ONLINE BOOKSTORE FUNCTIONAL REQUIREMENTS PROPOSAL

### PREPARED FOR

Web Programming Course Spring 2021

International Hellenic University

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| **Version** | **Description of Change** | **Author** | **Date** |
| 1.0 | Initial proposal | Full team | 29th April 2021 |

EXECUTIVE SUMMARY

This report details the scope, basic assumptions, and restrictions for the design and implementation of an online bookstore.

This document describes the functional requirements and operability for the website and describes its implementation strategy through a user-friendly interface framework, a fresh and functional appearance, and efforts to guarantee the trust and security of the bookstore’s customers.

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# 1. Project Overview

## 1.1 Scope

The main goal of the current system is to maximize book sales via a dedicated online presence, while also simplifying the manner in which non-technical staff from the bookstore can engage with the website; both in terms of time taken to, and ease of, pushing updates to the online platform.

This will be done by...

1. Providing a customer-facing interface with intuitive user interface (UI) and delightful customer experience (CX),
2. Designing and implementing a bookstore staff-facing admin panel with minimal barrier to adoption, entry and use which provides a what-you-see-is-what-you-get (WYSIWYG) type of interface which reflects updates in real time to the base code, and
3. Future proofing the system for potential new features and updates via a flexible system design and clear technical documentation

## 1.2 Assumptions and Constraints

### 1.2.1 Assumptions

The assumptions are as follows...

* Currently, only logged-in users can order books on the system, but this may be subject to change based on requirement completion rate (i.e, guest orders is classified as a “nice to have” and might be implemented if there are enough resources available)
* Since the online bookstore is only accessible through the Internet, it is assumed that the end user has a connection to the Internet.
* It is also assumed that the user has a web browser able to display the website.
* The bookstore sells both electronic books (ebooks) as well as physical books which need to be delivered to the customer
* The bookstore, upon receipt of confirmation of an order for a physical book, will send the tracking link for the package offline to the system, and inventory management does not need to be incorporated into the website or admin panel and it is currently out of scope.
* All Products are assumed to be available and in-stock.
* The bookstore uses a payment gateway and does not store any payment details in the system
* The bookstore has enabled access to OTP-verification for phone numbers which is directly incorporated into the new system and does not need to be reimplemented.

### 1.2.2 Constraints

The constraints on the services and functions of the system are as follows...

* The website must be secure and abide by user data privacy guidelines.
* The website must be online consistently and should be able to handle any outliers in demand.
* The performance of the website must have quick loading and response times for superior SEO ranking and user experience.
* The website must comply with the regulations governing cookies under the GDPR and the ePrivacy Directives.
* The website must comply with the Web Content Accessibility Guidelines (WCAG Website Compliance Standards) to allow the best practices for digital accessibility.

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# 2 METHODOLOGY

The Functional requirements were first assessed by prioritizing (must have, nice to have, maybe) based on the impact-effort matrix, as shown below...

|  |  |  |
| --- | --- | --- |
| **Impact\Effort** | **Low Effort** | **High Effort** |
| **Low Impact** | Maybe | Removed |
| **High Impact** | Must Have | Nice to Have |

Wherein…

* **Removed:** all requirements with this tag are classified as having the lowest priority and this are removed from further consideration
* **Maybe:** these requirements were prioritized last for implementation and are classified as having low priority
* **Nice to Have:** requirements which would be focused on in the second round of requirement implementation, classified as having medium priority
* **Must Have:** these requirements are “low hanging fruit”s, and aligned with the team’s agile methodology, by providing a Minimal Viable Product (MVP) to showcase for early testing and feedback. Classified as having highest priority and are implemented first.

