Software Requirements Specification

for

BookishBay

Version 1.0.0 approved

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Revision History

Name	Date	Reason For Changes	Version
BookishBay	07/02/2024		1.0.0

1. Introduction

1.1 Purpose

BookishBay is an online digital library designed to provide users with a platform for accessing and reading a wide range of digital books. This document outlines the requirements and features of BookishBay, aiming to offer a comprehensive understanding of its functionalities and scope.

1.2 Document Conventions

The document is created by keeping in mind the IEEE template for system requirement. The system features are written based on the functional point of view.

1.3 Intended Audience and Reading Suggestions

Intended Audience:
Users and developers interested in understanding the features and functionalities of BookishBay.

Reading Suggestions:
Users should begin with the overview sections and proceed through the system features to understand how to use the application effectively. Developers should start with the overview sections and proceed through the overall description, system features, and non-functional features.

1.4 Product Scope

BookishBay aims to provide a user-friendly platform for accessing and reading digital books. The application offers features such as user registration, book browsing, search functionality, reading interface, bookmarking, and a rating system. It caters to individuals interested in reading digital books.

1.5 References

None.

2. Overall Description

2.1 Product Perspective

BookishBay is a standalone web application designed to provide a seamless digital reading experience. It operates independently but may integrate with external databases or APIs for book catalog information.

2.2 Product Functions

BookishBay offers the following key functions:

User Registration and Authentication / Login
Book Browsing
Search Functionality
Reading Interface
Bookmarking
Rating System

2.3 User Classes and Characteristics

The different user classes involved in the software are:

Sl. no	**User Classes**	**Characteristics**
1.	Users	Normal user who will read and can also comment abbott the book or content.
2.	Author	Story writers and people who want to showcase their writing skill to the other people who are fond of reading new books and novels.
3.	Administrator	Administration panel is the key members of the company who have the whole access of the portal. Core engineers working in the company, general managers, and other higher-level employees are in this user class

2.4 Operating Environment

The software operates in a web-based environment, compatible with commonly used browsers. Stable internet connectivity is required for users to access the platform effectively.

2.5 Design and Implementation Constraints

The frontend of BookishBay utilizes HTML, CSS, JavaScript, Bootstrap, and ReactJS, while the backend employs Node.js and Express.js. MongoDB is used for the database. Constraints include adherence to security measures and compatibility with external book databases or APIs.

2.6 User Documentation

User documentation, including manuals, online help, and tutorials, will be provided with the software, following industry best practices.

2.7 Assumptions and Dependencies

Assumptions include users having internet-enabled devices. Dependencies involve reliance on external book databases or APIs for book catalog information.

3. External Interface Requirements

3.1 User Interfaces

The user interface features a user-friendly design consistent with industry standards, with standard buttons for actions and logical input fields.

3.2 Hardware Interfaces

Users require internet-enabled devices with adequate processing power and RAM.

3.3 Software Interfaces

Operating systems such as Linux, Windows, and Mac are compatible. Development tools include HTML, ReactJS, Express.js, Node.js, and MongoDB.

3.4 Communications Interfaces

The platform may include messaging or notification systems for user communication or updates.

4. System Features

4.1 Select Language

4.1.1 Description and Priority

The feature of language selection allows you to select any language that the user might prefer in which they want to access the application.

4.1.2 Stimulus/Response Sequences

S1: Upon launching the app for the first time,
R1: A page displays a variety of regional languages to choose from. S2: After selecting their preferred language,

R2: After the choose the languages page will redirect to login/sign-up page.

4.1.3 Functional Requirements

REQ-1: Language Preferences – The software will provide users the option to use the application in their preferred regional language.

REQ-2: Dynamic Language Display – The software will dynamically showcase available languages based on the user's detected location.

4.2 Login/ Sign up:

4.2.1 Description and Priority

The login/sign-up feature allows users to access the application by either logging in with their existing credentials or signing up for a new account.

4.2.2 Stimulus/Response Sequences

S1: User navigates to the login page.

R1: The system displays fields to enter email/phone number and password.

S2: User enters their credentials and submits.

