**School of Computer Science**

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**DEHRADUN, UTTARAKHAND**



**Web Technologies**

**(Lab File)**

**Submitted To** - Dr Yeshwant Singh

**Submitted By** - Mohammad Wasi

Btech CSE (AIML) Batch 8

**SAP ID** - 500110709

**Roll no**. - R2142221457

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**Experiment 1: Basic HTML Tags**

Q1. Design a webpage to describe your university. The webpage should have properly aligned paragraphs to show textual information and images wherever required.

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

    <header align="center" >

        <h1>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</h1>

    </header>

<hr>

    <table width="100%" color="red" align="center" border="1">

        <tr height="400px">

            <td width="200px">

<h1> The University of Future</h1>

<p>UPES (University of Petroleum and Energy Studies) is a prominent private university in India, known for its focus on energy, petroleum, and allied sectors. Established in 2003, UPES offers a range of undergraduate and postgraduate programs in engineering, business, law, and other fields. The university is recognized for its industry-oriented curriculum, strong faculty, and emphasis on research and innovation in energy-related disciplines.

</p>

            </td>

            <td width="200px" align="center">

<img src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcReyTNLkkjJ4Eim-6SnxENgC55Z0eeYaXt5jHMUs0DEhRmwCU5MgkDV6\_rljzv0B8OxG5Q&usqp=CAU" alt="" align="center">

            </td>

        </tr>

    </table>

    <table border="1" width="100%" align="center">

        <h1 align="center"> PLACEMENTS @ UPES </h1>

        <tr align="center"> <marquee

            behavior="alternate"

            onmouseover="stop()"

            onmouseout="start()">

          <strong> last date of Admission  is <mark>15042024 </mark></strong>

          </marquee></tr>

        </td>

            <td height="500px">

                <p>

                    UPES (University of Petroleum and Energy Studies) is renowned for its exceptional placement records, consistently achieving high placement percentages across various disciplines. The university has established strong connections with leading industry players, fostering a robust network for student placements. The Placement Cell at UPES plays a pivotal role in facilitating interactions between students and recruiters, ensuring a smooth transition from academia to the professional world.

UPES' industry-aligned curriculum, which is regularly updated to meet industry demands, enhances the employability of its graduates. The university's focus on specialized domains such as energy, petroleum, engineering, business, and law has attracted top-tier companies seeking talent with niche expertise. The placement process at UPES includes pre-placement talks, internships, and workshops, providing students with valuable insights into industry practices and expectations.

                </p>

            </td>

        </tr>

        <tr align="center">

            <div align="center">            <img src="https://static.careers360.mobi/media/presets/1072X587/articles/uploads/froala\_editor/images/2020/4/4/1585995445954.png" alt="">

