


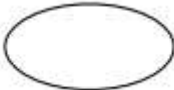




## USECASE MODEL

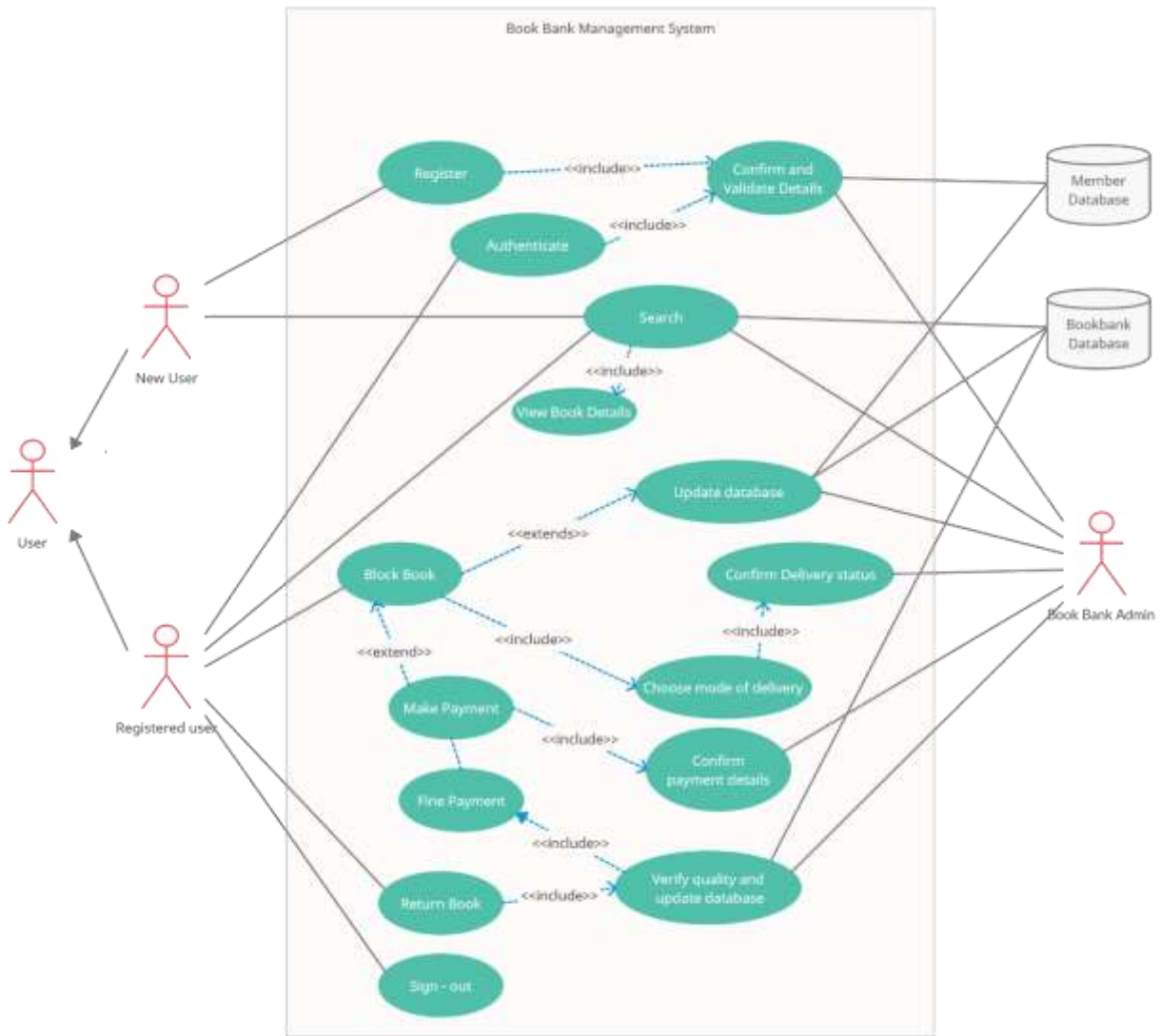
### AIM:

To create a fully dressed used case diagram for the online Book Bank Management System.

