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A Report on Bookstore Desktop Application

Software Engineering (3173213)

Information And Communication Technology

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ABSTRACT

- The main objective of the project is to create an online bookstore that allows users to search and purchase a book online based on title, author and subject.
- The users can order their books online through credit card payment. Using this application, the user can purchase a book online instead of going out to a bookstore and wasting time. There are many online bookstores like Powell's, Amazon which were designed using Html.
- We developed an application using python. Online Book store is an online application where the customer 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 credit card transaction. The user can login using his/her account details or new customers can set up an account very quickly. They should give the details of their name, contact number. The books are divided into many categories based on subject like Engineering, Scientific, Medical, History and Novel etc. The Online Book Store Website provides customers with online shopping through a web browser. A customer can, create, sign in to his/her account, place items into a shopping cart and purchase using his/her credit card details. The Administrator will have additional functionalities when compared to the common user. The person can add, delete and update the book details, book categories, member information and also confirm a placed order.

1. INTRODUCTION

Online shopping is the process whereby consumers directly buy goods, services etc. from a seller interactively in real-time without an intermediary service over the internet.

Online shopping is the process of buying goods and services from merchants who sell on the Internet. Since the emergence of the World Wide Web, merchants have sought to sell their books to people who surf the Internet. Shoppers can visit web stores from the comfort of their homes and shop as they sit in front of the computer. Consumers buy a variety of items from online stores. In fact, people can purchase just about anything from companies that provide their books online. Books, clothing, household appliances, toys, hardware, software, and health insurance are just some of the hundreds of books consumers can buy from an online store.

Many people choose to conduct shopping online because of the convenience. For example, when a person shops at a brick-and-mortar store, she has to drive to the store, find a parking place, and walk throughout the store until she locates the books she needs. After finding the items she wants to purchase, she may often need to stand in long lines at the cash register.

1.1 Background

Online shopping allows you to browse through endless possibilities, and even offers merchandise that's unavailable in stores. If you're searching for a niche product that may not be distributed locally, you're sure to find what you're looking for on the internet. What's even more useful is the ability to compare items, similar or not, online. You can search

through multiple stores at the same time, comparing material quality, sizes and pricing simultaneously.

Say 'goodbye' to the days when you stood in line waiting, and waiting, and waiting some more for a store clerk to finally check out your items. Online shopping transactions occur instantly-saving you time to get your other errands done! Additionally, unlike a store, online shopping has friendly customer service representatives available 24 hours a day, 7 days a week to assist you with locating, purchasing and shipping your merchandise.

1.2 Objective

My objective is to design such an application using which one can say 'goodbye' to the days when you stood in line waiting, and waiting some more for a store clerk to finally check out your items. Online shopping transactions occur instantly saving you time to get your other errands done! Additionally, unlike a store, online shopping has friendly customer service representatives available 24 hours a day, 7 days a week to assist you with locating, purchasing and shipping your merchandise.

My main aim is to design such a book store where customer can visit our site anytime of the day from anywhere to view the available books, choose any of them and can order by paying online or can opt for cash on delivery as well. The administrator will regularly add any new books available to them for sale. The administrator will take books from the reputed publishers and vendors only.

1.3 Purpose and Scope

1.3.1 Purpose

Online Shopping system would have the following goals.

- Provide a web user interface to add, view, delete records in different areas.
- Provide a user interface to enter computer details.
- Provide a user interface to change details of all the computers and accessories.
- Provide a user interface for users to explore the store and choose items to buy.

1.3.2 Scope

The main scope and deliverables of the project would be to:

- Understand and prepare detailed requirement and specifications
- Prepare high level and detailed design specifications of the system
- Prepare Test Plan and Test cases
- Develop the system and coding
- Perform unit testing, integration and system testing
- Demonstrate a bug free application after suitable modification if needed.

1.4 Achievements

- By successfully implementing the project, a substantial knowledge has been acquired on the implementation of a database system using .net technologies. This knowledge will be useful in the future in creating any type of desktop application or online database systems.

1.5 FEASIBILITY STUDY

- Technical Feasibility - The project can be implemented using locally using Apache and Ngrok. Globally, it can be implemented for free using heruko web hosting.
- Economic Feasibility- As the project is very small scale, it is extremely economically feasible. The only cost that we may come across will be for web hosting.
- Operational Feasibility- We are aware of data analysis and data visualization basics and will follow a reverse engineering technique for gaining more skills as we go. We also have fair backend knowledge, using django.

1.6 SDLC MODEL



We have decided to implement the Agile Model. We chose to implement this agile model because our project or product environment is highly prone to changes in it's whole operations stages. And also our project attracts lots of clients as it is a book store.

Agile is extremely adaptive which makes it different from all other SDLC. Other SDLCs are predictive and are dependent on proper planning, requirements, and analysis which makes implementations of changes difficult in them.

Modern software development must facilitate making changes immediately. The Adaptive agile model doesn't require detailed planning like other predictive methodologies. If one needs to make a change, it can be done in the same sprint.

A feature-driven development team can adapt to changes in requirements dynamically. Also, the frequency of tests in Agile helps to minimize the risk of major failures.

Of course, Agile means a lot of client and user interaction to work properly. The needs of the user, not the client, define the final project requirements.

we can also use the waterfall model

due to following reasons:

- This model is chosen because our requirements are very well known, clear and fixed. Product definition is stable.
- There are no ambiguous requirements in our project.

The project is short.

This model is simple and easy to understand and use.

It is easy to manage due to the rigidity of the model – each phase has specific deliverables and a review process.

In this model phases are processed and completed one at a time. Phases do not overlap. Waterfall model works well for smaller projects where requirements are very well understood.

2. OVERALL DESCRIPTION

2.1 PRODUCT PERSPECTIVE

Online shopping is the process whereby consumers directly buy goods, services etc. from a seller interactively in real-time without an intermediary service over the internet.