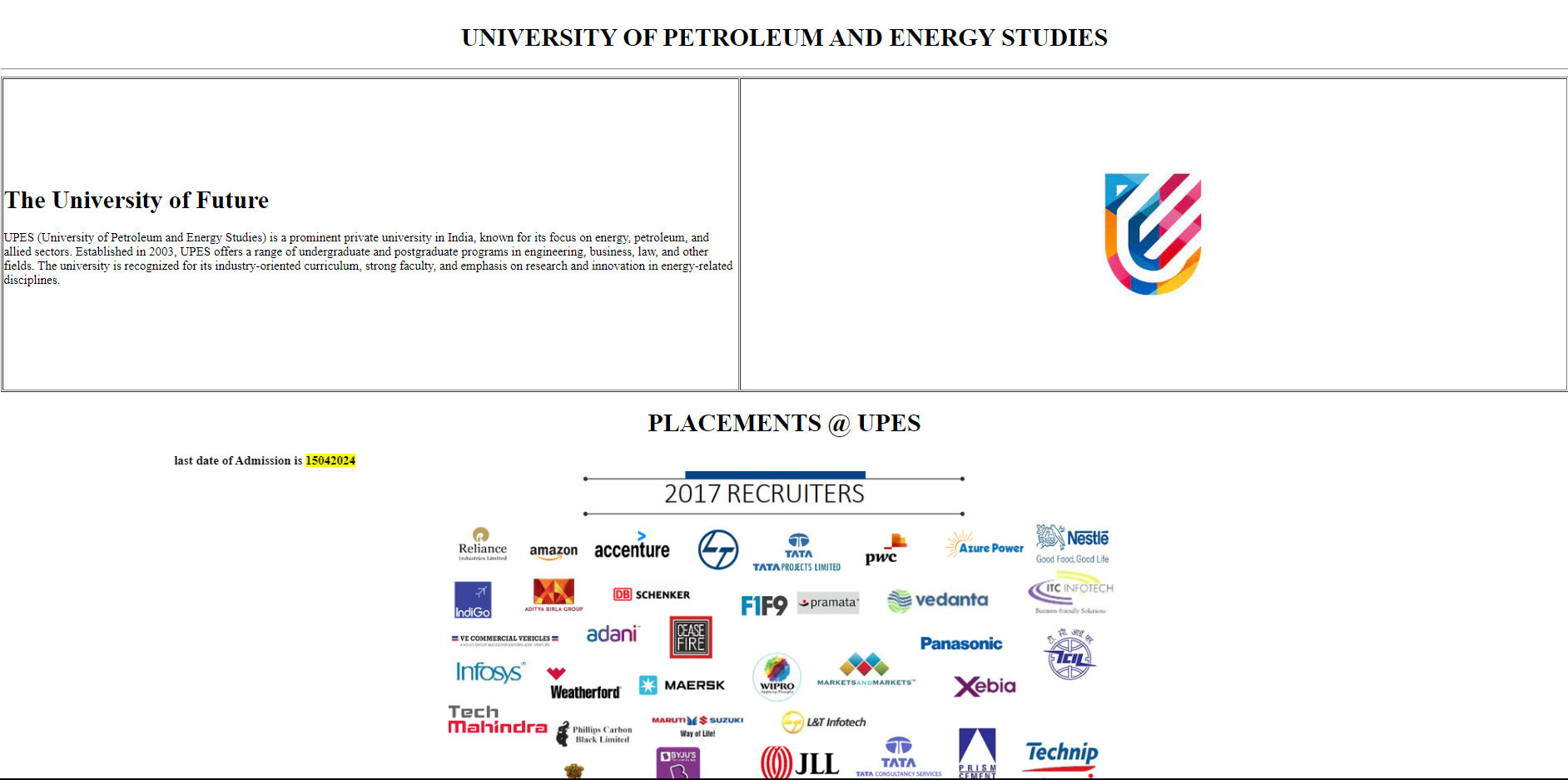
            </div>

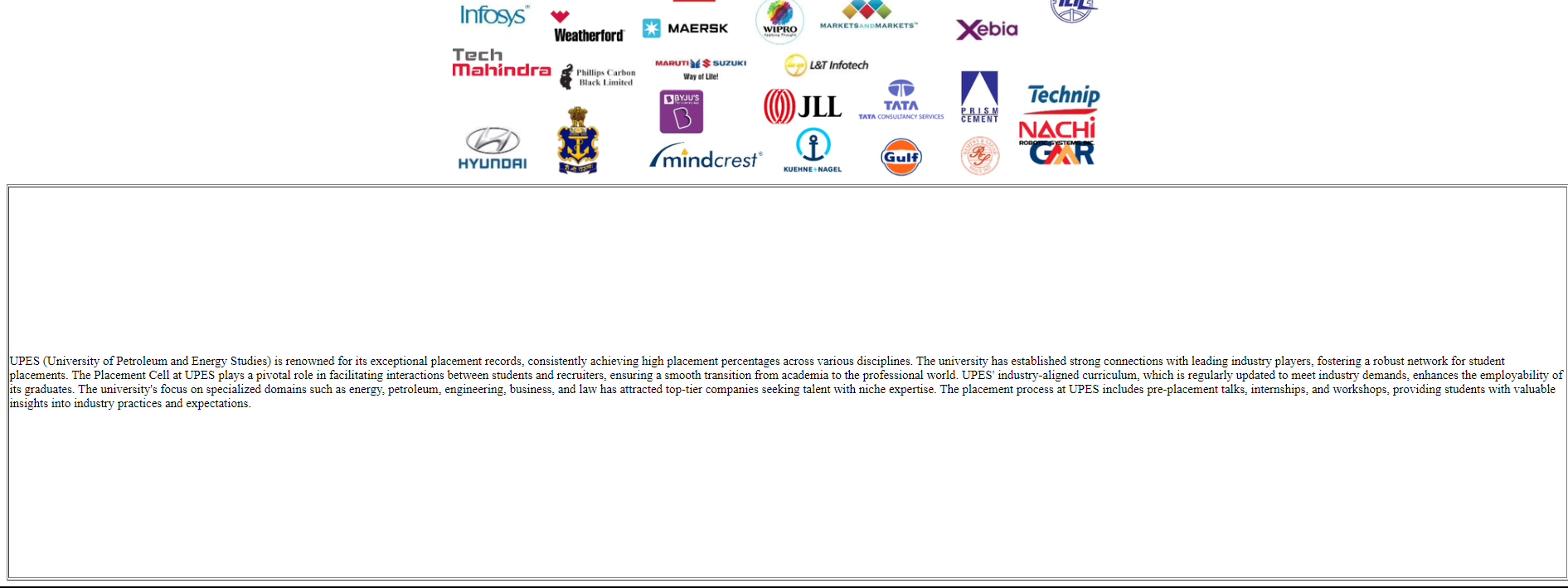
        </tr>

    </table>

    </body>

</html>





Q2. Design a webpage to show your timetable in proper format.

