A Mini Project Report on

Online Bookstore Management

Submitted in partial fulfillment of the requirements for the award of the degree of

Bachelor of Engineering

in

Computer

by

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Academic Year 2021-2022

Approval Sheet

This Mini Project Report entitled ***Online Bookstore Management System*** Submitted by **"*Anjali Divekar" (20102105), "Mansi Gupta" (20102133), "Shivangi Kumar" (20102132), "Vaishnavi Kothari" (20102138)*** is approved for the partial fulfillment of the requirement for the award of the degree of ***Bachelor of Engineering*** in ***Computers*** from ***University of Mumbai***.

(Prof. Archana Kotangale)

Guide

Prof. Sachin H Malave

Head Department of Computer Engineering

Place: A. P. Shah Institute of Technology, Thane

Date:

CERTIFICATE

This is to certify that the mini project entitled ***"Online Book Store"*** submitted by ***"Anjali Divekar" (20102105), "Mansi Gupta" (20102133), "Shivangi Kumar" (20102132), "Vaishnavi Kothari" (20102138)*** for the partial fulfillment of the requirement for award of a degree ***Bachelor of Engineering*** in ***Computer***, to the University of Mumbai, is a bonafide work carried out during academic year 2021-2022.

(Prof Archana Kotangale)

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Prof. Sachin H Malave Dr. Uttam D.Kolekar Head Department of Computer Engineering

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Declaration

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that We have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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(Signature)

(Anjali Divekar 20102105)

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Date:

Abstract

This project aims at creating an efficient and reliable online book selling and buying platform. After the implementation of project, one can inquire and buy any book available in the store from anywhere. Online book store is a web application to allow users to select books through internet and get them delivered to their doorsteps.

As this web-based bookstore application helps both the buyer and the seller, it is beneficial to both of them. It saves the time of buyer by providing access to bookstore from anywhere and facilitating the home delivery service. The use of the proposed online software keeps the record of sold and stock books automatically in the database.

Contents

Chapter 1

Introduction

1.1 Problem Definition

The current system involves a physical showroom where a customer searches for his required book and purchases them. This process requires every aspect (customer, book, money, seller) to be physically present at the sales spot. The aim is to build a website as a front end of a bookstore to eliminate this physical presence at sale spots and to make purchasing a book easier.

1.2 Objective

- Here we try to develop such a type of system which provides automation on any type of the bookshop.
- It keeps the record of sold and stock books automatically in the database.
- It helps the customers to purchase the books without any complexity.

- It saves the time of buyer by providing access to bookstore from anywhere and facilitating the home delivery service.
- Online bookstore allows its users to search and purchase a book online based on title, author and subject.
- The user can also give feedback to a book by giving ratings on a score of five and can also leave a review. This can be helpful for the customers who intend to purchase that particular book.

1.3 Scope

This project has a wide scope, as it is not intended for a particular organization. This project is going to develop generic software, which can be applied by any business organization.

It aims at reducing user's searching time and also providing a user-friendly environment.

Moreover, it provides the facility of searching through various books sorted category wise and buying and ordering books from anywhere to its customer. Also, the software is going to provide a huge amount of summary data. It allows the admin to keep a record of the available stock and sold books.

Chapter 2

Existing System/Project

At present, the Wholesale and Retail outlets are working under manual management. All records related to Products, Sales, Suppliers, Orders, Payment are stored in registers. To manage data, the person maintaining records has to take great pain. Various registers have to be maintained for each separate process.

Existing system, used for the Management of sales of electronic products, is completely dependent on human actions and responses (Manual Management), which couldn't be free from errors. In each process whether it is Product Management, Maintaining Customer Records, Payment Management, Report Generation, the user has to pay attention to a greater extent while performing the tasks.

During the manual management, the tasks, which are to be performed

by its users, are:

- Maintenance of Customers Records (including the new and the existing customers).
- New Products launched in the market.
- Maintenance of Customers Payment Record (including installment details).
- Issue Orders for more Stock.

- Maintenance of Suppliers and Staff Records.
- Searching and answering the query asked by other users.
- Present monthly, quarterly or annual Reports.

All these operations will lead to continuous modifications in the database (Here Registers).

In case of Customer records, all information related to customers and the product which the customer has purchased is to be stored in the Customers register. If the changes in the customer profile (like Phone no., Address) occur, registers must be updated. In case of a new product launched, all the entries like product name and brand must be the same in the register (except Model number). For the maintenance of the payment records, the customer register has to be checked to know the details of the product purchased by the customer.

Monthly payment of installment needs to be recorded in the register to be updated.

During issuing orders of more stock, the product register is required to check the availability of stock in hand.

