



# SRS

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### 1. Introduction

#### **1.1.Executive Summary**

The software system being produced is called  $\mathfrak{B}ooks$   $\mathfrak{W}orld$  which is an online bookstore. It is being produced for a customer interested in selling books via the Internet. This system is designed to "provide automation support" for the process of placing books for sale on the Internet and facilitating the actual sale.

The Books World will allow any user to create an account to become a customer. The customer, through the process of account creation, will have the option to become a member of the site. The system will allow customers to browse, search, select, and add books to a shopping cart. Then, provide the selected books in their shopping cart, check out books in shopping cart and add or delete items.

The Books World also allows an Administrator to manage the inventory with full create, retrieve, update and delete functionality with regards to books in the system. It will also allow, on an inventory wide basis, customers and administrators to interact with a promotion system that handles percentage-off promotions that can be applied to member's orders at later versions of Books World.

The system will enable only cash on delivery payments system on case of purchasing, and at later versions another payments systems will be added as credit card payments, Internet payments, etc.

#### 1.2.Document Overview

Software Requirements Specification document is designed to document and describe the agreement between the customer and the developer regarding the specification of the software product requested. Its primary purpose is to provide a clear and descriptive "statement of user requirements" that can be used as a reference in further development of the software system. This document is broken into a number of sections used to logically separate the software requirements into easily referenced parts.

This SRS document aims to describe the Functionality, External Interfaces, Attributes and Design Constraints imposed on Implementation of the software system described throughout the rest of the document. Throughout the description of the software system, the languages and terminology used should unambiguous and consistent throughout the document.

This **SRS** document describes the software requirements specifications for Books World which is an online bookstore, it's a Fast Track e-shopping Software System specifically developed for use in any bookstore that would want to automate electronically its book sales. This document includes a description of the software and its subsystems.

Throughout this document,  $\mathcal{B}$ ooks  $\mathcal{W}$ orld will sometimes be referred to as "  $\mathcal{B}\mathcal{W}$  " Defining and describing the functions and specifications of this online Book Store software Requirements Specification (SRS). This Software Requirements Specification illustrates, in clear terms, the system's primary uses and required functionality as specified by the customer.



# 1.3.Abbreviations and Terminology

No.	Abb. /Term.	Description
1	SRS	Software Requirements Specification
2	BW	Books World is the online bookstore application.
3	Use-Case	Oval shapes with titles that represent direct functionality within the system that must be implemented.
4	MTBF	Mean time between failure
5	TLD	Top-Level Domain
6	CDN	Content delivery network
7	SEO	Search Engine Optimization
8	IMA	Internet merchant account
9	PSP	Payment service provider
10	PCI SSC	Payment Card Industry Security Standard Council



### 2. System Description

#### **2.1.Introduction**

#### 2.1.1.About BW

Books World is an Online Book store, it is an online web application where customers can purchase books online. Through a web browser the customers can search for a book by its title or author, later can add to the shopping cart and finally purchase using Cash on delivery.

The user can login using her/his account details or new customers can set up an account very quickly. They should give the details of their name, contact number and delivery address. The books are divided into categories based on subject Like Novels, Arts, Education etc...

Books World is an Online Electronic Book store which is an e-commerce web site where users can see books, select the books in the shopping cart and place the order to collect them easily at home or anywhere The main objective of this project is to create an Online Book Store -Electronic Book Store- which is a web application that allows users to search and purchase books online based on category, author and subject, and add selected books to the shopping cart and finally purchase Cash on delivery. The user can login using his account details or new customers can set up an account very quickly. They should give the details of their name, contact number and delivery address, etc...

Books are divided into categories based on subject like Art, Education and Novels etc... The selected books are displayed and the user can order books online through Cash on delivery. Using this Website the user can purchase books online instead of going out to a traditional book store and wasting time.

A new feature that is included in  ${\mathfrak B}$ ooks  ${\mathfrak W}$ orld which is exchanging books between users. Users can exchange used books between one another without any costs except for the delivery fees , every registered user that has sign in and has any used book(s) can list his used books and supply information about her/his books as title, author, number of pages, type of cover page, image of the book, and status of the book .

