

1. Write a PHP script to print prime numbers between 1 – 50.

```
<?php
$number = 2;
while ($number < 100) {
    $div_count = 0;
    for ($i = 1; $i <= $number; $i++) {
        if ($number % $i == 0) {
            $div_count++;
        }
    }
    if ($div_count < 3) {
        echo $number . " , ";
    }
    $number = $number + 1;
}
?>
```

OUTPUT : 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47

2. PHP script to

a. Find the length of a string.

```
<?php
$myString = "Hello, World!";
$lengthOfString = strlen($myString);
echo "Length of the string: $lengthOfString";
?>
```

OUTPUT:

Length of the string: 13

b. Count no of words in a string.

```
<?php
$myString = "This is a sample sentence.";
$wordCount = str_word_count($myString);
echo "Number of words in the string: $wordCount";
?>
```

OUTPUT:

Number of words in the string: 5

c. Reverse a string.

```
<?php
$myString = "Hello, World!";
$reversedString = strrev($myString);
echo "Reversed string: $reversedString";
?>
```

OUTPUT:

Reversed string: !dlrow ,olleH

d. Search for a specific string.

```
<?php
$myString = "This is a sample sentence.";
$searchString = "sample";
if (strpos($myString, $searchString) !== false) {
    echo "String '$searchString' found in the given string.";
} else {
    echo "String '$searchString' not found in the given string.";
}
```

```
}  
?>
```

OUTPUT:

String 'sample' found in the given string.

3. Write a PHP script to merge two arrays and sort them as numbers, in descending order.

```
<?php
$a1 = [1, 3, 15, 7, 5];
$a2 = [4, 3, 20, 1, 6];
$num = array_merge($a1, $a2);
array_multisort($num, SORT_DESC, SORT_NUMERIC);
print_r($num);
?>
```

OUTPUT:

```
Array ( [0] => 20 [1] => 15 [2] => 7 [3] => 6 [4] => 5 [5] => 4 [6] => 3 [7] => 3 [8] => 1 [9] => 1 )
```

4. Write a PHP script that reads data from one file and write into another file.

```
<?php
// Input file path
$inputFilePath = 'input.txt';

// Output file path
$outputFilePath = 'output.txt';

// Check if the input file exists
if (file_exists($inputFilePath)) {
    // Read data from the input file
    $data = file_get_contents($inputFilePath);

    // Check if the data is successfully read
    if ($data !== false) {
        // Write data to the output file
        $writeSuccess = file_put_contents($outputFilePath, $data);

        // Check if writing to the output file is successful
        if ($writeSuccess !== false) {
            echo "Data successfully copied from '$inputFilePath' to '$outputFilePath'.";
        } else {
            echo "Error writing to '$outputFilePath'.";
        }
    } else {
        echo "Error reading data from '$inputFilePath'.";
    }
} else {
    echo "Input file '$inputFilePath' does not exist.";
}
?>
```

OUTPUT:

Data successfully copied from 'input.txt' to 'output.txt'.

5. Develop static pages (using Only HTML) of an online book store. The pages should resemble: www.amazon.com. The website should consist the following pages.

- a) Home page**
- b) Registration and user Login**
- c) User Profile Page**
- d) Books catalog**
- e) Shopping Cart**
- f) Payment By credit card**
- g) Order Conformation**

a) Home page

Main.html:

```
<html>
  <head>
    <title>
      Amazon
    </title>
  </head>
  <body bgcolor="cyan">
    <center>
      <strong>
        <h1>Welcome to AMAZON</h1>
      </strong>
      <form method="post" action="login.html" target="_blank">
        <h4>for books</h4>
        <input type="submit" value="click here" />
      </form>
    </center>
  </body>
</html>
```

b) Registration and user Login

Login.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <title>Login</title>
</head>

<body bgcolor="cyan">
  <center>
    <strong>
      <h1> AMAZON </h1>
    </strong>
```



```

        <td><h4>Username</h4></td>
        <td><input type="text" name="username"></td>
    </tr>
    <tr>
        <td><h4>Password</h4></td>
        <td><input type="password" name="password"></td>
    </tr>
    <tr>
        <td><h4>Confirm Password</h4></td>
        <td><input type="password" name="confirm_password"></td>
    </tr>
    <tr>
        <td><h4>Gender</h4></td>
        <td>
            <input type="radio" name="sex" id="male">
            <label for="male">Male</label>
            <input type="radio" name="sex" id="female">
            <label for="female">Female</label>
        </td>
    </tr>
    <tr>
        <td><h4>Address</h4></td>
        <td><textarea name="address" rows="5" cols="19" >
        </textarea></td>
    </tr>
    <tr>
        <td colspan="2">
            <input type="submit" value="Submit">
            <input type="reset" value="Reset">
        </td>
    </tr>
</table>
</form>
</body>
</html>

```

c) User Profile Page

userprofile.html

```

<html>
<head>
    <title>User Profile</title>
</head>
<body bgcolor="cyan">
    <center>
        <strong><h1>Welcome to AMAZON Online Book Store</h1></strong>
    </center>
    <p>Edit your profile here...</p>
    <form method="post" action="catalog.html">
        <table align="center">

```



```

        <tr>
            <td><h4>Edit Username</h4></td>
            <td><input type="text" name="edit_username"></td>
        </tr>
        <tr>
            <td><h4>Edit Password</h4></td>
            <td><input type="password" name="edit_password"></td>
        </tr>
        <tr>
            <td><h4>Gender</h4></td>
            <td>
                <input type="radio" name="sex" id="male">
                <label for="male">Male</label>

                <input type="radio" name="sex" id="female">
                <label for="female">Female</label>
            </td>
        </tr>
        <tr>
            <td><h4>Edit Address</h4></td>
            <td><textarea name="edit_address" rows="5" cols="19">
            </textarea></td>
        </tr>
        <tr>
            <td colspan="2">
                <input type="submit" value="Submit">
            </td>
        </tr>
    </table>
</form>
</body>
</html>

```

d) Books catalog

Shopping.html:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <title>Books Catalog</title>
</head>
<body bgcolor="cyan">
    <center><h1>AMAZON</h1></center>
    <form method="post" action="shopping.html">
        <table align="center">
            <tr>
                <td colspan="2"><b><h3>Frontend Books</h3></b></td>
            </tr>
            <tr>
                <td></td>
                <td><h4>C&Ds</h4></td>
            </tr>

```

```

        <td></td>
        <td><h4>Ads</h4></td>
    </tr>
    <tr>
        <td></td>
        <td><h4>JAVA</h4></td>
    </tr>
    <tr>
        <td colspan="2"><b><h3>Backend Books</h3></b></td>
    </tr>
    <tr>
        <td></td>
        <td><h4>Oracle</h4></td>
    </tr>
    <tr>
        <td></td>
        <td><h4>Ms SQL Server</h4></td>
    </tr>
    <tr>
        <td></td>
        <td><h4>MySql</h4></td>
    </tr>
</table>
<center>
    <b>For buying one of these books</b><br>
    <input type="submit" value="Click Here">
</center>
</form>
</body>
</html>

```

e) Shopping Cart

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Shopping Cart</title>
</head>
<body bgcolor="cyan">
    <center><h1>Shopping Cart</h1></center>
    <br><br><br><br><br>
    <table align="center">
        <tr>
            <td>Text Books</td>
            <td>
                <select name="selected_book">
                    <optgroup label="Select the book">
                        <option value="C&Ds">C&Ds</option>
                        <option value="Ads">Ads</option>

```

```

        <option value="Java">Java</option>
        <option value="Oracle">Oracle</option>
        <option value="Ms SQL Server"> Ms SQL Server
    </option>
        <option value="MySql">MySql</option>
    </optgroup>
</select>
</td>
</tr>
<tr>
    <td>Quantity</td>
    <td>
        <input type="text" id="q" name="quantity">
    </td>
</tr>
<tr>
    <td></td>
    <td>
        <form method="post" action="payment.html">
            <input type="submit" value="OK">
        </form>
    </td>
</tr>
</table>
<center>
    <pre>Cost of one book is "500" + shipping "100"</pre>
</center>
</body>
</html>

```

f) Payment By credit card

Payment.html

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Payment</title>
</head>
<body bgcolor="cyan">
    <center><h1>Payment By Credit Card</h1></center>
    <form method="post" action="ordrconform.html">
        <br><br><br><br><br>
        <table align="center">
            <tr>
                <td><h4>Total Amount</h4></td>
                <td><input type="text" name="total_amount"></td>
            </tr>
            <tr>
                <td><h4>Credit Card Number</h4></td>

```

```

        <td><input type="text" name="credit_card_number"></td>
    </tr>
    <tr>
        <td></td>
        <td><input type="submit" value="OK"></td>
    </tr>
</table>
</form>
</body>
</html>

