that it will not impact customers negatively.

Operations

The BBS will rely on existing operations staff for hardware support and general system maintenance.

Use Cases