The Administrator will have additional functionality when compared to the common user. He can add, delete and update the book details, book categories, member information and also confirm a placed order, and manage exchanged books.

Books World is a user -friendly website that is designed with simple and friendly interface without complications.



#### 2.1.2.System Functionalities

Books World has the following functionalities:-

#### A Home page with product catalog

This is the page where the user will be navigated after a successful login. It will display all the book categories and will have a search keyword option to search for the required book. It also includes some special sections like top selling books, top author, recommended books etc.

#### Search

A search by keyword option is provided to the user using a textbox .The keyword to be entered should be the book title. If the user would like to know details about a book user can click on the title or the image from where she/he will be directed to a Book description page. It includes the notes of the book content, the recommend book titles. Users can also comment about the book and show the commented articles.

#### Shopping Cart

The user can manage a shopping cart which will include all the books selected by the user. 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 account

Each user should have an account to access all the functionalities of website. User can login using login page and logout using the logout page.

#### • Exchanging Books

Users can exchange used books between one another without any costs except for the delivery fees, every registered user that has sign in and has any used book(s) can list her/his used books and supply information about her/his books as title, author, number of pages, type of cover page, image of the book, and status of the book.

#### Administration

The Administrator will be provided with special functionalities like

- Add or delete a book category
- Add or delete a member.
- Add or delete author and publisher.
- Manage member orders.
- Add or delete a Payment status.



#### 2.1.3. System Facilities

The online bookstore  ${\mathfrak P}{\mathfrak W}$  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 asynchronous GUI (Graphical User Interface) system.
- Can be accessed from anywhere of the world.
- To have the 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 within limited time

#### 2.1.4.System Development

#### 2.1.4.1. Architecture

#### 2.1.4.2. Development

This application is going to be developed using **HTMI** and **CSS** as for Frontend development to create user interface and GUI components like graphics, buttons, containers, labels, text and anything that the user will deal with or watch. Also going to use **PHP** as for backend to create the actions that is fired by the user like searching for a certain book, adding books to shopping cart, browsing categories or actions made by the BW administrator. As shown below is system development architecture.

#### **2.2.** Users

- 1- Administrator: The person who will administrate and manage  $\mathfrak{PW}$ .
- 2- User/Guest User: The person who will operate the software product.
- **3** Customer: A customer is a registered user.

#### 2.3.Modules



# 3. System Users

There are two main system users whom will use this online book store, Administrator of the  ${\mathbb B}{\mathbb W}$  application and internet users that will use WB as a service provider for buying books online through this ecommerce application .

Listed below is a brief description of the activities for every type of system users, those are :-

System Users	Activity
Administrator	The person who will administrate and manage $\mathfrak{B}W$ which is the application of the online bookstore software product.  The administrator will have a complete control over the $\mathfrak{B}W$
	concerning items in the e-store or concerning users of the online application.
User / (Guest User)	The person who will operate the software product, navigate or search for a book without registering to the application and without having an account.  User is considered as a Guest User, she/he can show all information of books, search any kind of books from this website and read review about books.
Customer	A customer is a registered user, that is a user of the system but has created an account in order to buy books or exchange her/his used book(s).



# **4. System Modules**

The WB application is represented by Data Flow Diagrams. Each process within the system is first shown as a Context Level DFD and later as a Detailed DFD. The Context Level DFD provides a conceptual view of the process and its surrounding input, output and data stores.

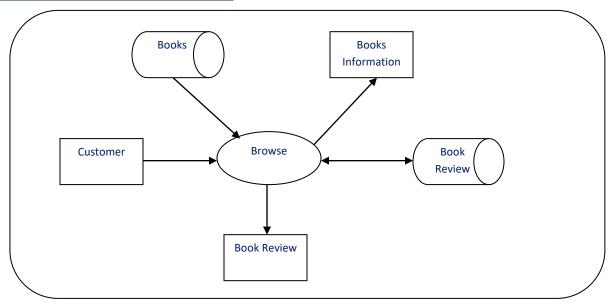
The Detailed DFD provides a more detailed and comprehensive view of the interaction among the sub-processes within the system. Data Flow Diagrams show the flow of data from external entities into the system, and from one Process to another within the system.

