Software Requirement Specifications

For

# Book-Stan

Version # 01

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Revision History

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1. Introduction ( All Ready Submitted)
   1. Purpose 1.2 Document Convention 1.3 Intended Audience and Reading Suggestions 1.4 Product Scope

1. Overall Description
   1. Product Perspective

It is an independent and totally self-contained project.

* 1. Product Functions

Not Applicable at this time.

### 2.3 User Classes and Characteristics

Following are some users of this system:

1. Admin
2. Reader

Admin

It is a person who is responsible to carry out all the admin related tasks involved. This includes the fact that the administrator must have an expertise in database handling, since he is the one responsible to keep a track of all the books stored. He is responsible for the conduction of finance related issues and book subscriptions. Furthermore, he must also have a good know-how of legal technicalities involved in buying the copyrights of any book issued.

Reader

A person who is 13 years and above, can install our app and is able to read. Furthermore, a person is eligible to be a reader if he understands English and has an interest for reading books. Visually impaired person can also be a reader as this app provides the audio feature to ease the way of enjoying their favorite books.

2.4 Operating Environment

Fully automated

2.5 Design and Implementation Constraints

Not applicable at this time

### 2.6 User Documentation

User panel:

* User will install the application
* He\she will sign in after entering his\her email id and password
* Every user will have their personal profile
* Readers can either look over the home page or search in for their preferred books
* A page will open up containing many books related to the keywords the user typed  By clicking on the preferred book, a “read” button would appear
* Clicking on the read button would allow the user to start reading the book of their choice

Admin panel:

* Admin will buy the copyrights of different books from the management of different authors.
* He will add the books to database containing fictional books of different genres compiled at one place.
* He will connect this database to application so that books would be accessed.
* He will handle all the finance related issues and will provide book subscriptions.

### 2.7 Assumption and Dependencies

Does not depend on any already built database.

1. External Interface Requirements

These requirements are not required.

1. System Features:
   1. Notifications to keep you updated
      1. Description and Priority

Notifications will allow a reader to stay updated regarding different updates on the app, thus captivating them to interact more on the app to read more. Notification regarding books publishing, messages etc. will keep the readers hooked on to be more active on the app.

Priority: High

* + 1. Response Sequence
       - The system will look into the read history of different users.
       - System will send a notification if books related to the interest of the reader have been published.
       - For reading challenges and message update, a notification will be sent by the system.
    2. Functional Requirements

BS R-1 Notifications would be displayed when the user clicks on the

“notification” button next to the profile picture of the user.

BS R-2 User will receive a notification if book relating to the genres that the reader has read before has been published.

BS R-3 User will receive notification if authors, he has previously read, have published a new book.

BS R-4 User will receive a notification if he hasn’t used the app for a long time. BS R-5 User will receive a notification if he has used the app for a long time. BS R-6 User will receive a notification regarding reading challenges and their progress in that.

BS R-7 User will receive notification if he has received a message on the app.

4.1.4 Non Functional Requirement

BS R-1.1 notifications will be displayed in a timely order (recent to oldest).

BS R-2.1 Notifications for the publishing of books of preferred genre would be sent after every 10 hours as books of preferred genre are published more frequently.

BS R-3.1 Notifications for the publishing of books of preferred authors would be sent 10 seconds after they are added to the app’s library.

BS R-4.1 Notification for delayed user interaction over the app would be sent if the user hasn’t used the app for 24 hours.

BS R-5.1 Notification for app overuse will be sent if the user has been active on the app for a duration of continuous 3 hours.

BS R-6.1 Notification for the reading challenges and user’s progress would be sent 5 seconds after they are updated on the app.

BS R-7.1 Notification for the messages would be sent after at most 2 seconds after being sent by the user.

4.2 Personal messages

4.2.1 Description and Priority

Personal messages will allow the users to interact with each other. They will be able to connect with one another to discuss over books.

Priority: medium

4.2.2 Response Sequence

* Reading challenges would display profile of different users.
* User click on the display picture of another user
* The user profile will appear, showing the personal library of the other user and the message button.
* Clicking on the message button would open a personal chat box.
* Typing a message on the text bar and then clicking the “send” button would direct the message to the other user.

4.2.3 Functional Requirements

BS R-8 Message can be sent to another user.