Online shopping is the process of buying goods and services from merchants who sell on the Internet. Since the emergence of the World Wide Web, merchants have sought to sell their books to people who surf the Internet. Shoppers can visit web stores from the comfort of their homes and shop as they sit in front of the computer. Consumers buy a variety of items from online stores. In fact, people can purchase just about anything from companies that provide their books online. Books, clothing, household appliances, toys, hardware, software, and health insurance are just some of the hundreds of books consumers can buy from an online store.

Many people choose to conduct shopping online because of the convenience. For example, when a person shops at a brick-and-mortar store, she has to drive to the store, find a parking place, and walk throughout the store until she locates the books she needs. After finding the items she wants to purchase, she may often need to stand in long lines at the cash register.

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Say 'goodbye' to the days when you stood in line waiting, and waiting, and waiting some more for a store clerk to finally check out your items. Online shopping transactions occur instantly saving you time to get your other errands done! Additionally, unlike a store, online shopping has friendly customer service representatives available 24 hours a day, 7 days a week to assist you with locating, purchasing, and shipping your merchandise.

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Our objective is to design such an application using which one can say 'goodbye' to the days when you stood in line waiting, and waiting some more for a store clerk to finally check out your items. Online shopping transactions occur instantly-saving you time to get your other errands done! Additionally, unlike a store, online shopping has friendly customer service representatives available 24 hours a day, 7 days a week to assist you with locating, purchasing and shipping your merchandise.

Our main aim is to design such a book store where customer can visit our site anytime of the day from anywhere to view the available books, choose any of them and can order by paying online or can opt for cash on delivery as well. The administrator will regularly add any new books available to them for sale. The administrator will take books from the reputed publishers and vendors only.

1.3 Purpose and Scope

1.3.1 Purpose

Book store **system** would have the following goals.

- Provide a application user interface to add, view, delete records in different areas.
- Provide a user interface to enter user details.
- Provide a user interface to change details of all the books.
- Provide a user interface for users to explore the store and choose items to buy.

1.3.2 Scope

The main scope and deliverables of the project would be to:

- Understand and prepare detailed requirement and specifications
- Prepare high level and detailed design specifications of the system
- Prepare Test Plan and Test cases
- Develop the system and coding
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1.4 Achievements

- By successfully implementing the project, a substantial knowledge has been acquired on the implementation of a database system using .net technologies. This knowledge will be useful in the future in creating any type of desktop application or online database systems.

2. SURVEY OF TECHNOLOGY

In a desktop application like Laboratory Management System, there is a scope for a large number of platforms, languages and frameworks to choose from. Before selecting from this large array of technologies, the following aspects, which are characteristic to windows based application like this one, have been kept in mind:

- Data validation
- Performance
- Reliability
- Scalability
- Security
- Portability
- Performance
- Time constraint
- Cost constraint

The various technologies available for consideration are as follows:

Operating System: Windows 10

Client Side Scripting: Python

Server Side Scripting: Python

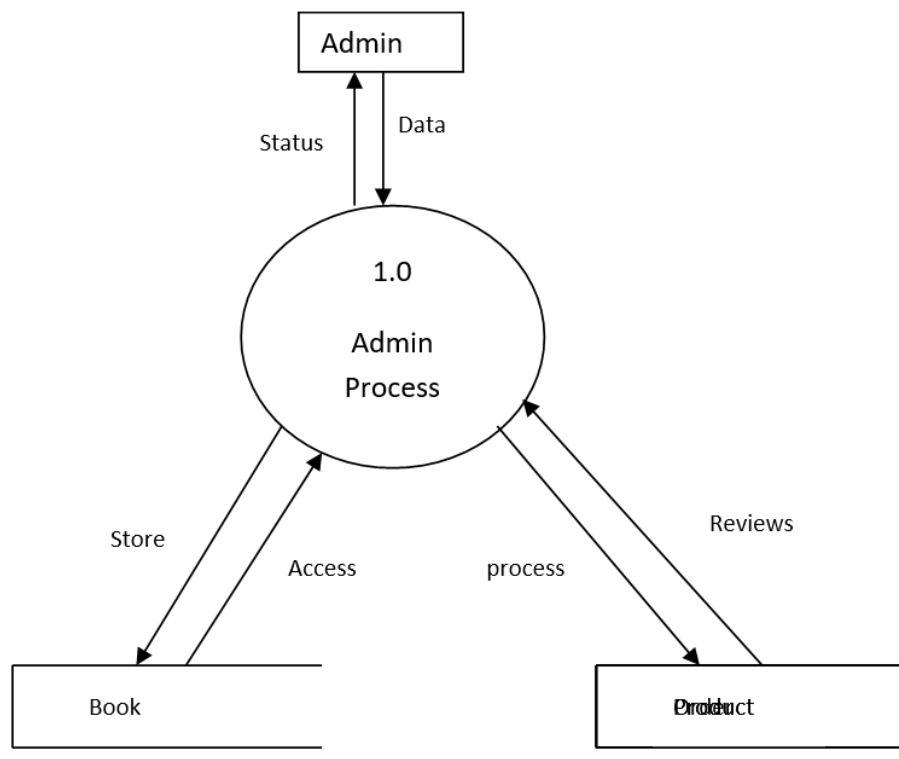
Database Tool: My SQL

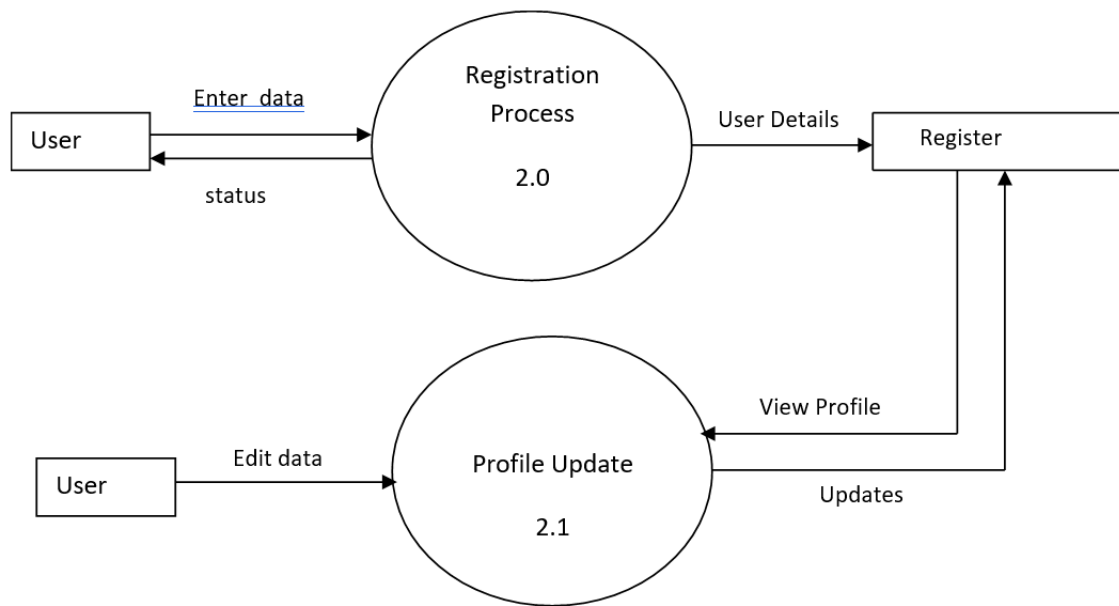
2.3 DATA FLOW DIAGRAMS

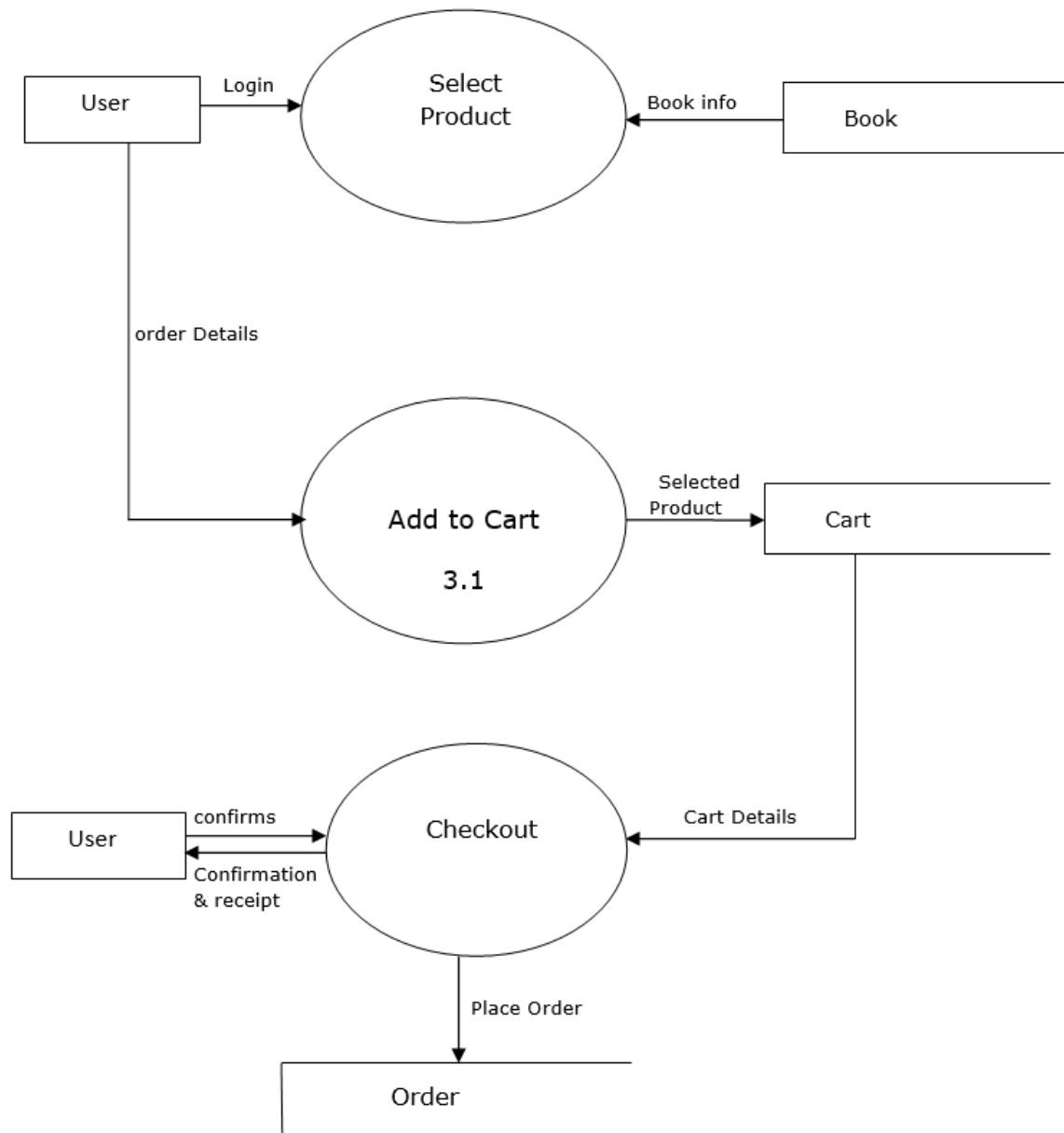
Level 0 DFD Model:



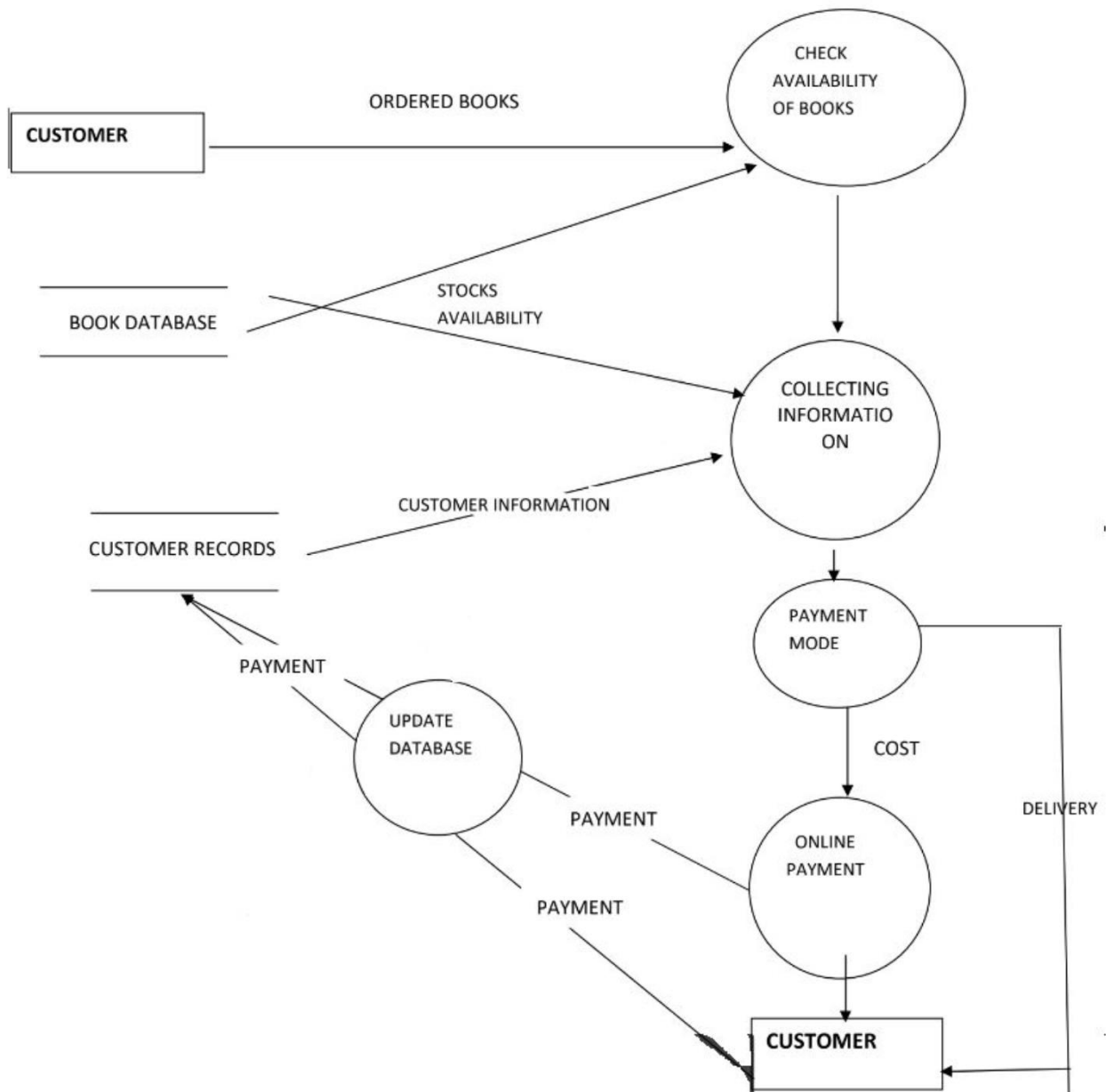
CONTEXT DTAGRAM



DFD for admin process

DFD for user registration and profile update

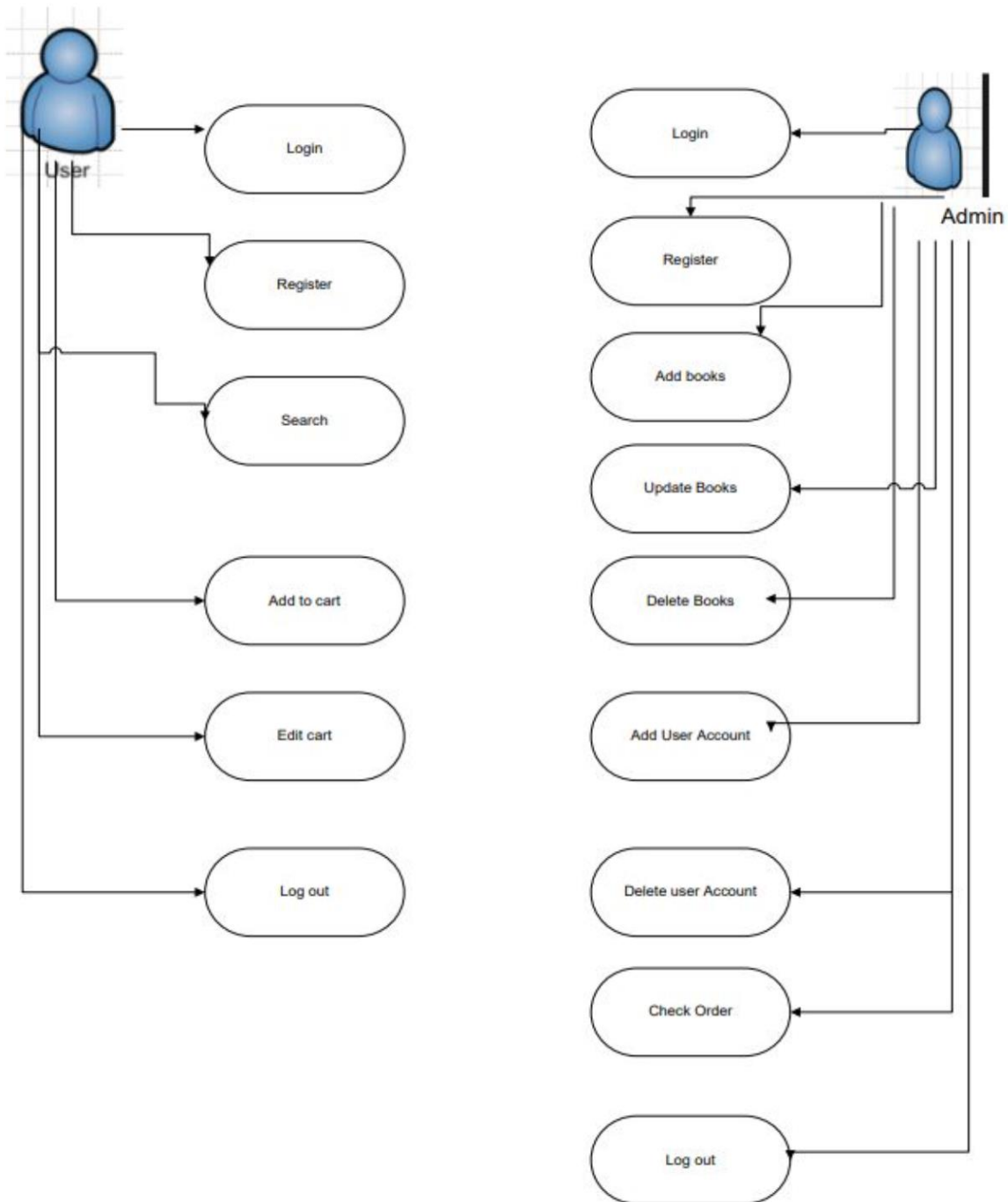


Level 2 DFD Model:

Processes:

- Retrieving client Statistics
- Retrieving books Statistics
- Tabular Representation or/and Graphical Representation □ Data Updating and Management.