There are four symbols for drawing a DFD.

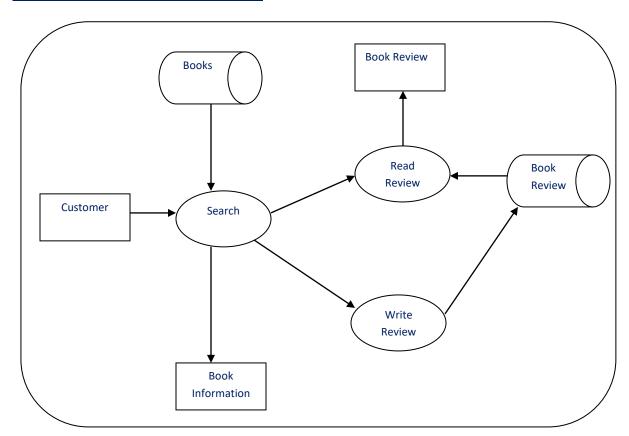


### **4.1.Customer-Browse**

#### 4.1.1.Customer-Browse Context DFD

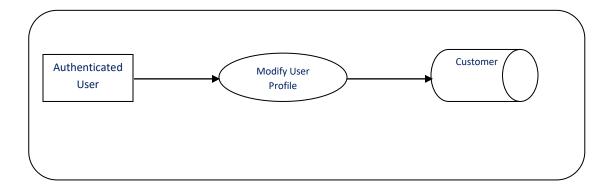


#### 4.1.2.Customer-Browse Detailed DFD

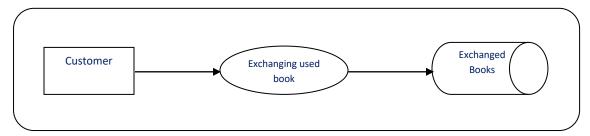




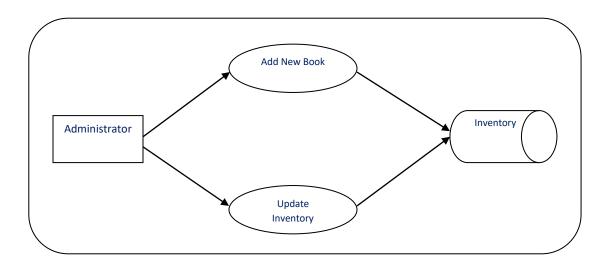
### 4. Authenticated Customer Modify Profile DFD



#### **4.Exchanging Books DFD**



#### 4. Administrating Inventory Details DFD





# **5. System Functions**

# **5.1.Browse Catalog**

### 5.1.1. Book Search

Description:	A user can search for a book of his choice by selecting category and title. Then a select query is used to retrieve data from the database and display the selected information.
Actor:	User/Customer
Input:	The user will select a category and enter title in a text box provided.
Output:	The system will display the books which matches the selected search criteria. A dataset is created as a result of select query. Later the dataset is binded to the data repeater to display the selected data.
Pre-conditions:	
Post-conditions:	

### 5.1.3. Rating a Book

Description:	If the user wants to give rating according to his opinion for a book he can select either Excellent, Very good, good, regular or deficient. The final rating of a book will depend on all the individual user rating.	
Actor:	User/Customer	
Input:	The user will select a rating based on his opinion.	
Output:	The system will display the rating of a book and the total number of votes received.  Below is the display for various ratings:-  **** Excellent  **** Very Good  *** Good  ** Regular  * Deficient	
Pre-conditions:		
Post-conditions:		



# 5.3. Manage Shopping Cart

### 5.3.1. Place an Order

Description:	If the user wants to purchase a book then he can place an order by selecting the add to shopping cart button and entering the quantity required under the book description.
Actor:	Customer
Input:	The user will enter the quantity required and click the add to shopping cart button.
Output:	The order will be added to the user's shopping cart.
Pre-conditions:	
Post-conditions:	