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>My Timetable</title>

</head>

<body>

    <header align="center">

        <h1>AIML B8  Timetable</h1>

    </header>

    <table border="1" align="center">

        <tr height="50px" width="200px">

            <td>Time</td>

            <td>Monday</td>

            <td>Tuesday    </td>

            <td>Wednesday</td>

            <td>Thursday</td>

            <td>Friday</td>

            <td>Saturday</td>

        </tr>

        <tr height="50px" width="200px">

            <td>900</td>

            <td></td>

            <td>Soft Skill</td>

            <td></td>

            <td>Software Eng</td>

            <td>EVS</td>

            <td>Web Tech</td>

        </tr>

        <tr height="50px" width="200px">

            <td>1000</td>

            <td></td>

            <td></td>

            <td></td>

            <td>Web Tech</td>

            <td></td>

            <td>ML</td>

        </tr>

        <tr height="50px" width="200px">

            <td>1100</td>

            <td></td>

            <td>ADBMS</td>

            <td></td>

            <td></td>

            <td>ML</td>

            <td>DBMS</td>

        </tr>

        <tr height="50px" width="200px">

            <td>1200</td>

            <td></td>

            <td></td>

            <td>ML</td>

            <td>FLAT</td>

            <td></td>

            <td></td>

        </tr>

        <tr height="50px" width="200px">

            <td>1300</td>

            <td></td>

            <td>FLAT</td>

            <td></td>

            <td></td>

            <td>FLAT</td>

            <td>DBMS</td>

        </tr>

        <tr height="50px" width="200px">

            <td>1400</td>

            <td></td>

            <td>Software Eng</td>

            <td></td>

            <td></td>

            <td></td>

            <td></td>

        </tr>

        <tr height="50px" width="200px">

            <td>1500</td>

            <td></td>

            <td rowspan="2">Design Thinking</td>

            <td rowspan="2">Web Tech Lab</td>

            <td rowspan="2">ML Lab</td>

            <td rowspan="2">SW Eng Lab</td>

            <td></td>

        </tr>

        <tr height="50px" width="200px">

            <td>1600</td>

            <td></td>

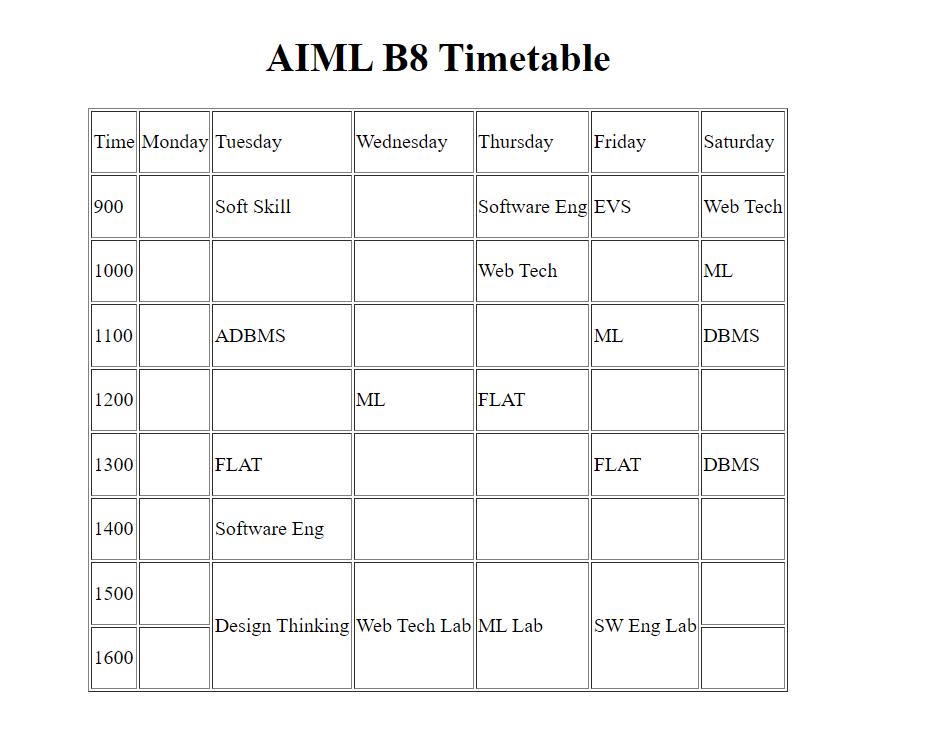
                       <td></td>

        </tr>

    </table>

</body>

</html>



Q3. Create a webpage that should have a menu to show different tourist places in Dehradun. Use different fore ground, background colors, images and other properties.

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Dehradun Tourist Places</title>

</head>

<body>