BS R-9 Message can be deleted after being sent.

BS R-10 User can block the sender of the message using the personal chat box.

4.2.4 Non Functional Requirement

BS R-8.1 Message will be send to the other person in at most 5 seconds after clicking the “send” button.

BS R-9.1 Message can be deleted but the deletion update would still be shown in the chat.

BS R-9.2 Pressing the send message for 5 seconds would allow the “delete” option to appear.

BS R-10.1 After clicking on the “block” button present in the chat box, a confirmation statement would appear asking for approval to block another user.

4.3 Reading Challenges

#### 4.3.1 Description and Priority

User will be provided with the multiple reading challenges. Upon completion of these challenges, user will get to access the books that need subscriptions.

Priority: High

#### 4.3.2 Response Sequence

* As reader clicks on the reading challenge icon, multiple challenges should be displayed.
* After the user selects a particular challenge, a certain time duration should be set to complete the challenge.
* On completion of a challenge within the particular time, user will get the free subscription of one book as a reward.

#### 4.3.3 Functional Requirements

BS R-1 As the user clicks on the reading challenges icon, new screen should be displayed with multiple challenges.

BS R-2 As user clicks on a particular challenge, the “start challenge” icon should appear on a new screen, along with the challenge details.

BS R-3 When user clicks on the “start challenge” button, the timer should be started to complete the challenge.

BS R-4 User should be notified before challenge termination.

BS R-5 If user did not complete the reading challenge with in time, the challenge should be terminated with no rewards given to the user.

BS R-6 If user completes the reading challenge with in time, they should be rewarded with free subscription for a book.

BS R-7 The information details of user and book subscription should be updated in the database, as user gets the free subscription.

#### 4.3.4 Non Functional Requirement

BS R-1.1 A new screen must be displayed with in a response time of 3-4 secs.

BS R-4.1 User should get notified 10 minutes prior to the challenge termination.

BS R-7.1 Subscription details and information should be updated in database on the basis of reader and book.

4.4 Progress Bar

#### 4.4.1 Description and Priority

Progress bar indicates the percentage of pages the reader has completed for reading the book. The progress bar will automatically be updated as the reader proceeds to read.

Priority: Medium

#### 4.4.2 Response Sequence

* As the reader selects a book for reading, the progress bar will be auto initialized with 0 percent.
* When reader proceeds to read, the progress bar will be updated with specific percentage value, which will be determined by the number of pages read by the user.
* When reader clicks the back button while reading, the value of progress bar should be updated on the main page.

#### 4.4.3 Functional Requirements

BS R-8 When user selects a book for reading, the progress bar should set to zero.

BS R-9 As user starts reading, the progress bar should be updated with a specific value.

BS R-10 Bookmark should be auto generated for last reviewed page of book, when user clicks the back button while reading.

BS R-11 When reader closed the book while reading, value of progress bar should auto update on main screen, determined on the number of pages read. BS R-12 Incase user reviewed previous pages of book, then progress bar value should not decrease.

BS R-13 Incase user reviewed previous pages of book, then bookmark should not change.

BS R-14 The values of the progress bar should be updated in the database.

#### 4.4.4 Non Functional Requirement

BS R-8.1 Progress bar should be initialized immediately, as user opens the book.

BS R-9.1 If multiple users are accessing the same book, then the progress bar should be updated separately for each user.

BS R-14.1 Values of progress bar should be updated in the database on the basis of reader and book.

4.5 Text to Audio feature

#### 4.5.1 Description and Priority

This feature will convert the text written in the book to audio. It is that one feature that holds the key priority in the app and the one that aims to provide ease to visually impaired people.

Priority: High

#### 4.5.2 Response Sequence

* User will open the book he wishes to read.
* Pressing the text for 5 seconds will show the “audio” button.
* Clicking on the “audio” button would start converting the text to audio in run time.

#### 4.5.3 Functional Requirements

BS R-1 User will click on text as input for conversion to audio.

BS R-2 The output will be the speech format of that text.

BS R-3 The speed and timings of the audio can be maintained that is generated after synthesizing the input text.

BS R-4 Voice can be chosen (male/female) according to the user’s preference.

BS R-5 The volume of the audio generated can also be changed.