To generate the reports based on the management requirement, will require extensive searching for records. In case of Supplier and Staff Record Management, the registers need to be updated from time to time as information (like Phone No., Address) changes frequently.

Chapter 3

Technology Stack

Front-End: JSP, Html, CSS, JS.

Server-side: Servlet.

Back-end: MYSQL, Java.

Server: Tomcat 8.5.

The system uses the JSP and Servlet technology, with C3P0 connection pool to connect to the development of MySQL database, the front interface design is to use Dreamweaver CS6 to achieve, and the page effects using the JavaScript language and its library function jQuery, enhanced User interaction with the interface experience [5-6].

Chapter 4

Benefits and Applications

4.1 Benefits for society

- Those who have bookstores situated far from their places have to take transport to reach there. With the help of an online bookstore this issue can be resolved.
- In remote areas even if there are libraries, they lack good reference books for higher studies.
- It saves time and money.
- Reading from a pdf makes it portable. You can continue your reading even if you are moving.
- In online bookstore one can get many discounts and offers.
- Customers can get their book delivered instead of actually going and buying the book.
- They can make payment online itself.

4.2 Benefits for environment

- In printing books a lot of paper is utilized which means more deforestation. Downloading a pdf can reduce deforestation.
- Whenever you buy an eBook, you are essentially bypassing the old requirement of a fossil fuel vehicle to deliver or pick up the

product. The production of printed books produces about 10 times more CO2 in the atmosphere than eBooks.
- Printing books also requires a lot of electricity to produce traditional books.
- Even though book stores that sell books are fun places to spend time and read, think of all the amount of energy required to warm or cool such a large store.
- Physical presence of a bookstore also takes up a lot of land space. This land otherwise can also be utilized for greener means like planting trees, gardens or farming.

4.3 Applications

- The system can be very well used by the bookstore shopkeepers to expand their customers.
- The system can also be implemented in publishing houses.
- Your retail bookstore has a limited amount of space to hold and display certain book titles, which can restrict readers' choices. Having an online database allows you to offer a wide range of titles and increase their exposure to all the stock you have.
- A bookstore's presence online can give your business an edge to earn great results and meet the evolving needs of the modern customer.
- An online store is not limited and is cheaper.

Chapter 5

Project Design

5.1 Proposed System

In this project you can view any book very easily online. You can purchase online books by selecting any payment gateway like pay-pal or money wire.

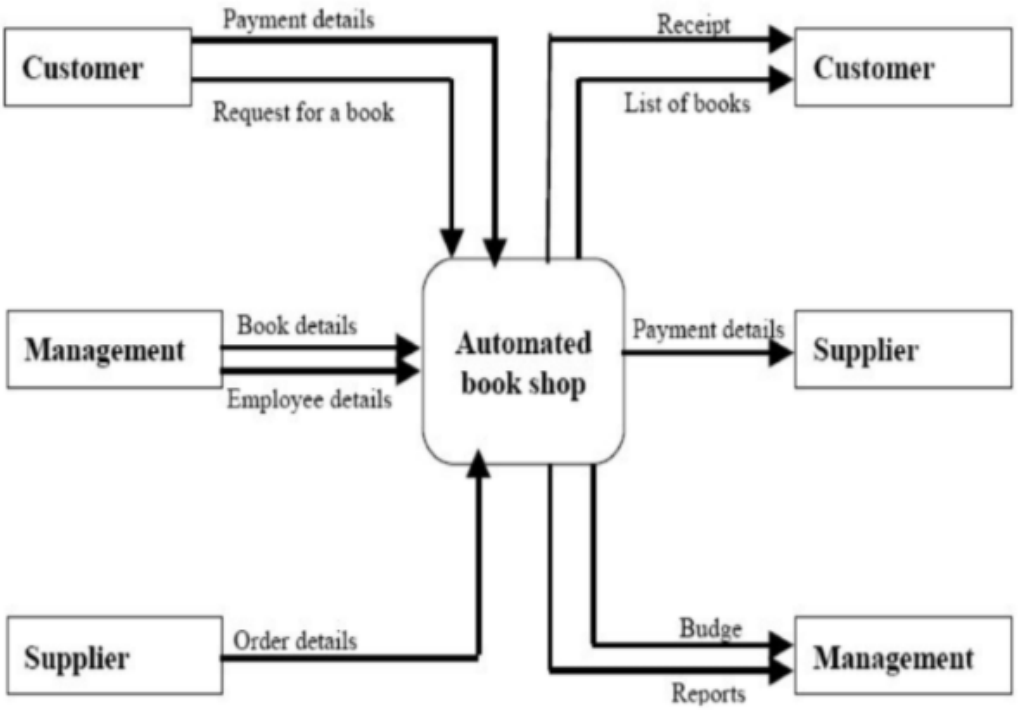
You can also sell and resell a book.

