



Business Requirements Description

Online Bookstore

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Table Of Contents

Table Of Contents	2
1. Introduction	3
1.1. Executive summary	3
1.2. Document overview	3
1.3. Business objectives	3
2. Background	4
2.1. Project overview	4
3. System description	5
3.1. What is books world	5
3.2. System architecture	6
3.2.1. Front end development	6
3.2.2. Back end development	6
4. System Features	7
4.1. Functional and Non-functional requirements	7
4.1.1. Functional requirements	7
4.1.1.1. Managing users	7
4.1.1.2. Managing inventory	7
4.1.1.3. Taking orders	8
4.1.2. Non-Functional requirements	8
4.2. Facilities	8
5. System development	10
5.1. Overview	10
5.2. Development plan	10
5.3. Team work	11
5.4. Development tools	11
5.5. Infrastructure	12
5.5.1. Software Technologies	12
5.5.2. Hardware Technologies	12
5.6. Assumptions	12
5.7. Limitations	13
5.8. Risks	13
6. References	14

1. Introduction

1.1 Executive Summary

Books world is an Online book store –ecommerce website- where users can find various genres of books, select books, add them to their shopping carts and place the order to collect them easily at home.

The main objective of this project is to create a small reading community where users can interact together through reading reviews and recommendations and also keep an eye on the website's bestselling books, award winning books, new releases, and news about the anticipated releases, also the website allows users to search and purchase books online based on category, author's name, book's name or ISBN, then add the selected books to their shopping carts and finally purchase the books. The website is a major consideration for those who are living in areas where the access of bookstores is limited.

A unique feature that is included in this website is exchanging books! Users can exchange used books between each other without any costs except for the delivery fees , every registered user that has any used book(s) can upload a photo of his used book and supply information about book's title, condition, and a brief description.

The Administrator will have additional functionality when compared to the common user. He can add, delete or update books' information.

1.2 Document Overview

This document introduces an online bookstore studying plan. It introduces general description, technical description, development plan, and operational plan.

1.3 Business Objectives

Electronic Book Shop focuses precisely on the following objectives:

- 1- Facilitate the process of buying books anywhere at any time.
- 2-Enhance books' exchanging among users.
- 3- Keeping up with books' news through the website's reading community.

2. Background

2.1. Project Overview

There are many online book stores like the famous 'Barnes and Nobels', Goodreads' and 'Amazon' which were designed using HTML, and I wanted to develop a similar website using HTML, CSS and PHP. Online Book store is an online web application where the customer can purchase books online. Through a web browser the customers can search for books by their title, author's name, or ISBN, then he can add them to the shopping cart and finally purchase them and pay cash on delivery.

The user can login using his email and password and new customers can sign up for new account in just a few steps. They should fill the details of their name, contact number and delivery address. Books available on the store are divided into categories based on subject Like Novels, Arts, Education etc...

This project has the following functionalities:

- **A Home page with product catalog button**
This is the page where the user will be navigated after a successful login. If the user clicked on (shop) button it will display all the book categories. The home page contains a search bar to search for the required book.
- **Search**
A search by keyword option is provided to the user using a textbox .The keyword to be entered should be the book title, author's name or ISBN.
- **Shopping Cart**
The user can manage a shopping cart which will include all the books selected by him/her. The user can edit, delete and update her/his shopping cart. A final shopping cart summary is displayed which includes all the items the user selected and the final total cost.
- **Managing user accounts**
Each user should have an account to access all the functionalities of website. User can login using login page.
- **Administration**
The Administrator will be provided with special functionalities like
 - Add or delete a books.
 - Manage member orders.

3. System Description

3.1 What is Books World

The primary goal of any e-commerce site is to sell goods, services and profiting, but that's not our goal. We do not sell books but spread knowledge, passion and encourage people to open books rather than opening smart devices. We aim to spread the love of reading to all people, because we do believe that the right book in the right hands at the right time can change the world.

The benefit of our online bookstore is that it saves your time, you have a wide collection of various genres of books so you can choose books according to your interests in no time while relaxing at home, also it's a major consideration for those who live in areas where the access of bookstores is limited.

The user creates an account in our website by signing up, then he can navigate through the website, add books to his cart, read or add a book review, evaluate books or anything she/he likes, she/he can review the books added to her/his cart by clicking on (My Cart).

