

## Introduction :

The Library System project focuses on creating a software solution for efficient library management, and a solution to many of the problems facing us, as this system allows :-

- 1- The possibility of managing the library in the best possible way
- 2- Provide all the information about each book
- 3- Provide all the information about the author
- 4- Helps the user to find the book he wants as soon as possible
- 5- Enables authors to publish their books easily and in the fastest time
- 6- It helps users to exchange books among themselves from all over the world
- 7- The user is offered suggested books similar to the one he is reading

## Scope:

The objective of this project is to create an appropriate database and implement a website for a library via the internet. The system will run on a central server with each user having a remote user interface through a web browser to interact with it. The website will allow users to create and maintain individual secured accounts, search for books. User will be able to contact with administrators. The website will make purchasing e-book quicker, easier, and more convenient. and we will explain all services in the process and requirements section.

Screens: 6

Employee:

- Project management
- Project owner
- Flutter
- Front
- Back
- UI\UX
- DBAS
- System AS
- Tester

**INITIAL BUDGET is 300000 \$**

**FINAL BUDGET is 298160 \$**

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Development team :-

Employee

- Project management
  - Project owner
  - Flutter ( 1 Senior )
  - Front ( 1 Junior )
  - Back ( 2 Senior / 2 Junior )
  - UI\UX ( 1 Junior )
  - DBAS ( 2 Senior )
  - System AS ( 1 Senior )
  - Tester
- 

Requerment :-

| ID | Requirements  | Date           | Related features   | Related stakeholders   | Type (Functional / Non-Functional) |
|----|---|----------------|--|--|------------------------------------|
| 1  | customers must be able to create new accounts and login to them.                    | Oct 17nd, 2023 | <ul style="list-style-type: none"><li>• Customer can open new account by providing necessary information.</li><li>• Login.</li></ul> | <ul style="list-style-type: none"><li>• Customers</li><li>• bank</li></ul> | Functional                         |
| 2  | customers must be able to access their accounts from any internet-connected device. | Oct 17nd, 2023 | <ul style="list-style-type: none"><li>• online access</li></ul>  | <ul style="list-style-type: none"><li>• Customers</li><li>• bank</li></ul> | Functional                         |

|   |   |                |   |   |                   |
|---|---|----------------|---|---|-------------------|
| 3 | customers should be able to view their balance and transaction records. | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>● Displaying account information and current balance to users</li> </ul> | <ul style="list-style-type: none"> <li>● Customers</li> <li>● bank</li> </ul> | <b>Functional</b> |
| 4 | customers should be able to make deposits.                              | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>● Depositing funds into their accounts.</li> </ul>                       | <ul style="list-style-type: none"> <li>● Customers</li> <li>● bank</li> </ul> | <b>Functional</b> |
| 5 | Allowing customers to make withdrawals.                                 | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>● Withdrawing funds from their accounts.</li> </ul>                      | <ul style="list-style-type: none"> <li>● Customers</li> <li>● bank</li> </ul> | <b>Functional</b> |

| ID | Requirements  | Date           | Related features  | Related stakeholders  | Type (Functional / Non-Functional) |
|----|---|----------------|---|---|------------------------------------|
| 6  | Allowing customers to apply for loans.  | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• ability for users to apply for loans.</li> </ul>   | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul> | Functional                         |
| 7  | customers must be able to make online payments.                                 | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• Easy purchasing experience</li> </ul>  | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul> | Functional                         |
| 8  | The system should allow the customer to perform financial transfer transactions | Oct 17nd, 2023 | <p>Convenience for customers:<br/>Allowing financial transfer transactions provides customers with the flexibility to transfer funds easily and securely.</p> | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul> | Functional                         |
| 9  | A customer can request banking cards , such as cards and debit cards.           | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• Making purchases without the need to carry cash.</li> <li>• Security</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul> | Functional                         |
| 10 | Customer can preform various transactions at ATMs.                              | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• Convenient access:<br/>Customers can withdraw cash at any time from anywhere they are.</li> </ul>                    | <ul style="list-style-type: none"> <li>• Customers</li> <li>• Bank</li> </ul> | Functional                         |

| ID | Requirements  | Date           | Related features  | Related stakeholders  | Type (Functional / Non-Functional) |
|----|---|----------------|---|---|------------------------------------|
| 11 | The system must be secure from Cyber attacks.                           | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• Data protection</li> <li>• Continuity: The system must be able to deal with cyber attacks without interruption in services.</li> </ul> | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> <li>• government</li> </ul> | Non_Functional                     |
| 12 | The system must be scalable to meet the requirements of more customers. | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• A scalable system can provide a fast and reliable customer experience</li> </ul>   | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul>                       | Non_Functional                     |
| 13 | The system must be reliable and problem-free.                           | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• improve customer experience</li> <li>• Increase system efficiency</li> </ul>   | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul>                       | Non_Functional                     |
| 14 | The system must be easy to use.   | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• improve customer experience</li> </ul>   | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul>                       | Non_Functional                     |
| 15 | The system must be able to handle different customer needs.             | Oct 17nd, 2023 | <ul style="list-style-type: none"> <li>• Increase customer satisfaction</li> <li>• improve customer experience</li> </ul>   | <ul style="list-style-type: none"> <li>• Customers</li> <li>• bank</li> </ul>                       | Non_Functional                     |