This is controlled by an admin who have full control over all the books. All the books are stored into the Database. So, there is full security of theft of payment etc.

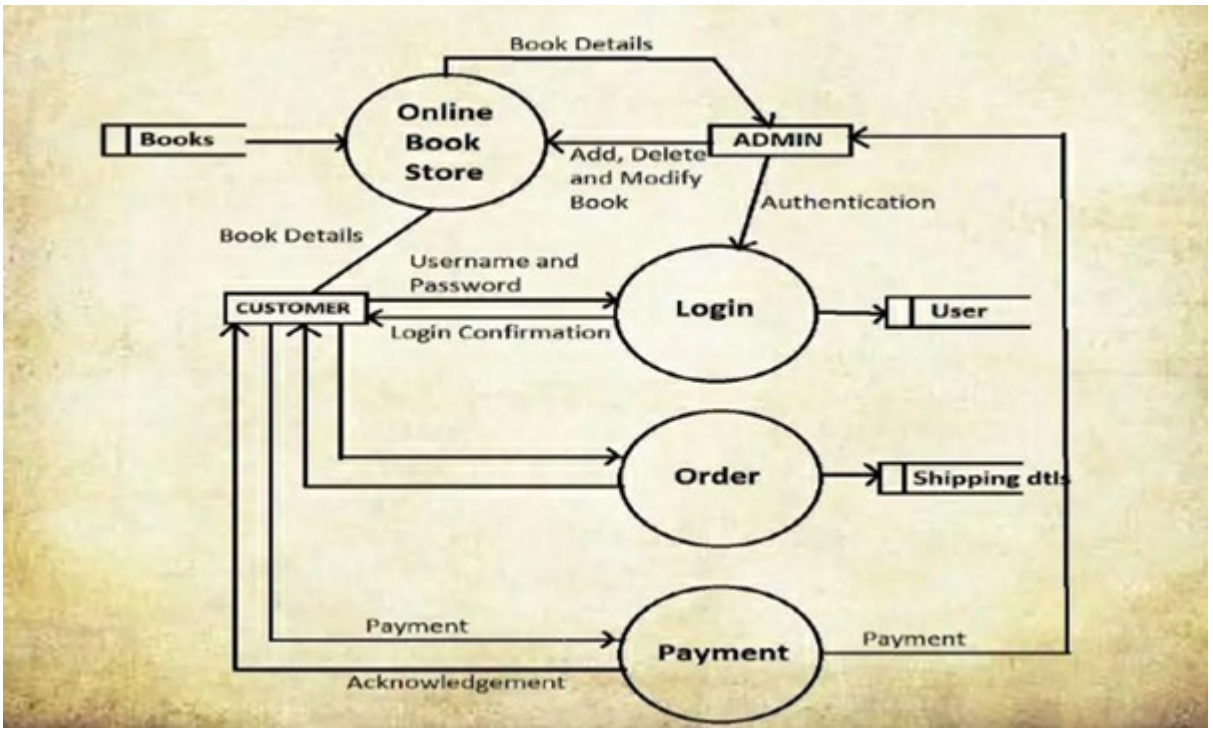
Online bookstore provides a platform where all the books are kept in an arranged way and you can choose your required book by just selecting it from the store. While selecting a book one can view all the description such as name of book, name of author and price, user can make payment of it in order to get it.

Chances of theft are very less.

5.2 Flow of modules



5.3 Data flow diagrams



5.4 Modules of the system

The project is divided into various modules to help the work divide into small yet efficient modules. Each modules output acts as an input to the next module. Each module requires a specific set of knowledge and skill which takes time hence they have been divided accordingly

The site will contain the following features:

- Registration / Login
- Admin
- User
- Manage Shopping Cart
- Payment option

5.4.1 Registration and Login

If the user doesn't have an account, he will be asked to register. The user will have to enter the required details in that registration form.