The following image is an initial version of the interface of our website, it contains a sign in section if the user already has an account, if not he can press on the link (Don't have an account?) to direct him in the sign up page, there is a navigation bar and a social media section to keep up with our customers, and other features.



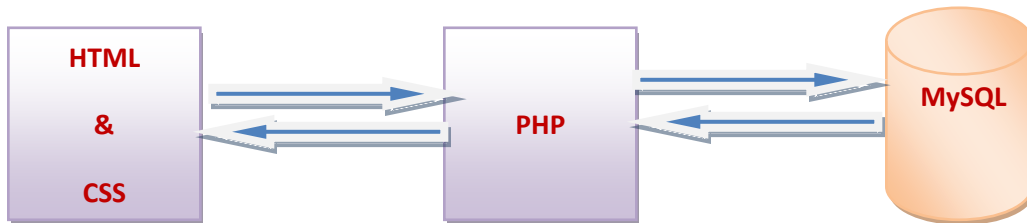
Website Interface

Our website has a unique feature which is exchanging books! When the user signs in then opens the books' category she/he chooses a book from the exchangeable section then in return she/he uploads a photo and the condition of the book he wants to exchange with.

Our mission is to facilitate the process of buying books and exchanging books anywhere at any time as the online process helped a lot on this, we also aim to create a reading community through the reviews and the feedbacks of our customers and the interaction of our customers together through our website, we also aim to attract users by our various books' sections including new releases, bestselling books and our various genres of books.

3.2 System Architecture

Development of an ecommerce website used the technologies of both front and back end. Front-End development refers to the web users interact with directly.



Technical Diagram Of used Technology

3.2.1 The front end development

Front end development needs languages as:

- HTML
- CSS

3.2.2 A back end development

A back end development serves indirectly in support of front-end services and it consists of three parts: Server, Application and Database.

- PHP
- MYSQL

4. System Features

4.1 Functional and Non-Functional Requirements

4.1.1. Functional Requirements

Functional Requirements are the set of requirements that define the functions of the Online Bookstore system. This describes the set of inputs, the behaviour, and outputs expected in the system.

The core functionalities expected in the system are Managing Users, Managing Inventory, Taking Orders and Fulfilling Orders, The key requirements required to accomplish each of these functionalities are described in the sections below.

4.1.1.1. Managing Users

The set of requirements define the functions of the User Management capability of the Online Bookstore system. Managing Users includes Accounts creation, maintenance, closing and deletion.

Adding Users :	It must be possible to add new users to the client repository.
Managing User accounts:	The system is required to store and maintain a list of client accounts in a repository.
Storing User Details :	User details must be persisted to a relational database.
Validating User :	The system must provide for secure access and user validation via pin and password. The Pin is to be provided by system. The user may change their password according to a set of defined rules.

4.1.1.2. Managing Inventory

The set of requirements define the functions of the Inventory Management capability of the Online Bookstore system. Managing Inventory includes Adding books to database, receiving books, maintaining stock levels, managing books, etc.

Adding Books :	A facility will be required to receive and add books to the stock lists.
Managing inventory :	The system must include a complete inventory management facility to store and track stock of books for the on-line bookstore.
Ordering Books :	A book order facility will be required to allow on-line ordering from major stock list
Storing/Managing Books :	A book storage and management facility will be required.

4.1.1.3. Taking Orders

The set of requirements define the functions of the Order Taking capability of the Online Bookstore system. This includes providing online interface, shopping cart and payment gateway.

Payment Processing :	All payments will be cash on delivery, and delivery time will be expected to be within 2 to 3 days.
Providing Online Sales	A new on-line book ordering system is required. This will allow web users to browse and purchase books from the current inventory. Pre-orders will not be required.
Shopping cart :	A shopping cart facility is required. It is a piece of software that keeps the record of the books a user has 'picked up' from the online store. The shopping cart enables users to select books, review what they selected, make modifications or add extra items if needed, and purchase the products.

4.1.2. Non-Functional Requirements

Non-Functional Requirements covers the requirements that are related to the Online Bookstore System. This includes Extensibility, Legal and Regulatory requirements, Performance requirements, Reliability requirements and Security requirements.