R2: The system verifies the credentials and logs the user in, redirecting them to the homepage.

S3: User clicks on the "Forgot Password" link.

R3: The system prompts the user to enter their email/phone number to receive a password reset link.

S4: User submits the email/phone number for password reset.

R4: The system sends a verification code and a password reset link to the user's email/phone number.

S5: User navigates to the sign-up page.

R5: The system displays fields to enter name, email/phone number, password, and OTP (One-Time Password).

S6: User enters their details and submits.

R6: The system verifies the information and creates a new account for the user, redirecting them to the homepage.

4.2.3 Functional Requirements

REQ-1: Three types of login and registration (User, Author, Admin) will be available.

REQ-2: Registration Process – Users will be required to provide their name, email/phone number, password, and OTP for registration.

REQ-3: Forgot Password – Users will have the option to reset their password by providing their email/phone number for verification.

4.3 Author Verification by Admin:

4.3.1 Description and Priority

Every content should be free from violation and any misleading content, should match the guidelines. Admin panel will ensure that by reviewing it.

4.3.2 Stimulus/Response Sequences

S1: Author submits content for verification.

R1: The system notifies the admin about the submitted content.

S2: Admin reviews the content for any violations.

R2: If the content violates guidelines, the system notifies the author and marks the attempt.

S3: Author receives notification of rejection.

R3: If rejected due to violating content, the system records the attempt and notifies the author.

S4: After 5 failed attempts due to violating content,

R4: The system bans the author's account for 6 months.

S5: If content meets guidelines,

R5: The system verifies the content and marks it for publication.

S6: Content is published within 24 hours.

R6: The system makes the content live for users to access.

4.3.3 Functional Requirements

REQ-1: The author will first upload the content and will send that for approval.

REQ-2: The admin panel will check the content if it matches the guidelines or not.

4.4 Income Module:

4.4.1 Description and Priority

This section outlines the earning modules for various stakeholders involved in BookishBay. Authors will receive earnings from their articles, users will be rewarded for their engagement, and the admin will also earn from the platform's activities.

4.4.2 Stimulus/Response Sequences

Google AdSense:

Ads will be displayed during reading sessions, including short video ads at the beginning and between chapters, along with ads shown on the side of the screen.

Subscription Fee (Premium Membership):

Users can opt for a premium membership to avoid interruptions of ads between chapters and during reading sessions.

Download Fee:

Users can download books for a fee, allowing access beyond a single reading session.

4.5 Author Income:

4.5.1 Description and Priority

Authors will earn revenue from their articles published on BookishBay. This section outlines the process and terms of author earnings, including the revenue split from various income sources.

4.5.2 Stimulus/Response Sequences

Revenue Split:

Authors will receive a share of the total income generated from their articles through Google AdSense, subscription fees, and download fees.

The revenue split will be between 35-40% of the total income earned from the author's articles across all revenue streams.

Payment Process:

Earnings will be calculated on a periodic basis, such as monthly or quarterly.

Authors will receive their earnings through their preferred payment method, such as bank transfer or PayPal.

The platform will provide detailed reports on the earnings, including breakdowns of income from different sources.

Communication:

Authors will receive regular updates and notifications regarding their earnings and performance metrics.

The platform will ensure transparent communication regarding revenue calculations and payments.

4.5.3 Functional Requirements

REQ-1: Authors must have a registered account on BookishBay to receive earnings from their articles.

REQ-2: The platform will track and calculate the revenue generated by each author's articles accurately.

REQ-3: Authors will have access to earnings reports and analytics to monitor their performance and earnings.

REQ-4: The platform will facilitate smooth and secure payment transactions for author earnings.

4.6 Feedback System:

4.6.1 Description and Priority

The feedback system allows users to provide ratings and comments on the content they have read. This feature enables users to share their opinions and experiences with others, helping to improve the overall quality of the platform.

4.6.2 Stimulus/Response Sequences

S1: User finishes reading a book or article.

R1: The system prompts the user to provide feedback in the form of a rating and optional comments.

S2: User selects a rating (e.g., star rating) and provides optional comments.

R2: The system records the feedback provided by the user.