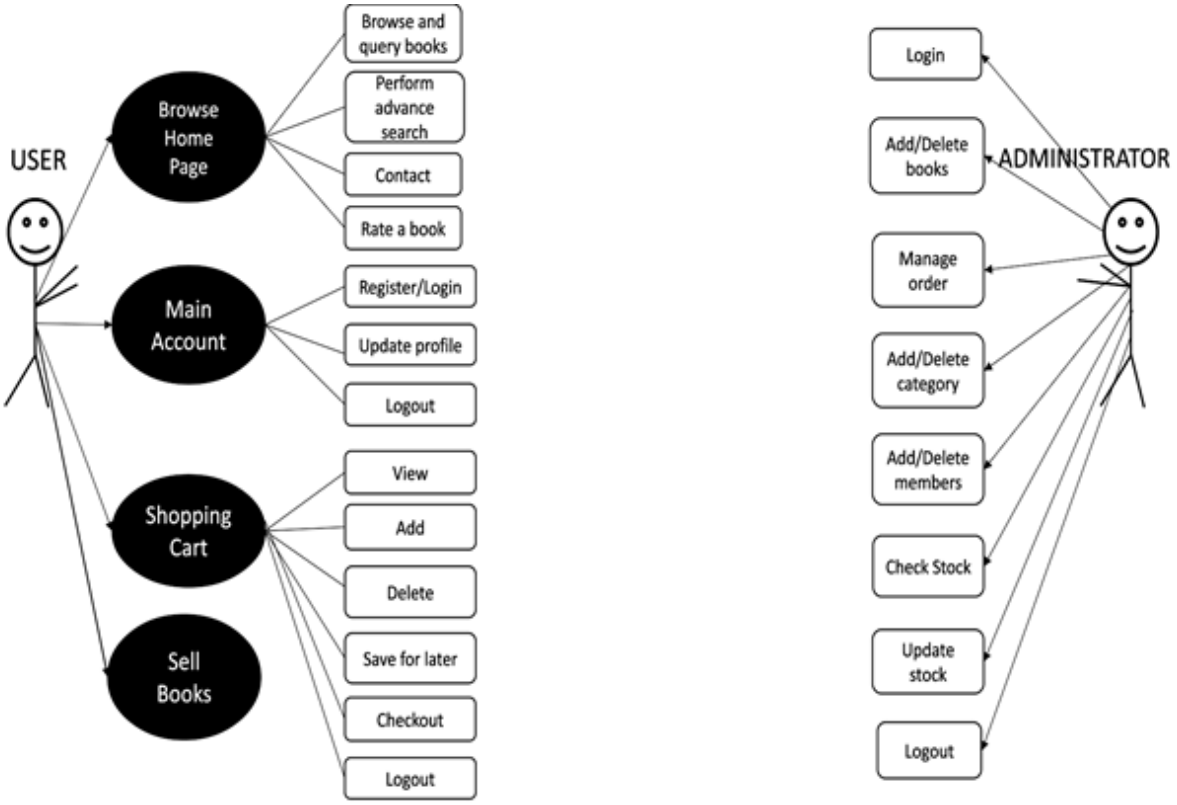
After registration the user can login to their account to get access to all the functionalities of Online Bookstore by using their user id and password.

5.4.2 Admin

Provided for the sake of administrators to manage the site and update content at regular intervals.

An Admin can:

1. Add/Delete/Update record of any customer
2. Add/Delete/Update the product details
3. Can check orders and transaction details of all the customers
4. Can update the database.



5.4.4 Manage Shopping Cart

1. **Place an order** - 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. The order will be added to the user's shopping cart.

2. **Update Shopping Cart –** If the user wants to change the quantity of book or change a book then he can update his shopping cart. The updated cart details will be reflected in the shopping cart.

3. **View Shopping Cart** - 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. The user's shopping cart summary will be displayed in a tabular format with all the books and their quantity. A total cost of all the items is also displayed at the bottom.

5.4.5 Payment Option

After placing an order, user can proceed to confirm their order by paying the required price. A payment gateway will allow users to make payment through credit card, debit card or direct payment processing. They can choose any method suitable for them. Users will even get an option of downloading a payment receipt which will be saved directly on their device.

5.4.3 User

The user can search for the book he is in need of, if he finds it, he can buy that book from the comfort of his home itself.

A user can:

1. Login/Logout from his/her account.
2. Search for their favourite books based on category/author.
3. Add/Remove items from their cart.
4. Place/Cancel their order.

5. Checkout by selecting a suitable payment option.
6. Get payment receipt.

Chapter 6

Project Implementation

userRegistration.java

```
package bookshop;

import java.awt.EventQueue;
import java.awt.Font;
import java.awt.Toolkit;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;

public class userRegistration extends JFrame {
    private static final long serialVersionUID = 1L;
    private JPanel contentPane;
    private JTextField firstname;
    private JTextField lastname;
    private JTextField email;
    private JTextField username;
    private JTextField mob;
    private JPasswordField passwordField;
    private JButton btnNewButton;
    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
```