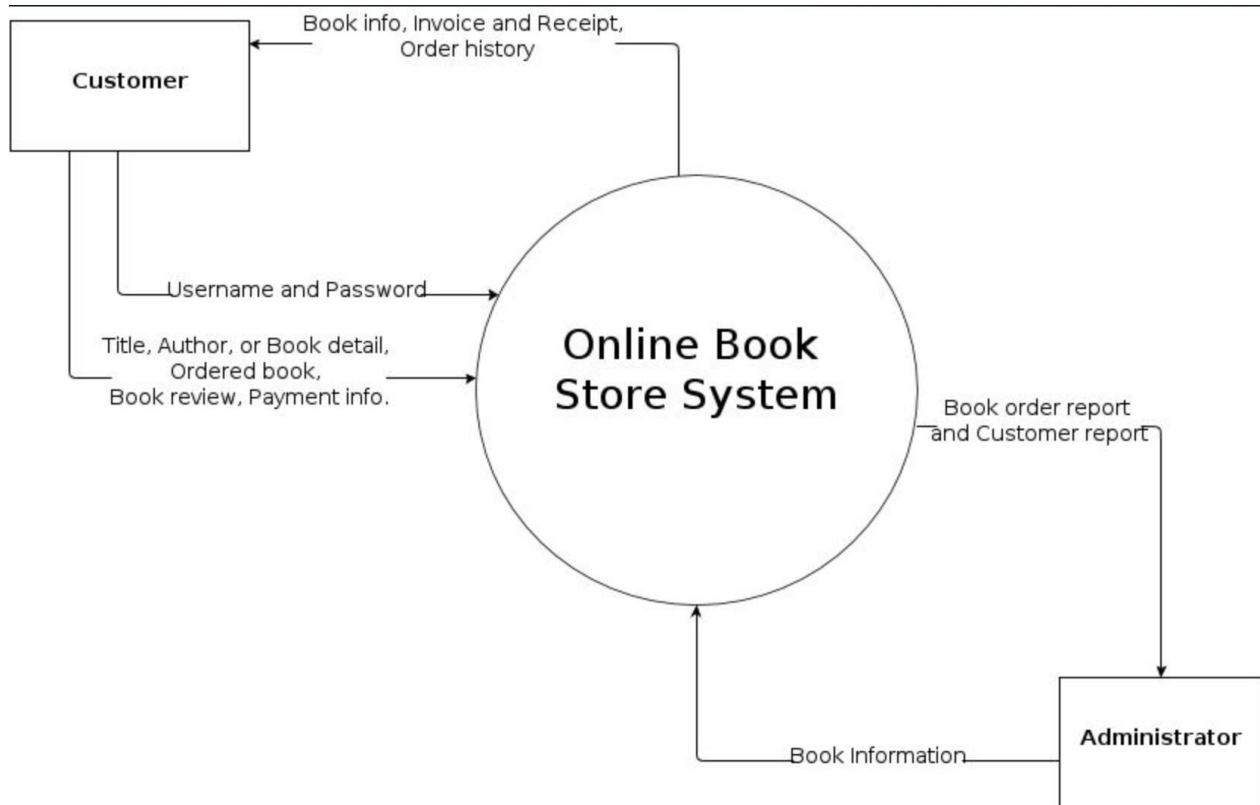
2.4 USE CASES



2.5 USE CASE DIAGRAM

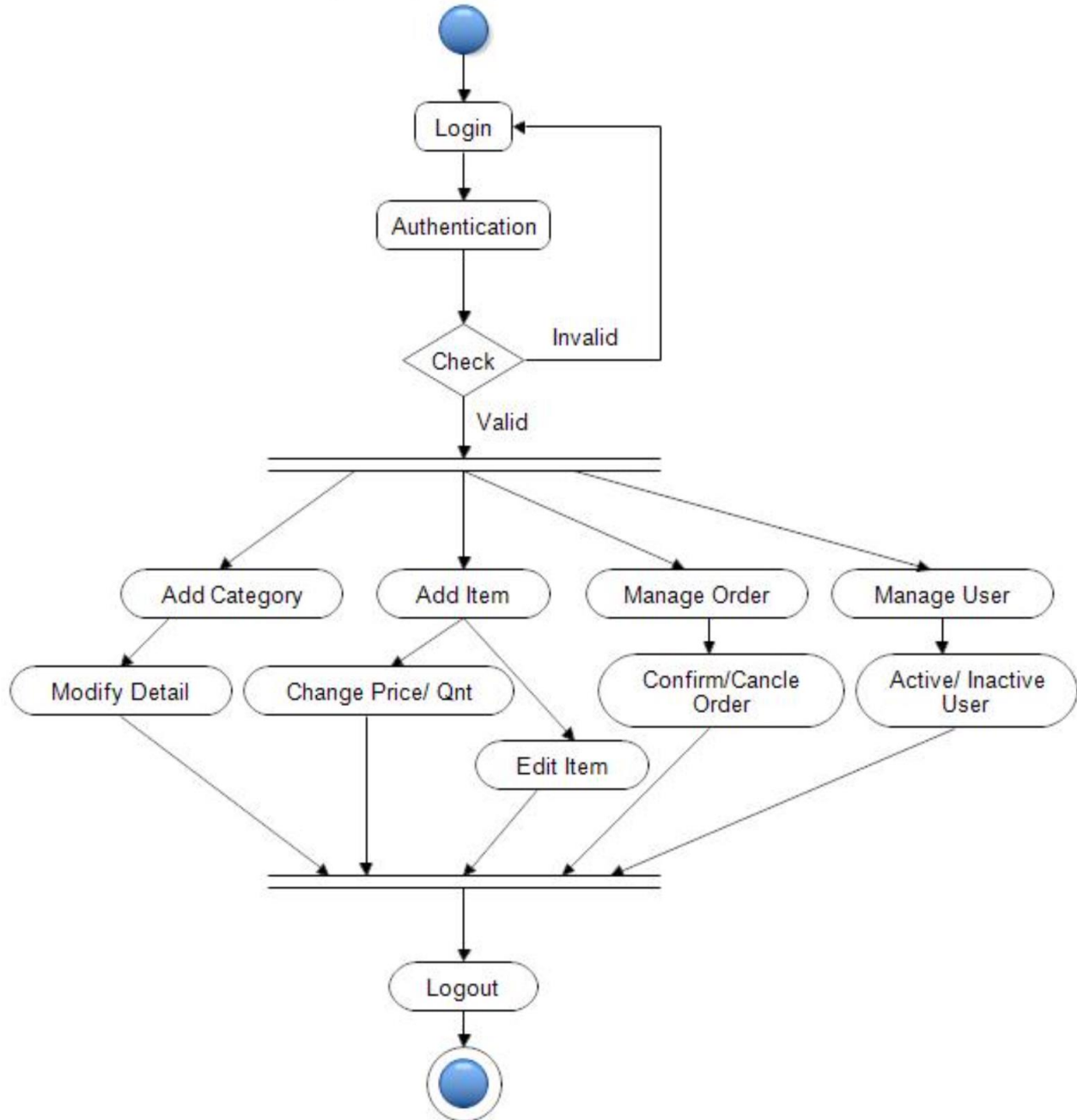


2.6 CONTEXT DIAGRAM

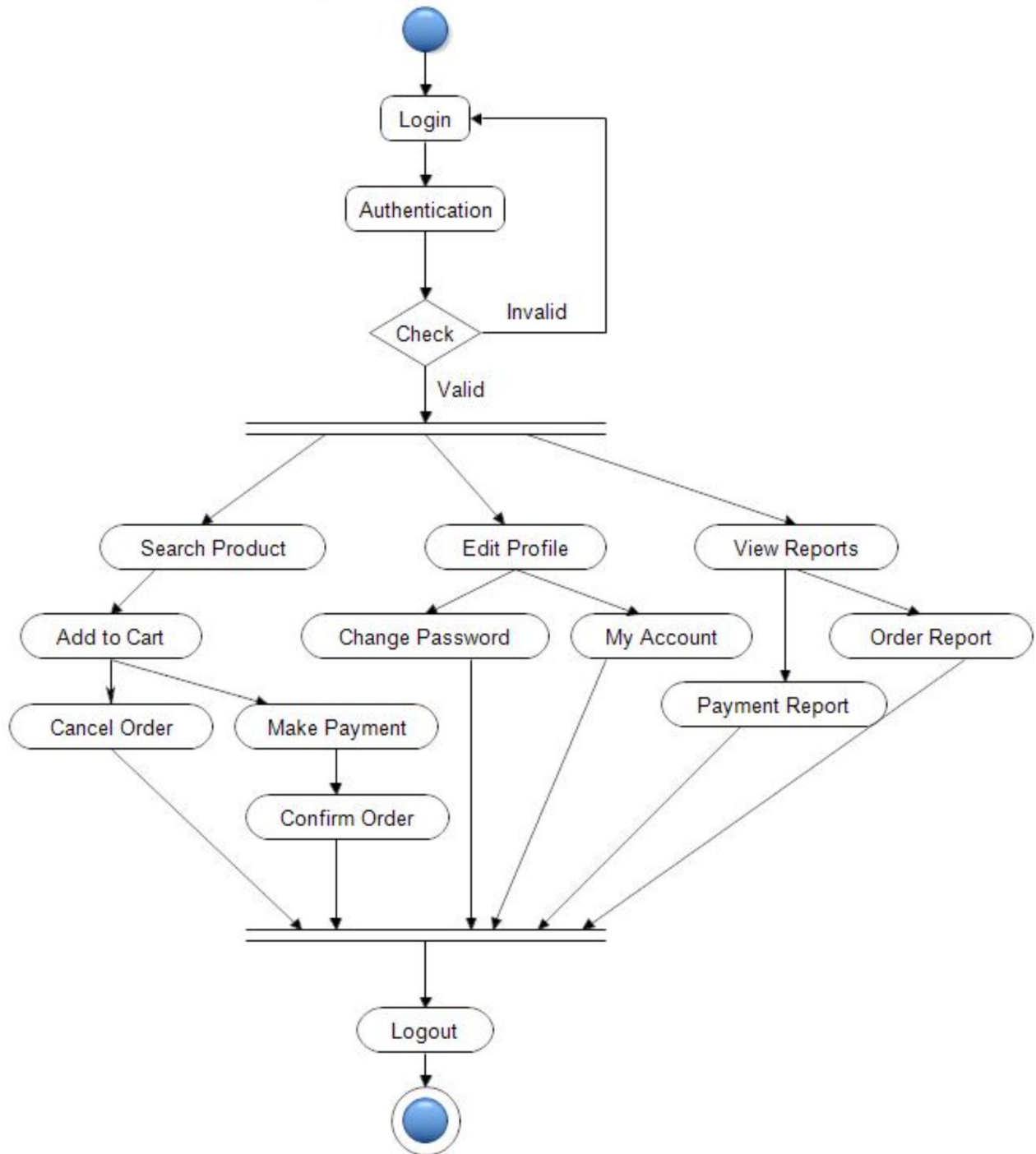


2.6 ACTIVITY DIAGRAM

Activity Diagram for Admin Side



Activity Diagram for User Side



2.7 MIND MAP



3. FEATURES

Product Functions The “Online bookstore” software is an independent web based application. There are various user interfaces related with this software. These interfaces help the user to interact with the software and provide the necessary information for online bookstore. The entire functionality of this software can be subdivided into fields/modules.