    <h1 style="text-align: center;">Tourist Places in Dehradun</h1>

    <table border="0" width="100%" align="center">

        <tr align="center" >

            <td width="40%"> <strong><h1>Place</h1>   </strong>  </td>

            <td width="60%"> <strong > <h1>About</h1> </strong></td>

        </tr>

        <tr  align="center" height="200px">

           <td>Mussoorie<br>

            <a href="https://uttarakhandtourism.gov.in/destination/mussoorie">

            <img src="data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAAQABAAD.jpeg" alt="Mussoorie Image" width="150"></td>

        </a>

            <td>Nestled in the Garhwal Himalayas, Mussoorie is a picturesque hill station renowned for its colonial charm and panoramic vistas. Known as the "Queen of Hills," it attracts visitors with its pleasant weather, lush landscapes, and iconic attractions like Gun Hill and Camel's Back Road. The Mall Road bustles with shops and cafes, while Kempty Falls offers a refreshing natural retreat. Mussoorie remains a timeless destination, captivating travelers with its old-world allure.</td>

        </tr>

        <tr align=" center" height="200px">

            <td>Robber's Cave<br>

                <a href="https://www.holidify.com/places/dehradun/robbers-cave-sightseeing-1706.html">

                <img src="https://dehraduntourism.co.in/images.jpg" alt="Robber's Cave Image" width="150"></td>

            </a>

                <td>Robbers Cave, locally known as Guchhupani, is a mystical natural formation near Dehradun. A river disappears underground only to reappear a few hundred meters away, creating a cave-like structure. The site is surrounded by lush greenery and offers a unique adventure for nature enthusiasts. Legends and folklore add to its mystique, making it an intriguing destination. The cave's cool interiors and the surrounding landscape make it a favored spot for picnics and exploration, providing an enchanting experience for visitors..</td>

        </tr>

        <tr align="center" height="200px">

            <td>

                Sahastradhara <br>

                <a href="https://www.holidify.com/places/dehradun.jpeg" alt="Sahastradhara Image" width="150"></td>

                    <td>Sahastradhara, translating to "Thousand Fold Springs," is a captivating destination near Dehradun. Famous for its therapeutic sulfur springs and waterfalls, the site offers rejuvenating baths and scenic beauty. The medicinal properties of the water are believed to have healing effects, drawing locals and tourists alike. Surrounded by lush forests, Sahastradhara provides a serene escape with its cascading streams and limestone formations, making it a popular spot for both relaxation and adventure.