BS R-6 System will highlight the words in parallel to the audio generated.

#### 4.5.4 Non Functional Requirement

BS R-2.1 The text that is inputted is converted into audio using python library called pyttsx3.

BS R-2.2 The text to audio conversion will take 5 to 6 seconds after clicking the “audio” button.

BS R-4.1 The voice generated during text to audio conversion is computer generated voice.

4.6 Text Formatting and Dictionary

#### 4.6.1 Description and Priority

This feature will enable the user to adjust the text format and get help in understanding words through dictionary.

Priority: High

#### 4.6.2 Response Sequence

* Select the text that the reader wants to format.
* Right click on it.
* A text formatting pane and dictionary button will open up.
* Choose the formatting by left click and the formatting is done.

#### 4.6.3 Functional Requirements

BS R-7 System will find the meanings and synonyms of the word selected. BS R-8 System will allow the user to highlight the selected text with different colors.

BS R-9 System will allow the user to bold the selected text.

BS R-10 System will allow the user to increase or decrease the font size of the whole document.

BS R-11 System will allow the user to change the font style.

BS R-12 System will allow the user to change the font color.

BS R-13 System will allow the user to increase or decrease line/word spacing for their own convenience.

BS R-14 system will allow the user to undo the formatting changes as many times as he wants.

BS R-15 System will allow the user to add a bookmark between pages.

#### 4.6.4 Non Functional Requirement

BS R-7.1 The meanings and synonyms of the selected word will be accessed from the database.

BS R-8.1 All the text formatting will be done within nanoseconds (in an instant)

4.7 Personal Library

#### 4.7.1 Description and Priority

This feature allows users to see their history, favorites, downloads, and subscribed books.

Priority: Medium

#### 4.7.2 Response Sequence

* As the reader clicks on the personal library icon, downloads, favorites, history, continue reading, and subscription icon are displayed.
* On clicking the download icon, the user can see his/her downloaded books.
* On clicking the favorite icon, a user can see his/her favorite books.
* On clicking the history icon, a user can see his/her history.
* On clicking the continue reading icon, a user can see his/her previous reading book.
* On clicking the subscription icon, a user can see his/her subscribed books

#### 4.7.3 Functional Requirements

BS R-1 On clicking the personal library icon, five options should be displayed.

1. History
2. Downloads
3. Favorites
4. Continue Reading
5. Subscription

BS R-2 On clicking the history icon, it checks user data in the database and displays the books that have been read by the user.

BS R-3 As a reader clicks on the download icon; it shows all the books that the user has downloaded so far by checking the data in the database.

BS R-4 By checking the data in the database when a user clicks on the favorite icon, he/she can see his/her favorite books.

BS R-5 On clicking the continue reading icon, user can see his/her previous reading book.

BS R-6 On clicking the subscription icon, user can see his/her subscribed book.

#### 4.7.4 Non Functional Requirements

BS R-7 There should be a button named ‘Personal Library’.

BS R-8 The books should be displayed in the form of a horizontal list.

4.8 Download Book

#### 4.8.1 Description and Priority

This feature allows users to download books.

Priority: Medium

#### 4.8.2 Response Sequence

* On clicking a book for reading, a download icon should be displayed.
* On clicking a download icon, it fetches the book from the server and transfers it to the user device.

#### 4.8.3 Functional Requirements

BS R-9 When the user selects a book for reading, a download icon should appear.

BS R-10 On clicking the download icon, a pop-up appears that the book has been downloaded.

BS R-11 Fetch the book from the server that has been stored in the database and transfers the book file to the user device through download.

#### 4.8.4 Non Functional Requirement

BS R-11.1 Books should be updated in the database as the reader downloads the book.

4.9 SUBSCRIPTION

#### 4.9.1 Description and Priority

Users will be provided with the most recently launched and premium books on a subscription basis.

Priority: High

#### 4.9.2 Response Sequence

* In order to subscribe to a book, a user will click on the subscription button.
* By clicking on the button, a list of random books will be displayed on screen.
* On clicking the book that the reader wants to read, the pay button is displayed.
* On clicking the pay icon, users will have to enter account details. After entering account details, users will get the book.

#### 4.9.3 Functional Requirements

BS R-12 By clicking the subscription button, premium books are displayed. BS R-13 On clicking the book that the reader wants to read, the pay button is displayed.