userRegistration.java

```
37              try {
38                  userRegistration frame = new userRegistration();
39                  frame.setTitle("Registration");
40                  frame.setVisible(true);
41                  frame.setLocationRelativeTo(null);
42              } catch (Exception e) {
43                  e.printStackTrace();
44              }
45          }
46      });
47  }
48  /**
49  * Create the frame.
50  */
51  public userRegistration() {
52      setIconImage(Toolkit.getDefaultToolkit().getImage("C:\\Users\\User\\Desktop\\STDM.jpg"));
53      setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
54      setBounds(450, 190, 1014, 597);
55      setResizable(false);
56      contentPane = new JPanel();
57      contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
58      setContentPane(contentPane);
59      contentPane.setLayout(null);
60
61      JLabel lblNewUserRegister = new JLabel("New User Register");
62      lblNewUserRegister.setFont(new Font("Times New Roman", Font.PLAIN, 42));
63      lblNewUserRegister.setBounds(362, 52, 325, 50);
64      contentPane.add(lblNewUserRegister);
65      JLabel lblName = new JLabel("First name");
66      lblName.setFont(new Font("Tahoma", Font.PLAIN, 20));
67      lblName.setBounds(58, 152, 99, 43);
68      contentPane.add(lblName);
69      JLabel lblNewLabel = new JLabel("Last name");
70      lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 20));
71      lblNewLabel.setBounds(58, 243, 110, 29);
72      contentPane.add(lblNewLabel);
```

userRegistration.java

```
73      JLabel lblEmailAddress = new JLabel("Email\r\n address");
74      lblEmailAddress.setFont(new Font("Tahoma", Font.PLAIN, 20));
75      lblEmailAddress.setBounds(58, 324, 124, 36);
76      contentPane.add(lblEmailAddress);
77      firstname = new JTextField();
78      firstname.setFont(new Font("Tahoma", Font.PLAIN, 32));
79      firstname.setBounds(214, 151, 228, 50);
80      contentPane.add(firstname);
81      firstname.setColumns(10);
82      lastname = new JTextField();
83      lastname.setFont(new Font("Tahoma", Font.PLAIN, 32));
84      lastname.setBounds(214, 235, 228, 50);
85      contentPane.add(lastname);
86      lastname.setColumns(10);
87      email = new JTextField();
88
89      email.setFont(new Font("Tahoma", Font.PLAIN, 32));
90      email.setBounds(214, 320, 228, 50);
91      contentPane.add(email);
92      email.setColumns(10);
93      username = new JTextField();
94      username.setFont(new Font("Tahoma", Font.PLAIN, 32));
95      username.setBounds(707, 151, 228, 50);
96      contentPane.add(username);
97      username.setColumns(10);
98
99      JLabel lblUsername = new JLabel("Username");
100     lblUsername.setFont(new Font("Tahoma", Font.PLAIN, 20));
101     lblUsername.setBounds(542, 159, 99, 29);
102     contentPane.add(lblUsername);
103
104     JLabel lblPassword = new JLabel("Password");
105     lblPassword.setFont(new Font("Tahoma", Font.PLAIN, 20));
106     lblPassword.setBounds(542, 245, 99, 24);
107     contentPane.add(lblPassword);
```

userRegistration.java

```
        JLabel lblMobileNumber = new JLabel("Mobile number");
        lblMobileNumber.setFont(new Font("Tahoma", Font.PLAIN, 20));
        lblMobileNumber.setBounds(542, 329, 139, 26);
        contentPane.add(lblMobileNumber);

        mob = new JTextField();
        mob.setFont(new Font("Tahoma", Font.PLAIN, 32));
        mob.setBounds(707, 320, 228, 50);
        contentPane.add(mob);
        mob.setColumns(10);

        passwordField = new JPasswordField();
        passwordField.setFont(new Font("Tahoma", Font.PLAIN, 32));
        passwordField.setBounds(707, 235, 228, 50);
        contentPane.add(passwordField);

        btnNewButton = new JButton("Register");
        btnNewButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                String firstName = firstname.getText();
                String lastName = lastname.getText();
                String emailId = email.getText();
                String userName = username.getText();
                String mobileNumber = mob.getText();
                int len = mobileNumber.length();
                String password = passwordField.getText();

                String msg = "" + firstName;
                msg += " \n";
                if (len != 10) {
                    JOptionPane.showMessageDialog(btnNewButton, "Enter a valid mobile number");
                }

                try {
                   Connection connection = DriverManager.getConnection("jdbc:mysql://localhost:3306/swing_demo", "root", "root123");
```

userRegistration.java

```
                int len = mobileNumber.length();
                String password = passwordField.getText();

                String msg = "" + firstName;
                msg += " \n";
                if (len != 10) {
                    JOptionPane.showMessageDialog(btnNewButton, "Enter a valid mobile number");
                }

                try {
                   Connection connection = DriverManager.getConnection("jdbc:mysql://localhost:3306/swing_demo", "root", "root123");

                   String query = "INSERT INTO account values('" + firstName + "','" + lastName + "','" + userName + "','" +
                   password + "','" + emailId + "','" + mobileNumber + "')";

                   Statement sta = connection.createStatement();
                   int x = sta.executeUpdate(query);
                   if (x == 0) {
                        JOptionPane.showMessageDialog(btnNewButton, "This is alredy exist");
                   } else {
                       JOptionPane.showMessageDialog(btnNewButton,
                            "Welcome, " + msg + "Your account is sucessfully created");
                   }
                   connection.close();
                } catch (Exception exception) {
                    exception.printStackTrace();
                }
            }
        });
        btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 22));
        btnNewButton.setBounds(399, 447, 259, 74);
        contentPane.add(btnNewButton);
    }
}
```