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# 3 FUNCTIONAL REQUIREMENTS

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| --- | --- | --- | --- | --- | --- | --- | --- |
| ID | Requirement Name | Requirement Definition | | | Priority | Point of Contact - Frontend | Point of Contact - Backend |
| FR 1.0 | Account Registration | 1. The system shall allow a non-registered user to create a secure account.  2. The system shall require the following information from the user: Name, Address, Payment information.  3. The system shall ask the user for a username and password.  4. The system shall confirm the username and password are acceptable.  5. The system shall store the information in the database. | | | must have | Sajid | Zeyad |
| FR 1.1 | Referral system for registration | System shall allow input referral code during the registration process. | | | must have |  | Zeyad |
| FR 1.2 | Verify Email address | The system will send a OTP/link to the registered email id to verify email. | | | must have | Kangkana | Deeksha |
| FR 1.3 | Verify phone number | The system will send a OTP/link to the registered phone number to verify the number. | | | nice to have | Kangkana | Deeksha |
| FR 2.0 | Account Login | 1. The system shall allow a registered user to log-in to their account.  2. The system shall require a username and password from the user  3. The system will verify the username and password, and the user will be considered “logged-in”. | | | must have | Carlos | Deeksha |
| FR 2.1 | Account Logout | The system shall allow the registered and logged-in user to exit his/her account, so that access to operations requiring a user to be logged in are now disabled. | | | must have | Carlos | Kangkana |
| FR 3.0 | Update Account Information | 1. The system shall allow a user to update the information in their account.  2. The user shall be allowed to view and change their name, mailing address, billing address, credit card type, credit card number, expiration date, and security code.  3. The user shall be able to change their password by entering the old one once, and a new one twice.  4. The system will send a code to the registered email id in case the user forgets the password to allow password change. | | | must have | Sajid | Zeyad |
| FR 4.0 | Book Search | 1. The system shall allow a user to search for books by title, author, subject etc.  2. The search results will include a picture of the front cover, along with the title, author, price, availability, and condition of the book. | | | must have | Carlos | Deeksha |
| FR 4.1 | Top search suggestions | Trending/most search books can be included beside the search bar | | | maybe | Deeksha | Deeksha |
| FR 4.2 | Book preview | Having found an interesting book, the system will display the first X pages of the book and allow a registered user to read it for free. | | | must have | Kangkana | Kangkana |
| FR 4.3 | Book Format | Mention the book format (\*.epub, \*.pdf etc.) | | | maybe | Kangkana | Deeksha |
| FR 5.0 | Display by official categories | Database categories based on author, genre, type, etc. | | | must have | Kangkana | Deeksha |
| FR 5.1 | User defined categories (editors pick, user's lists) | User defined categories based on editors pick and user's lists | | | maybe | Kangkana | Deeksha |
| FR 5.2 | System defined categories (top viewed books) | System defined categories based on top viewed books | | | nice to have | Kangkana | Deeksha |
| FR 5.3 | Goodreads integration | Import and export to goodreads lists, get recommendations to similar books on the customer's lists and access to goodreads community for a specific book | | | maybe | Sajid | Deeksha |
| FR 5.4 | Book Recommendation | Customers are recommended books based on their history or current book choices | | | nice to have | Carlos | Kangkana |
| FR 6.0 | Shopping Cart | 1. The system shall allow a registered and logged-in user to temporarily save books that are being considered for purchase into a list associated with their account.  2. When viewing the shopping cart list, the system shall display the total price of the books in the cart. | | | must have | Zeyad | Carlos |
| FR 6.1 | Edit Shopping Cart | 1. The system shall allow a registered and logged-in user to remove any unwanted books from their shopping cart.  2. After the user has indicated the particular book to be deleted from their shopping cart, the stored list representing the shopping cart should be updated by removing that particular book, and the display should be updated to show only the books remaining in the cart.  3. The system should automatically update the shopping cart with "book unavailable" status if a book gets sold out. | | | must have | Zeyad | Carlos |
| FR 7.0 | Wish List | The system should allow user an option to add books to a "wish list" which is also shareable and exportable | | | must have | Carlos | Deeksha |
| FR 7.1 | Pre-order | The system shall display upcoming books and allow registered user to place an order in advance. Once the book becomes available, the system will update the shopping cart by changing the book availability status and notify the user by email. | | | maybe | Kangkana | Deeksha |
| FR 7.2 | Request Books | Request for a book that is not available on the website. | | | nice to have | Carlos | Deeksha |
| FR 8.0 | Checkout | The system shall allow a registered and logged-in user to purchase books that are in their shopping cart by "bank transfer" or "PayPal". | | | must have | Zeyad | Carlos |
| FR 8.1 | Enabled Discounts and Promotion Codes | The customer can input verified discount and promo codes during checkout. | | | must have | Zeyad | Carlos |
| FR 8.2 | Order Confirmation | The user will receive an order confirmation number. | | | must have | Zeyad | Carlos |
| FR 8.3 | Automated Transactional Email | Upon suitable triggers, the system sends automated emails to the relevant people (eg: order confirmation, etc.) | | | must have | Deeksha | Deeksha |
| FR 9.0 | View Shipping Status | 1. The system shall allow a registered and logged-in user to view the shipping status of orders they have placed.  2. The user must enter a confirmation number to view the shipping status of their order.  3. The system shall then display the shipping date, mailing address, projected delivery date, and status (in transit, delivered, etc.) | | | must have | Sajid | Zeyad |
| FR 9.1 | Order Tracking | Users can input their order number and receive tracking information of the order status | | | must have | Sajid | Zeyad |
| FR 10.0 | View Purchase History | 1. The system shall allow a registered and logged-in user to view purchases made with their account.  2. The system shall display the title of the book, price, and quantity for each book purchased in a given order. | | | must have | Sajid | Zeyad |
| FR 11.0 | Reviews and Ratings | Customers can view and input reviews and ratings for books they have bought | | | must have | Carlos | Deeksha |
| FR 12.0 | Non-registered Users can place orders | guests can order without registering | | | may be | Zeyad | Carlos |
| FR 13.0 | UX/UI | requirements for delightful and intuitive UX/UI | | | must have | everyone | everyone |
| FR 13.1 | Mobile Responsive | The website must be mobile responsive | | | nice to have | everyone | everyone |
| FR 13.2 | Accessible Design | Website must follow accessibility guidelines | | | must have | everyone | everyone |
| FR 14.0 | Admin Panel for Staff | Admin panel where staff can interact with the DB, website and system in a WYSIWYG manner - adding blog posts, etc. | | | must have | Sajid | Deeksha, Zeyad, Sajid |
| FR 14.1 | Embedded Google Analytics | Using Google tag manager, engagements with the website are tracked for later analysis | | | must have | N/A | Kangkana |
| FR 14.2 | GDPR and Data Laws Compliance | The website must advice the users of any cookies and other requirements necessary for complying with GDPR and data privacy laws | | | must have | Carlos | Carlos |
| FR 14.3 | Permissions and Roles | The system has permissions and roles for logged in users and allowed activities they can do on the website | | | must have | Sajid | Deeksha, Zeyad, Sajid |
| FR 15.0 | Community Feature | 1. The system should display community features-such as a bookclub, author talks, children’s storytime etc.  2. The system shall ask a user to register and/or log in to view details of the events. | | | may be | Kangkana | Deeksha |
| FR 16.0 | Contact Us | 1. The system shall allow a user to view various methods of contacting the store.  2. The system shall display the store address, telephone number, email address, and directions on how to get to the store.  3. The system should also display a map showing the location of the store. | | | must have | Kangkana | Kangkana |
| FR 16.1 | Live Chat | The customer has the option to chat in real time with the staff at the bookstore via facebook messenger integration or another platform | | | must have | N/A | Deeksha |
| FR 16.2 | Help | 1. The system shall show FAQs to help users with common issues.  2. Text can be edited by the admin panel. | | | must have | Sajid | Deeksha, Zeyad, Sajid |
| FR 16.3 | Terms and Conditions | Return, refund, privacy and use policy. Text can be edited by the admin panel. | | | may be | Sajid | Deeksha, Zeyad, Sajid |
| FR 16.4 | Feedback | The system should ask registered users to provide feedback once a order has been completed (website using experience) | | | may be | Carlos | Carlos |
| FR 17.0 | Language Preference/Select/Change option | Users can select a language by their own preferences. (add different pages through admin panel) | | | may be | Sajid | Deeksha, Zeyad, Sajid |
| FR 18.0 | Display Selected Book | Display book queried by userid (or selected by user on the search page) | | | must have | Carlos | Deeksha |
| FR 19.0 | Gift Card | Users have the option to send, receive and pay via gift cards | | | nice to have | Zeyad | Carlos |
| FR 20.0 | Subscribe to Updates | RSS and/or email-enabled updates which users can subscribe to | | | nice to have | Kangkana | Kangkana |

