Experiment – 1

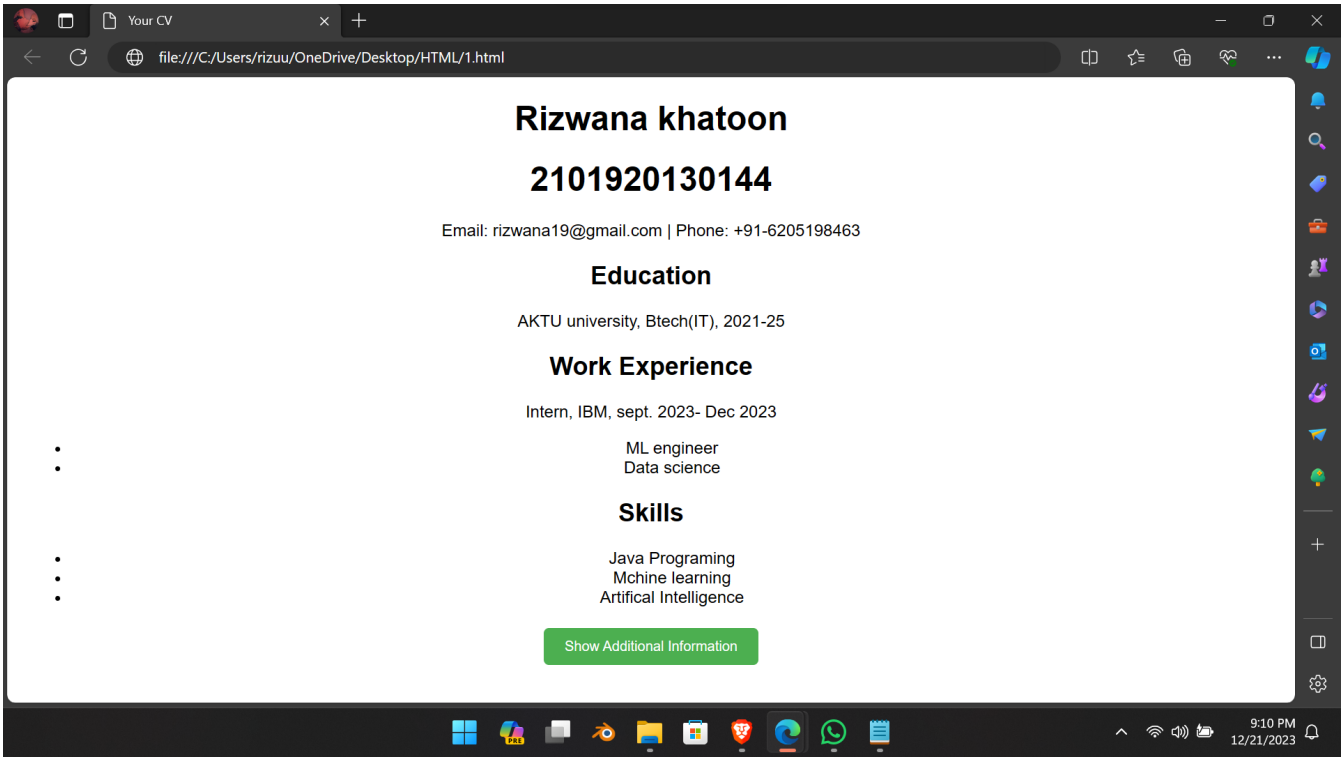
OBJECTIVE- Write HTML/Java scripts to display your CV in navigator, your Institute website, Department Website and Tutorial website for specific subject.

CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Your CV</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 20px;
text-align: center;
}
section {
margin-bottom: 20px;
}
button {
background-color: #4CAF50;
color: white;
padding: 10px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
}
</style>
</head>
<body>
   <header>
<h1>Rizwana Katoon</h1>
<h1>2101920130144</h1>
<p>Email: rizwanakhatoon19@gmail.com | Phone: +91-6205198463</p>
</header>
   <section>
 <h2>Education</h2>
<p>AKTU university, Btech(IT), 2021-25</p>
</section>
   <section>
<h2>Work Experience</h2>
<p>Intern, IBM,  oct 2023- nov 2023</p>
<ul>
<li>ML engineer</li>
<li>Data science</li>
</ul>
</section>
   <section>
<h2>Skills</h2>
```