Chapter 7

Result

This Bookshop Automation System is an attempt to overcome the present inefficient and time consuming process of locating, reserving and purchasing quality reading materials available in the store. Currently, clients have to go through a time consuming process to perform aforementioned tasks which cause waste of labor and firms resources. Through our automated book store solution, we provide an easy way of searching, reserving and purchasing of books.

User data are validated and checked for authenticity with the data stored in the system database.

All the newly coined processes will address time consuming, ineffective and inefficient areas of the existing system which has being wasting a lot of firms resources such as, labor, electricity, equipment, products and services, while discouraging customers to make purchases and repelling clients from the book store.

Proposed system will support both clients and the store in many areas. It's worth analyzing and identifying the benefits as it would directly influence the productivity of the store. Customer satisfaction plays the most vital role in any form of product and service rendering store as the existence of any firm solely depends on its customer-base.

Therefore, every system should facilitate the customer satisfaction up to a certain extent which is feasible from the company perspective.

The aforementioned facts ensure customer satisfaction to a greater extent benefiting the store in:

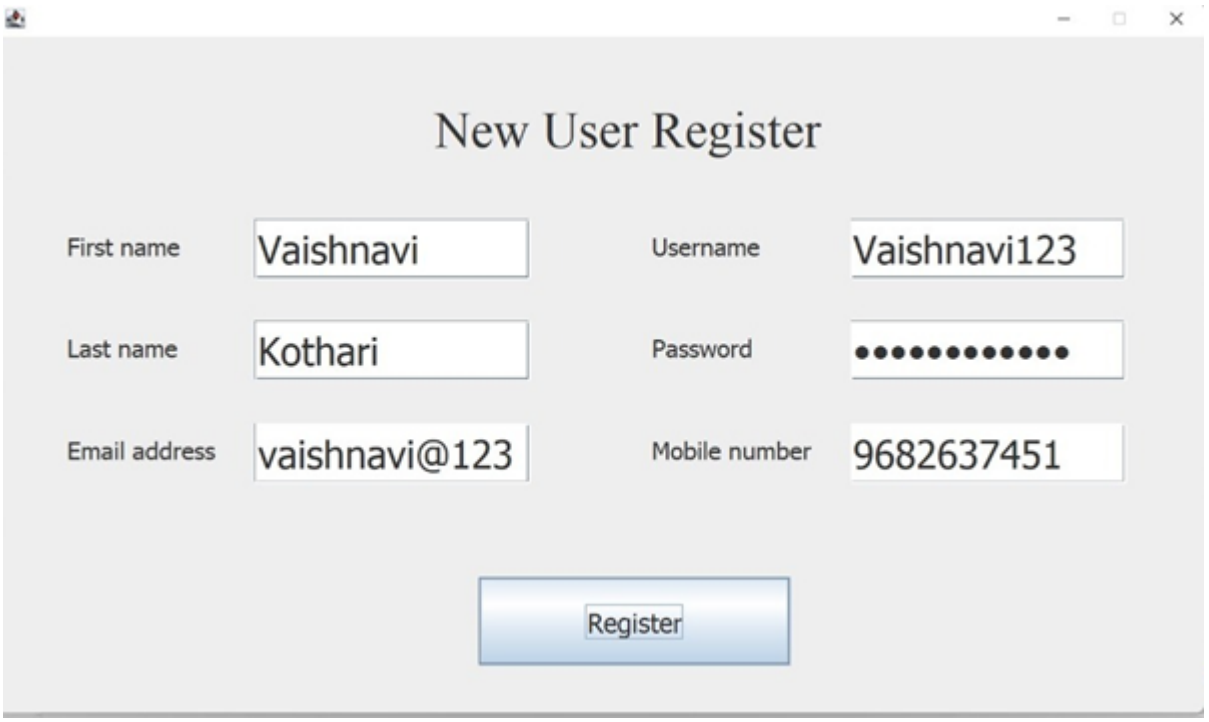
- Retaining current customers.
- Tempting current customers to attract their friends to the store.
- Attracting new customers.
- Enhancing the customer faith on the firm due to secure transaction techniques while temping customers to make more online purchases.
- Identifying profitable customers.
- Identifying different categories of customers.
- Making necessary alterations and plans to address broader range of customers.
- Identifying key areas of the inventory which need to be maintained at a healthy stock limit.
- Analyzing trends to make more effective management decisions and development of new strategies to increase profit.