### 5.3.2. Update Shopping Cart

Description:	If the user wants to change the quantity of a book or change a book then
	he can update his shopping cart.
Actor:	Customer
Input:	The user will click the details button in the shopping cart summary to edit and update his order details.
Output:	The updated order details are reflected in the shopping cart summary.
Pre-conditions:	
Post-conditions:	

### 5.3.3. View Shopping Cart

Description:	If the user wants to view the items he added to the shopping cart then he can click the shopping cart link at the top of the page.
Actor:	Customer
Input:	If the user wants to view the items he added to the shopping cart then he can click the shopping cart link at the top of the page.
Output:	The user's shopping cart summary will be displayed in the form of a tabular format with all the books and their quantity. A total cost of all the items is also displayed at the bottom.
Pre-conditions:	
Post-conditions:	



### 5.3.4. Exchange Books

Description:	If the customer has any used book that she/he wants to exchange. Then through this link she/he can exchange it with another used book from a list.
Actor:	Customer
Input:	The customer should enter some required fields that describe the used book that is required to be exchanged.
Output:	After the customer press the exchange button, then a list of availabe used books ore displayed for the customer to select one.
Pre-conditions:	
Post-conditions:	

### 5.4. Administrator

### 5.4.2. Add or Delete a Book

Description:	If the Administrator wants to add or delete a book then he can insert or delete a book using his administration rights and the book table will be updated in the database.	
Actor:	Administrator	
Input:	If the Administrator wants to add or delete a book then he can insert or delete a book using his administration rights and the book table will be updated in the database.	
	1.Book title	
	2.Book's Category	
	3. Auther	
	4.Publisher	
	5.Edition version	
	6.Number of pages	
	7.ISBN= International Standard Book Number	
	8. language	
	9. Cover type	
	10.Price	
	11.Discount	
	12.Image of the Book	
	13.Store Review	
	14.Number of books available	



	If he wants to delete a book he can click the delete button to remove it from the database.
Output:	The updated books list will be displayed in the main home page under their particular category.
Pre-conditions:	
Post-conditions:	

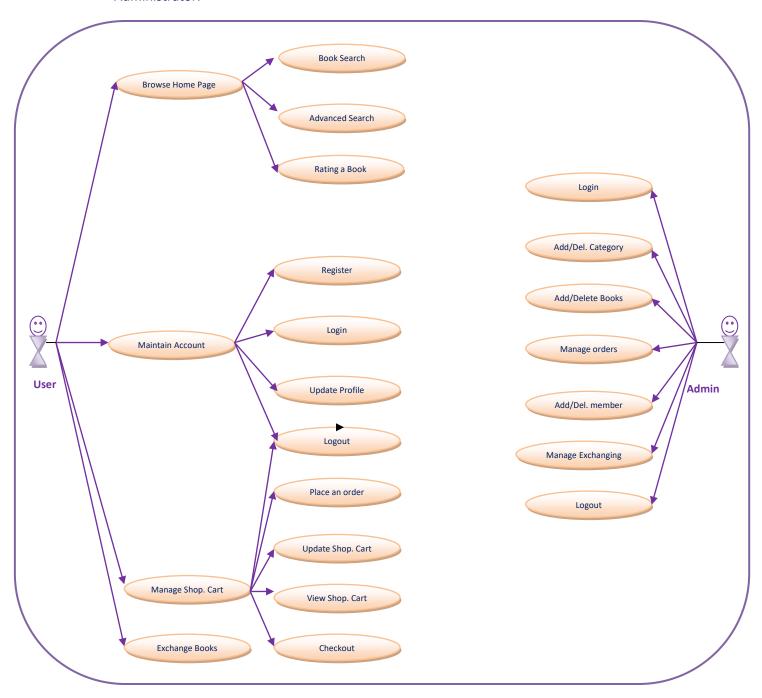
### 5.4.4. Manage Orders

Description:	If the Administrator wants to add or delete an order then he can insert or delete an order using his administration rights.
Actor:	Administrator
Input:	If the Administrator wants to add an order the he should click the insert link button in the orders page else he can delete a particular selected order.
Output:	The updated orders list will be processed to the users.
Pre-conditions:	
Post-conditions:	