```
<ul>
<li>Java Programing</li>
<li>Mchine learning</li>
<li>Artifical Intelligence</li>
</ul>
</section>
   <button onclick="toggleSection('additionalInfo')">Show Additional Information</button>
   <section id="additionalInfo" style="display: none;">
<h2>Additional Information</h2>
<p>Any other details you want to include.</p>
 </section>
   <script>
function toggleSection(sectionId) {
var section = document.getElementById(sectionId);
if (section.style.display === 'none') {
section.style.display = 'block';
}
else {
section.style.display = 'none';
}
}
</script>
</body>
</html>
```

OUTPUT


Your CV
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/1.html
Rizwana khatoon
2101920130144
Email: rizwana19@gmail.com | Phone: +91-6205198463
Education
AKTU university, Btech(IT), 2021-25
Work Experience
Intern, IBM, sept. 2023- Dec 2023
ML engineer
Data science
Skills
Java Programing
Mchine learning
Artifical Intelligence
Show Additional Information
9:10 PM
12/21/2023

Experiment –2

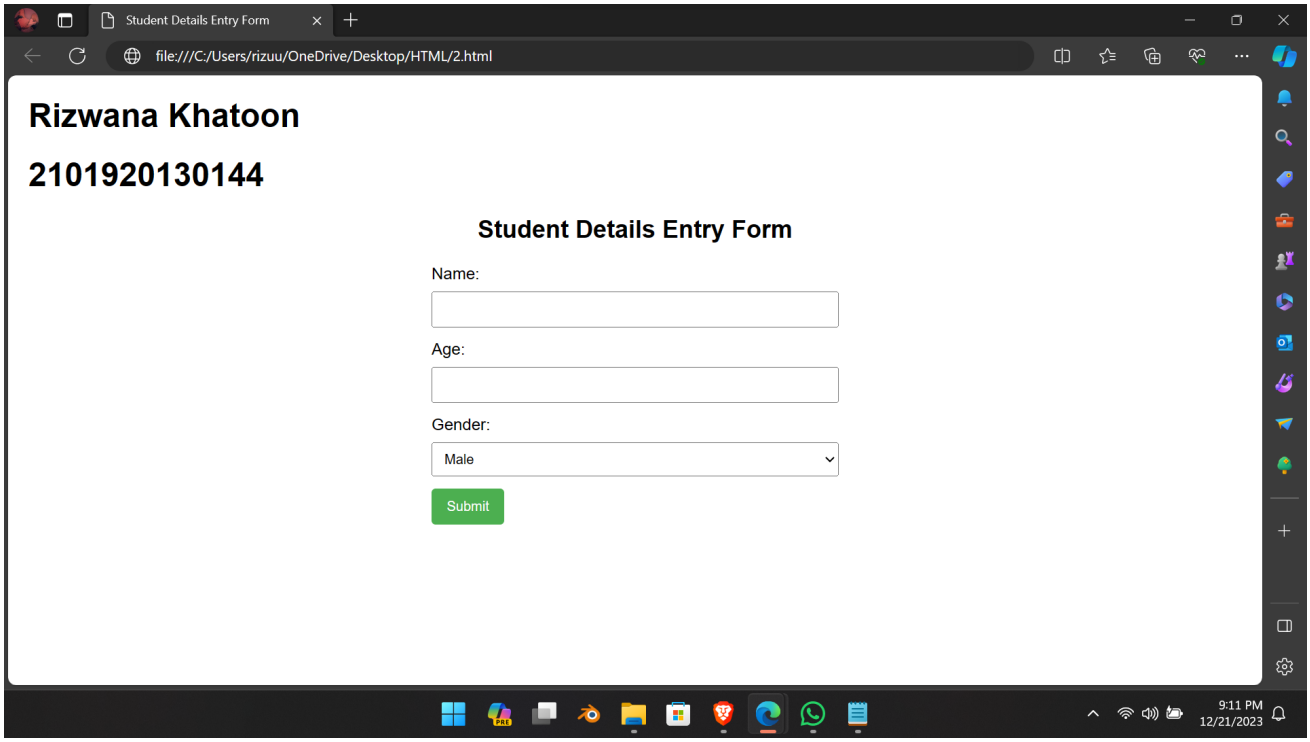
OBJECTIVE- Write an HTML program to design an entry form of student details and send it to store at database server like SQL, Oracle or MS Access.

CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Student Details Entry Form</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 20px;
    }

    form {
      max-width: 400px;
      margin: 0 auto;
    }

    label {
      display: block;
      margin-bottom: 8px;
    }

    input, select {
      width: 100%;
      padding: 8px;
      margin-bottom: 12px;
      box-sizing: border-box;
    }

    button {
      background-color: #4CAF50;
      color: white;
      padding: 10px 15px;
      border: none;
      border-radius: 4px;
      cursor: pointer;
    }
  </style>
</head>
<body>
  <h1>Rizwana Katoon</h1>
  <h1>2101920130144</h1>
 <h2>Student Details Entry Form</h2>

  <form id="studentForm" onsubmit="submitForm(event)">
```

```
    <label for="studentName">Name:</label>
    <input type="text" id="studentName" name="studentName" required>

    <label for="studentAge">Age:</label>
    <input type="number" id="studentAge" name="studentAge" required>

    <label for="studentGender">Gender:</label>
    <select id="studentGender" name="studentGender" required>
      <option value="male">Male</option>
      <option value="female">Female</option>
      <option value="other">Other</option>
    </select>

    <button type="submit">Submit</button>
  </form>

  <script>
    function submitForm(event) {
      event.preventDefault();  // Prevent the form from submitting normally

      // Get form data
      var formData = new FormData(document.getElementById('studentForm'));
      var data = {};
      formData.forEach(function(value, key){
        data[key] = value;
      });

      // Send data to the server (server-side processing needed)
      console.log('Student Details:', data);
      // You need to send this data to your server using AJAX or form submission
      // Server-side code will handle database operations (insert into SQL, Oracle, MS Access, etc.)
    }
  </script>
</body>
</html>
```

OUTPUT


Student Details Entry Form
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/2.html
Rizwana Khatoon
2101920130144
Student Details Entry Form
Name:
Age:
Gender:
Male
Submit
9:11 PM
12/21/2023