```

g) Order Conformation

Ordrcnform.html

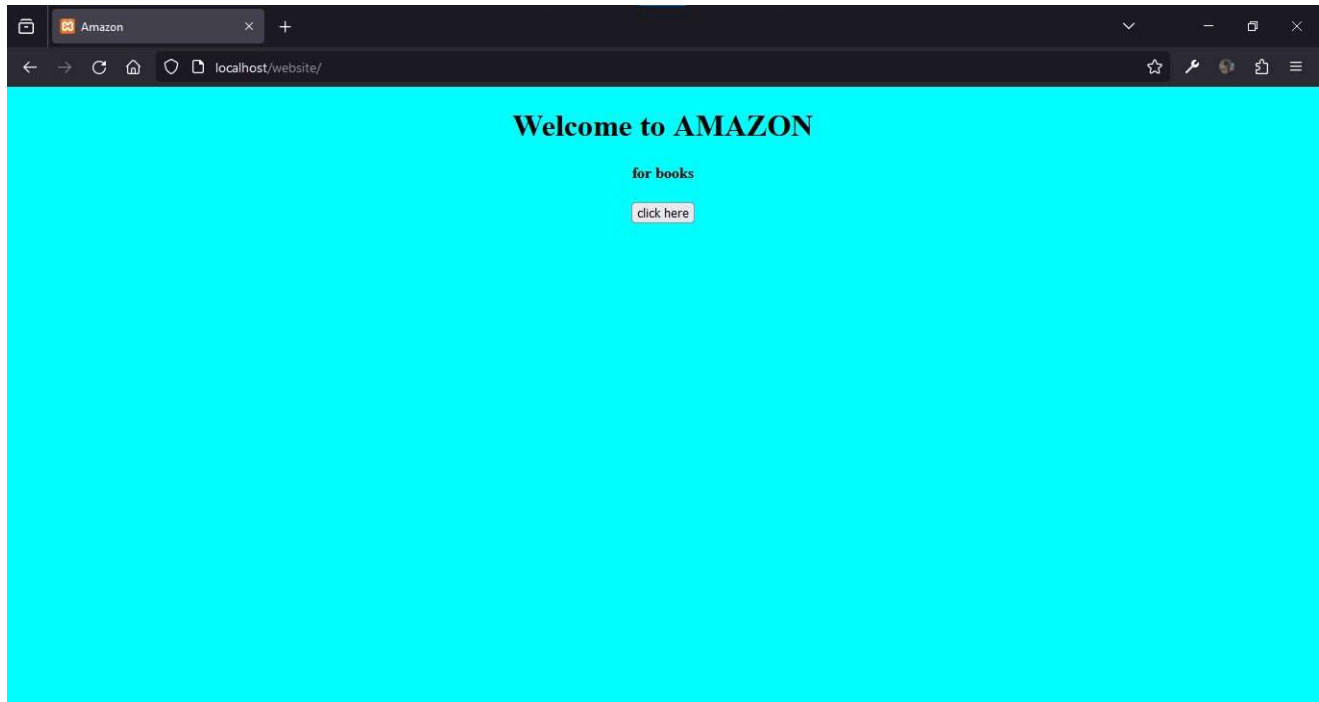
```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Order Confirmation</title>
</head>
<body bgcolor="cyan">
    <center>
        <h1><b>BOOK SHOPPING</b></h1>
        <pre><strong>Your order is Confirmed</strong></pre>
        <h2><b>THANK YOU</b></h2>
    </center>
</body>
</html>

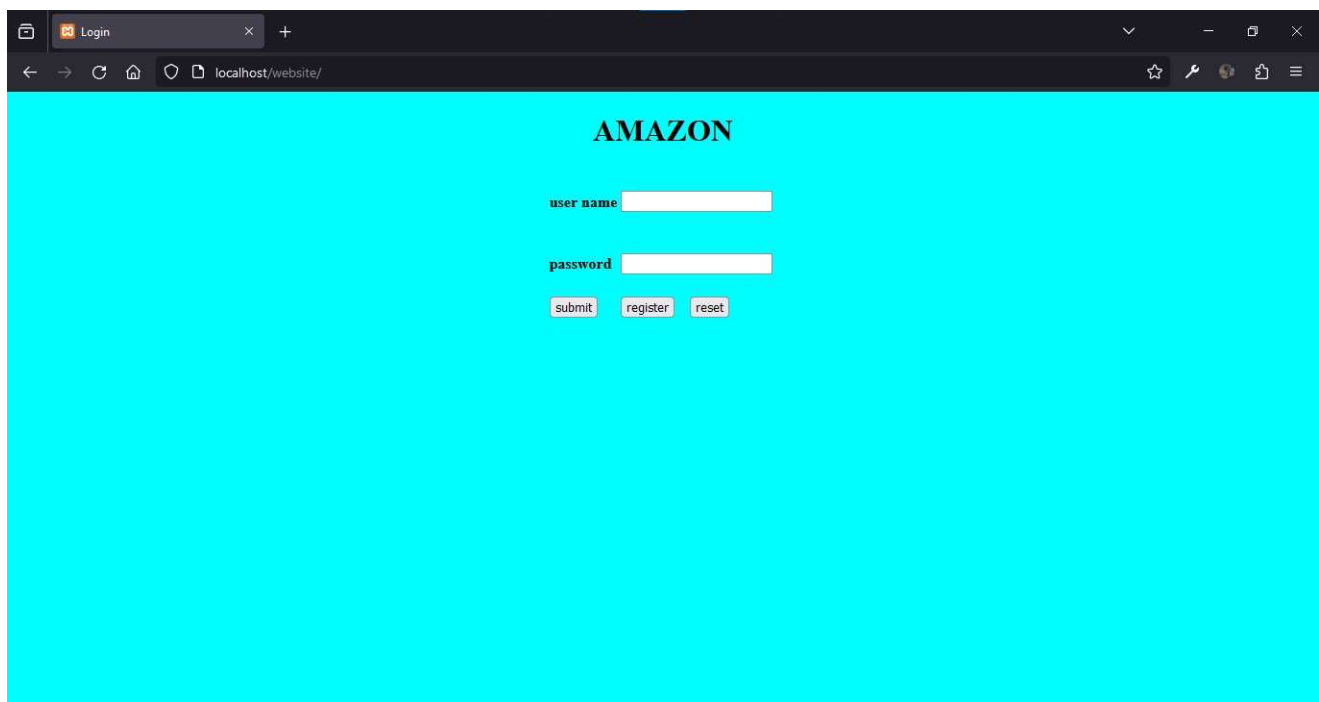
```

OUTPUT:

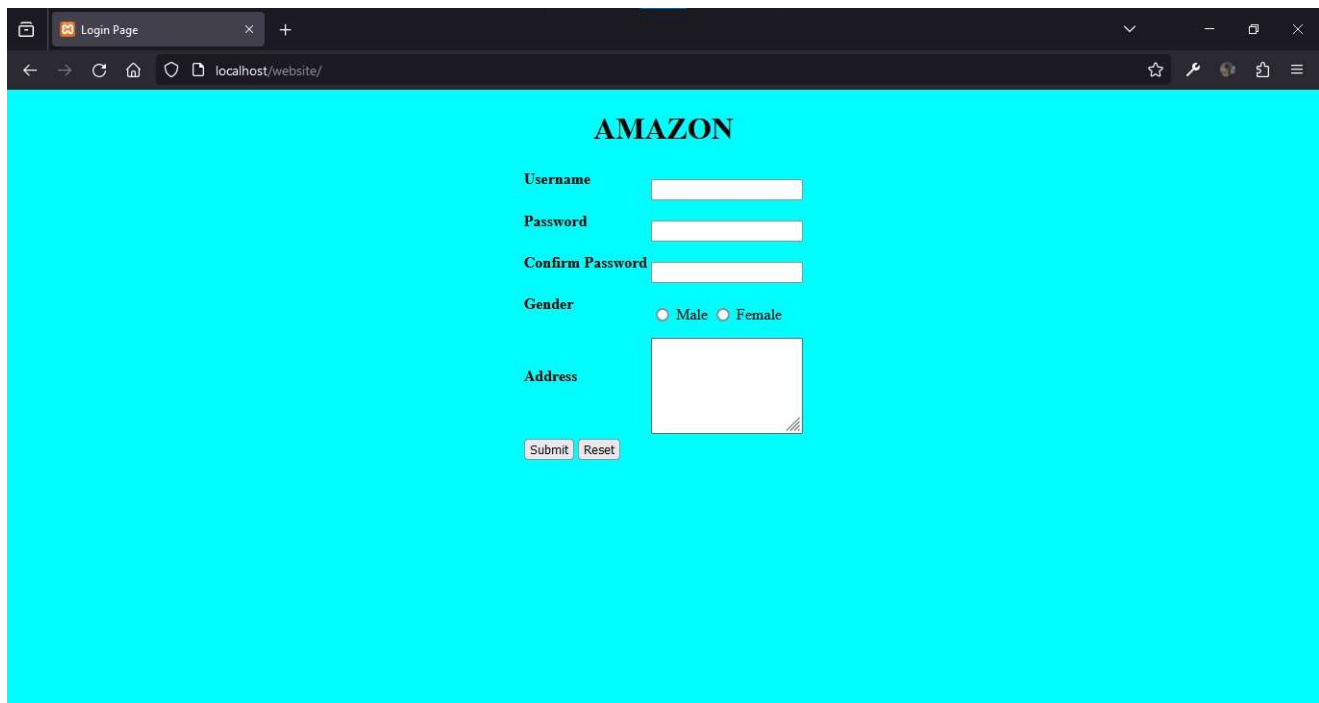
main



login



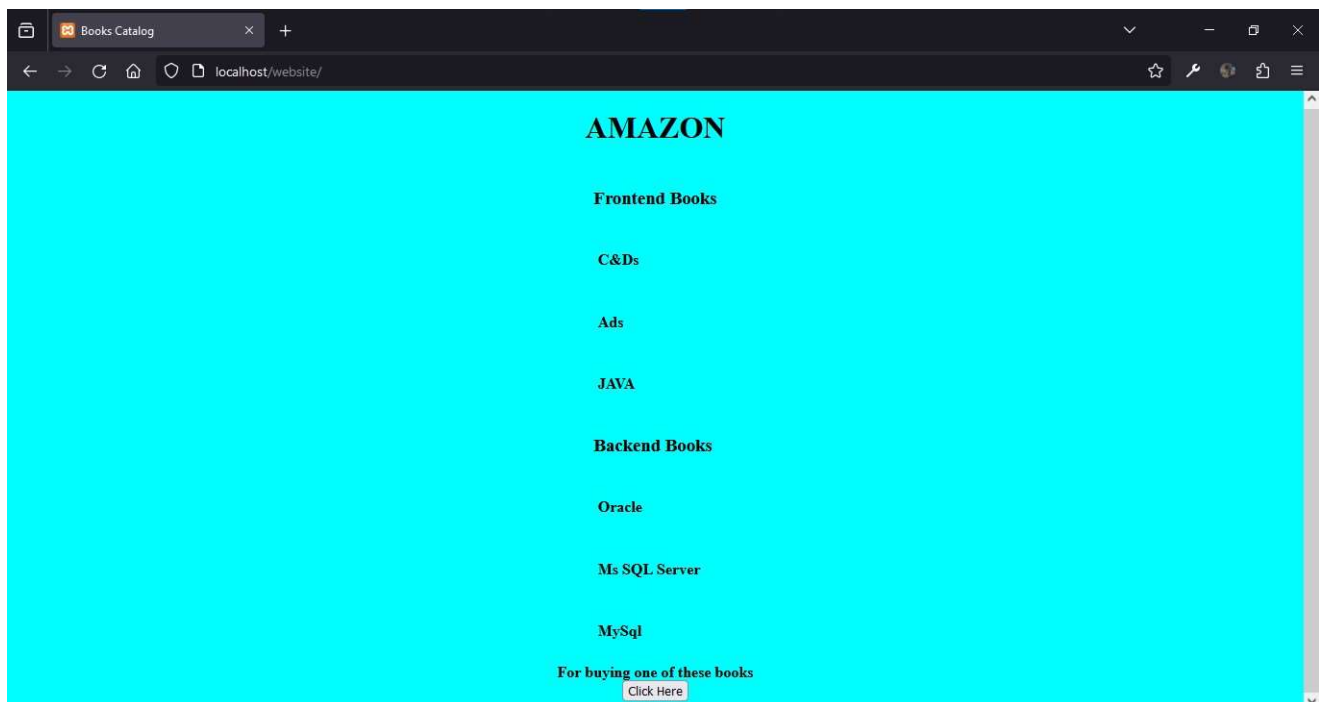
registration



The screenshot shows a web browser window with a single tab titled 'Login Page'. The address bar displays 'localhost/website/'. The main content area has a light blue background and features a registration form titled 'AMAZON' in a large, bold, black serif font. The form includes the following fields and controls:

- Username:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Gender:** Two radio buttons labeled 'Male' and 'Female'.
- Address:** A larger text input field.
- Submit:** A button with a red border and white background.
- Reset:** A button with a red border and white background.

catalog



shopping cart

Shopping Cart

Text Books

Quantity

Cost of one book is "500" + shipping "100"

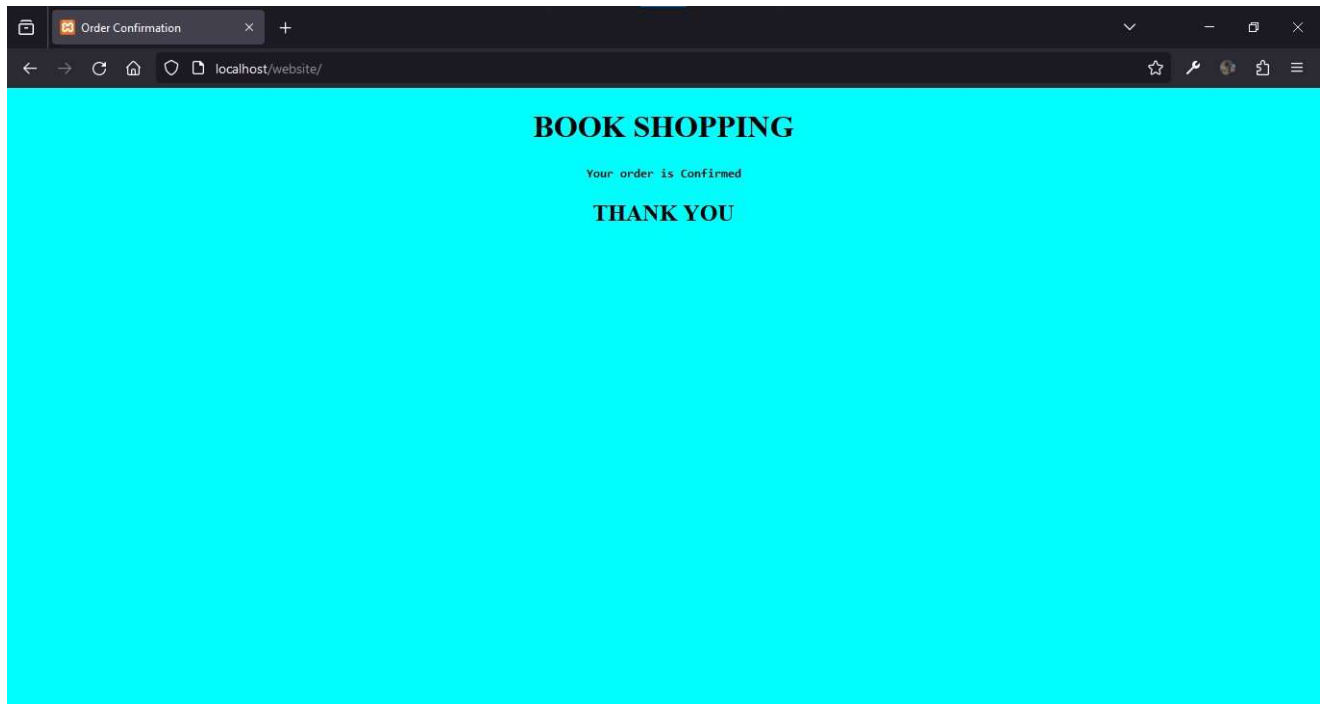
payment

Payment By Credit Card

Total Amount

Credit Card Number

Order conformation



6. Validate the Registration, user login, user profile and payment by credit card pages using JavaScript.

Homepage:

main.html:

```
<html >
  <frameset rows="25%,*">
    <frame src="top.html" name="top" scrolling="no" frameborder="0">
    <frameset cols="25%,75%">
      <frame src="left.html" name="left" scrolling="no"
frameborder="0">
      <frame src="right.html" name="right" scrolling="auto"
frameborder="0">
    </frameset>
  </frameset>
</html>
```

top.html:

```
<!DOCTYPE html>
<html>

<head>
  <title>Online Book Storage</title>
</head>

<body bgcolor="pink">
  <br><br>
  <marquee>
    <h1 align="center"><b><u>ONLINE BOOK STORAGE</u></b></h1>
  </marquee>
</body>

</html>
```

right.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>Welcome to Online Book Storage</title>
  </head>

  <body>
    <br /><br /><br /><br /><br />
    <h2 align="center">
```

```

        <b>
        <p>
            Welcome to Online Book Storage. Press login if you have an ID;
            otherwise, press registration.
        </p>
    </b>
</h2>
</body>
</html>

```

Left.html

```

<!DOCTYPE html>
<html>

<head>
    <title>Navigation Menu</title>
</head>

<body bgcolor="pink">
    <h3>
        <ul>
            <li><a href="login.html" target="right"> <font
color="black">LOGIN</font> </a></li><br><br>
            <li><a href="profile.html" target="right"> <font
color="black">USER PROFILE</font> </a></li><br><br>
            <li><a href="catalog.html" target="right"> <font
color="black">BOOKS CATALOG</font> </a></li><br><br>
            <li><a href="scart.html" target="right"> <font
color="black">SHOPPING CART</font> </a></li><br><br>
            <li><a href="payment.html" target="right"> <font
color="black">PAYMENT</font></a> </li><br><br>
        </ul>
    </h3>
</body>

</html>

```

Registration and user Login

Login.html:

```

<!DOCTYPE html>
<html>

<head>
    <title>Login Page</title>
</head>

<body bgcolor="pink">

```



```

<!DOCTYPE html>
<html>
  <head>
    <title>Validation Page</title>
  </head>

  <body bgcolor="pink">
    <br /><br /><br />
    <script language="javascript">
      function validate() {
        var flag = 1;

        if (document.myform.title.value == "") {
          flag = 0;
        }

        var str = document.myform.title.value;

        if (str == "c" || str == "C") {
          // Accredited by NAAC
          document.myform.t1.value = "C";
          document.myform.t2.value = 444;
        } else if (str == "jsp" || str == "JSP") {
          document.myform.t1.value = "JSP";
          document.myform.t2.value = 555;
        } else {
          flag = 0;
        }

        if (flag === 0) {
          alert("Invalid input");
        }
      }
    </script>

    <form name="myform">
      <div align="center">
        <pre>
          Title: <input type="text" name="title"><br>
          <input type="button" value="Submit" onClick="validate()">
        </pre>
        <input type="hidden" name="t1" />
        <input type="hidden" name="t2" />
      </div>
    </form>
  </body>
</html>

```

Shopping cart:

scart.html:

```

<!DOCTYPE html>

```

[illegible]