These particulars will make sure the broadening the customer base of the store which will have good impact on the sales and revenue of the store. Employee satisfaction also plays an influential role in healthy revenue levels of a firm. Due to the proposed system, employees will have to handle minimum amount of workload than that of the existing system which will help the employees to provide optimal service to the firm while maintaining healthy physical and mental levels.

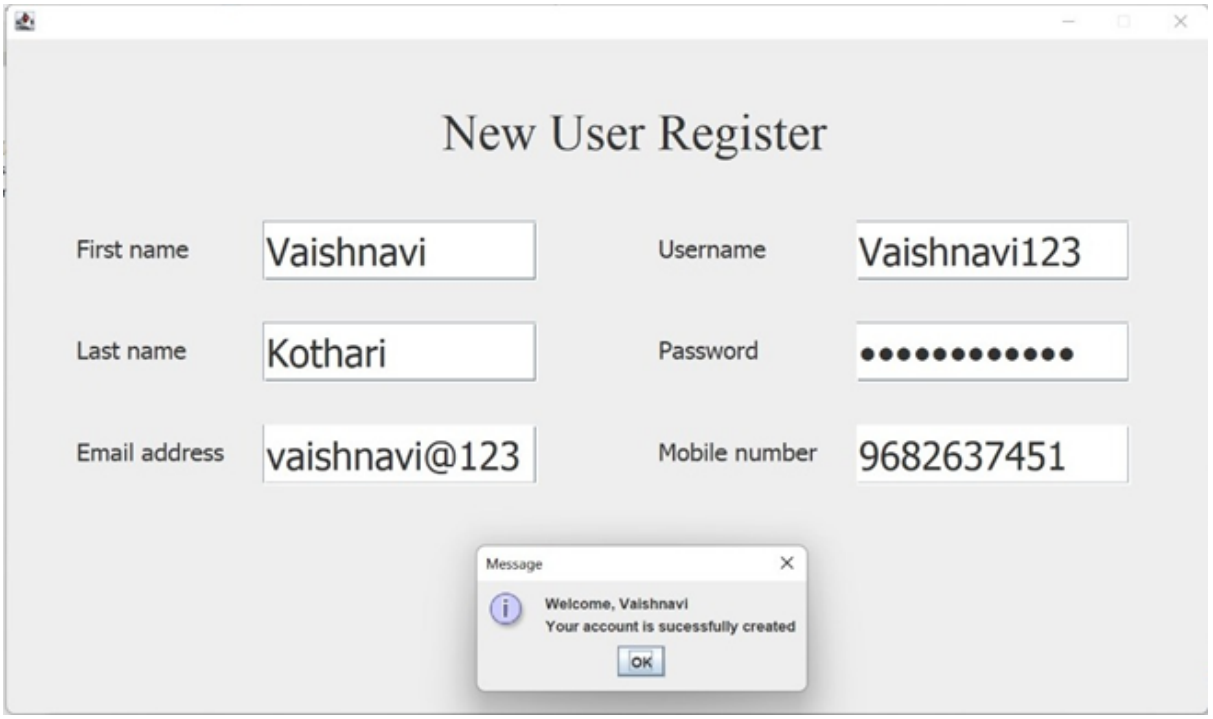
Proposed system will reduce transaction and agency cost of the store up to a certain extent since the transactions are automated and need of minimal labor to handle work as the their work has been governed by the system.

Even though these advantages prevail, due to lack of IT literacy and fluency of clients and lack of distribution of internet facility will have a negative impact and it will take some time to cover up the capital investment made on implementing the new system. Since the technical facilities are expanding in great heaps, proposed system will facilitate enhancing productivity immensely.

