



KETAB

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System Analysis and Design
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Abstract:

It is a site for selling used books or even buying. The site acts as a platform for displaying used books in a flexible and organized way that enables readers and students to display their used books for other to buy.

Chapter 1

1.1 Problem definition:

No home is without books not only for readers but even study books. Where many throw them or leave them, which causes books to pile up at home, and many people do not know their importance as they can sell them instead of throwing them away and not benefiting from them, it is clear to us that there is a great demand for books in the recent period. Hence, we find that the size of the market is very large, so we launched a site to sell used books to provide books that may not be found in other libraries, either because of their absence, scarcity, or exorbitant price as well. It makes it easier for students to provide some of the books they need at reasonable prices, as most of them are unemployed because they are busy studying, as it is based on the principle of supply and demand between the person who wants to sell the book and the person who wants to buy it through the website, and the payment and delivery process is done in a way Easy and professional.

1.2 Objectives:

- 1- Achieving the preservation of the environment by reducing the use of papers.
- 2- The existence of a site that brings together owners of used books and people who want to buy these books .
- 3- Serving readers with limited incomes and students by providing books at reasonable prices .

1.3 Significance:

A used bookstore website is significant for several reasons. Firstly, it provides an avenue for book lovers to access a wide range of books at affordable prices. Secondly, it provides an opportunity for people to sell their used books, thus creating a second-hand book market. This, in turn, promotes sustainability by reducing the number of books that end up in landfills. finally, a used bookstore website can help preserve the history and culture of literature by providing access to rare and out-of-print books.

1.4 Expected outcome:

- 1-Contribute to preserving the environment by reducing the use of papers .
- 2- Quick and easy access to used books .

1.5 Scope of the project:

1- Time limits:

The time limit for preparing this will be from 14 March to 24 May of 2023 .

2- Software :

Javascript .

3- Hardware :

Computers .

Internet connection .

4- The Network :

The device must be connected to the internet to access this website .

1.6 Feasibility analysis:

1) Technical Feasibility:

- Lack of sufficient response from readers and students to used books.
- Some categories of book readers do not know how to use the system correctly.
- Lack of turnout due to the appearance of e-books.

2) Economic Feasibility:

Device	Cost
Printer	2000-3000 SAR
Computer	4000-10,000 SAR
Internet	500-1000 SAR

3) Organization Feasibility:

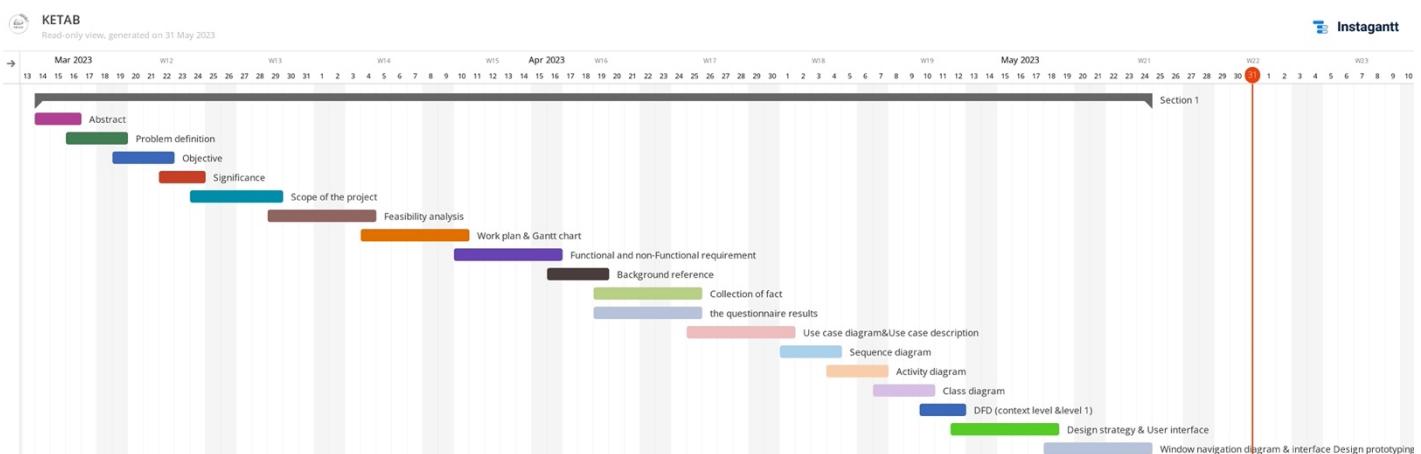
There are many libraries in the city of Shaqra, but they lack the presence of shops selling used books, and this was the reason for the demand of many people to use the site for selling used books to provide their needs for books.

1.7 Work plan and Gantt chart:

Work plan:

	Task	Start	End	Duration
A	Abstract	14 Mar	16 Mar	Three days
B	Problem definition	16 Mar	19 Mar	Four days
C	Objective	19 Mar	22 Mar	Four days
D	Significance	22 Mar	24 Mar	Three days
E	Scope of the project	24 Mar	29 Mar	Six days
F	Feasibility analysis	29 Mar	4 Apr	One week
G	Work plan & Gantt chart	4 Apr	10 Apr	One week
H	Functional and non-Functional requirement	10 Apr	16 Apr	One week
I	Background reference	16 Apr	19 Apr	four days
J	Collection of fact	19 Apr	25 Apr	One week
K	The questionnaire results	19 Apr	25 Apr	One week
L	Use case& Use case description	25 Apr	1 May	One week
M	Sequence Diagram	1 May	4 May	Four days
N	Activity Diagram	4 May	7 May	Four days
O	Class Diagram	7 May	10 May	Four days
P	DFD (context level and level1)	10 May	12 May	Three days
Q	Design strategies &User interfaces	12 May	18 May	One week
R	Windows navigation diagram & Interface design prototyping	18 May	24 May	One week

Gantt chart:



1.8 Functional and Non- Functional requirements:

Functional requirements:

1) User: he is the person who will be able to buy and sell used book.