```
</html>
```

Payment by creditcard

payment.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>Validation and Form Submission</title>
  </head>

  <body bgcolor="pink">
    <br /><br /><br />
    <script language="javascript">
      function validate() {
        var flag = 1;

        if (
          document.myform.id.value == "" ||
          document.myform.pwd.value == "" ||
          document.myform.amount.value == "" ||
          document.myform.num.value == ""
        ) {
          flag = 0;
        }

        var str = document.myform.amount.value;
        var x = new RegExp("\\d", "g");

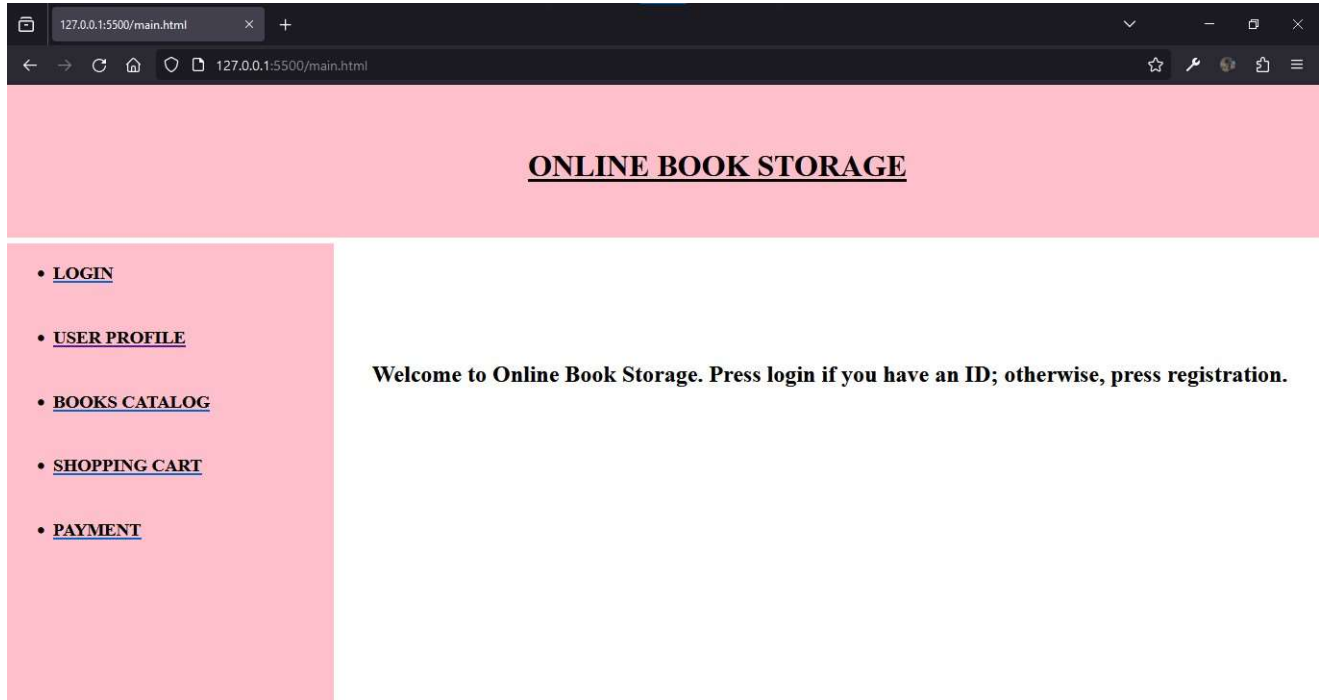
        if (!str.match(x)) {
          flag = 0;
        }

        if (flag == 1) {
          alert("VALID INPUT");
          window.self.location.href = "order.html";
        } else {
          alert("INVALID INPUT");
          document.myform.focus();
        }
      }
    </script>

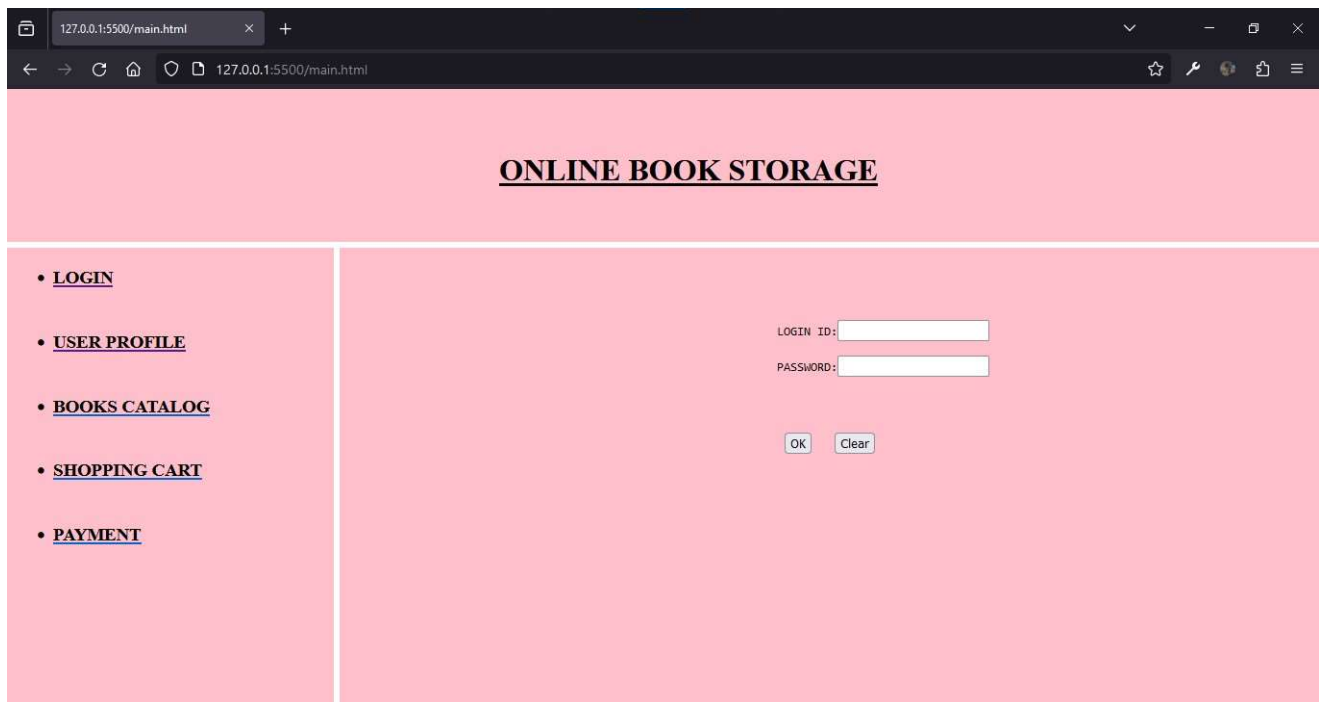
    <form name="myform">
      <div align="center">
        <pre>
          LOGINID :<input type="text" name="id"><br>
          PASSWORD :<input type="password" name="pwd"><br>
          AMOUNT :<input type="text" name="amount"><br>
          CREDITCARDNUMBER :<input type="password" name="num"><br>
        </pre>
      <br /><br />
    </form>
  </body>
</html>
```


OUTPUT :

main



login



catalog

127.0.0.1:5500/main.html

127.0.0.1:5500/main.html

ONLINE BOOK STORAGE

- [LOGIN](#)
- [USER PROFILE](#)
- [BOOKS CATALOG](#)
- [SHOPPING CART](#)
- [PAYMENT](#)

LOGINID :

TITLE :

NO.OFBOOKS :

COSTOFBOOK :

scart

127.0.0.1:5500/main.html

127.0.0.1:5500/main.html

ONLINE BOOK STORAGE

- [LOGIN](#)
- [USER PROFILE](#)
- [BOOKS CATALOG](#)
- [SHOPPING CART](#)
- [PAYMENT](#)

Title:

Payment

The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5500/main.html". The page has a pink header with the text "ONLINE BOOK STORAGE" in bold, underlined black font. On the left, there is a sidebar with a list of links: "LOGIN", "USER PROFILE", "BOOKS CATALOG", "SHOPPING CART", and "PAYMENT". The main content area is also pink and contains a login form with the following fields: "LOGINID :", "PASSWORD :", "AMOUNT :", and "CREDITCARDNUMBER :". Each field has a corresponding text input box. Below the form are two buttons: "Submit" and "Clear". At the bottom of the main content area, it says "Accredited by NAAC".

ONLINE BOOK STORAGE

- [LOGIN](#)
- [USER PROFILE](#)
- [BOOKS CATALOG](#)
- [SHOPPING CART](#)
- [PAYMENT](#)

LOGINID :

PASSWORD :

AMOUNT :

CREDITCARDNUMBER :

Accredited by NAAC

Order

The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5500/main.html". The page has a pink header with the text "ONLINE BOOK STORAGE" in bold, underlined black font. On the left, there is a sidebar with a list of links: "LOGIN", "USER PROFILE", "BOOKS CATALOG", "SHOPPING CART", and "PAYMENT". The main content area is cyan and contains the text "AMAZON" in bold, "Your order Is Confirmed" in a smaller font, and "THANK YOU" in bold.

ONLINE BOOK STORAGE

- [LOGIN](#)
- [USER PROFILE](#)
- [BOOKS CATALOG](#)
- [SHOPPING CART](#)
- [PAYMENT](#)

AMAZON

Your order Is Confirmed

THANK YOU

7. Create and save an XML document on the server, which contains 10 users information. Write a program, which takes User Id as an input and returns the user details by taking the user information from the XML document.

emp.xml

```
<employees>
  <employee id="111">
    <firstName>Chandrika</firstName>
    <lastName>Gupta</lastName>
    <location>India</location>
  </employee>
  <employee id="222">
    <firstName>Srinivas</firstName>
    <lastName>Reddy</lastName>
    <location>Russia</location>
  </employee>
  <employee id="333">
    <firstName>Anupama</firstName>
    <lastName>P</lastName>
    <location>USA</location>
  </employee>
  <employee id="444">
    <firstName>Lokesh</firstName>
    <lastName>Gupta</lastName>
    <location>India</location>
  </employee>
  <employee id="555">
    <firstName>Vishnu</firstName>
    <lastName>Gussin</lastName>
    <location>Russia</location>
  </employee>
  <employee id="666">
    <firstName>Veeru</firstName>
    <lastName>Feezor</lastName>
    <location>USA</location>
  </employee>
  <employee id="777">
    <firstName>Pavan</firstName>
    <lastName>Feezor</lastName>
    <location>USA</location>
  </employee>
  <employee id="888">
    <firstName>Narayana</firstName>
    <lastName>Gussin</lastName>
    <location>Russia</location>
  </employee>
  <employee id="999">
    <firstName>David</firstName>
    <lastName>Feezor</lastName>
    <location>USA</location>
  </employee>
  <employee id="1000">
```

```

        <firstName>Sunder</firstName>
        <lastName>Feezor</lastName>
        <location>USA</location>
    </employee>
</employees>

```

ReadXML.java

```

import org.w3c.dom.*;
import javax.xml.parsers.*;
import java.io.*;
import java.util.Scanner;

public class ReadXML {
    public static void main(String args[]) throws Exception {
        DocumentBuilderFactory factory =
DocumentBuilderFactory.newInstance();
        DocumentBuilder builder = factory.newDocumentBuilder();
        // Build Document
        Document document = builder.parse(new
File("H:/XAMPP/tomcat/webapps/SSIT/emp.xml"));
        // Normalize the XML Structure; It's just too important !!
        document.getDocumentElement().normalize();

        // Here comes the root node
        Element root = document.getDocumentElement();
        // Get all employees
        NodeList nList = document.getElementsByTagName("employee");
        System.out.print("enter employee id:");
        Scanner s = new Scanner(System.in);
        String id = s.next();
        for (int temp = 0; temp < nList.getLength(); temp++) {
            Node node = nList.item(temp);
            if (node.getNodeType() == Node.ELEMENT_NODE) {
                Element eElement = (Element) node;
                if (eElement.getAttribute("id").equals(id)) {
                    System.out.println(
                        "First Name : " +
eElement.getElementsByTagName("firstName").item(0).getTextContent());
                    System.out
                        .println("Last Name:" +
eElement.getElementsByTagName("lastName").item(0).getTextContent());
                    System.out
                        .println("Location:" +
eElement.getElementsByTagName("location").item(0).getTextContent());
                }
            }
        }
    }
}

```

OUTPUT:

enter employee id: 999

First Name : David

Last Name:Feezor

Location:USA

8. **Install TOMCAT web server. Convert the static web pages of assignments 2 into dynamic web pages using servlets and cookies. Hint: Users information (user id, password, credit card number) would be stored in web.xml. Each user should have a separate Shopping Cart.**

Procedure:

First install the tomcat into the system. Then make a subdirectory(e.g., tr) in the \tomcat\webapps. Under tr create **WEB-INF** directory and place the html files in this tr directory only. Next under WEB-INF create two subclasses lib, classes and **web.xml** Next place all the class files under the classes and jar files(servlet-api.jar,classes12.jar etc...) under lib subdirectories. After this start tomcat by giving the following command at the install **dir>tomcat>bin Catalina.bat** run at the I.E(web browser) give the url as **http://localhost:8080//tr/html file or servlet url** pattern Port no **8080** is assigned for the tomcat.