The names of the fields involved in the online bookstore are :

1. Registration/login
2. Books details
3. Order
4. Payment
5. Delivery & tracking
6. User feedback

1.1.2 User Characteristics

There are 3 types of users of this software:

Customer

Administrator

- Supplier

Customers are using for viewing and buying the books.

Customer can also write feedbacks for books and services. Administrator can add, edit and delete products and provide services to the customer.

3.1 Functional Requirements

The system must provide following functionality:

1.3.1 Order

This module basically deals with the order of the books. It accepts book name, retrieve book details, calculate price based on selected book. After it payment process start then the book is delivered to the customer.

1.3.2 Cancellation

Once the order of book has done, it can be cancelled or seen by this module. It accepts order ID verifies it with the database. On successful confirmation by the customer it can cancel the order. Further, it will update the bookstore database and the payment gateway to issue refund.

1.3.3 Search

This module retrieves the details of the books. It accepts book name or subject and course name and then retrieves the details of the particular book or all the books from particular subject or course name.

1.4 Performance Requirement

1. Any number of users can access the system at any time and maintain speed at maximum. 2. Server will be working whole 24x7 times. 3. Security 4. Reliability 5. Portability 1.5 Design Constraints • This Software can be installed on Personal Computers, Tablets or Smart phones. For security reasons, Login Id & Password must be provided.

3.2 Non-Functional Requirements

1.2 External Interface Requirements

1.2.1 User Interfaces User of the system will be provided with the Graphical user interface, there is no Command line interface for any function. 1.2.2 Hardware Interfaces Hardware requirement will be same for the both the parties which are follows: n · Processor- Pentium I or above. · Ram 128MB or above. 1.2.3 Software

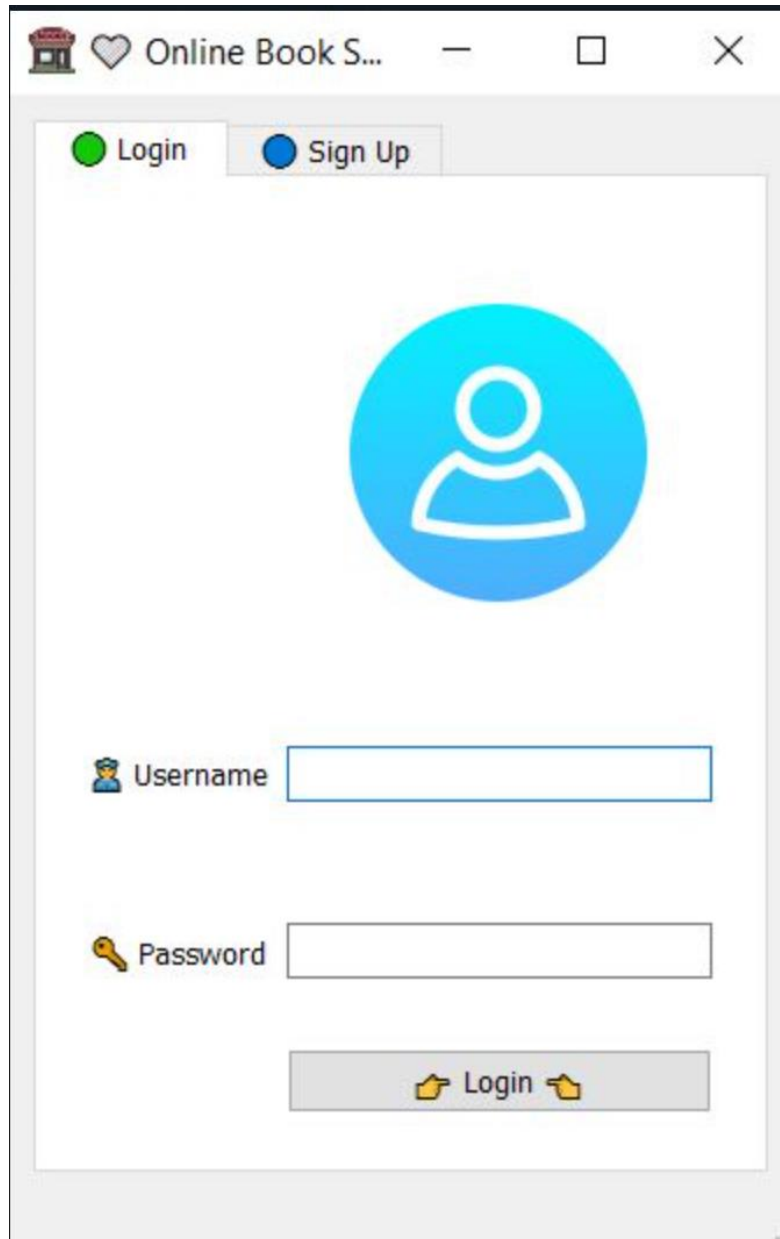
Interfaces Software required to make for working of our online bookstore is:
Operating system: Windows XP/Vista/7 or later version, Linux OS which supports Networking.

3.3 PLATFORMS

- Python.
- Django, Visual Studio Code, Pycharm for backend build.

Project screenshots:

Admin side:



The screenshot shows a web browser window titled "Online Book S...". The page has a light gray header with two tabs: "Login" (selected, green circle) and "Sign Up" (blue circle). Below the tabs is a large blue circular icon with a white person silhouette. Underneath the icon are two input fields: "Username" (with a person icon) and "Password" (with a key icon). At the bottom is a gray button with the text "Login" and two yellow hand icons pointing towards it.