                    </a>

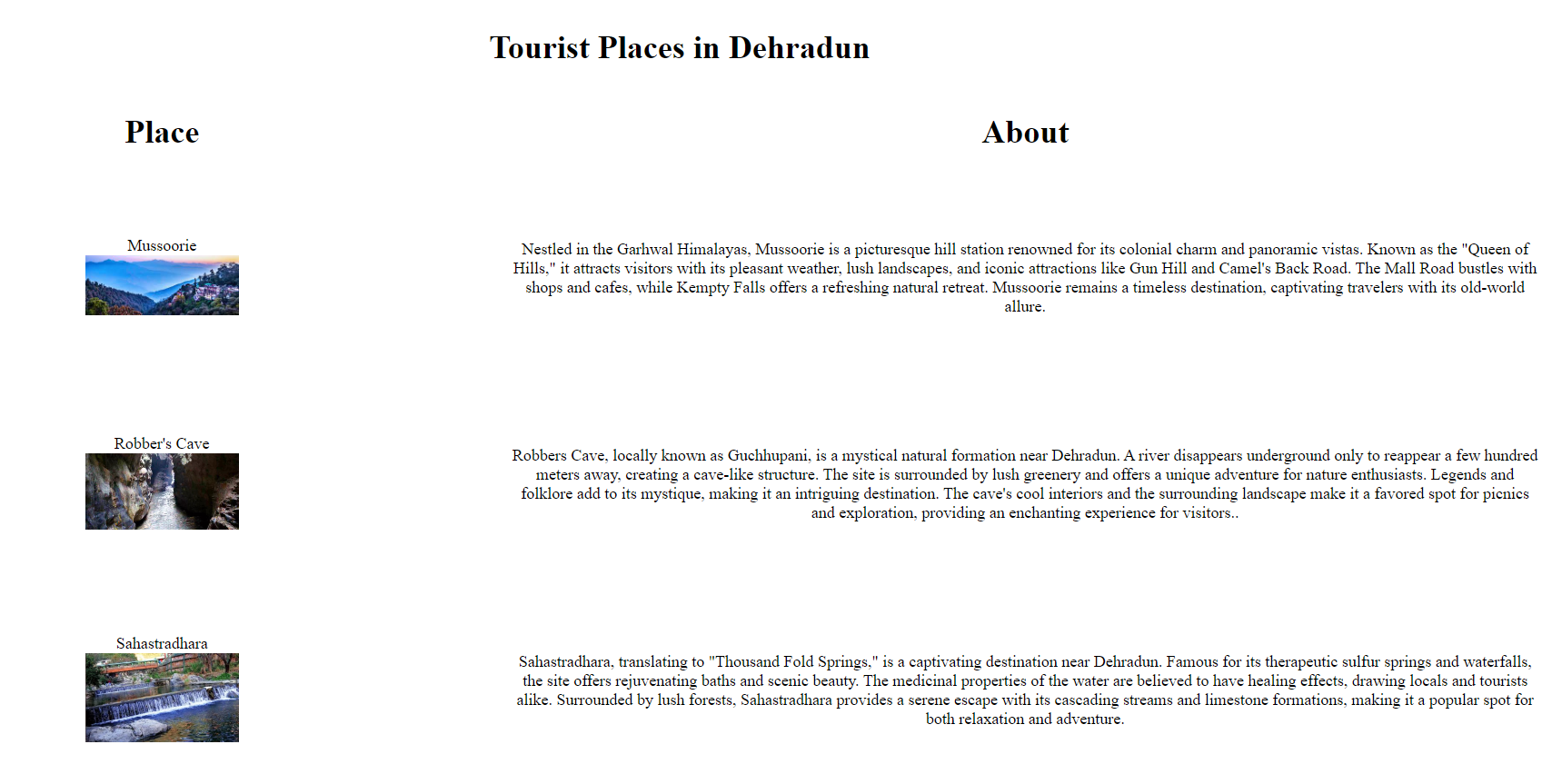
                    </td>

        </tr>

    </table>

</body>

</html>



**Experiment 2: Creating HTML forms using different form elements.**

1. Create a login page using different form elements.

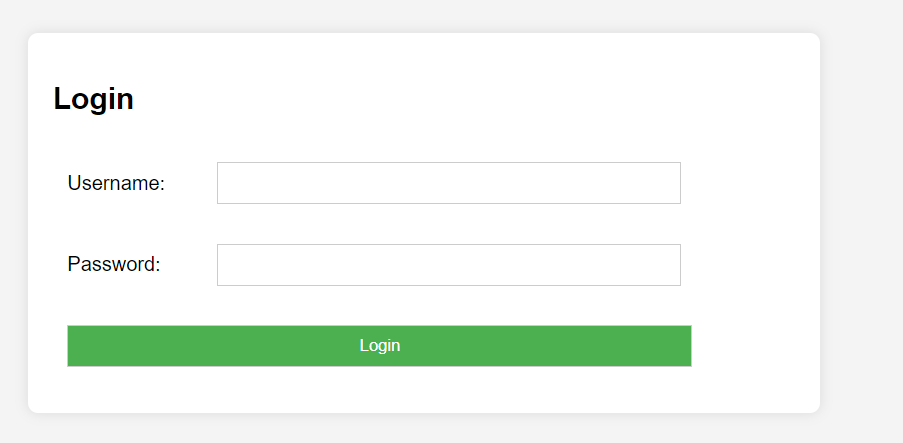
**Index.html**

1. <!DOCTYPE html>
2. <html lang="en">
3. <head>
4. <meta charset="UTF-8">
5. <meta name="viewport" content="width=device-width, initial-scale=1.0">
6. <title>Login Page</title>
7. <style>
8. body {
9. font-family: Arial, sans-serif;
10. background-color: #f4f4f4;
11. }
12. .login-box {
13. max-width: 80vh;
14. margin: 50px auto;
15. background-color: #fff;
16. padding: 20px;
17. border-radius: 8px;
18. box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
19. }
20. table {
21. width: 100%;
22. }
23. table, td {
24. border: none;
25. }
26. td {
27. padding: 10px;
28. text-align: left;
29. }
30. input{
31. width: 50vh;
32. padding: 8px;
33. margin: 5px 0;
34. border: 1px solid #ccc;
35. box-sizing: border-box;
36. }
37. input[type="submit"]{
38. width: 500px;
39. background-color: #4caf50;
40. color: white;
41. cursor: pointer;
42. }
43. input[type="submit"]:hover {

      background-color: #45a049;

    }

1. </style>
2. </head>
3. <body>
4. <div class="login-box">
5. <h2>Login</h2>
6. <form>
7. <table>
8. <tr>
9. <td>Username:</td>
10. <td><input type="text" name="username" required></td>
11. </tr>
12. <tr>
13. <td>Password:</td>
14. <td><input type="password" name="password" required></td>
15. </tr>
16. <tr align="center">
17. <td colspan="2"><input type="submit" id="aa" value="Login"></td>
18. </tr>
19. </table>
20. </form>
21. </div>
22. </body>
23. </html>