web.xml

```
<?xml version="1.0" encoding="iso-8859-1"?>
<!DOCTYPE web-app
PUBLIC "-//Sun Microsystems, Inc.//DTD Web Application 2.3//EN"
"http://java.sun.com/dtd/web-app_2_3.dtd">
<web-app>
    <display-name>Servlet 2.4 Examples</display-name>
    <description>
        Servlet 2.4 Examples.
    </description>

    <!-- Servlet Definitions -->
    <servlet>
        <servlet-name>reg</servlet-name>
        <servlet-class>reg</servlet-class>
    </servlet>

    <servlet>
        <servlet-name>login</servlet-name>
        <servlet-class>login</servlet-class>
    </servlet>

    <servlet>
        <servlet-name>profile</servlet-name>
        <servlet-class>profile</servlet-class>
    </servlet>

    <servlet>
        <servlet-name>order</servlet-name>
        <servlet-class>order</servlet-class>
    </servlet>
    <servlet>
```

```

        <servlet-name>order</servlet-name>

        <servlet-class>order</servlet-class>

</servlet>

<!-- Servlet Mappings -->
<servlet-mapping>
    <servlet-name>reg</servlet-name>
    <url-pattern>/reg</url-pattern>
</servlet-mapping>

<servlet-mapping>
    <servlet-name>login</servlet-name>
    <url-pattern>/login</url-pattern>
</servlet-mapping>

<servlet-mapping>
    <servlet-name>profile</servlet-name>
    <url-pattern>/profile</url-pattern>
</servlet-mapping>

<servlet-mapping>
    <servlet-name>order</servlet-name>
    <url-pattern>/order</url-pattern>
</servlet-mapping>

</web-app>

```

main.html

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>ONLINE BOOK STORAGE</title>
  </head>
  <body bgcolor="pink">
    <br /><br /><br /><br /><br />
    <h1 align="center"><u>ONLINE BOOK STORAGE</u></h1>
    <br /><br /><br />
    <h2 align="center">
      <pre>
        <b>
          Welcome to online book storage.
          Press LOGIN if you are having an ID;
          otherwise, press REGISTRATION
        </b>
      </pre>
    </h2>
  </body>
</html>

```



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <title>Catalog Form</title>
    </head>

    <body bgcolor="pink">
        <br /><br /><br />
        <form method="post" action="/tr/catalog">
            <div align="center">
                <pre>
                    BOOK TITLE :<input type="text" name="title" /><br />
                        </pre>
                <br /><br />
            </div>
            <br /><br />
            <div align="center">
                <input
                    type="submit"
                    value="OK"
                    name="button1"
                />&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&~
                <input type="reset" value="Clear" name="button2" />
            </div>
        </form>
    </body>
</html>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Registration Form</title>
  </head>

  <body bgcolor="pink">
    <br /><br />
    <form method="post" action="/tr/reg">
      <div align="center">
        <pre>
NAME                :<input type="text" name="name" /><br />
PASSWORD            :<input type="password" name="pwd"/><br />
TITLE               :<input type="text" name="title" /><br />
NO. OF BOOKS        :<input type="text" name="no" /><br />
DATE                :<input type="text" name="date" /><br />
CREDIT CARD NUMBER :<input type="password" name="cno" />
        </pre>
      <br /><br />
    </div>
  <br /><br />
</body>
</html>
```



```

        }
    }

    if (flag == 0) {
        // College Information
        pw.println("Sai Spurthi Institute of Technolugy");
        pw.println("(Approved by AICTE, New Delhi, Affiliated to
JNTUH, Hyderabad)");
        pw.println("Gangaram (Village), Sathupally (Mandal), Khammam
Dist, TS-507303");
        pw.println("Accredited by NAAC");
    } else {
        pw.println("SORRY INVALID ID. TRY AGAIN ID<br><br>");
        pw.println("<a href=\"/tr/login.html\">Press LOGIN to
RETRY</a><br><br>");
        pw.println("VALID LOGIN ID<br><br>");
        pw.println("<h3><ul>");
        pw.println("<li><a href=\"/profile.html\"><font
color=\"black\">USER PROFILE</font></a></li><br><br>");
        pw.println("<li><a href=\"/catalog.html\"><font
color=\"black\">BOOKS CATALOG</font></a></li><br><br>");
        pw.println(
            "<li><a href=\"/order.html\"><font
color=\"black\">ORDER CONFIRMATION</font></a></li><br><br>");
    }

    pw.println("</body></html>");
} catch (Exception e) {
    resp.sendError(500, e.toString());
}
}
}

```

Reg.java

```

import java.sql.*;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Reg extends HttpServlet {
    public void service(HttpServletRequest req, HttpServletResponse resp)
throws ServletException, IOException {
        PrintWriter pw = resp.getWriter();
        pw.println("<html><body bgcolor=\"pink\">");

        String name = req.getParameter("name");
        String addr = req.getParameter("addr");
        String phno = req.getParameter("phno");
        String id = req.getParameter("id");
        String pwd = req.getParameter("pwd");
        int no = Integer.parseInt(phno);

        try {

```

```

        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");
        Statement stmt = con.createStatement();
        String sqlstmt = "select id, password from login";
        ResultSet rs = stmt.executeQuery(sqlstmt);

        int flag = 0;

        while (rs.next()) {
            if (id.equals(rs.getString(1)) &&
pwd.equals(rs.getString(2))) {
                flag = 1;
            }
        }

        if (flag == 1) {
            pw.println("SORRY INVALID ID ALREADY EXISTS. TRY AGAIN WITH
A NEW ID<br><br>");
            pw.println("<a href=\"/tr/reg.html\">Press REGISTER to
RETRY</a>");
        } else {
            Statement stmt1 = con.createStatement();
            stmt1.executeUpdate("insert into login values('" + name +
"', '" + addr + "', '" + no + "', '" + id + "', '" + pwd + "')");
            pw.println("YOUR DETAILS ARE ENTERED<br><br>");
            pw.println("<a href=\"/tr/login.html\">Press LOGIN to
login</a>");
        }

        pw.println("</body></html>");
    } catch (Exception e) {
        resp.sendError(500, e.toString());
    }
}
}

```

Catalog.java

```

import java.sql.*;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Catalog extends HttpServlet {
    public void service(HttpServletRequest req, HttpServletResponse resp)
throws ServletException, IOException {
        PrintWriter pw = resp.getWriter();
        pw.println("<html><body bgcolor=\"pink\">");

        String title = req.getParameter("title");

        try {

```

```

        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");
        String sqlstmt = "select title, author, publisher, cost from
books where title = ?";
        PreparedStatement preparedStatement =
con.prepareStatement(sqlstmt);
        preparedStatement.setString(1, title);
        ResultSet rs = preparedStatement.executeQuery();

        int flag = 0;

        while (rs.next()) {
            pw.println("<div align=\"center\">");
            pw.println("TITLE: " + rs.getString("title") + "<br>");
            pw.println("AUTHOR: " + rs.getString("author") + "<br>");
            pw.println("PUBLISHER: " + rs.getString("publisher") +
"<br>");

            pw.println("COST: " + rs.getString("cost") + "<br>");
            pw.println("</div>");
            flag = 1;
        }

        if (flag == 0) {
            pw.println("SORRY INVALID TITLE. TRY AGAIN <br><br>");
            pw.println("<a href=\"/tr/catalog.html\">Press HERE to
RETRY</a>");
        }

        pw.println("</body></html>");
    } catch (Exception e) {
        resp.sendError(500, e.toString());
    }
}
}

```

Profile.java

```

import java.sql.*;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Profile extends HttpServlet {
    public void service(HttpServletRequest req, HttpServletResponse resp)
throws ServletException, IOException {
        PrintWriter pw = resp.getWriter();
        pw.println("<html><body bgcolor=\"pink\">");

        String id = req.getParameter("id");

        try {
            Class.forName("com.mysql.cj.jdbc.Driver");

```

```

        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");
        String sqlstmt = "select * from login where id=?";
        PreparedStatement preparedStatement =
con.prepareStatement(sqlstmt);
        preparedStatement.setString(1, id);
        ResultSet rs = preparedStatement.executeQuery();

        int flag = 0;

        pw.println("<br><br><br>");

        while (rs.next()) {
            pw.println("<div align=\"center\">");
            pw.println("NAME: " + rs.getString(1) + "<br>");
            pw.println("ADDRESS: " + rs.getString(2) + "<br>");
            pw.println("PHONENO: " + rs.getString(3) + "<br>");
            pw.println("</div>");
            flag = 1;
        }

        if (flag == 0) {
            pw.println("SORRY INVALID ID. TRY AGAIN ID<br><br>");
            pw.println("<a href=\"/tr/profile.html\">Press HERE to
RETRY</a>");
        }

        pw.println("</body></html>");
    } catch (Exception e) {
        resp.sendError(500, e.toString());
    }
}
}

```

Order.java

```

import java.sql.*;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Order extends HttpServlet {
    public void service(HttpServletRequest req, HttpServletResponse resp)
throws ServletException, IOException {
        PrintWriter pw = resp.getWriter();
        pw.println("<html><body bgcolor=\"pink\">");

        String id = req.getParameter("id");
        String pwd = req.getParameter("pwd");
        String title = req.getParameter("title");
        String count1 = req.getParameter("no");
        String date = req.getParameter("date");
    }
}

```



```

String cno = req.getParameter("cno");
int count = Integer.parseInt(count1);

try {
    Class.forName("com.mysql.cj.jdbc.Driver");
    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");

    // Check login credentials
    Statement stmt = con.createStatement();
    String loginQuery = "SELECT id, password FROM login WHERE id='"
+ id + "' AND password='" + pwd + "'";
    ResultSet rs = stmt.executeQuery(loginQuery);

    int flag = 0, amount, x;

    while (rs.next()) {
        flag = 1;
    }

    if (flag == 0) {
        pw.println("SORRY INVALID ID OR PASSWORD. TRY
AGAIN<br><br>");
        pw.println("<a href='/tr/order.html'>Press HERE to
RETRY</a>");
    } else {
        // Fetch cost of the book
        Statement stmt2 = con.createStatement();
        String bookQuery = "SELECT cost FROM book WHERE title='" +
title + "'";
        ResultSet rs1 = stmt2.executeQuery(bookQuery);

        int flag1 = 0;

        while (rs1.next()) {
            flag1 = 1;
            x = Integer.parseInt(rs1.getString("cost"));
            amount = count * x;

            pw.println("AMOUNT: " + amount + "<br><br><br><br>");

            // Insert into details table
            Statement stmt1 = con.createStatement();
            String insertQuery = "INSERT INTO details VALUES('" + id
+ "', '" + title + "', " + amount + "', '" + cno + "')";
            stmt1.executeUpdate(insertQuery);

            pw.println("YOUR ORDER has been taken<br>");
        }
    }
}