Experiment – 3

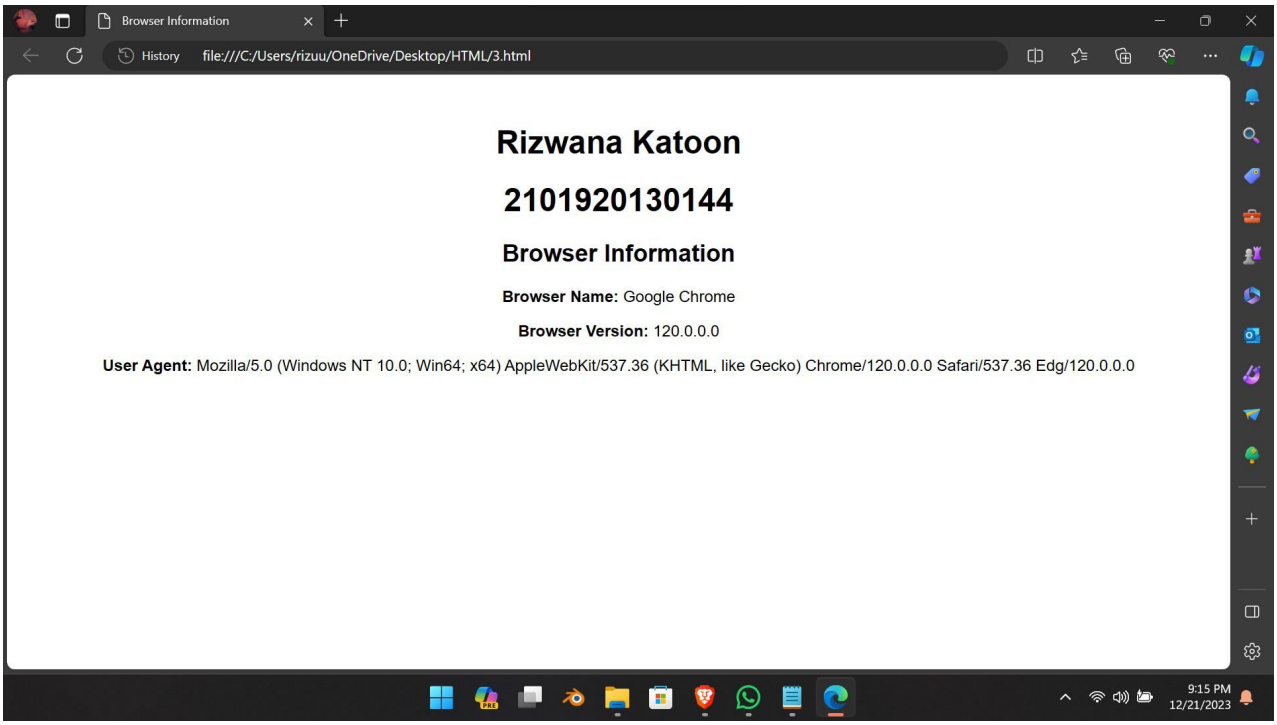
OBJECTIVE- Write programs using Java script for Web Page to display browsers information.

CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Browser Information</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
      margin: 50px;
    }
  </style>
</head>
<body>
  <h1>Rizwana Katoon</h1>
  <h1>2101920130144</h1>
  <h2>Browser Information</h2>

  <script>
    // Function to get browser information
    function getBrowserInfo() {
      var browserInfo = {
        name: '',
        version: '',
        userAgent: ''
      };

      var userAgent = navigator.userAgent;

      if (userAgent.indexOf('Firefox') !== -1) {
        browserInfo.name = 'Mozilla Firefox';
        browserInfo.version = userAgent.split('Firefox/')[1];
      } else if (userAgent.indexOf('Chrome') !== -1) {
        browserInfo.name = 'Google Chrome';
        browserInfo.version = userAgent.split('Chrome/')[1].split(' ')[0];
      } else if (userAgent.indexOf('Safari') !== -1) {
        browserInfo.name = 'Safari';
        browserInfo.version = userAgent.split('Version/')[1].split(' ')[0];
      } else if (userAgent.indexOf('MSIE') !== -1 || userAgent.indexOf('Trident/') !== -1) {
        browserInfo.name = 'Internet Explorer';
        browserInfo.version = userAgent.indexOf('MSIE') !== -1 ?
          userAgent.split('MSIE ')[1].split(';')[0] :
          userAgent.split('rv:')[1].split(')')[0];
      } else {
```

```
            browserInfo.name = 'Unknown Browser';
            browserInfo.version = 'N/A';
        }

        browserInfo.userAgent = userAgent;

        return browserInfo;
    }

    // Display browser information on the page
    var browserInfo = getBrowserInfo();