# **6. System Models**

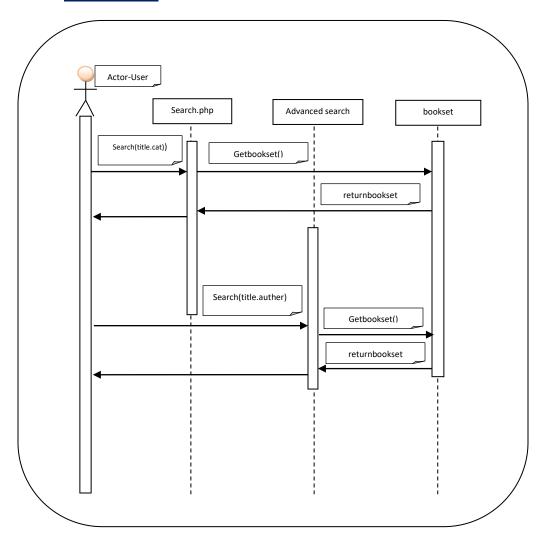
#### **User & Administrator Use-Case**



User & Administrator Use Case diagram

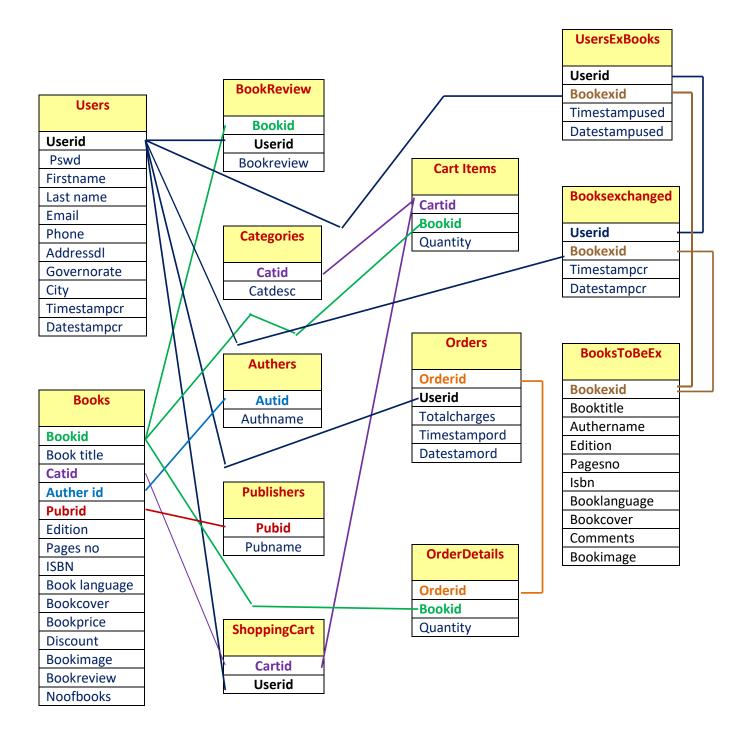


### **6.Book Search**





#### 6.3. DataBase Schema





### **6.3.2.List Of Tables & Tables Structure**

No	Description of Table	Name of Table
1	Users	Users
2	Books	Books
3	Users Book Review	Book Review
4	Categories	Category
5	Authors	Authors
6	Publishers	Publishers
7	Shopping Carts	Shopping carts
8	Shopping Cart Items	Cart Items
9	Orders	Orders
10	Orders Details	Order Detail
11	Books To Be Exchanged	Books To Be Ex
12	Exchanged Books	Books Exchanged
13	Books exchanged by users	Users Ex Books



### **Tables Structure**

Table -1-: Users

SNO	Field Name	Туре	Key	Description
1	Userid	Int(15)	Primary key	User Identification number
2	Pswd	Varchar(30)		User password
3	Firstname	Varchar(30)		User first name
4	Last name	Varchar(30)		User last name
5	Email	Varchar(30)		User email
6	Phone	Varchar(100)		User phone
7	Addressdl	Varchar(200)		Deliver address
8	Governorate	Varchar(30)		Governorate
9	City	Varchar(30)		City
10	Timestampcr	Time		Time Stamp on creation
11	Datestampcr	Date		Date Stamp on creation