1-Other types of product options can be added easily

The system should be able to adapt to future requirements with respect to new books that are categorized in a chain of sub categories. If new types of products become available then they should be able to be added to the system easily.

2-System must be easily extendible

System must be easily extendible to cope with new functionality such as new products and different data conveyed to end users.

3-Processed information must be kept secure

All information gained from the end users that is processed must be kept secure.

4.2. Facilities

The system will provide facilities to the System administrator, Guest users and Registered:

Facilities to be provided to the system administrator.

- System administrator will have user friendly GUI (Graphical User Interface) system.
- Having details information of order, average selling rate, top selling books information, weekly selling books information etc...

Facilities to be provided to the registered user.

- User can choose and buy any kinds of books easily from this site only by registering.
- User can search any kind of books from this website.
- User can easily access this website.
- User can add, update or cancel his/ her shopping cart.

Facilities to be provided to the Guest user.

- User can show all information of books.
- User can search any kind of books from this website.
- User can read review about a book.

5. System Development

5.1. Overview

The system development is performed using Waterfall methodology. Users proceed to next phase. If and only if current phase is complete. Users are not allowed to go back to previous phases if there is any mistake so the model is named after waterfall model.

5.2. Development Plan

Functions / weeks	1	2	3	4	5	6	7	8	9	10	11	12
Study Requirements												
Management Planning												
Analysis												
Designing												
Coding												
Testing												
Final Release												

5.3. Team Work

A Computer Science Student **Nada Ihab Ahmed Mohamed Abd El-Gawad** Stands alone for the following functions and roles:

	Functions	Roles
1	Management	Managing project operations
2	Business	1 Designing 2 Business Analysis 3 Marketing
3	Development	1 Web development. 2 Quality assurance
4	Testing	Testing application
5	Operation	1 System operation 2 Marketing
6	Maintenance	Wed Development

5.4. Development Tools

Operation	Recommended Tools
Source Control and Versioning	GitHub
Tasks and Issues Tracking	GitHub
Structured Database	MySQL
Front End Programming languages	HTML, CSS
Back End Programming languages	PHP
Operating Systems	Windows

5.5. Infrastructure

There are many technologies required to build an e-commerce store and operate a successful online business. Both software and hardware technologies are listed below.

5.5.1. Software Technologies

Operating system	Windows
Front end languages	HTML and CSS
Back end languages	PHP
Browser	Chrome, Mozilla, Opera
Database	MySQL
Server	xampp

5.5.2. Hardware Technologies

Development side:

Processor	Core i7
Ram	16 GB
Hard Disk	2 TB

Production side: (minimum requirements)

Processor	Core i3
Ram	4 GB
Hard Disk	250 GB

5.6. Assumptions

- The system completely depends on personal contribution from my side as a computer science engineer student to build this online application.
- The system completely depends on free software tools and languages
- The system based on phases that will be issued in time as new versions and new releases.
- Using only cash on deliver payments system for the time being, and add other payments systems in other new versions.

5.7. Limitations

1. Lack of time

Lack of time compelled me to ignore some of important features and upgrades, so unfortunately, due to the limited time, these features and upgrades as listed below are beyond the scope of the current project:

- Some parts of the application such as, history of previous orders for the user.
- Issuing periodical backups of the database.
- Allowing payments through credit card or through mobiles money transfer.
- Printing reports.
- Writing reviews.

2. Weakness

Weakness of outputs due:

- Lack of experience.
- Lack of awareness of e-business.
- Lack of motivation except for self-motivating.

3. Threats

Facing threats as new entrance with tough competition with other online business and the economic instability.

5.8. Risks

- System Reliability:

I am using cash on delivery payment service in this version but in later versions I will use different types of payments, so the Internet service provider (ISP) server could crash, the online payment system could show errors, these are just some things that may happen outside of our control.

- Privacy Issues

Customers' personal data could be used for spamming, so I have to make sure to alert customers to use strong passwords.

- Customer Disputes

A customer might not have received their order, or the product they received didn't fit the online description. Whether the customer is right or not, it's important to always have great customer service and to rectify all possible mistakes that were made.

These are risks when running an ecommerce business but the most important thing we can do is to always keep these in mind, and to build a strategy on how to deal with them once they happen.

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