    document.write('<p><strong>Browser Name:</strong> ' + browserInfo.name + '</p>');
    document.write('<p><strong>Browser Version:</strong> ' + browserInfo.version + '</p>');
    document.write('<p><strong>User Agent:</strong> ' + browserInfo.userAgent + '</p>');
  </script>
</body>
</html>
```

OUTPUT


Browser Information
History
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/3.html
Rizwana Katoon
2101920130144
Browser Information
Browser Name: Google Chrome
Browser Version: 120.0.0.0
User Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/120.0.0.0 Safari/537.36 Edg/120.0.0.0
9:15 PM
12/21/2023

Experiment – 4

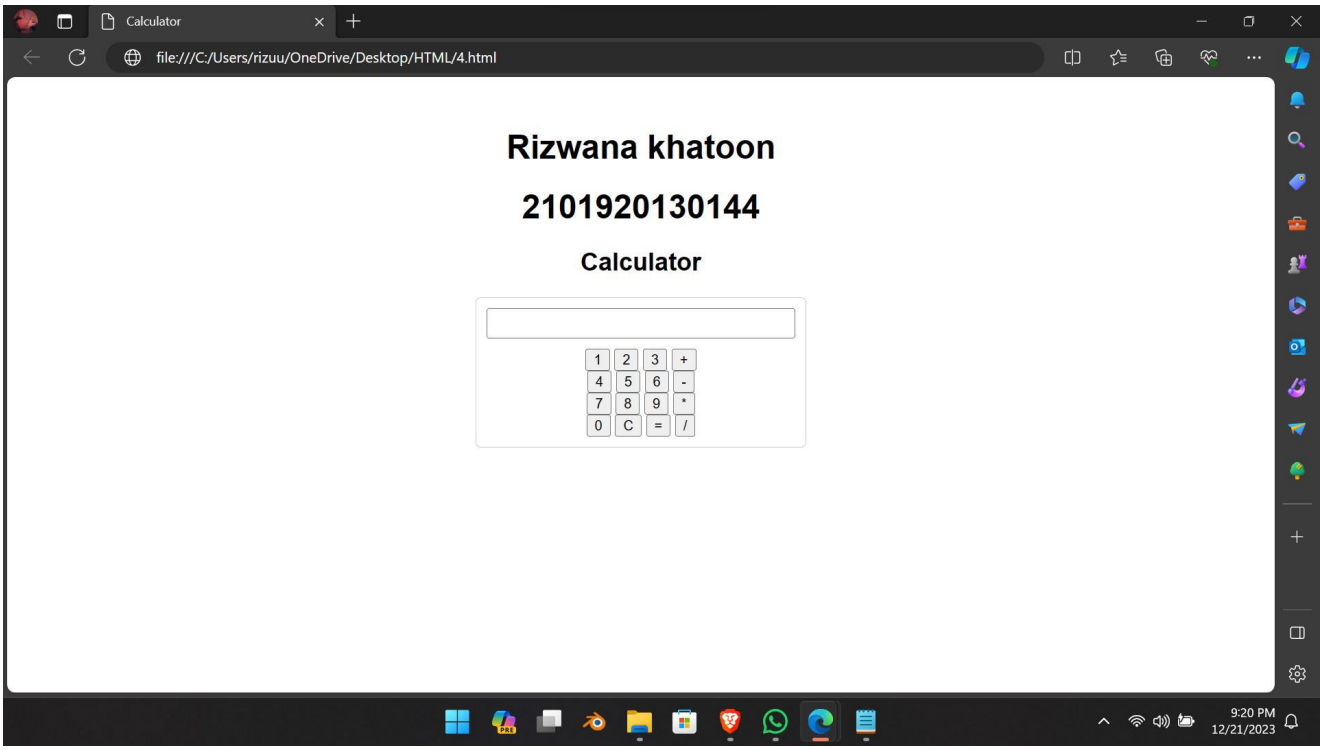
OBJECTIVE- Write a Java applet to display the Application Program screen i.e. calculator and other.

CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Calculator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
      margin: 50px;
    }

    #calculator {
      width: 300px;
      margin: 0 auto;
      padding: 10px;
      border: 1px solid #ccc;
      border-radius: 5px;
    }

    input {
      width: 100%;
      margin-bottom: 10px;
      padding: 5px;
      box-sizing: border-box;
    }
  </style>
</head>
<body>
  <h1>Rizwana Katoon</h1>
  <h1>2101920130144</h1>
  <h2>Calculator</h2>

  <div id="calculator">
    <input type="text" id="display" readonly>
    <br>
    <button onclick="appendToDisplay('1')">1</button>
    <button onclick="appendToDisplay('2')">2</button>
    <button onclick="appendToDisplay('3')">3</button>
    <button onclick="appendToDisplay('+')">+</button>
    <br>
    <button onclick="appendToDisplay('4')">4</button>
    <button onclick="appendToDisplay('5')">5</button>
    <button onclick="appendToDisplay('6')">6</button>
```

```
    <button onclick="appendToDisplay('-')">-</button>
    <br>
    <button onclick="appendToDisplay('7')">7</button>
    <button onclick="appendToDisplay('8')">8</button>
    <button onclick="appendToDisplay('9')">9</button>
    <button onclick="appendToDisplay('*')">*</button>
    <br>
    <button onclick="appendToDisplay('0')">0</button>
    <button onclick="clearDisplay()">C</button>
    <button onclick="calculateResult()">=</button>
    <button onclick="appendToDisplay('/')">/</button>
  </div>

  <script>
    function appendToDisplay(value) {
      document.getElementById('display').value += value;
    }

    function clearDisplay() {
      document.getElementById('display').value = '';
    }

    function calculateResult() {
      var display = document.getElementById('display');
      try {
        display.value = eval(display.value);
      } catch (error) {
        display.value = 'Error';
      }
    }
  </script>
</body>
</html>
```

OUTPUT


Calculator
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/4.html
Rizwana khatoon
2101920130144
Calculator
1 2 3 +
4 5 6 -
7 8 9 *
0 C = /
9:20 PM
12/21/2023

Experiment – 5

OBJECTIVE- Writing program in XML for creation of DTD, which specifies set of rules. Create a style sheet in CSS/ XSL & display the document in internet explorer.

xml file

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE library SYSTEM "library.dtd">
<library>
  <book>
    <title>Introduction to XML</title>
    <author>John Doe</author>
    <year>2022</year>
  </book>
  <book>
    <title>Web Development with CSS</title>
    <author>Jane Smith</author>
    <year>2021</year>
  </book>
</library>
```

DTD