S3: Other users navigate to the book or article page.

R3: The system displays the average rating and any comments provided by users who have read the content.

S4: User submits feedback.

R4: The system may employ moderation to filter out inappropriate or spam comments.

S5: Admin reviews reported feedback for moderation.

R5: The system takes appropriate action, such as removing or flagging inappropriate comments.

4.6.3 Functional Requirements

REQ-1: Users must have a registered account to provide feedback.

REQ-2: The feedback system should allow users to rate content on a scale (e.g., 1 to 5 stars).

REQ-3: Users should have the option to provide optional comments along with their rating.

REQ-4: The platform should calculate and display the average rating for each book or article based on user feedback.

REQ-5: Admins should have moderation tools to manage and review user feedback for inappropriate content.

REQ-6: Users should be able to view feedback left by other users to make informed decisions about the content they want to read.

4.7 Content Recommendation System:

4.7.1 Description and Priority

The content recommendation system suggests particular articles, novels, or books to users based on positive feedback received from other users. This feature aims to enhance user engagement and satisfaction by offering personalized recommendations tailored to their interests.

4.7.2 Stimulus/Response Sequences

S1: User logs in or opens the app.

R1: The system identifies content with positive feedback.

S2: The system ranks the identified content based on the quality of feedback received.

R2: The system displays the top-ranked content as recommended articles, novels, or books.

S3: User views the recommended content.

R3: The system provides options to read or interact with the recommended content.

S4: User selects a recommended item.

R4: The system redirects the user to the selected content for reading or further interaction.

S5: User interacts with recommended content.

R5: The system tracks user engagement and feedback on the recommended items.

S6: User provides positive feedback on a particular piece of content.

R6: The system updates the recommendation algorithm to prioritize similar content for future recommendations.

4.7.3 Functional Requirements

REQ-1: The recommendation system should analyze user feedback to identify content with positive reception.

REQ-2: Content recommendations should be displayed prominently on the user interface, such as the homepage or a dedicated recommendations section.

REQ-3: Users should have the option to explore recommended content based on their preferences.

REQ-4: The recommendation algorithm should continuously adapt based on user interactions and feedback to improve the relevance and accuracy of recommendations.

REQ-5: The system should prioritize recommending diverse content to cater to a wide range of user interests and preferences.

4.8 User Rewards System:

4.8.1 Description and Priority

The user rewards system incentivizes user engagement by awarding "Bookish Points" for various activities within the application. These points can be accumulated and redeemed for cash vouchers from popular retailers such as

Amazon, Flipkart, or Myntra. The system aims to encourage user participation and loyalty.

4.8.2 Stimulus/Response Sequences

S1: User engages with the application.

R1: The system tracks user activity, such as reading books or articles.

S2: User spends time reading content within the app.

R2: The system awards Bookish Points based on the duration of user engagement, with 1 point granted for every 2 hours of activity.

S3: User accumulates Bookish Points over time.

R3: The system provides a redemption option once a user reaches a certain threshold, typically 500 Bookish Points.

S4: User navigates to the redemption section.

R4: The system displays available redemption options, such as cash vouchers from Amazon, Flipkart, or Myntra.

S5: User selects the desired redemption option.

R5: The system deducts the appropriate number of Bookish Points from the user's account.

S6: User confirms the redemption request.

R6: The system generates and delivers the cash voucher to the user via email or within the application.

S7: US authors accumulate Bookish Points from user engagement with their content.

R7: The system provides a special redemption option for US authors, offering $5 in exchange for 500 Bookish Points.

4.8.3 Functional Requirements

REQ-1: The rewards system should track user engagement and award Bookish Points accordingly.

REQ-2: Users should be able to view their current Bookish Points balance within the application.

REQ-3: Redemption options should include cash vouchers from reputable retailers, with clear terms and conditions for each voucher.

REQ-4: The system should handle the redemption process securely and efficiently, ensuring accurate deduction of points and delivery of vouchers.

REQ-5: US authors should have the option to redeem their Bookish Points for a $5 cash reward, providing an additional incentive for content creation and engagement.