### NOTATIONS USED:

SYMBOL	NAME
	Actor
	Database
	Association
	Use Case
	Inheritance
	Generalization

## Use Case Diagram:



## Actors:

1. User - Registered, New
2. Admin
3. Member Database
4. Book Bank Database

## Use cases:

1. Log in
2. Authenticate
3. Register
4. Confirm User Details
5. Search
6. View book details
7. Block book
8. Make Payment
9. Choose mode of delivery
10. Confirm payment details
11. Confirm delivery status
12. Return Book
13. Verify quality and Update the database

### **Description of Use case diagram:**

#### **USE CASE: AUTHENTICATE**

**Overview:** Authenticate use case is for the purpose of enabling the user to access the Book Back Portal

**Scope:** User Use case

**Level:** User – level goal

**Primary Actor:** User

#### **Pre-condition(s):**

1. The user must be registered in the website and the details of the user must be saved in the database
2. The user has opened the website in the web portal

#### **Post-condition(s):**

1. The user gets the home page of the book bank
2. The search option is available for the user based on various categories
3. (or) The user can view and edit user details

#### **Main Success Scenario:**

1. Gets the username and the password from the user
2. It validates the username and password by checking the database and redirects the user to the home page of the book bank page, if the username and password is right

#### **Alternate Scenario(s):**

**1. Username is not available in database:**

The system displays message “The user is not registered” and it provides an option to register as new user

**2. The entered password is incorrect:**

The system displays error message saying the password is incorrect and to enter password again

**3. Network failure or System failure:**

System undergoes recovery procedures and reloads the page

**4. Site has maintenance issue:**

System displays request message to try reloading the page

**Include:** Confirm and validate the username and password

**Extends:** None

**USE CASE: REGISTER**

**Overview:** Use case for a new user to the portal to register oneself so that the user can search/block book from the book bank

**Scope:** User use case

**Level:** User – level goal

**Actor:** User, System, Database

**Pre-condition(s):**

1. The user has opened the Book Bank Management system in the web portal

**Post-condition(s):**

1. The new user will become a registered user and can access the Book Bank Management Portal
2. The User will be asked to log – in by entering the username and password

**Main Success Scenario:**

1. The user is asked to enter details:
  - a. First name
  - b. Lastname
  - c. Mail id(username) – unique to every user
  - d. Mobile no
  - e. Profession
  - f. Unique id: aadhar or passport no
  - g. Password: The password must contain atleast 1 digit and 1 special symbol
  - h. Confirm Password – must match the password

2. After the details are submitted the user must verify the mail id – should enter the otp sent to the mail entered
3. The user is registered and details are appended to the user database

**Alternate Scenario(s):**

1. **Mail id invalid:**  
Allows the user to enter the valid details again
2. **Password and confirm password don't match:**  
The user must enter either of the fields again
3. **The otp does not match the otp sent to the mail id:**  
This means the user made mistake while entering the otp or the user is not a verified user, the user must undergo the registration process again

**Include:** Confirm and Validate Details

**Exclude:** -

**USE CASE: SEARCH FOR BOOK**

**Overview:** Use case to perform search operation on the books in the book bank to select the wanted book easily instead of going through all the books in the database

**Scope:** User use case

**Level:** User – level goal

**Actor:** User, System, Database

**Pre-condition(s):**

1. The user has logged – in to the website
2. The user knows either one of the details of the book like title/author/publication
3. The database for the information of the books is up-to-date

**post-condition(s):**

1. The user is directed to block the book
2. The user can search for another book
3. The user can log – out

**Main Scenario:**

1. The User selects the search option on the website
2. The user selects the field to search or the domain of interest
  - a. The fields include: title of the book, author of the book, publication name

- b. The domains include Science, Mathematics, Engineering ,Medical, Social and General Studies
3. The system filters the books in the database according to the domain selected or the entered field.
4. The books filtered are displayed along with their image of the cover page, the title of the book, author of the book, publication and the price of the book for rent/buy.
5. When the cover or the title of the book is pressed the user is directed to further details about the book including the extended information about the book like the edition no, the author details and the contents of the book if necessary

#### **Alternate Scenario(s)**

1. **The keyword entered in the field does not match any book in the database:**  
The user is notified that there are no results found for the search and to try to search by using a different keyword or domain
2. **The book of the exact specification of the search is not available:**  
In this case then the user is shown the details of the book close to the description the user has provided and notify the user that the search was modified hence perform the search again if the wanted book is not available

**Includes:** View Book Details

**Extends:** -

#### **USECASE: BLOCK BOOK**

**Overview:** Use case to block a book that is reserve the book the user might buy later

**Scope:**

**Level:** User – goal

**Primary Actor:** User

**Pre-condition(s):**

1. User should be logged – in
2. User should have searched and selected (a) book
3. The book that was searched must be available