```
<!ELEMENT bookstore (book+)>
<!ELEMENT book (title, author, price)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT author (#PCDATA)>
<!ELEMENT price (#PCDATA)>
```

XSLT

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:template match="/">
    <html>
      <head>
        <link rel="stylesheet" type="text/css" href="style.css" />
      </head>
      <body>
        <h1>Rizwana Katoon</h1>
        <h1>2101920130144</h1>
        <h1>Library Catalog</h1>
        <xsl:apply-templates/>
      </body>
    </html>
  </xsl:template>

  <xsl:template match="library">
    <ul>
      <xsl:apply-templates/>
    </ul>
  </xsl:template>
```

```
  <xsl:template match="book">
    <li>
      <xsl:apply-templates/>
    </li>
  </xsl:template>

  <xsl:template match="title">
    <h2><xsl:value-of select="."/></h2>
  </xsl:template>

  <xsl:template match="author">
    <p><strong>Author:</strong> <xsl:value-of select="."/></p>
  </xsl:template>

  <xsl:template match="year">
    <p><strong>Year:</strong> <xsl:value-of select="."/></p>
  </xsl:template>
</xsl:stylesheet>
```

CSS

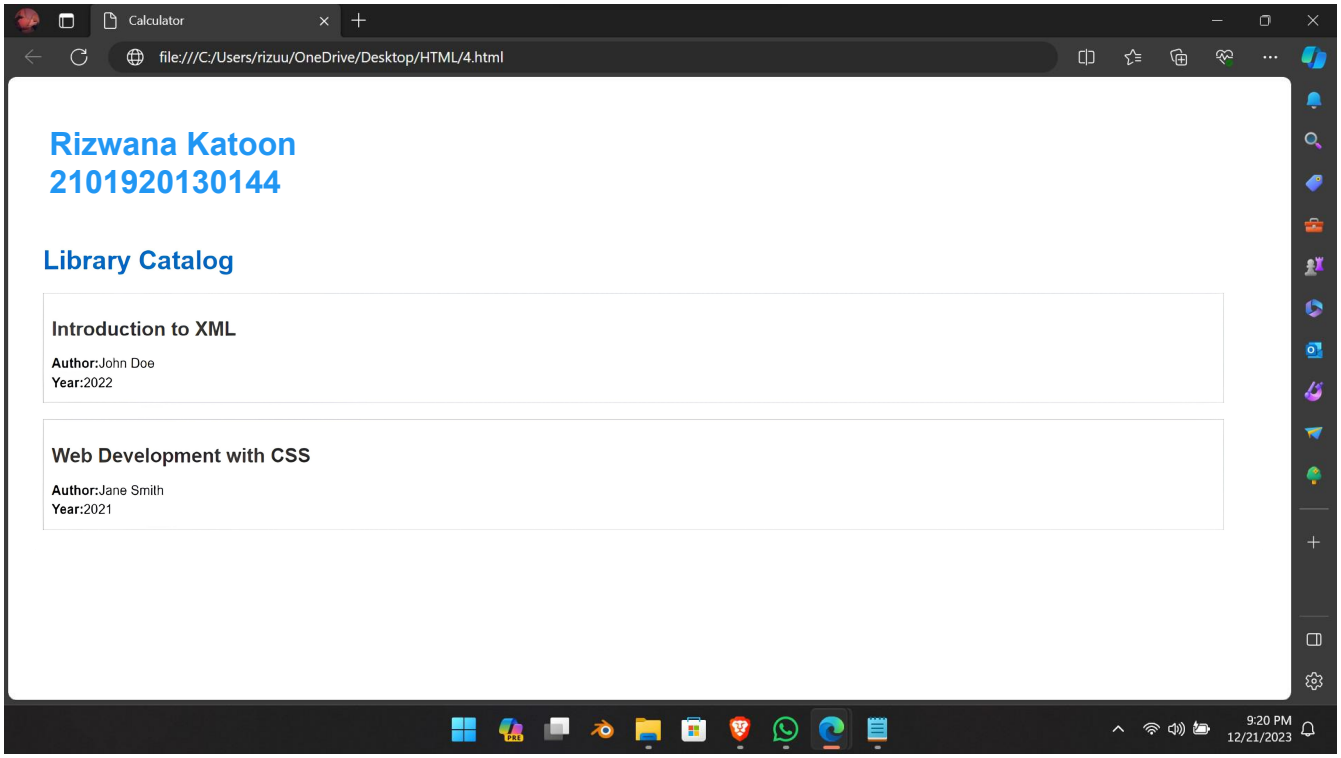
```
body {
  font-family: Arial, sans-serif;
  margin: 20px;
}

h1 {
  color: #0066cc;
}

ul {
  list-style-type: none;
  padding: 0;
}

li {
  margin-bottom: 20px;
  border: 1px solid #ddd;
  padding: 10px;
}

h2 {
  color: #333;
}

p {
  margin: 5px 0;
}
```

HTML

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

```
<head>
  <meta charset="UTF-8">
  <title>Library Catalog</title>
  <script type="text/javascript"
src="https://ajax.googleapis.com/ajax/libs/jquery/1.7.1/jquery.min.js"></script>
</head>
<body>

<script>
  $(document).ready(function () {
    $.get('example.xml', function (data) {
      var xsltProcessor = new XSLTProcessor();
      var xslStylesheet = loadXMLDoc('style.xsl');
      xsltProcessor.importStylesheet(xslStylesheet);

      var resultDocument = xsltProcessor.transformToDocument(data);
      document.body.innerHTML = new XMLSerializer().serializeToString(resultDocument);
    });
  });

  function loadXMLDoc(filename) {
    var xhttp = new XMLHttpRequest();
    xhttp.open("GET", filename, false);
    xhttp.send();
    return xhttp.responseXML;
  }
</script>

</body>
</html>
```

OUTPUT


Calculator
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/4.html
Rizwana Katoon
2101920130144
Library Catalog
Introduction to XML
Author:John Doe
Year:2022
Web Development with CSS
Author:Jane Smith
Year:2021
9:20 PM
12/21/2023

Experiment – 6

OBJECTIVE- Install TOMCAT web server and APACHE. Access the above developed static web pages for books web site, using these servers by putting the web pages developed.