```

```

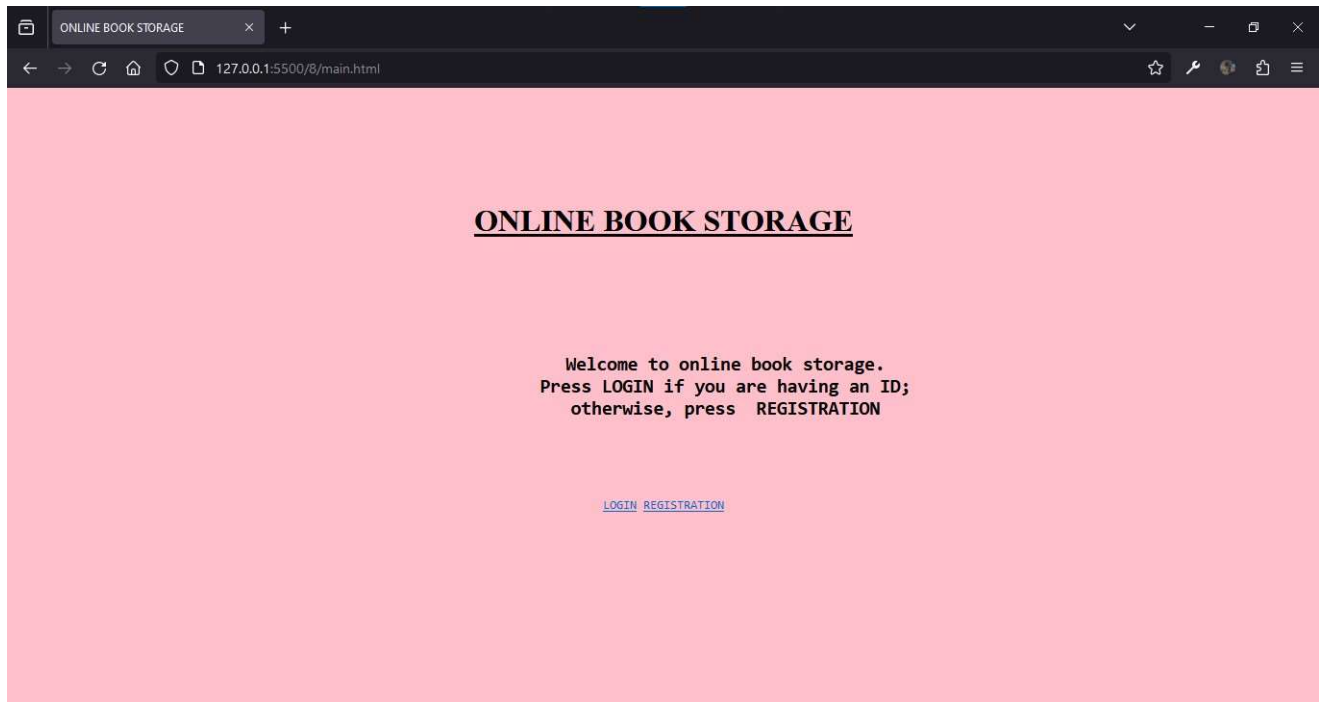
        if (flag1 == 0) {
            pw.println("SORRY INVALID BOOK TITLE. TRY
AGAIN<br><br>");
            pw.println("<a href=\"/tr/order.html\">Press HERE to
RETRY</a>");
        }
    }

    pw.println("</body></html>");
    con.close();
} catch (Exception e) {
    resp.sendError(500, e.toString());
}
}
}

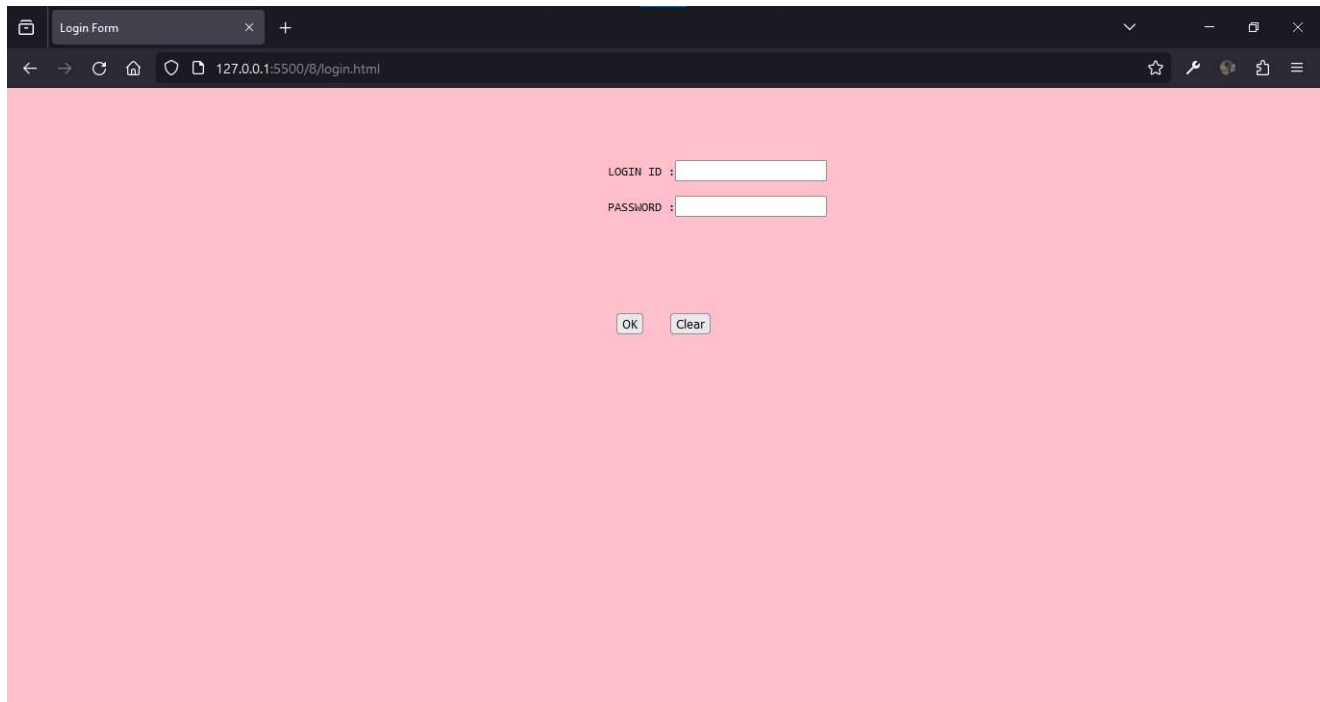
```

OUTPUT:

main



Login

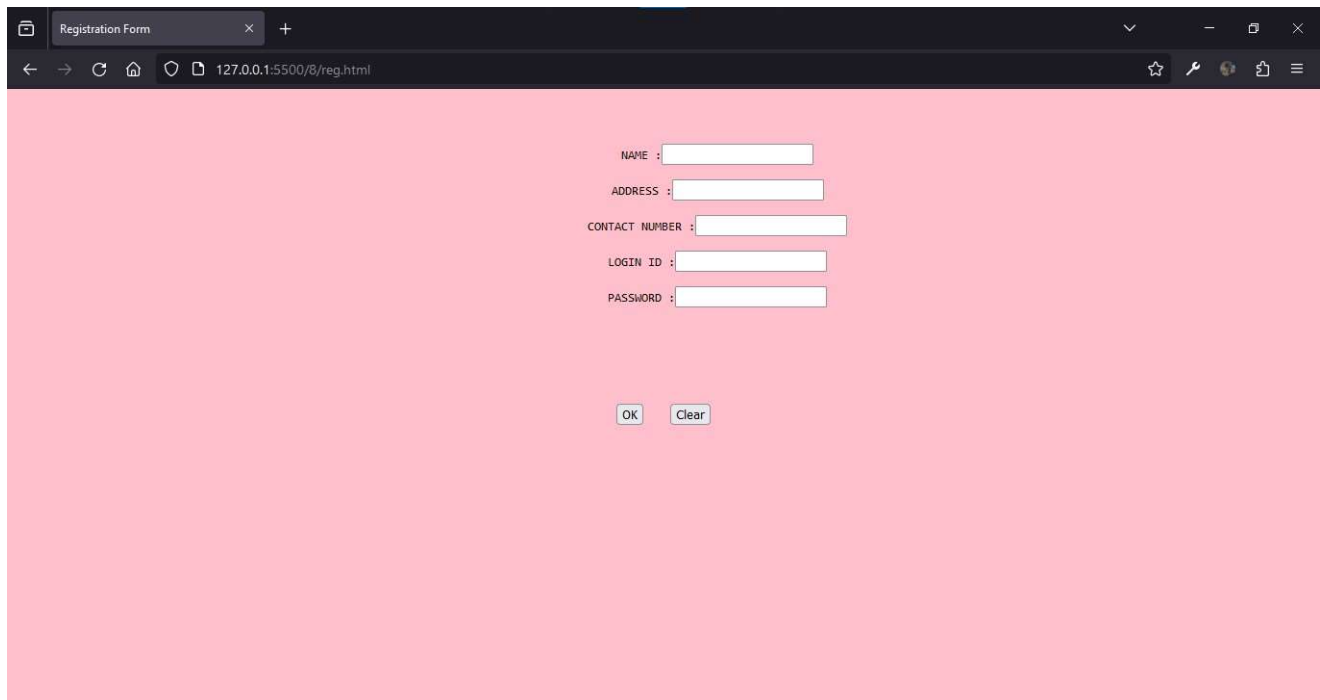


A screenshot of a web browser window with a dark theme. The tab is titled "Login Form". The address bar shows the URL "127.0.0.1:5500/8/login.html". The page has a light pink background. In the center, there is a login form with two input fields: "LOGIN ID :" and "PASSWORD :". Below these fields are two buttons: "OK" and "Clear".

LOGIN ID :

PASSWORD :

Registration



A screenshot of a web browser window with a dark theme. The tab is titled "Registration Form". The address bar shows the URL "127.0.0.1:5500/8/reg.html". The page has a light pink background. In the center, there is a registration form with five input fields: "NAME :", "ADDRESS :", "CONTACT NUMBER :", "LOGIN ID :", and "PASSWORD :". Below these fields are two buttons: "OK" and "Clear".