**Post-condition(s):**

1. User will be shown the book or list of books related to the search if the book is available
2. If book not available, message saying book not available will be shown
3. On clicking the book, the user will be asked for confirmation
4. On confirming user will be redirected to payment page

### **Main Success Scenario:**

1. The user proceeds to block the book the user searched for.
2. The system checks the availability of the book if the book is available
  - a. The database is updated that is the no of the book going to be blocked is updated
  - b. The user is redirected to the payment page
  - c. Mode of payment is selected and payment details are confirmed.
  - d. After the payment process, the user opts to either get the book delivered or collect the book.
  - e. On choosing delivery, delivery address is collected.
  - f. Delivery status is updated and can be checked.
3. If the book is not available
  - a. The system shows message that the book is currently unavailable and that the user will be notified by mail when the book is available again else to please come back again

### **Alternate Scenario(s):**

1. **There is book that is going to be blocked is no longer available**

The user is notified of the situation and then the page is refreshed and redirected to the search page
2. **The payment details is not verified:**

The user is notified about the cancelled payment process and then is allowed to make the payment process again
3. **If the option for delivery is not available at the moment:**

The user is notified that the delivery cannot be processed immediately and that the system will let the user know of the further developments within 24 hours

**Include:** Choose Mode of Delivery

**Extends:** Update Database

### **USECASE: RETURN THE BOOK**

**Overview:** Use case that makes it possible for the user to return the book that he/she had taken for rent

**Scope:** User – system - admin

**Level:** User level

**Primary Actors:** User, System, Database, Book Bank Manager

**Pre-condition(s):**

1. The user and admin have logged into the system
2. The user has rented one or more books and wishes to return the book
3. The user has valid membership in the portal

**Post-condition(s):**

1. The user is no longer in possession of the book.
2. The user is can log – out
3. The user can search for other books

**Main Success Scenario:**

1. The user selects to return the book in his possession
2. The user enters the name of the book
3. The admin checks for the book quality and verifies the details and checks if it is the correct book
4. The admin also checks if there are no fines to be payed for the extended time or damage caused to the book
5. The admin then accepts the return book and produces the bill that the user has successfully returned the book.
6. The system updates the database after the book has been returned

**Alternate Scenario(s):****1. The book is damaged**

The user is notified of the damage fine and after the payment is made the book is returned and the database along with the damage details is updated

**2. If the user reports that the book is lost after deadline:**

The user will have to pay a fine and then the book is considered to be removed permanently

**Include:** Verify quality and update database

**Extends:** -

**USE CASE: UPDATE DATABASE**

**Overview:** Use case to update user and book database by the admin

**Scope:** Admin- system

**Level:** Admin level

**Primary Actor:** Admin, System and Database



**Pre-condition(s):**

1. The admin has logged in to the system
2. The admin has knowledge on the type of information stored in the database
3. The system is connected to the database and there is no issue or system failure
4. The database is up – to – date

**Post-condition(s):**

1. The database is now updated
2. The admin can log out
3. The database if there is no system failure the changes are successfully changed

**Main Success Scenario:**

1. The admin can perform the following operations on the database
  - a. **INSERT**  
The admin can add records of the new arrivals of books, by entering the details of the book that must be stored in the database
  - b. **SEARCH**  
The admin can search the database of the users and the books to see if the user is a registered user or to see if the book already exists in the database or to view the details of the book the admin desires
  - c. **DELETE**  
When there is situation when the admin must delete a record of user/book in the database due to unexplainable reasons then the admin can search for the particular record and choose to remove all the details related to that record
  - d. **UPDATE**  
When the admin wants to make changes to the details of the records in the database, for example the details of the user who has physically come to the store, or the details of the book on returning of the book or to change incorrect information entered in the database he can search for the particular record and choose to edit the information and enter the new information and save the changes
2. The admin checks to see if the operations are performed correctly and then save the changes and the database is updated

**Alternate Scenario(s):**

1. **The database is not accessible:**  
The system display error messages and asks to refresh the page until the database is successfully connected to the system
2. **The book/user searched does not exist:**  
The system displays that the search is not successful and further operations cannot be performed
3. **Network failure or System failure:**

System undergoes recovery procedures and reloads the page

**4. Site has maintenance issue:**

System displays request message to try reloading the page

**Include: -**

**Extends: -**