Online Shop

admin

Log out

BooksAdd PublisherAdd BookUsersOrdersInventory

select filter

select publish

>< Filter

☐ novel

☐ history

☐ education

☐ religious

☐ philosophy


☐ encyclope

☐ literature

☐ children

☐ commic

Search



book name: Nineteen Eighty-Four

author: George Orwell

publisher: ghoghnus

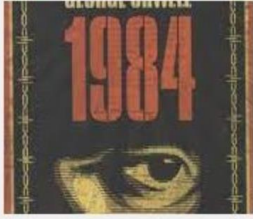
number in stock: 0

price: 80,000\$

More Details

Edit

Delete



book name: Nineteen Eighty-Four

author: george orwell

publisher: amirkabir


number in stock: 10

price: 82,000\$

More Details

Edit

Delete



book name: The Plague

author: Albert Camus

publisher: ghoghnus

number in stock: 16

Online Shop

admin

Log out

Books

Add Publisher

Add Book

Users

Orders

Inventory



Publishers


Name

Phone Number

Web site

Add

 Online Shop 

 admin Log out

Books Add Publisher Add Book Users Orders Inventory

add books

name

author

price

quantity

description

pulisher

amirkabir

☐ novel

☐ educationz

☐ philosophy

☐ litrature

☐ commic

☐ history

☐ religious

☐ encyclopec

☐ children

Picture

Broswer

Submit

Online Shop

admin

Log out

Books

Add Publisher

Add Book

Users

Orders

Inventory

Online Book Store

Total Number Of Books	265
Number Of Sold Books	29
Total Books Price	1,095,400
Total Sold Books Price	915,000
Total Sold Books Price(last 7 da	915,000
Total Sold Books Price(last 30 d	915,000

Online Shop

admin

Log out

Books

Add Publisher

Add Book

Users

Orders

Inventory

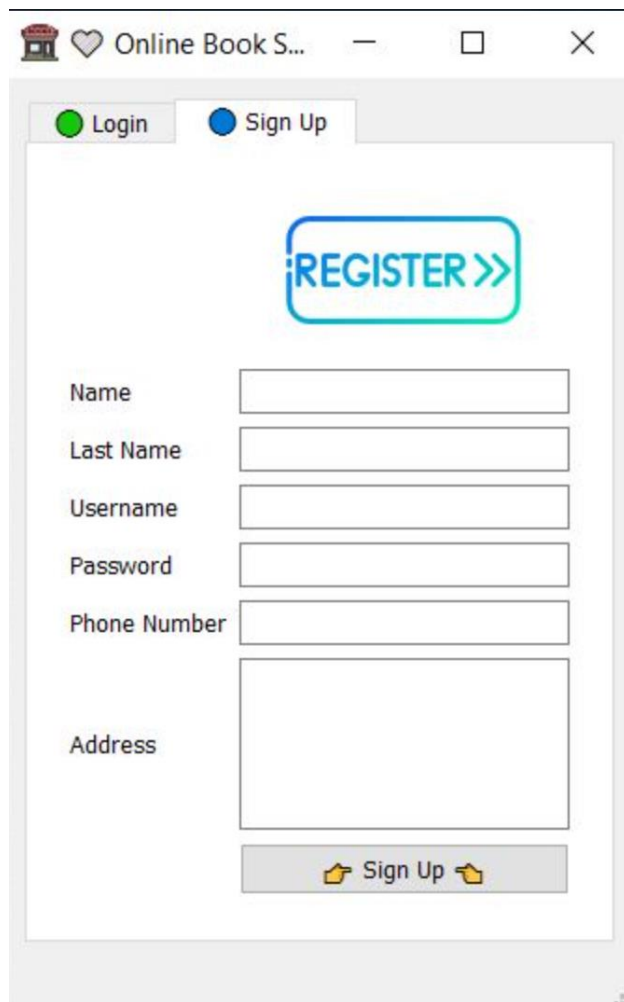
select filter

>< filter

Search

name	Last Name	Username	Phone	Address	Is Admin	Update	Delete
Krish	Nasit	Krish_Nasit	9900223344	Ahmedabad	no	Promote	Delete
Mahdi	Ebrahimi	MahdiKing	09303291264	Lorem ipsum dolor sit ame suas porro viris est te,	yes	Demote	Delete
Pratham	Patel	PP66	8933303335	Ahmedabad	no	Promote	Delete
Rahul	Mittal	Rangilo_Rahul	9288245367	Ahmedabad	no	Promote	Delete
Samarth	Motka	Sam33	8153933938	ahmedabad	no	Promote	Delete

Client side:



The screenshot shows a web browser window with the title "Online Book S...". The browser's address bar and window controls are visible. The page content includes a navigation bar with "Login" (green circle) and "Sign Up" (blue circle) tabs. Below the navigation bar is a large blue button with the text "REGISTER >>". The main form area contains several input fields: "Name", "Last Name", "Username", "Password", "Phone Number", and "Address". The "Address" field is a larger text area. At the bottom of the form is a grey button with the text "Sign Up" and two yellow hand icons.

Online Book S...

Login Sign Up

REGISTER >>

Name

Last Name



Username


Password

Phone Number

Address

Sign Up

 Online Shop 

 Sam33 Log out

Books Orders info

select filter

select publi

>< Filter

☐ novel

☐ history

☐ education

☐ religious

☐ philosophy

☐ encyclope

☐ litrature

☐ children

☐ commic

Search



author: Jon Krakauer
publisher: cheshme
number in stock: 110
price: 77,000\$

More Details

Ruv



book name: Mein Kampf
author: Adolf Hitler
publisher: cheshme
number in stock: 76
price: 98,400\$

More Details



Ruv




book name: The Sandman
author: Neil Gaiman
publisher: negah
number in stock: 35
price: 340,000\$

More Details

Ruv

 Online Shop 

 Sam33 Log out

Books Orders info

All Orders

	Book	User	Publisher	Date Added	Quantity	Price	
1	Nineteen Eighty...	Sam33	amirkabir	2022-11-08 ...	1	82,000	
2	The Plague	Sam33	ghoghnus	2022-11-08 ...	1	106,000	