Set the JAVA_HOME Variable
You must set the JAVA_HOME environment variable to tell Tomcat where to find Java. Failing to properly set this variable prevents Tomcat from handling JSP pages. This variable should list the base JDK installation directory, not the bin subdirectory.

On Windows XP, you could also go to the Start menu, select Control Panel, chooseSystem, click on the Advanced tab, press the Environment Variables button at the bottom, and enter the JAVA_HOME variable and value directly as:

Name: JAVA_HOME
Value: C:\jdk

Set the CLASSPATH
Since servlets and JSP are not part of the Java 2 platform, standard edition, youhave to identify the servlet classes to the compiler. The server already knows about theservlet classes, but the compiler (i.e., javac) you use for development probably doesn't.So, if you don't set your CLASSPATH, attempts to compile servlets, tag libraries, or other classes that use the servlet and JSP APIs will fail with error messages about unknownclasses.

Name: JAVA_HOME
Value: install_dir/common/lib/servlet-api.jar

Turn on Servlet Reloading
The next step is to tell Tomcat to check the modification dates of the class files of requested servlets and reload ones that have changed since they were loaded into theserver's memory. This slightly degrades performance in deployment situations, so isturned off by default. However, if you fail to turn it on for your development server,you'll have to restart the server every time you recompile a servlet that has already beenloaded into the server's memory.

To turn on servlet reloading, edit install_dir/conf/server.xml and add a DefaultContext subelement to the main Host element and supply true for the reloadable attribute. For example, in Tomcat 5.0.27, search for this entry:

<Host name="localhost" debug="0" appBase="webapps".....>

and then insert the following immediately below it:

<DefaultContext reloadable="true"/>

Be sure to make a backup copy of server.xm before making the above change.

Enable the Invoker Servlet
The invoker servlet lets you run servlets without first making changes to yourWeb application's deployment descriptor. Instead, you just drop your servlet into WEB-INF/classes and use the URL http://host/servlet/ServletName . The invoker servlet isextremely convenient when you are learning and even when you are doing your initialdevelopment.

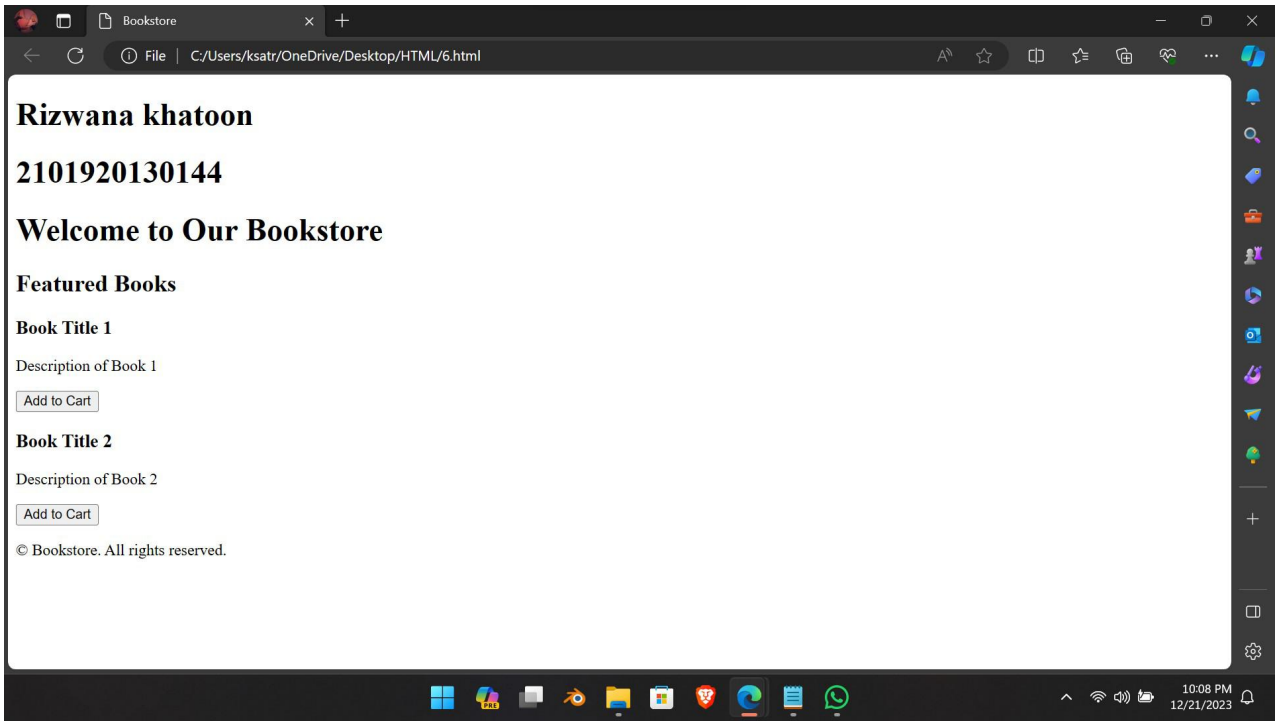
To enable the invoker servlet, uncomment the following servlet and servlet-mapping elements in install_dir/conf/web.xml. Finally, remember to make a backup copy of the original version of this file before you make the changes.

```
<servlet>
<servlet-name>invoker</servlet-name>
<servlet-class>
Org.apache.catalina.servlets.InvokerServlet
</servlet-class>
…….
<servlet-mapping>
<url-pattern>/servlet/* </url-pattern>
</servlet-mapping>
```