NAME :

ADDRESS :

CONTACT NUMBER :

LOGIN ID :

PASSWORD :

Profile

Profile Form

127.0.0.1:5500/8/profile.html

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LOGIN ID :

OK

Clear

Catalog

Catalog Form

127.0.0.1:5500/8/catalog.html

BOOK TITLE :

OK

Clear

Order

Registration Form

127.0.0.1:5500/8/order.html

NAME :

PASSWORD :

TITLE :

NO. OF BOOKS :

DATE :

CREDIT CARD NUMBER :

OK

Clear

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9. Redo the previous task using JSP by converting the static web pages of assignments 2 into dynamic web pages. Create a database with user information and books information. The books catalogue should be dynamically loaded from the database. Follow the MVC architecture while doing the website.

Procedure

- 1) Create your own directory under tomcat/webapps (e.g.tr1)
- 2) Copy the html files in tr1
- 3) Copy the jsp files also into tr1
- 4) Start tomcat give the following command Catalina.bat run at install-dir/bin
- 5) at I.E give url as <http://localhost:8081/tr1/main.html>

main.html

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>ONLINE BOOK STORAGE</title>
  </head>
  <body bgcolor="pink">
    <br /><br /><br /><br /><br />
    <h1 align="center"><u>ONLINE BOOK STORAGE</u></h1>
    <br /><br /><br />
    <h2 align="center">
      <pre>
        <b>
          Welcome to online book storage.
          Press LOGIN if you are having an ID;
          otherwise, press REGISTRATION
        </b>
      </pre>
    </h2>
    <pre>
      <div align="center"><a href="/tr1/login.html">LOGIN</a> <a
        href="/tr/reg.html">REGISTRATION</a></div>
    </pre>
  </body>
</html>
```

login.html

```
<html>
  <head>
    <title>Login Form</title>
  </head>
  <body bgcolor="pink">
    <br /><br /><br />
```


catalog.html

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Catalog Form</title>
  </head>

  <body bgcolor="pink">
    <br /><br /><br />
    <form method="post" action="/tr1/catalog.jsp">
      <div align="center">
        <pre>
          BOOK TITLE :<input type="text" name="title" /><br />
        </pre>
        <br /><br />
      </div>
      <br /><br />
      <div align="center">
        <input
          type="submit"
          value="OK"
          name="button1"
        />&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&~
        <input type="reset" value="Clear" name="button2" />
      </div>
    </form>
  </body>
</html>
```

order.html

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Registration Form</title>
  </head>

  <body bgcolor="pink">
    <br /><br />
    <form method="post" action="/tr1/order.jsp">
      <div align="center">
        <pre>
NAME                :<input type="text" name="name" /><br />
PASSWORD            :<input type="password" name="pwd"/><br />
TITLE               :<input type="text" name="title" /><br />
NO. OF BOOKS       :<input type="text" name="no" /><br />
```



```

        // Execute SQL query
        String sqlstmt = "SELECT id, password FROM login WHERE id='" + id + "'
AND password='" + pwd + "'";
        ResultSet rs = stmt.executeQuery(sqlstmt);

        int flag = 0;

        while (rs.next()) {
            flag = 1;
        }

        if (flag == 0) {
            out.println("SORRY INVALID ID OR PASSWORD. TRY AGAIN ID<br><br>");
            out.println("<a href=\"/tr1/login.html\">press LOGIN to RETRY</a>");
        } else {
            out.println("VALID LOGIN ID<br><br>");
            out.println("<h3><ul>");
            out.println("<li><a href=\"/profile.html\"><font color=\"black\">USER
PROFILE</font></a></li><br><br>");
            out.println("<li><a href=\"/catalog.html\"><font
color=\"black\">BOOKS CATALOG</font></a></li><br><br>");
            out.println("<li><a href=\"/order.html\"><font color=\"black\">ORDER
CONFIRMATION</font></a></li><br><br>");
            out.println("</ul>");
        }

        out.println("</body></html>");

        // Close the connection
        con.close();
    } catch (Exception e) {
        response.sendError(500, e.toString());
    }
%>

```

reg.jsp

```

<%@ page import="java.sql.*"%>
<%@ page import="java.io.*"%>

<%
out.println("<html><body bgcolor=\"pink\">");

String name = request.getParameter("name");
String addr = request.getParameter("addr");
String phno = request.getParameter("phno");
String id = request.getParameter("id");
String pwd = request.getParameter("pwd");
int no = Integer.parseInt(phno);

```

```

try {
    // Load the MySQL JDBC driver
    Class.forName("com.mysql.cj.jdbc.Driver");

    // Establish a connection
    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/your_database_name"
, "your_username",
    "your_password");

    // Check if the login ID already exists
    Statement stmt = con.createStatement();
    String checkIdQuery = "SELECT id FROM login WHERE id='" + id + "'";
    ResultSet rs = stmt.executeQuery(checkIdQuery);

    int flag = 0;

    while (rs.next()) {
        flag = 1;
    }

    if (flag == 1) {
        out.println("SORRY LOGIN ID ALREADY EXISTS. TRY AGAIN WITH A NEW ID
<br><br>");
        out.println("<a href=\"/tr1/reg.html\">Press REGISTER to
RETRY</a>");
    } else {
        // Insert new user details
        Statement stmt1 = con.createStatement();
        String insertQuery = "INSERT INTO login VALUES('" + name + "', '" +
addr + "', '" + no + "', '" + id + "', '" + pwd
        + "')";
        stmt1.executeUpdate(insertQuery);

        out.println("YOUR DETAILS ARE ENTERED <br><br>");
        out.println("<a href=\"/tr1/login.html\">Press LOGIN to login</a>");
    }

    out.println("</body></html>");

    // Close the connection
    con.close();
} catch (Exception e) {
    response.sendError(500, e.toString());
}
%>

```

profile.jsp

```
<%@ page import="java.sql.*" %>
<%@ page import="java.io.*" %>

<%
out.println("<html><body bgcolor=\"pink\">");

String id = request.getParameter("id");

try {
    // Load the MySQL JDBC driver
    Class.forName("com.mysql.cj.jdbc.Driver");

    // Establish a connection
    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");

    // Create a statement
    Statement stmt = con.createStatement();

    // Execute SQL query
    String sqlstmt = "SELECT * FROM login WHERE id='" + id + "'";
    ResultSet rs = stmt.executeQuery(sqlstmt);

    int flag = 0;

    while (rs.next()) {
        out.println("<div align=\"center\">");
        out.println("NAME: " + rs.getString(1) + "<br>");
        out.println("ADDRESS: " + rs.getString(2) + "<br>");
        out.println("PHONE NO: " + rs.getString(3) + "<br>");
        out.println("</div>");
        flag = 1;
    }

    if (flag == 0) {
        out.println("SORRY INVALID ID. TRY AGAIN ID <br><br>");
        out.println("<a href=\"/tr1/profile.html\">Press HERE to
RETRY</a>");
    }

    out.println("</body></html>");

    // Close the connection
    con.close();
} catch (Exception e) {
    response.sendError(500, e.toString());
}
%>
```

catalog.jsp

```
<%@ page import="java.sql.*" %>
<%@ page import="java.io.*" %>

<%
out.println("<html><body bgcolor=\"pink\">");

String title = request.getParameter("title");

try {
    // Load the MySQL JDBC driver
    Class.forName("com.mysql.cj.jdbc.Driver");

    // Establish a connection
    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");

    // Create a statement
    Statement stmt = con.createStatement();

    // Execute SQL query
    String sqlstmt = "SELECT * FROM book WHERE title='" + title + "'";
    ResultSet rs = stmt.executeQuery(sqlstmt);

    int flag = 0;

    while (rs.next()) {
        out.println("<div align=\"center\">");
        out.println("TITLE: " + rs.getString(1) + "<br>");
        out.println("AUTHOR: " + rs.getString(2) + "<br>");
        out.println("VERSION: " + rs.getString(3) + "<br>");
        out.println("PUBLISHER: " + rs.getString(4) + "<br>");
        out.println("COST: " + rs.getString(5) + "<br>");
        out.println("</div>");
        flag = 1;
    }

    if (flag == 0) {
        out.println("SORRY INVALID TITLE. TRY AGAIN <br><br>");
        out.println("<a href=\"/tr1/catalog.html\">Press HERE to
RETRY</a>");
    }

    out.println("</body></html>");

    // Close the connection
    con.close();
} catch (Exception e) {
    response.sendError(500, e.toString());
}
%>
```

order.jsp

```
<%@ page import="java.sql.*"%>
<%@ page import="java.io.*"%>

<%
out.println("<html><body bgcolor=\"pink\">");

String id = request.getParameter("id");
String pwd = request.getParameter("pwd");
String title = request.getParameter("title");
String count1 = request.getParameter("no");
String date = request.getParameter("date");
String cno = request.getParameter("cno");
int count = Integer.parseInt(count1);

try {
    // Load the MySQL JDBC driver
    Class.forName("com.mysql.cj.jdbc.Driver");

    // Establish a connection
    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/wt", "root", "");

    // Create a statement
    Statement stmt = con.createStatement();

    // Execute SQL query
    String sqlstmt = "SELECT id, password FROM login";
    ResultSet rs = stmt.executeQuery(sqlstmt);

    int flag = 0, amount, x;

    while (rs.next()) {
        if (id.equals(rs.getString(1)) && pwd.equals(rs.getString(2))) {
            flag = 1;
        }
    }

    if (flag == 0) {
        out.println("SORRY INVALID ID TRY AGAIN ID <br><br>");
        out.println("<a href=\"/tr1/order.html\">Press HERE to RETRY </a>");
    } else {
        Statement stmt2 = con.createStatement();
        String s = "SELECT cost FROM book WHERE title='" + title + "'";
        ResultSet rs1 = stmt2.executeQuery(s);
        int flag1 = 0;

        while (rs1.next()) {
            flag1 = 1;
            x = Integer.parseInt(rs1.getString(1));
            amount = count * x;

            out.println("AMOUNT: " + amount + "<br><br><br><br>");
        }
    }
}
```

```

Statement stmt1 = con.createStatement();
stmt1.executeUpdate("INSERT INTO details (id, title, amount, date, cno)
VALUES ('" + id + "','" + title
        + "','" + amount + "','" + date + "','" + cno + "')");
out.println("YOUR ORDER HAS TAKEN<br>");

if (flag1 == 0) {
    out.println("SORRY INVALID BOOK TRY AGAIN <br><br>");
    out.println("<a href=\"/tr1/order.html\">Press HERE to RETRY </a>");
}
}