|    |   |               |  |   |                |
|----|---|---------------|--|---|----------------|
| 16 | The system shall maintain transaction records for audit purposes. | Oct 17th,2023 | <ul style="list-style-type: none"> <li>• Transaction logging,</li> <li>• Data retention.</li> </ul>            | <ul style="list-style-type: none"> <li>● Customers</li> <li>● bank</li> </ul> | Non_Functional |
| 17 | The system shall be available 24/7 with minimal downtime.         | Oct 17nd,2023 | <ul style="list-style-type: none"> <li>● High availability</li> <li>● disaster recovery.</li> </ul>            | <ul style="list-style-type: none"> <li>● Customers</li> <li>● bank</li> </ul> | Non_Functional |
| 18 | Response  | Oct 17nd,2023 | <ul style="list-style-type: none"> <li>● The system must be response to user in less than 1 second.</li> </ul> | <ul style="list-style-type: none"> <li>● bank</li> </ul>                      | Non_Functional |
| 19 | Appearance  | Oct 17nd,2023 | <ul style="list-style-type: none"> <li>● smple look to use</li> </ul>  | <ul style="list-style-type: none"> <li>● bank</li> </ul>                      | Non_Functional |

|    |   |                |  |   |            |
|----|---|----------------|--|---|------------|
| 20 | The system shall provide multi-language support | Oct 17nd,2023  | <ul style="list-style-type: none"> <li>● Ease of dealing with customers of different nationalities</li> </ul>  | <ul style="list-style-type: none"> <li>● Customers</li> <li>● bank</li> </ul> | Functional |
| 21 | Customer can open an account                    | Oct 17nd, 2023 | 1-deposits the customer can deposit money into his bank or financial account<br>2-withdrawal: the customer can withdrawal funds from his account by withdrawing cash or using an atm card<br>3-bank transfer: the customer can | Customer<br><br>Financial institution<br><br>Regulatory agencies              | Functional |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  | <u>transfer money from his account to other account inside or outside the bank</u> |  |  |
|--|--|--|--|--|--|

|    |                                   |                |   |   |            |
|----|-----------------------------------|----------------|---|---|------------|
| 22 | Customer can make balance inquiry | Oct 17nd, 2023 | <p>1-automated teller machine the customer can use his atm card to access the atm and choose the balance inquiry option to view the available balance in his bank</p> <p>2-online banking if the financial institution provides online banking, the customer can long in to his account online and view the available balance and account details</p> | <p>Customer</p> <p>Financial institution</p> <p>Regulatory agencies</p> | Functional |
| 23 | Customer can request check book   | Oct 17nd, 2023 | <p>1-number of checks the customer can specify the number of checks he wishes to order. This usually depends on his personal and financial needs</p> <p>2-customizing checks: a customer may have the ability to customize checks by adding personal</p>  | <p>Customer</p> <p>Financial institution</p>                            | Functional |

|    |   |                |  |                                       |            |
|----|---|----------------|--|---------------------------------------|------------|
|    |   |                | information such as bank account name, address and phone number on the checks  |                                       |            |
| 24 | Customer can obtain loan  | Oct 17nd, 2023 | 1-loan application:the customer can apply for a loan from the financial institution<br>2-loan evaluation: the financial institution evaluate the customers ability to repay the loan by considering income debts, credit history and any other relevant factors. This information is used to determine the available loan amount and appropriate repayment terms | Customer<br><br>Financial institution | Functional |
| 25 | Customer can requests details of the last -Customer number of thanks action he has performed in any account | Oct 17nd, 2023 | 1-online banking: if the financial institution provides online banking the customer can long into his account online and see the details of his latest   | Customer<br><br>Financial institution | Functional |



|    |                                     |                |   |  |            |
|----|-------------------------------------|----------------|---|--|------------|
|    |                                     |                | transaction<br>2-mobile banking app: if a financial institution has a mobile banking app a customer can use the app to access details of their last transaction   | bank   |            |
| 26 | Customer can get monthly statements | Oct 17nd, 2023 | 1- online banking: if a financial institution provides online banking a customer can long into their account online and download a monthly statement.<br>2- email: some financial institution send monthly statement to the customers registered email addresses. The customer can check his email box and download the monthly statement | Customer<br><br>Financial institution<br><br>bankq | Functional |
| 27 | Stuff prepare financial reports     | Oct 17nd, 2023 | Financial analysis: the team of financial analysts analyzes financial statements and other financial information to prepare   | Accountants<br><br>Manager of companies            | Functional |

|    |                                     |                |  |   |            |
|----|-------------------------------------|----------------|--|---|------------|
|    |                                     |                | comprehensive financial statements such as major financial statements (such as income statements, balance statements, and cash flow statements) and review the current and past financial activities of the financial institution  | Customer  |            |
| 28 | Supervising loan approval processes | Oct 17nd, 2023 | Reviewing loan applications: supervisor review loan application submitted by customers. Financial and credit information submitted along with supporting documentation is analyzed to evaluate the customers ability to repay the loan and its compliance with specified approval criteria | Loan review development<br><br>Credit and loan management | Functional |
| 29 | Customer can exchange coins         | Oct 17nd, 2023 | Currency exchange service: allows customers to exchange different currencies at the currency   | Customer<br><br>Financial                                 | Functional |