CODE

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
   pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <title>Bookstore</title>
</head>
<body>

 <header>
  <h1>Rizwana Katoon</h1>
  <h1>2101920130144</h1>
  <h1>Welcome to Our Bookstore</h1>
 </header>
 <section>
  <h2>Featured Books</h2>
  <div>
   <h3>Book Title 1</h3>
   <p>Description of Book 1</p>
   <button>Add to Cart</button>
  </div>
  <div>
   <h3>Book Title 2</h3>
   <p>Description of Book 2</p>
   <button>Add to Cart</button>
  </div>
  <!-- Add more book entries as needed -->
 </section>

 <footer>
  <p>&copy; <%= new java.util.Date().getYear() + 1900 %> Bookstore. All rights reserved.</p>
 </footer>

</body></html>
```

OUTPUT


Bookstore
File | C:/Users/ksatr/OneDrive/Desktop/HTML/6.html
Rizwana khatoon
2101920130144
Welcome to Our Bookstore
Featured Books
Book Title 1
Description of Book 1
Add to Cart
Book Title 2
Description of Book 2
Add to Cart
© Bookstore. All rights reserved.
10:08 PM
12/21/2023

Experiment – 7

OBJECTIVE- Install a database (Mysql or Oracle). Create a table which should contain at least the following fields: name, password, email-id, phone number Write a java program/servlet/JSP to connect to that database and extract data from the tables and display them. Insert the details of the users who register with the web site, whenever a new user clicks the submit button in the registration page.

SQL CODE

```
CREATE TABLE IF NOT EXISTS users (
   id INT AUTO_INCREMENT PRIMARY KEY,
   name VARCHAR(255) NOT NULL,
   password VARCHAR(255) NOT NULL,
   email VARCHAR(255) NOT NULL,
   phone VARCHAR(15) NOT NULL
);
```

JAVA CODE

```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.Statement;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet("/RegisterServlet")
public class RegisterServlet extends HttpServlet {
   private static final long serialVersionUID = 1L;

   protected void doPost(HttpServletRequest request, HttpServletResponse response)
         throws ServletException, IOException {
      response.setContentType("text/html");
      PrintWriter out = response.getWriter();

      String name = request.getParameter("name");
      String password = request.getParameter("password");
      String email = request.getParameter("email");
      String phone = request.getParameter("phone");

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

         // Connect to the database
```

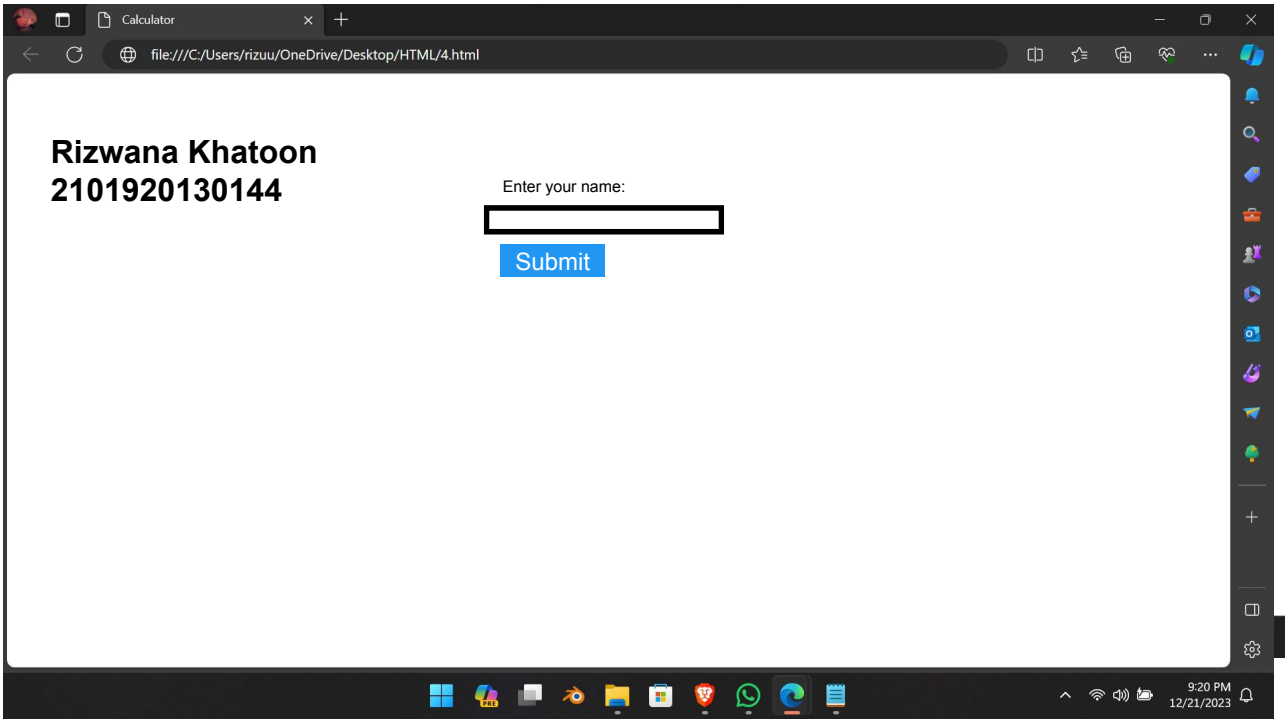
```
            String url = "jdbc:mysql://localhost:3306/user_database";
            String dbUsername = "your_username";
            String dbPassword = "your_password";
            Connection con = DriverManager.getConnection(url, dbUsername, dbPassword);