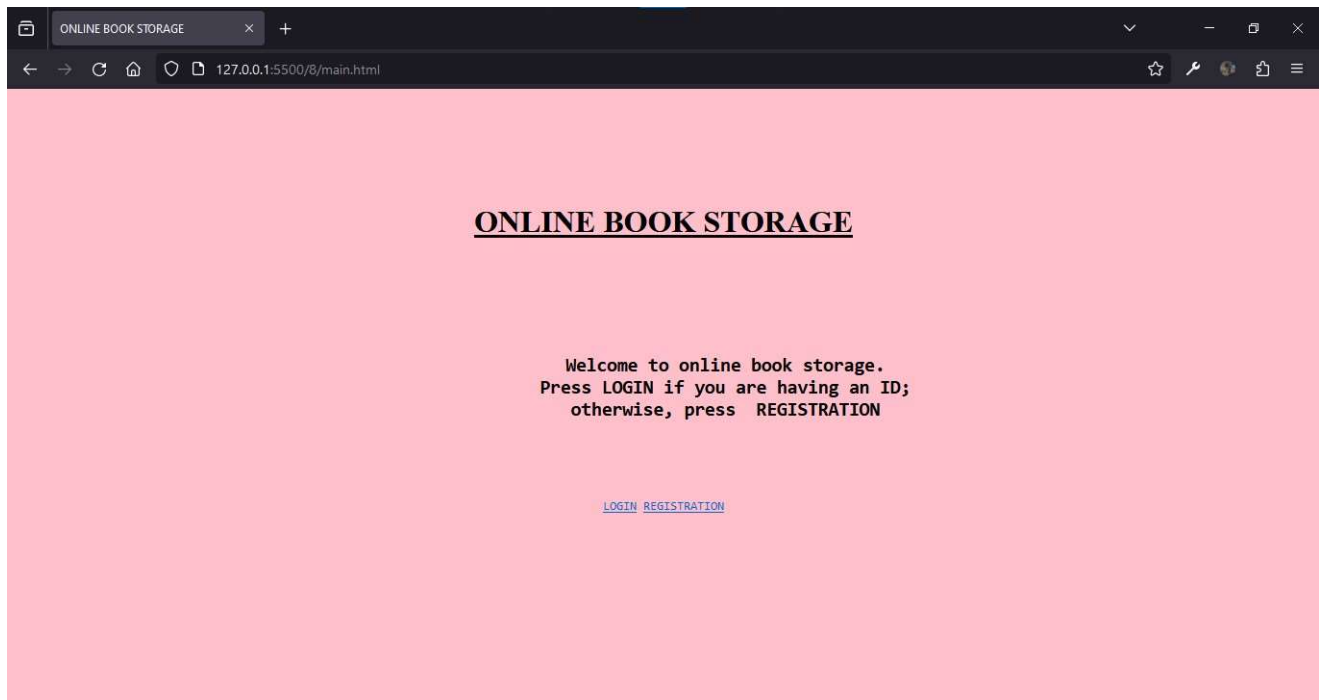
out.println("</body></html>");

// Close the connection
con.close();
} catch (Exception e) {
    response.sendError(500, e.toString());
}
%>

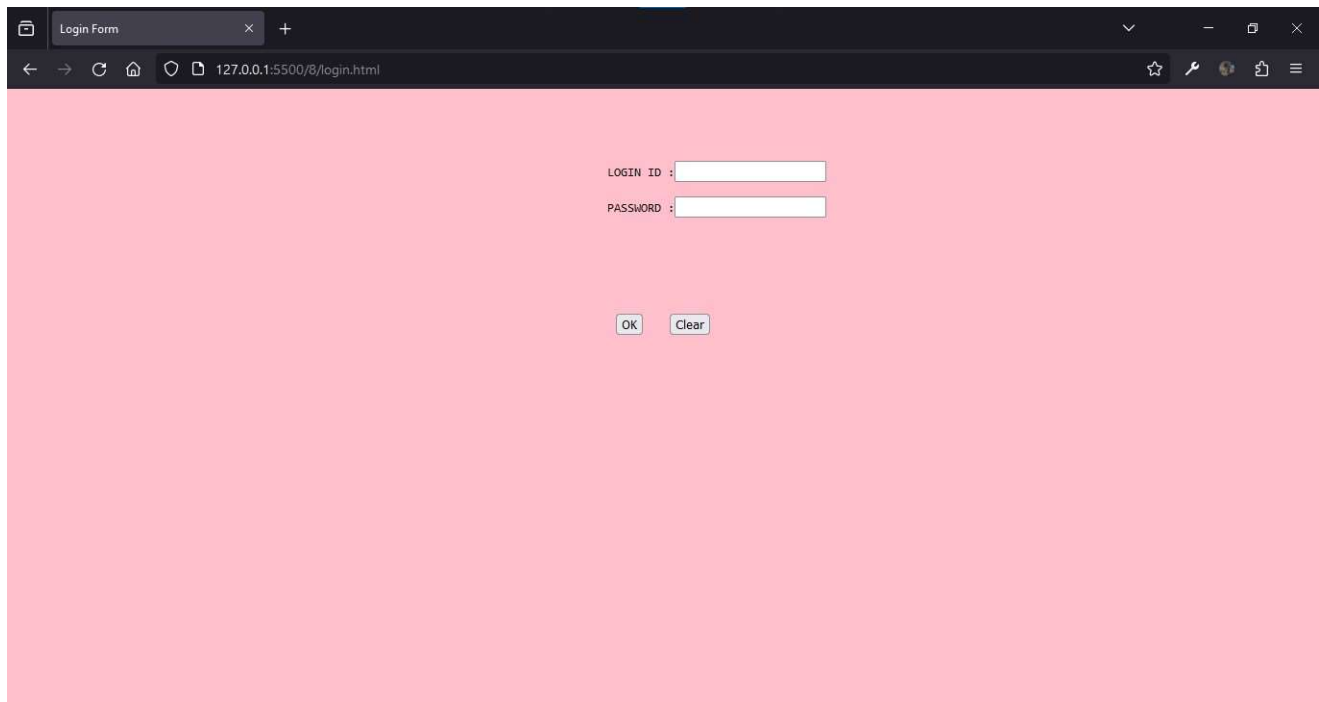
```

OUTPUT:

Main



Login

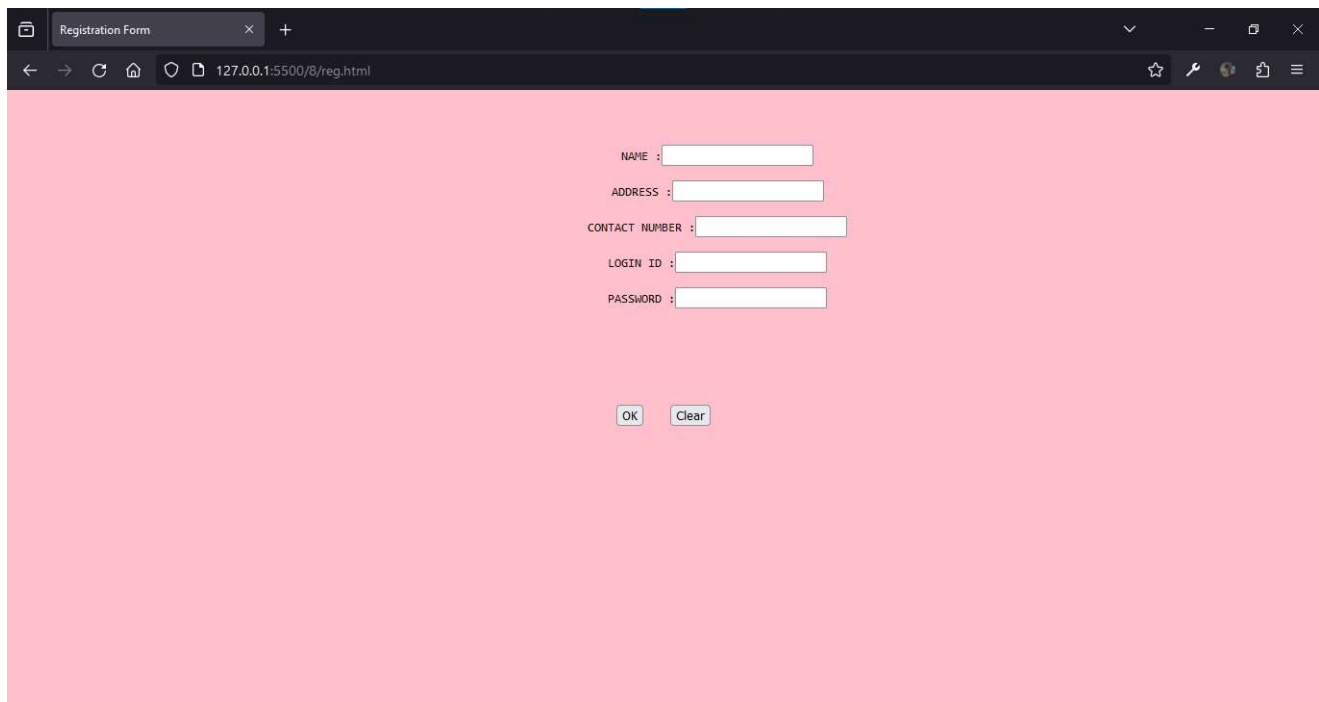


A screenshot of a web browser window with a dark theme. The tab is titled "Login Form". The address bar shows the URL "127.0.0.1:5500/8/login.html". The page has a light pink background. In the center, there is a login form with two input fields: "LOGIN ID :" and "PASSWORD :". Below these fields are two buttons: "OK" and "Clear".

LOGIN ID :

PASSWORD :

Registration



A screenshot of a web browser window with a dark theme. The tab is titled "Registration Form". The address bar shows the URL "127.0.0.1:5500/8/reg.html". The page has a light pink background. In the center, there is a registration form with five input fields: "NAME :", "ADDRESS :", "CONTACT NUMBER :", "LOGIN ID :", and "PASSWORD :". Below these fields are two buttons: "OK" and "Clear".

NAME :

ADDRESS :

CONTACT NUMBER :

LOGIN ID :

PASSWORD :

Profile

Sai Spurthi Institute of Technology
(Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad)
Gangaram (Village), Sathupally (Mandal), Khammam Dist, TS-507303
Accredited by NAAC

LOGIN ID :

Catalog

BOOK TITLE :

Order

Registration Form

127.0.0.1:5500/8/order.html

NAME

:

PASSWORD

:

TITLE

:

NO. OF BOOKS

:

DATE

:

CREDIT CARD NUMBER

:

OK

Clear

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