### Table-2-: Books

SNO	Field Name	Туре	Key	Description
1	Bookid	Int(15)	Primary key	Book Identification number
2	Booktitle	Varchar(200)		Book title
3	Catid	Int(15)	Foreign Key	Category identification number
4	Autherid	Int(15)	Foreign Key	Auther Identification number
5	Pubid	Int(15)	Foreign Key	Publisher Identification number
6	Edition	Varchar(50)		Edition version
7	Pagesno	Int(15)		Number of pages
8	Isbn	Int(15)		ISBN= International Standard Book Number
9	booklanguage	Varchar(50)		Book language
10	bookcover	Varchar(30)		Book cover type
11	bookprice	Int(15)		Book price
12	discount	Int(15)		Discount
13	bookimage	Varbinary(max)		Book image
14	Bookreview	Char(200)		Book review by store
15	Noofbooks	Int(15)		Number of books

#### Table-3-: BookReview

SNO	Field Name	Туре	Key	Description
1	Bookid	Int(15)	Foreign key	Book Identification number
2	Userid	Int(15)	Foreign key	User Identification number
3	Bookreview	Char(200)		Book review by user



### Table-4-: Categories

SNO	Field Name	Туре	Key	Description
1	Catid	Int(15)	Primary key	Category identification number
2	Catdesc	Varchar(50)		Category description

### Table-5-: Authers

9	SNO	Field Name	Туре	Key	Description
	1	Autid	Int(15)	Primary key	Auther identification number
	2	Authname	Varchar(50)		Auther name

#### Table-6-: Publisher

SNC	Field Name	Type	Key	Description
1	Pubid	Int(15)	Primary key	Publisher identification number
2	Pubname	Varchar(50)		Publisher name

#### Table-7-: ShoppingCart

SNO	Field Name	Туре	Key	Description
1	Cartid	Int(15)	Primary key	Shopping cart identification number
2	Userid	Int(15)		User identification number

### Table-8-: Cart Items

SNO	Field Name	Туре	Key	Description
1	Cartid	Int(15)	Foreign key	Shopping cart identification number
2	Bookid	Int15)	Foreign key	Book identification number
3	Quantity	int		Quantity of books



### Table-9-: Orders

SNO	Field Name	Туре	Key	Description
1	Orderid	Int(15)	Primary key	Order Identification number
2	Userid	Int(15)	Foreign Key	User Identification number
3	Totalcharges	Double		Total charges for the order
4	Timestampord	Time		Time Stamp on creation
5	Datestamord	Date		Date Stamp on creation

### Table10-: Order details

SNO	Field Name	Туре	Key	Description
1	Orderid	Int(15)	Foreign Key	Order Identification number
2	Bookid	Int(15)	Foreign Key	Book Identification number
3	quantity	Int(15)		Quantity of required book

### Table-11-: BooksToBeEx

SNO	Field Name	Туре	Key	Description
1	Bookexid	Int(15)	Primary key	Exchanged Book Identification number
2	Booktitle	Varchar(200)		Book title
3	Authername	Varchar(100)		Auther name
4	Edition	Varchar(50)		Edition version
5	Pagesno	Int(15)		Number of pages
6	Isbn	Int(15)		ISBN= International Standard Book Number
7	booklanguage	Varchar(50)		Book language
8	bookcover	Varchar(30)		Book cover type
9	Comments	Varchar(200)		Comments

### Table -12- : Booksexchanged

SNO	Field Name	Туре	Key	Description
1	Userid	Int(15)	Primary key	User Identification number
2	Bookexid	Int(15)	Primary key	Exchanged Book Identification number
3	Timestampcr	Time		Time Stamp on creation
4	Datestampcr	Date		Date Stamp on creation



### Table -13- : UsersExBooks

SNO	Field Name	Туре	Key	Description
1	Userid	Int(15)	Primary key	User Identification number
2	Bookexid	Int(15)	Primary key	Exchanged Books by user Identification number
3	Timestampcr	Time		Time Stamp on creation
4	Datestampcr	Date		Date Stamp on creation