            // Insert user data into the users table
            String insertQuery = "INSERT INTO users (name, password, email, phone) VALUES (?, ?, ?, ?)";
            PreparedStatement pst = con.prepareStatement(insertQuery);
            pst.setString(1, name);
            pst.setString(2, password);
            pst.setString(3, email);
            pst.setString(4, phone);

            int rowsAffected = pst.executeUpdate();

            if (rowsAffected > 0) {
                out.println("<h2>Registration Successful!</h2>");
            } else {
                out.println("<h2>Registration Failed. Please try again.</h2>");
            }

            // Display existing users
            out.println("<h2>Existing Users:</h2>");
            Statement stmt = con.createStatement();
            ResultSet rs = stmt.executeQuery("SELECT * FROM users");

            while (rs.next()) {
                out.println("ID: " + rs.getInt("id") + "<br>");
                out.println("Name: " + rs.getString("name") + "<br>");
                out.println("Email: " + rs.getString("email") + "<br>");
                out.println("Phone: " + rs.getString("phone") + "<br>");
                out.println("<hr>");
            }

            pst.close();
            stmt.close();
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }

        out.close();
    }
}
```

JSP CODE

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>
```

```
<head>
    <meta charset="UTF-8">
    <title>User Registration</title>
</head>
<body>
    <h2>User Registration Form</h2>
    <form action="RegisterServlet" method="post">
        Name: <input type="text" name="name" required><br>
        Password: <input type="password" name="password" required><br>
        Email: <input type="email" name="email" required><br>
        Phone: <input type="text" name="phone" required><br>
        <input type="submit" value="Register">
    </form>
</body>
</html>
```

OUTPUT


Calculator
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/4.html
Rizwana Khatoon
2101920130144
Enter your name:
Submit
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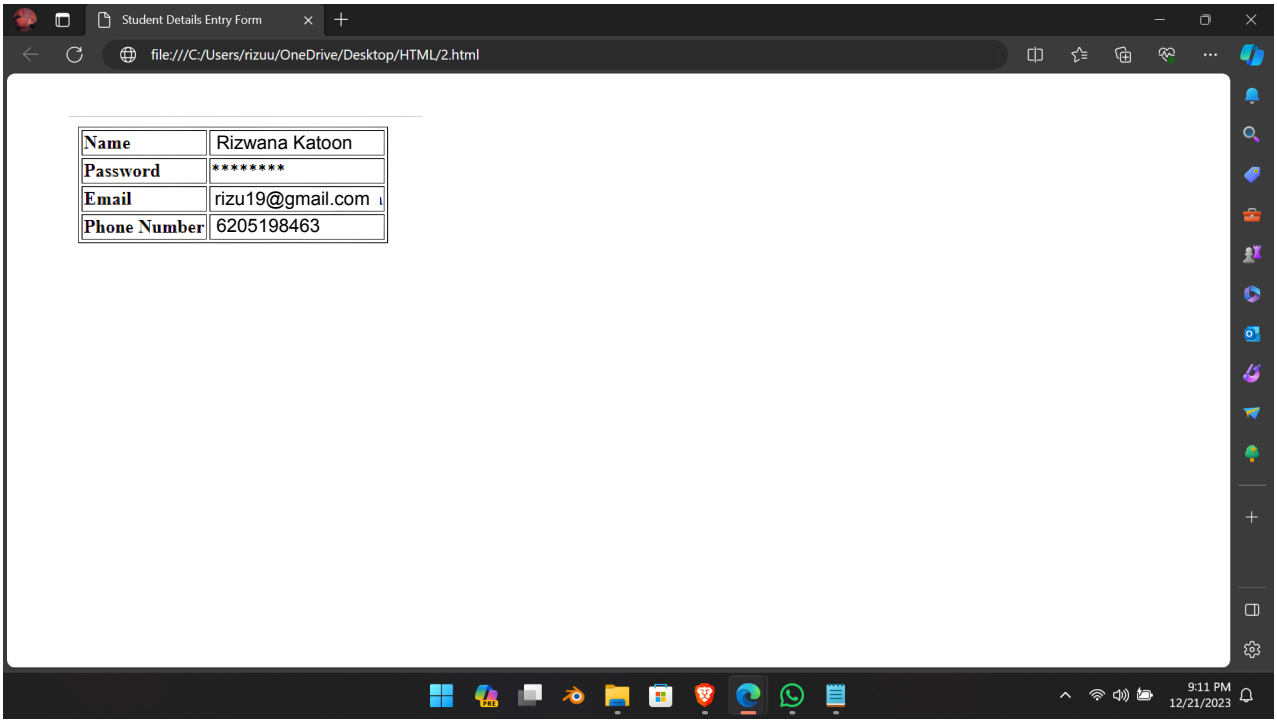
Student Details Entry Form
file:///C:/Users/rizuu/OneDrive/Desktop/HTML/2.html
Name
Rizwana Katoon
Password
****
Email
rizu19@gmail.com
Phone Number
6205198463
9:11 PM
12/21/2023