1. Create a HTML form for a student for course registration which should have following fields:
2. Student Name (textbox)
3. Age (textbox with numbers only)
4. Date of Birth (Calendar)
5. Select Course (Drop Down)
6. Submit (Button)

**Index.html**

<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>Document</title>

    <link rel="stylesheet" href="index.css" />

  </head>

  <body>

    <div class="out">

      Registration Form

      <div class="in">

        <label for="studentName">Name</label>

        <input type="text" value="Student Name" />

        <label for="age">Age</label>

        <input type="number" value="Age" />

        <label for="dob">Date of Birth</label>

        <input type="date" value="Date of Birth" />

        <label for="course">Select Course</label>

        <select required>

          <option value="math">Math</option>

          <option value="science">Science</option>

          <option value="history">History</option>

        </select>

        <label for="email">Email ID</label>

        <input type="email" value="email" />

        <label for="phoneNumber">Phone Number</label>

        <input type = "text"  minlength="10" maxlength="12">

        <label for="password">Password</label>

        <input type="password" placeholder="password" required />

        <input type="submit" value="Register" />

        <input type="reset" value="Reset" />

      </div>

    </div>

  </body>

</html>

**Style.css**

body {

  background-color: rgb(54, 53, 53);

  display: flex;

  width: 100%;

  height: 100vh;

  align-items: center;

  justify-content: center;

  color: #e7e0d4;

  font-size: 1.5rem;

}

.out {

  text-align: center;

  padding: 20px;

  width: 100%;

  max-width: 400px;

border: 2px solid white;