1. Register and log in:
 - 1.1 The system shall allow a non-registered user to create an account.
 - 1.2 The system shall store the information in database.
 - 1.3 The system shall allow a registered user to log in to their account.
 - 1.4 The system will verify the username and password.
2. Sell used book: allow user to sell book
 - 2.1 The system shall allow to logged-in user to add book info and sell books.
3. Search: allow user to search
 - 3.1 The system shall allow to user to search for book by name.
 - 3.2 The search result will include a picture of front cover, name, and price of book.
4. Add to cart: allow user to add book to the cart
 - 4.1 the system shall allow to logged-in user to add books to their cart.
5. Check out: allow user to buy book
 - 5.1 the system shall allow to logged-in user to purchase books that in their shopping cart.

2) Admin: he is the one who control the system.

1. Log in: allow admin to log in
 - 1.1 the system shall allow to admin to log in to their account.
2. Manage book: accept book offers for sale
 - 2.1 the system shall allow to admin to accept book added for sale.
3. Manage order: allow admin to accept order
 - 3.1 the system shall allow to admin to accept orders.

Non-Functional requirements:

1. Operational

1.1 The system should be compatible with all modern browsers.

2. Performance

2.1 Searches shall return results within 5 seconds.

2.2 should be able to perform desired tasks in reasonable unit of time (in less than 5 seconds for user).

2.3 The system should response the operation messages to the users within 2 seconds.

2.4 System shall support approximately 1000 user at the same time.

2.5 The system must be available 24/7

2.6 The system should be reliable.

3. Security:

3.1 providing complete confidentiality of user information.

3.2 The system is secure from unauthorized access.

4. Cultural and Political:

4.1 Provide all currencies during the payment process.

4.2 The system shall comply with insurance industry standards.

5. Usability:

5.1 Should have user-friendly interface.

5.2 Different languages can be provided.

6. Accuracy:

6.1 The data store about the book should be correct, consistent, and reliable.

Chapter 2

2.1 Background reference:

In the past and present, there are many people who are interested in reading the book in addition to the students. So, there are a lot of websites for selling books, but the high price of new books prevents some from buying it.

Some readers also suffer from the problem of book overcrowding and the lack of a platform to display their books for sale. There are many sites that sell used books such as the “KUTUPKHANA” site so that you can borrow books or buy them, also, on the “Stoor” site, you can buy a used book or give them your book for sale. Having such sites has two advantages: saving money and preserving the environment. This is what our site strives for. What distinguishes us from other sites is that a person can register on the site and offer his book for sale at the price he sets in an easy and smooth way or buy a book and we guarantee easy access to it through multiple shipping methods as quickly as possible. (1)(2)

2.2 Collection of fact:

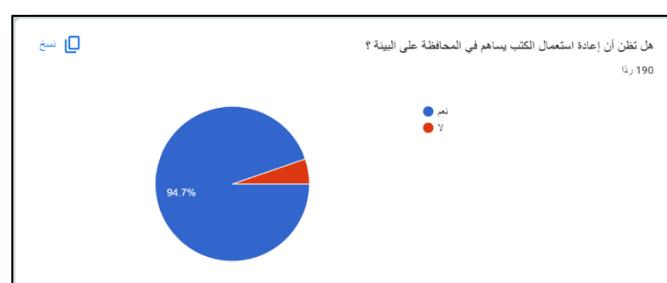
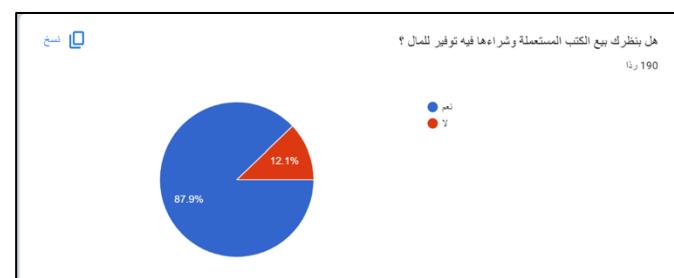
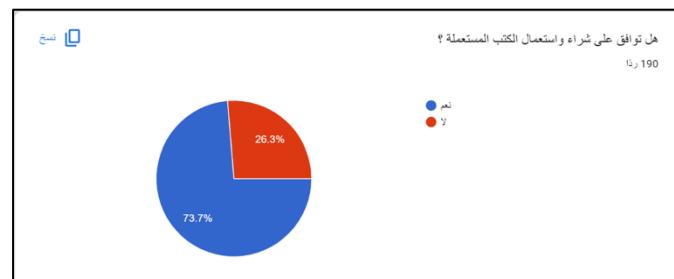
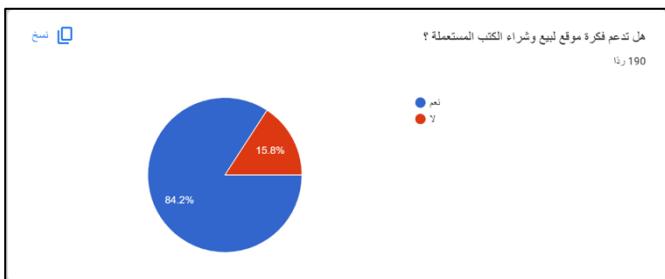
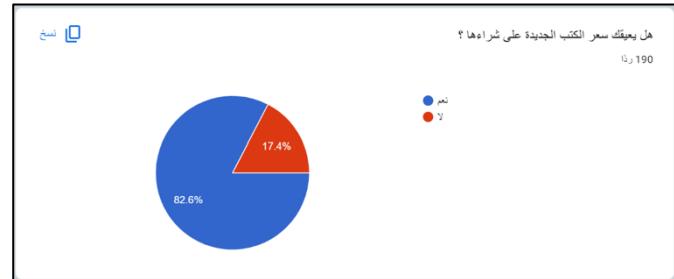
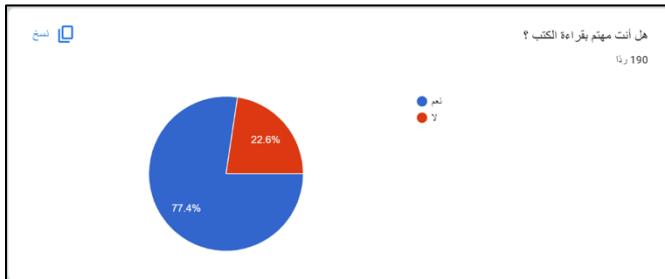
We distributed an electronic questionnaire to the residents of Shaqra governorate:

1. Are you interested in reading books?
2. Does the price of new books hinder you to buy them?
3. Do you support the idea of a website for buying and selling used books?
4. Do you agree to buy and use used books?
5. Will your reading of books increase if a website is available to sell books?
6. Do you think buying and selling used books saves money?
7. Do you think that reusing books contributes to preserving the environment?

The questionnaire was answered by 190 people and the results were as follows:

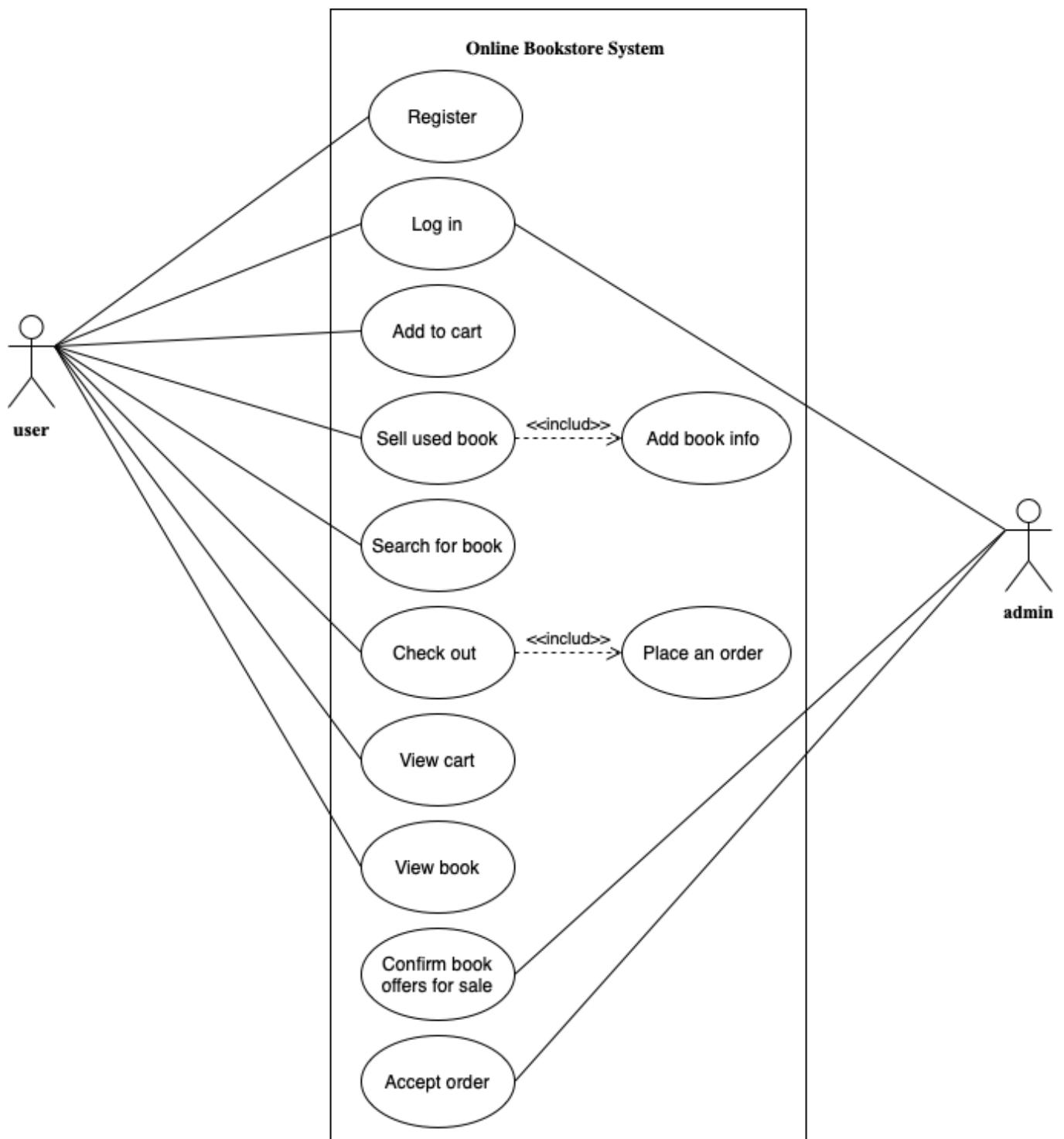
- 1- From the first question, 77.4% of the responses they were interested in reading books.
- 2- In the second question, 82.6% of people answered yes when asked if the price of new books hindered from buying them.
- 3- In the third question, 84.2% of the responses supported the idea of having a website for buying and selling used books.
- 4- In the fourth question, 73.7% of people agree to buy and use used books.
- 5- In the fifth question, we asked people about whether the percentage of their reading of books would increase if there was a website for selling used books, and the result was 75.3%.
- 6- In the sixth question, 87.9% of the people think that buying and selling used books saves money.
- 7- In the last question, we asked people if they think that reusing books contributes to preserving the environment, and the answer was 94.7%.