4.9 Book Search and Recommendations:

4.9.1 Description and Priority

The book search and recommendation feature enable users to search for specific books and receive recommendations based on their search history. It enhances user experience by providing personalized book suggestions tailored to their interests.

4.9.2 Stimulus/Response Sequences

S1: User enters keywords or the title of a book into the search bar.

R1: The system displays relevant search results matching the user's query.

S2: User selects a book from the search results.

R2: The system redirects the user to the book details page or directly opens the book for reading.

S1: User enters keywords or the title of a book into the search bar.

R1: The system displays relevant search results matching the user's query.

S2: User selects a book from the search results.

R2: The system redirects the user to the book details page or directly opens the book for reading.

S5: User conducts multiple searches and interacts with various books.

R5: The system records user search history and analyzes their preferences.

S6: Based on the search history, the system refines future recommendations and search results to align with the user's interests.

4.9.3 Functional Requirements

REQ-1: The search feature should allow users to search for books by title, author, or keywords.

REQ-2: Upon selecting a book, the system should display relevant details and provide options for reading or additional actions.

REQ-3: Recommendations should be generated based on the user's search history, book preferences, and genre.

REQ-4: The system should store and utilize user search history to personalize future recommendations and search results.

REQ-5: Recommendations should be prominently displayed to users, encouraging exploration and enhancing engagement with the platform.

4.10 Author Income:

4.10.1 Description and Priority

The author income feature ensures that authors receive a fair share of revenue generated from their content while also rewarding users for their engagement. It aims to maintain a balance between author compensation and user incentives to foster a vibrant community of writers and readers.

4.10.2 Stimulus/Response Sequences

S1: System calculates the total revenue generated from the author's content.

R1: Author receives a predetermined share of the revenue, typically between 35-40%.

R2: Users who engaged with the author's content receive a small percentage, typically 4-5%, as a reward.

S2: System calculates the net revenue after deducting author and user rewards.

R3: Author receives the remaining revenue after deductions, ensuring a net profit margin of 50-55%.

S3: Authors request financial reports to track their earnings and performance.

R4: The system generates detailed reports showcasing revenue, deductions, and net profit margin for transparency and accountability.

4.10.3 Functional Requirements

REQ-1: Author income distribution should allocate 35-40% of total revenue to the author and 4-5% to users as rewards.

REQ-2: The system should calculate net profit margin by deducting author and user rewards from total revenue.

REQ-3: Authors should have access to financial reports summarizing their earnings and net profit margin for transparency.

REQ-4: The distribution process should be automated and transparent, ensuring fairness and accuracy in revenue allocation.

4.11 Customer Care and Support:

4.11.1 Description and Priority

The contact and support feature enables users and authors to reach out for assistance with any issues they encounter on the platform. It prioritizes user satisfaction by offering multiple channels for communication, including phone support and in-app chat with customer care representatives.

4.11.2 Stimulus/Response Sequences

S1: User or author encounters an issue or requires assistance.

R1: The system provides options for contacting customer support, including phone support and in-app chat.

S2: User or author selects the phone support option.

R2: The system displays the customer support phone number.

S3: User or author calls the provided number.

R3: A customer care representative answers the call and assists with the issue.

S4: User or author selects the in-app chat option.

R4: The system opens a chat window with customer care.

S5: User or author types their issue in the chat window.

R5: A customer care representative responds to the chat and resolves the issue through conversation.

S6: Customer care representative addresses the user's or author's concern.

R6: The issue is resolved to the satisfaction of the user or author.

R7: If the issue requires further investigation, the customer care representative escalates it to the appropriate department for resolution.

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4.11.3 Functional Requirements

REQ-1: The platform should offer multiple contact options for users and authors, including phone support and in-app chat.

REQ-2: Phone support should provide users and authors with direct access to customer care representatives for immediate assistance.

REQ-3: In-app chat should facilitate real-time communication between users or authors and customer care representatives for efficient issue resolution.

REQ-4: Customer care representatives should be trained to address a wide range of issues promptly and professionally.

REQ-5: The system should track and monitor the resolution of user and author issues to ensure timely and satisfactory outcomes.