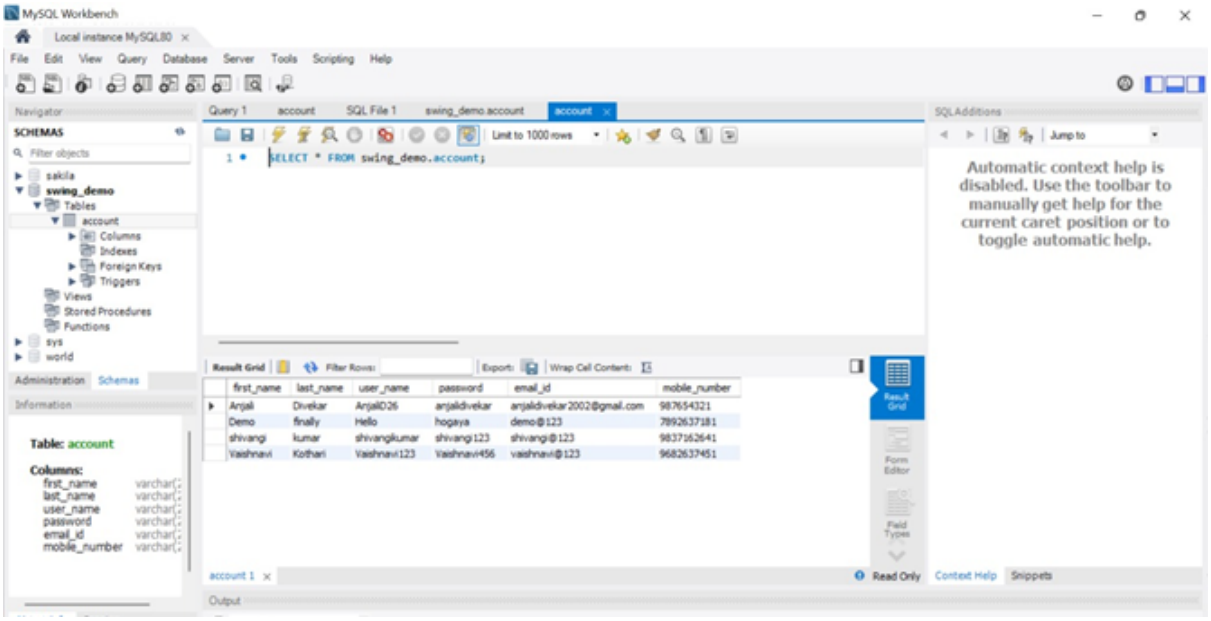
Frontend:



Backend:



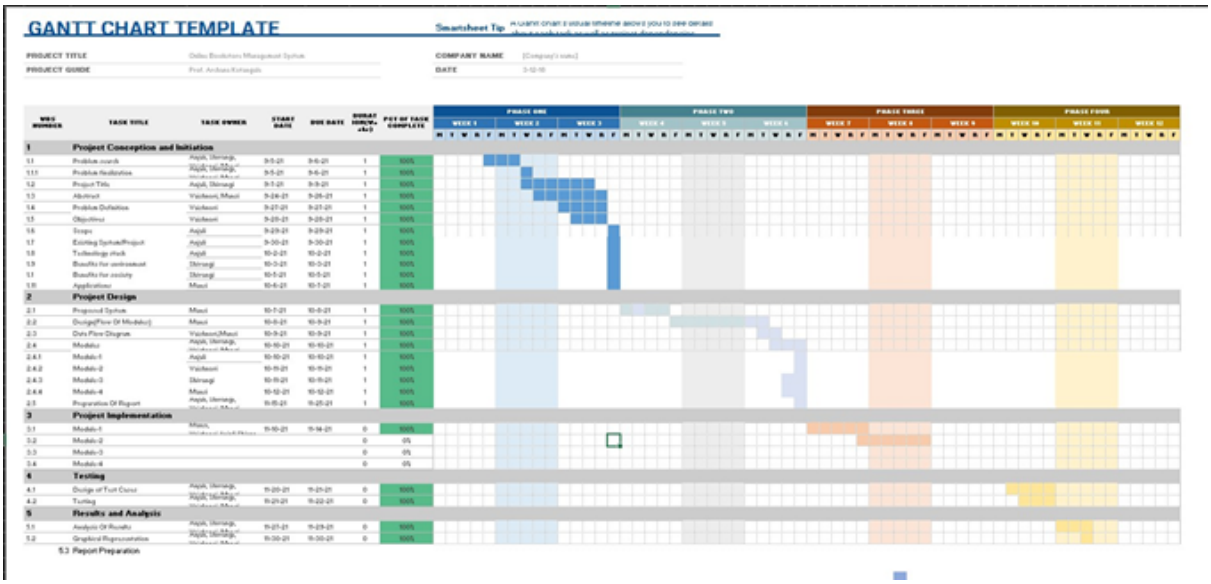
Database:



Chapter 8

Annexure A

8.1 Gantt Chart



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Appendices

Acknowledgement

We have great pleasure in presenting the mini project report on **Online Bookstore.** We take this opportunity to express our sincere thanks towards our guide **Prof. Archana Kotangale** Department of Computer Engineering, APSIT thane for providing the technical guidelines and suggestions regarding line of work. We would like to express our gratitude towards his constant encouragement, support and guidance through the development of project.

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