2.3 The questionnaire result:



Chapter 3

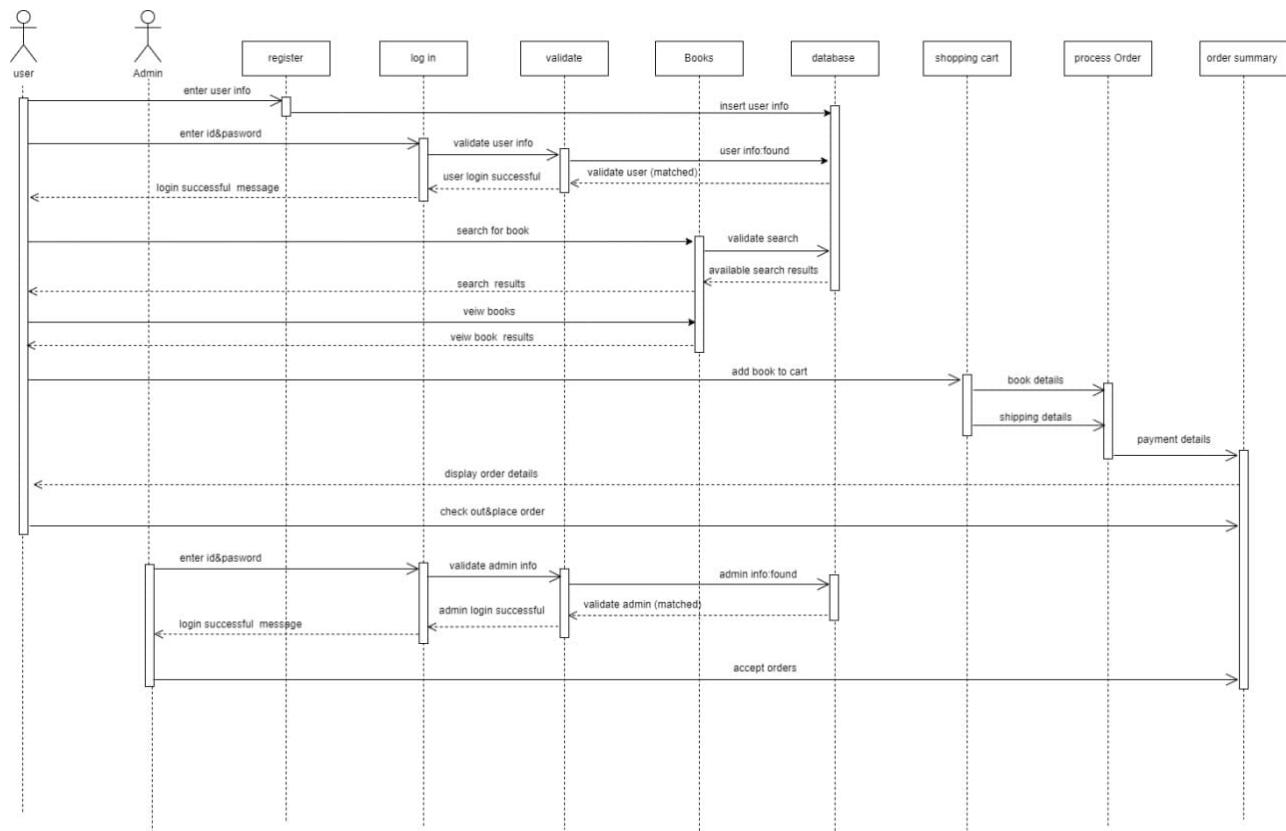
3.1 Use case diagram:



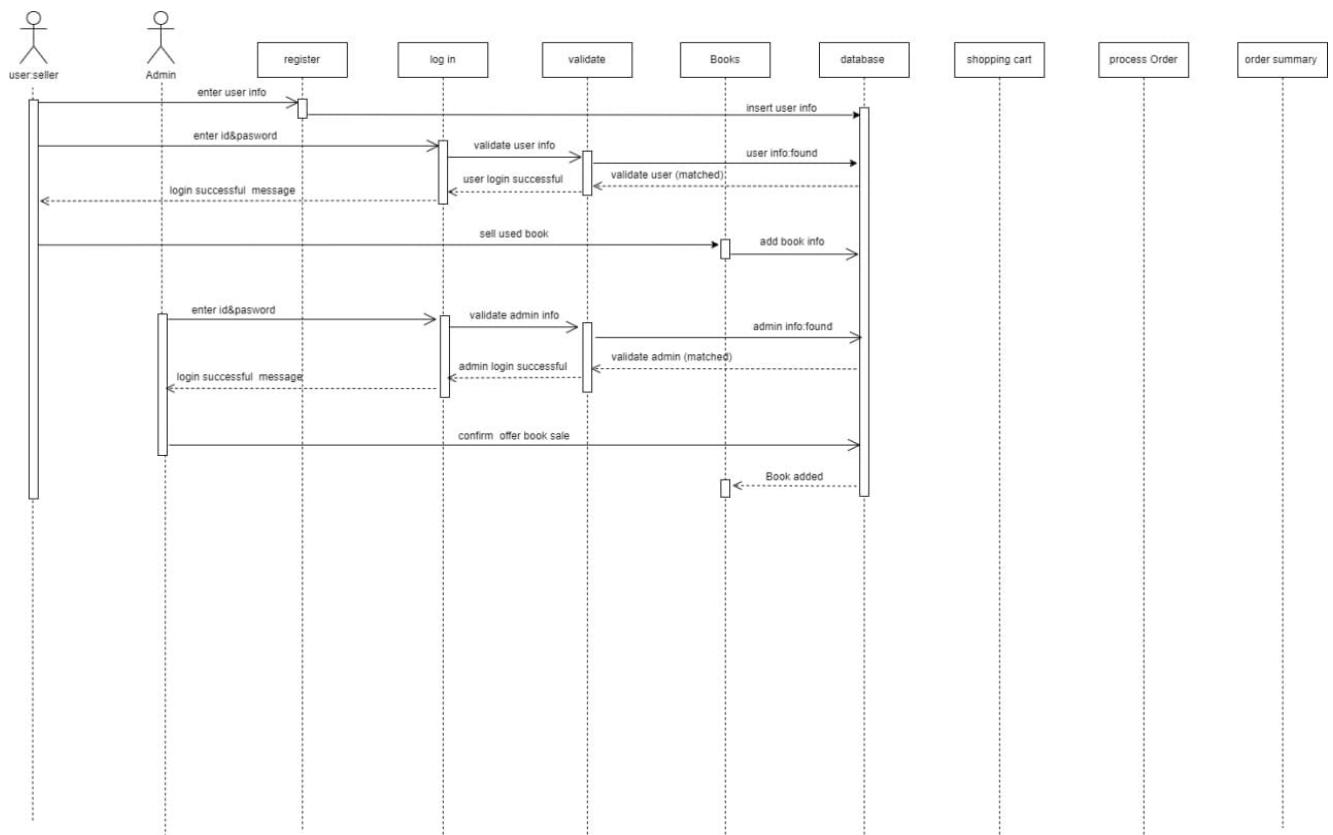
3.2 Use case description:

Use case name: Keta	ID: 1	Important: high		
Primary Actor: user	Use case type: overview, essential.			
Stakeholder and Interests: customer: buy used book. Seller: sell used book. Admin: control the system.				
Brief Description: this is use case describe how can user sell or buy books.				
Trigger: user decides to buy or sell book. Type: normal.				
Relationship: Include: the user logs in to the website using username and password. The user add book information to sell it. Extend: buy method can be used card, Cash, or apple pay.				
Normal flow of event: 1- User register to website. 2- User logs in to website using username and password. 3- User decides whether to sell or buy books.				
Sub-flow: 1. Order the used book from the website or sell used book 2. Send the request Customer -----> buy used book Seller -----> selling the used book 3. The admin logs in to website 4. The admin accept the requests.				

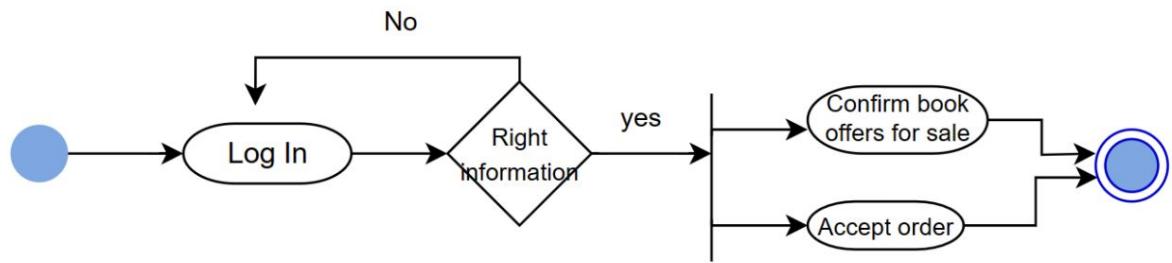
3.3 sequence diagram: sequence diagram for buy book:



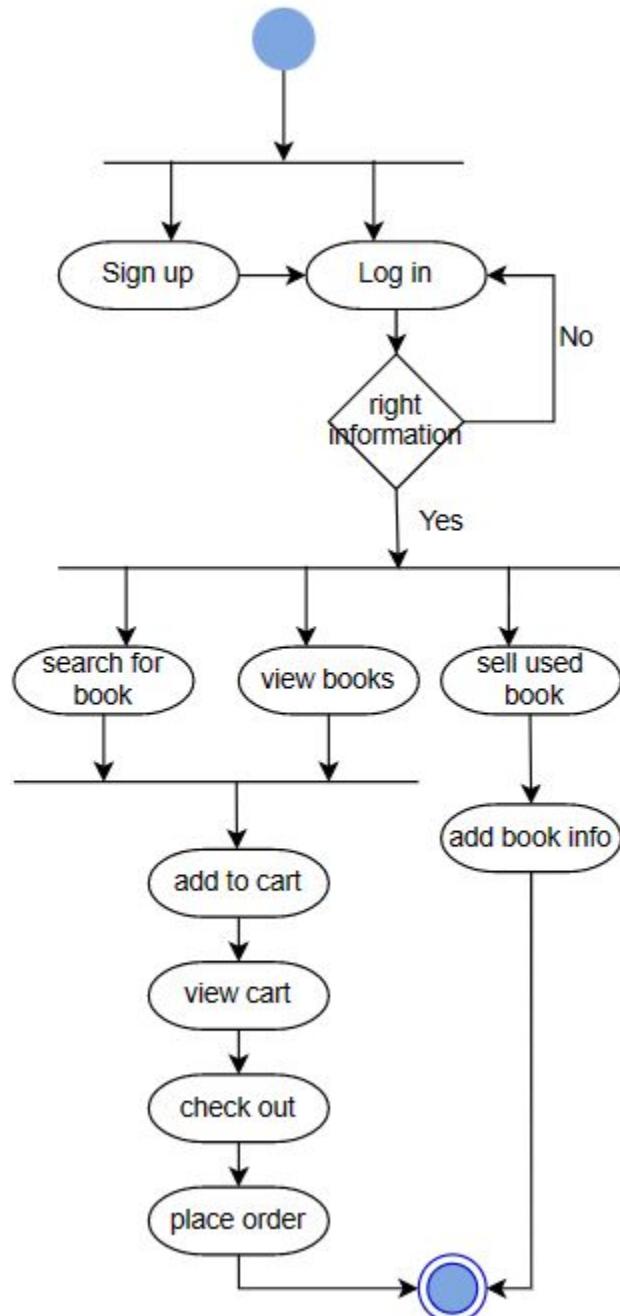
sequence diagram for sell book:



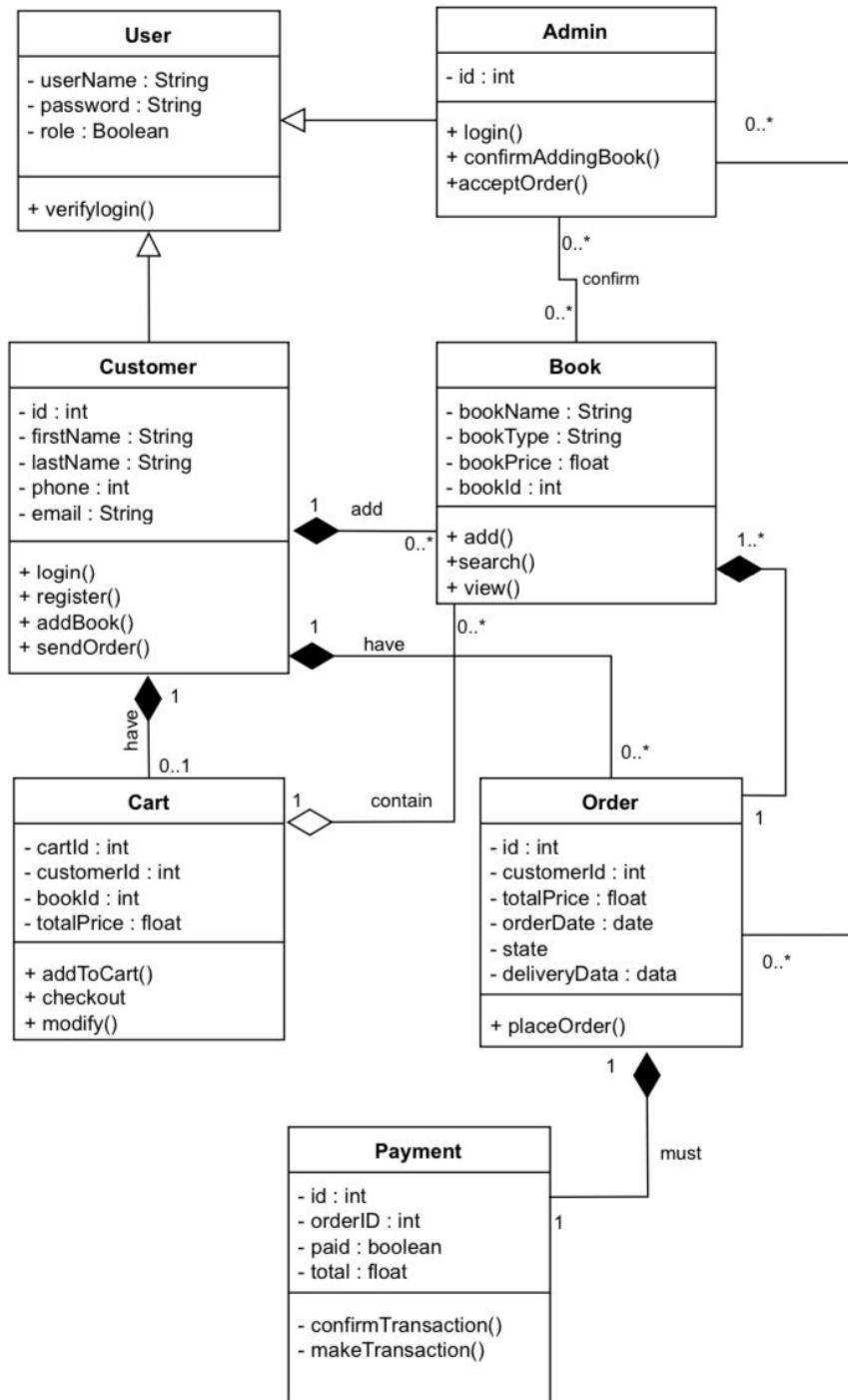
3.4 Activity diagram: Activity diagram for admin:



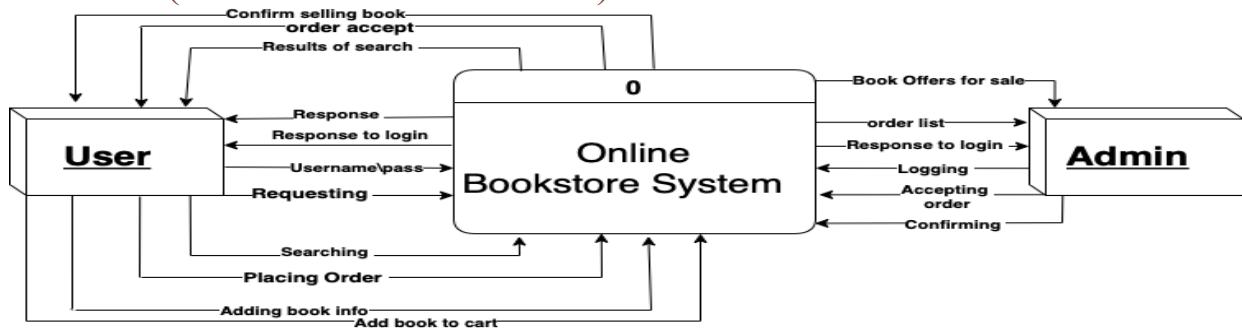
Activity diagram for customer:



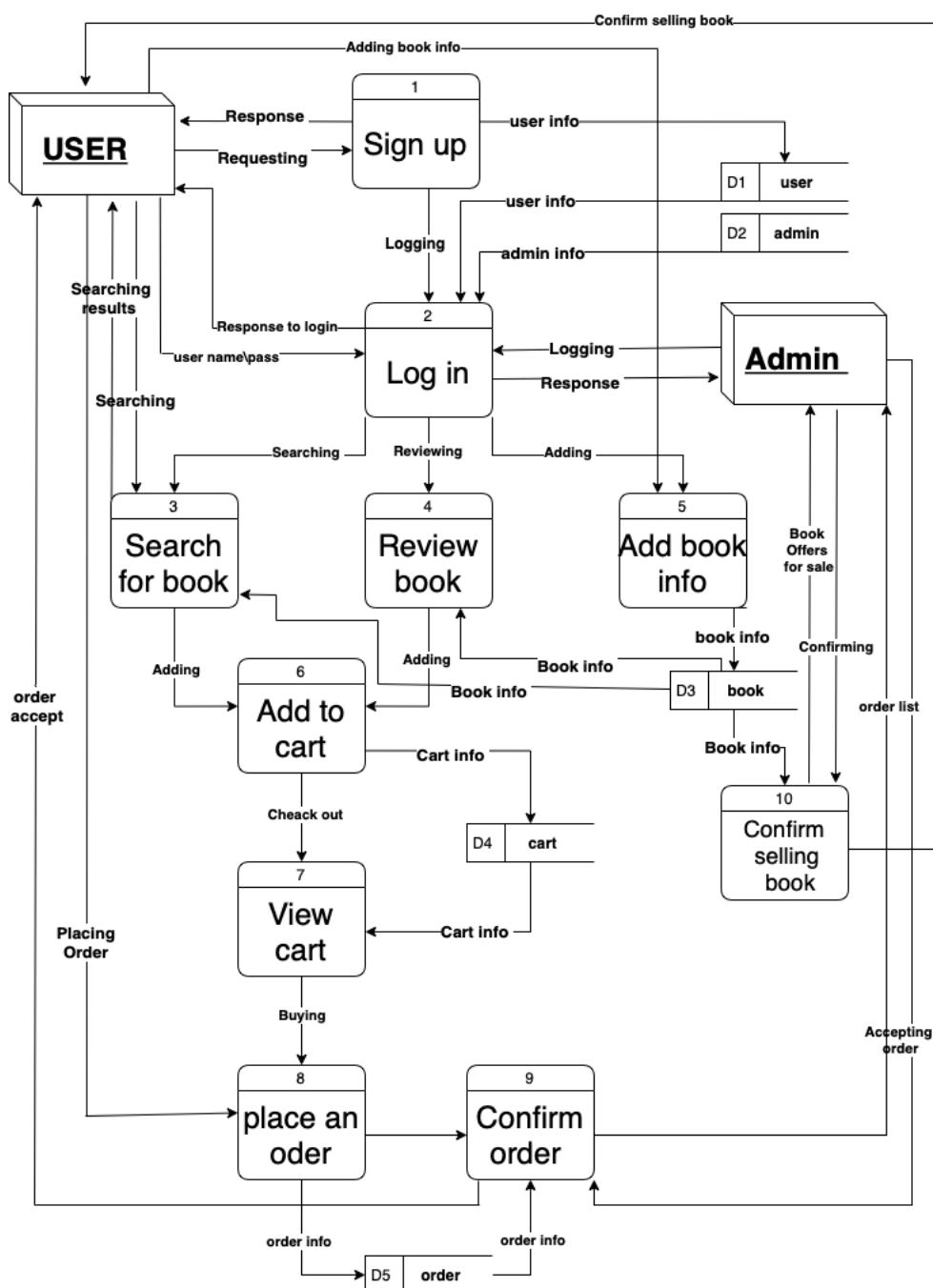
3.5 Class diagram:



3.6 DFD (context level and level 1):



DFD context level(level 0)



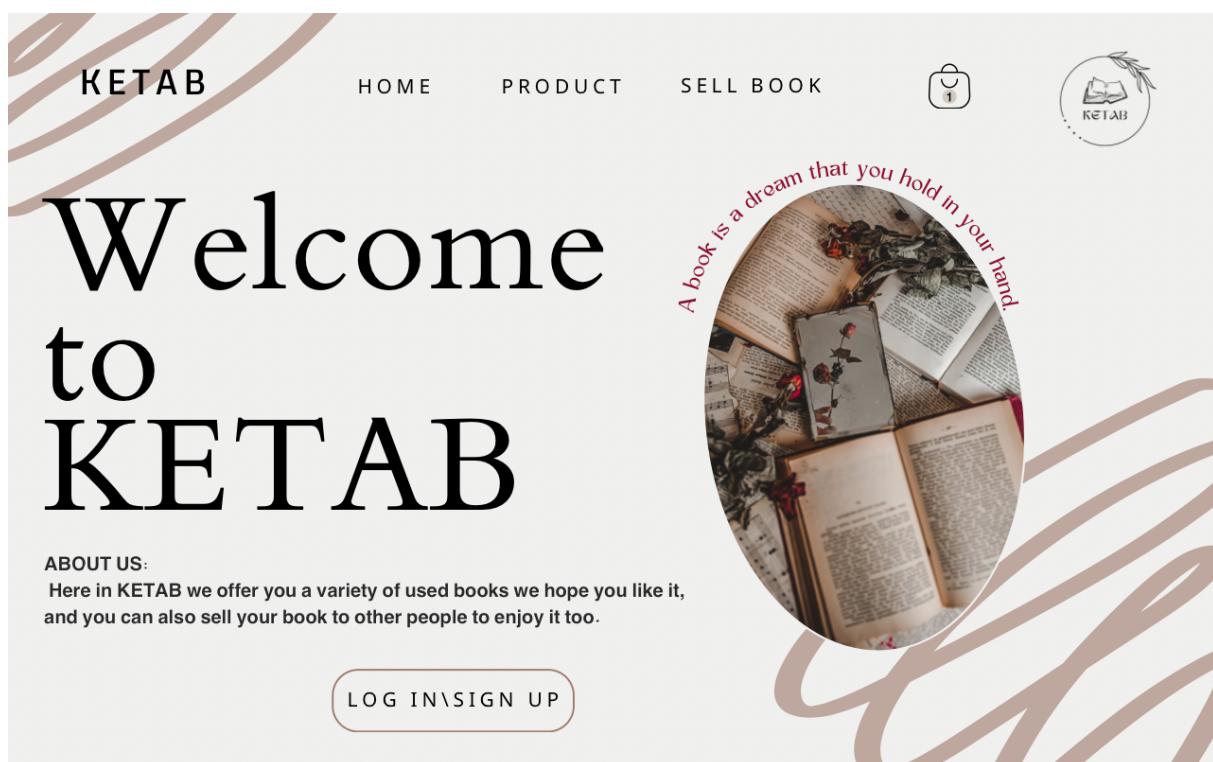
DFD level 1

Chapter 4

4.1 Design strategies:

To save time, we have chosen purchase packaged software design strategy.