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# 4 OTHER REQUIREMENTS

In this section will be presented the basic website non-functional requirements that are needed to be considered to design and develop the online bookstore.

The list of the requirements is presented below:

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| --- | --- | --- |
| ID | Other Requirement Name | Other Requirement Definition |
| OR1 | Technology | HTML, CSS, PHP, Bootstrap, SQL database |
| OR2 | Layout and Color | In line with accessible design guidelines |
| OR3 | Content | SEO friendly (with meta tag information) and editable via admin panel |
| OR4 | Audience | Bibliophiles and potentially audiophiles (for audiobooks) |
| OR5 | Attractive Design | Intuitive, professional, on brand and accessible |
| OR6 | Easy Navigation | Users can easily find what they are looking for with an intuitive user flow |
| OR7 | SEO-Optimized | Easy to organically find in the search engine results page (SERP) with non-numeric and descriptive links |
| OR8 | Typography | Legible and accessible font which is consistent in the different elements of the web site. |
| OR9 | Tracking and Analytics | Monitor the performance and optimize it |
| OR10 | Enable Trust | Visitors have to feel safe when they leave information or make transactions in the website |
| OR11 | Footer | well designed and consistent footers across all pages |
| OR12 | Security and User Data Privacy | The website must be secure and abide by user data privacy guidelines |
| OR13 | Consistent hosting | The website must be online consistently and should be able to handle any outliers in demand |
| OR14 | Efficient and Quick Performance | should be quick enough for SEO |
| OR15 | Banners and Carousels | On-site Banners and carousels to promote featured books |
| OR16 | Site map | and robots.txt file for indexing on search engines |
| OR17 | Integration with Social Media | Including social media button at the end of the page |