BS R-14 When the user clicks on the pay icon button, he/she will have to enter account details. After entering account details, users will get the book. BS R-15 As the reader enters the account details, a notification shows "money transferred successfully".

BS R-16 As the user receives a subscription; the database should be updated with the user's information and book subscription details.

#### 4.9.4 Non Functional Requirements

BS R-18 There should be a button named ‘Subscription’.

BS R-19 The user will pay money using Google pay.

BS R-20 Subscription details and information should be updated in the database on the basis of the reader and book.

4.10 Help Button

#### 4.10.1 Description and Priority

This feature is especially designed for the users that are not familiar with the features of the application and how to use the application. Help button provides chat-bot, which answers the most commonly asked questions and guidelines for using the application

Priority: low

#### 4.10.2 Response Sequence

* Users can simply click on the help button.
* By clicking on the help button, two options will be displayed on the screen

i.e. chatbot and guideline.

* By clicking on chatbot, commonly asked questions will be displayed on the screen and their answers too.
* By clicking on guidelines option, guidelines to use this application will be generated on the other window which will guide the user to how to use the application.

#### 4.10.3 Functional Requirements

BS R-1 The consist of a small icon, by clicking on it, a small window should be displayed with two options.

1. Chat-bot
2. Guidelines

BS R-2 By clicking on ‘Guidelines’ option another window should be displayed which will consist of Guidelines for using this application.

BS R-3 By clicking on ‘chat-bot’ option another window should display, which should consist of list of most commonly asked questions

BS R-4 By clicking on any of the question, a pre-defined answer of that question should be displayed.

#### 4.10.4 Non Functional Requirements

BS R-5 The guidelines lines should be in Times new roman.

BS R-6 The guidelines lines should be written in points.

BS R-7 The guidelines window should have zoom in and zoom out option.

BS R-8 The zoom in option should make the guidelines text larger.

BS R-9 The zoom out option should make the guidelines text smaller.

4.11 Book Access

#### 4.11.1 Description and Priority

This feature allows the user to access the books, simply clicking on the book access button, list of books are displayed on the screen, user can also search his/her desired book, filter the book with respect to author, year of publication and ratings and also rate the books.

Priority: High

#### 4.11.2 Response Sequence

* In order to access books, user will click on book access button.
* By clicking on the button, list of random books will be displayed on screen within the time period of two second.
* Now the user can simply click on any of the book for reading.
* User also have multiple options i.e ‘search’ option to search for a specific book, ‘filter’ option to filter the books, and ‘rate’ option to rate the book.

#### 4.11.3 Functional Requirements

BS R-10 By clicking on the book access button, list of random books should be displayed and multiple options.

BS R-11 By clicking on ‘search’ option, a search box/bar is displayed, where you can search any book.

BS R-12 By clicking on ‘Filter’ option, multiple options should be displayed on the screen i.e. ‘by author’, ‘by year of publication’ and ‘by rating’.

BS R-13 ‘by author’ option of filter should filter the books by author.

BS R-14 ‘by year’ option of filter should filter the books by year of publication.

BS R-15 ‘by rating’ option of filter should filter the books by rating of the book.

#### 4.11.4 Non Functional Requirement

BS R-16 There should be a button named ‘Book access’

BS R-17 The display time of the books on the screen should be two seconds.

BS R-18 The books should be displayed in the form of horizontal list.

BS R-19 Search bar\box should also have search history option.

BS R-20 Search bar\box should also have clear history option.

5. Other Non-Functional Requirement

### 5.1 Security

* If the user attempts to login the system unsuccessfully thrice a day, the id should get locked.
* User should receive a warning before the account gets locked.
* User should receive an email, while trying to login from another device.
* User information (for example: personal data, bank account details, passwords) should not be visible to other users.

### 5.2 Maintainability

* The books in the database should be timely updated by the admin.
* New registrations and password changes should be verified timely.
* The system should automatically provide notifications by email about the time left to complete the reading challenges and book subscriptions.

### 5.3 Availability

System should be available and operational 24 hours and 365 days a year.

6. Other Requirements

### 6.1 Legal Requirements

The copyright claims of all the books available in our app, should be legally bought by the admin.