4.2 User interface:

The image displays two forms side-by-side: a 'Sign up' form on the left and a 'Log in' form on the right. Both forms are set against a light gray background with large, faint vertical text 'KE', 'TA', and 'B' on the left. The 'Sign up' form includes fields for First name, Last name, Email, Username, Password, and Phone, each with a corresponding input line. A 'SIGN UP' button is located at the bottom. The 'Log in' form includes fields for Username and Password, each with a corresponding input line. A 'LOG IN' button is located at the bottom right. A large, semi-transparent watermark of the word 'KETAB' is positioned vertically on the left side of the forms.



Sell Book

Book information

Book name

Book type

Book price

UPLOAD PHOTO

SELL



SEARCH

PRODUCTS

Thinking, Fast and Slow
Cultural book
SAR 60.03

ADD TO CART

Shatter me
A novel
SAR 25,00

ADD TO CART

Principles of Probability and Statistics
University Book
SAR 50.00

ADD TO CART

حياة في الادارة
biography
SAR 32.05

ADD TO CART

KETAB

HOME PRODUCT SELL

Welcome to KETAB

ABOUT US:
Here in KETAB we offer you a variety of used books we hope you like it, and you can also sell your book to other people to enjoy it too.

LOG IN\SIGN UP

> Cart


SHATTER ME
QTY: 1
25,00 SAR

Total
25,00 SAR

View Cart

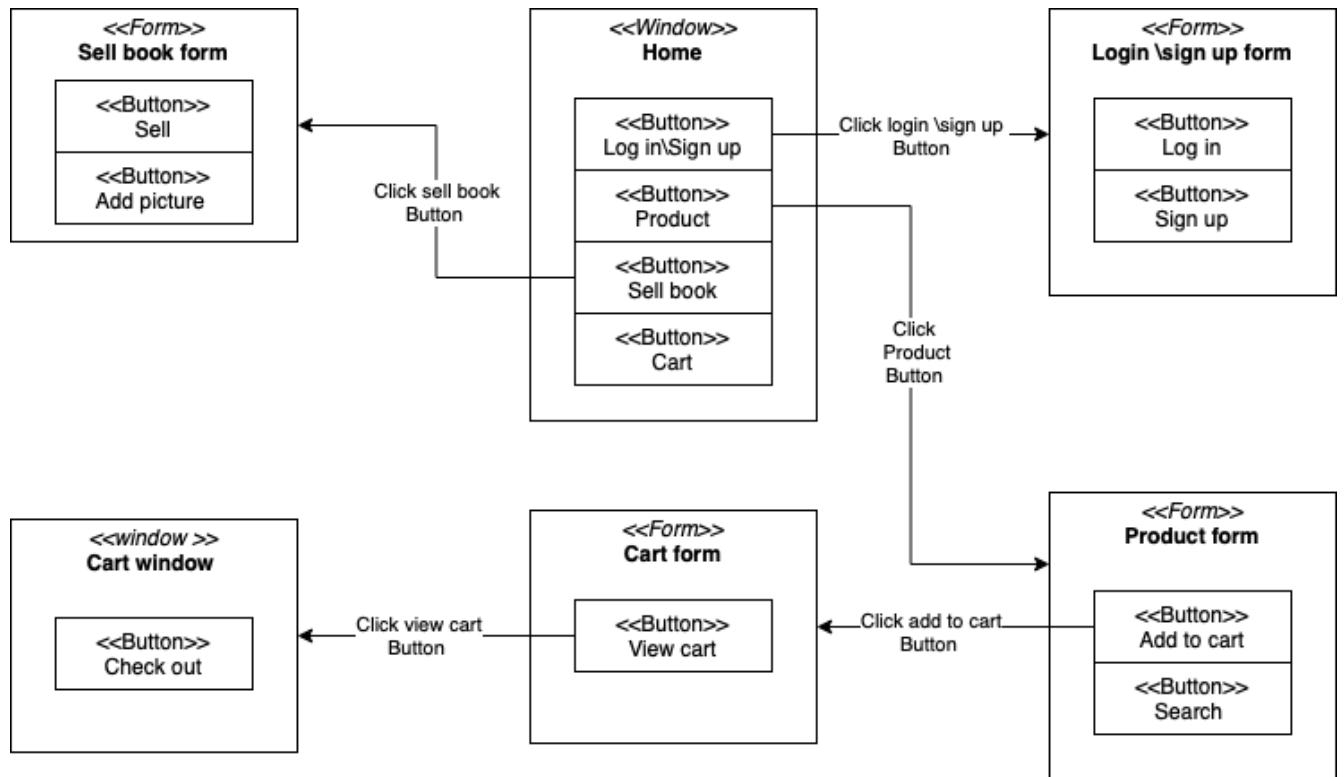
Cart


Book name: SHATTER ME
Price: 25,00 SAR
QTY: 1

1 Item: Total 25,00 SAR

CHECK OUT

4.3 Window navigation diagram:



4.4 Interface design prototyping:

We used HTML design prototyping is a web page linked with hypertext.

Chapter 5

5.1 Conclusion:

In the end, providing a solution to reuse used books has a significant impact on the person, society, and the environment. Therefore, we developed our website, KETAB, which provides users with the ability to buy used books at reasonable prices for everyone, or to sell their own books and benefit from them.

5.2 Future work:

We wish to:

- Design an application that work in IOS and Android system.
- Adding the service of lending books between people.
- Make it a global application that serves people in many countries.

7.Reference:

1. <https://stolor.com/>
- 2.<https://kutupkhana.com/>