|    |  |                |  |  |            |
|----|--|----------------|--|--|------------|
|    |  |                | exchange customers can convert the currency they hold into another currency according to current exchange rates  | institution<br><br>Bank<br><br>Companies   |            |
| 30 | Systems must have different departments like<br>1-Freasury departe<br>2- customer services<br>3- credit department | Oct 17nd, 2023 | Customer service development: concerted with providing support and services to customers. This includes receiving customer inquiries handling complaints and providing necessary financial information and advice the goal of the customer development is to achieve customer satisfaction and build strong and sustainable relationship with them | Treasury development<br><br>Customer service development<br><br>Credit development | Functional |

## Features of our project :-

- Allow users to register for Library by entering (first name, last name, date of birth, password)
  - Authenticate user identity during login
  - Add new books to the library catalog
  - Update book info
  - Delete books from the catalog
  - Display availability and location
  - Implement advanced search
  - Allow users to search for book
  - Facilitate book checkout and record borrowing details.
  - Generate reports on book Provide.
  - analytic on each books category.
  - Handle book returns and update availability status.
  - Enables users to add books to his favorites.
  - Adding favorites section which enables user to see his favorites.
  - Provide personalized book recommendations based on user preferences, reading history, or popular trends.
  - Allow users to pay for borrowing.
  - Manage discount codes
  - Allow users to borrow books at a discount through a variety of means Unless requirements
  - Maintain a reading history for users
  - allowing them to track the books they have borrowed and read in the past
  - Allow only book borrowers to write reviews and provide ratings.
  - facilitating community engagement and aiding in book selection.
  - Enable sharing book recommendations, reviews, or borrowing activities on social media platforms.
  - Send notifications to users when their reserved books are available for pickup.
-

## Project screens :-

### BookShop

#### Sign Up

Username

Type your name in the website

Email Address

You@example.com

Password

Enter 6 character or more

Phone Number

+20

Register



### BookShop

#### Login

Create a new account ? [Sign Up](#)

Email Address

You@example.com

Password

Enter 6 character or more

☐ Remember me

LOGIN





## Edit Your Profile

Photo:



Chose a File

## Account Information

First Name

Last Name

Email

## Change Your Password

Current Password

New Password

Repeat Password

Cancel

Save

## 85% Sale for a Month

All You Need In On Place

[Buy Now](#)



### Featured Categories



**Science**

[Shop Now](#)



**Heath**

[Shop Now](#)



**Art & Photography**

[Shop Now](#)



**Food And Drink**

[Shop Now](#)

# BookShop

## Contact Us

Username

Type your name in the website

Email Address

You@emaple.com

Message

Tell us What Your Need

Send



# BookShop

Home

Store

About



Omar

## Your Shopping Cart



**Brother Alive**

By Zain Khalid

4.5 ★

2



**\$19.98**

\$9.99 / per Item

Delete



**On Human Life**

By Will Storr

3.3 ★

1



**\$3.99**

Delete

Have Coupon ?

apply

Total Price : \$23.97

Discount : **-\$2.52**

TAX : \$1.5

Total Price : \$22.95

Purchase

Back To Shop





What your looking for ?



**Toad**

By Katherine Dunn

**\$6.99**

4.9 ★

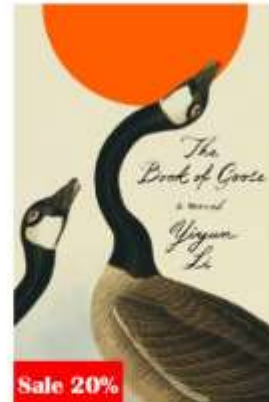


**Brother Alive**

By Zain Khalid

**\$9.99**

4.5 ★

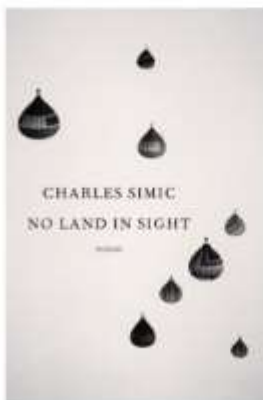


**The Book Of Goose**

By Yiyun Li

**\$4.99**

3.8 ★



**No Land in Sight**

By Charles Simic

**\$5.99**

4.2 ★

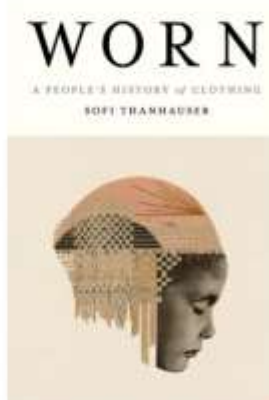


**On Human Life**

By Will Storr

**\$3.99**

3.3 ★



**Worn**

By Sofi Thanhauser

**\$4.50**

4.3 ★