}

.in input{

    width: 85%;

    padding: 10px;

    margin: 10px;

    border: 2px solid grey;

}

.in select{

    width: 90%;

    padding: 10px;

    margin: 10px;

    border: 2px solid grey;

}

.in input[type="submit"], .in input[type="reset"] {

    width: 100%;

    padding: 10px;

    background: #4caf50;

    color: white;

    cursor: pointer;

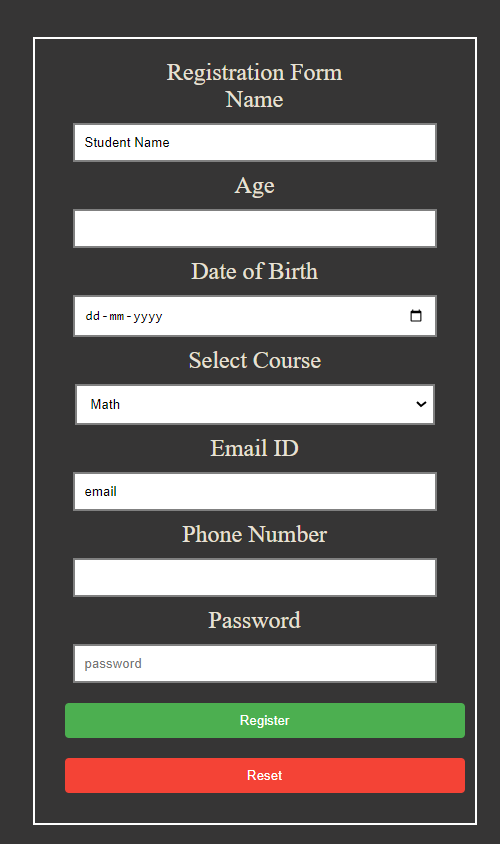
    border: none;

    border-radius: 4px;

  }

  .in input[type="reset"] {

    background: #f44336;}



1. Create HTML form for selecting sports in your university. The form should have fields like Name, Password, Address, Select Game, Gender, Age etc.

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Sports Selection Form</title>

    <link rel="stylesheet" href="style.css">

</head>

<body>

    <div class="out">Sports Selection Form

        <div class="in">

            <label for="name">Name</label>

            <input type="text" id="name" name="name" placeholder="Student Name" required>

            <label for="pwd">Password</label>

            <input type="password" id="pwd" name="pwd" placeholder="Password" required>

            <label for="address">Address</label>

           <input type="text" id="address" name="address" placeholder="Address" required>

            <label for="game">Select Game</label>

            <select id="game" name="game" required>

                <option value="football">Football</option>

                <option value="basketball">Basketball</option>

                <option value="tennis">Tennis</option>

            </select>

            <div class="gender" style="margin: 10px 0;">

                <label>Gender</label>

                <div class="radio-group" style="display: flex; justify-content: space-between;">

                    <input type="radio" id="male" name="gender" value="male" required style="margin-right: 2px;">

                    <label for="male"  style="margin-right: 1px;">Male</label>

                    <input type="radio" id="female" name="gender" value="female" required style="margin-left: 2px;">

                    <label for="female"  style="margin-left: 1x;">Female</label>

                </div>

            </div>

            <label for="age">Age</label>

            <input type="number" id="age" name="age" placeholder="Age" required>

            <input type="submit" value="Register">

            <input type="reset" value="Reset">

        </div>

    </div>

</body>

</html>

body {

    background-color: rgb(54, 53, 53);

    display: flex;

    width: 100%;

    height: 100vh;

    align-items: center;

    justify-content: center;

    color: #e7e0d4;

    font-size: 1.2rem;

}

  .out {

    margin: 20rem;

    text-align: center;

    padding: 20px;

    width: 100%;

    max-width: 400px;

border: 2px solid white;

  }

  .in label {

    display: block;

    margin-bottom: 8px;}

  .in input, .in select {

    width: 100%;

    padding: 10px;

    margin: 10px 0;

    box-sizing: border-box;

    border: 2px solid grey;

    border-radius: 4px;

  }

  .in input[type="submit"], .in input[type="reset"] {

    width: 100%;

    padding: 10px;

    background: #4caf50;

    color: white;

    cursor: pointer;

    border: none;

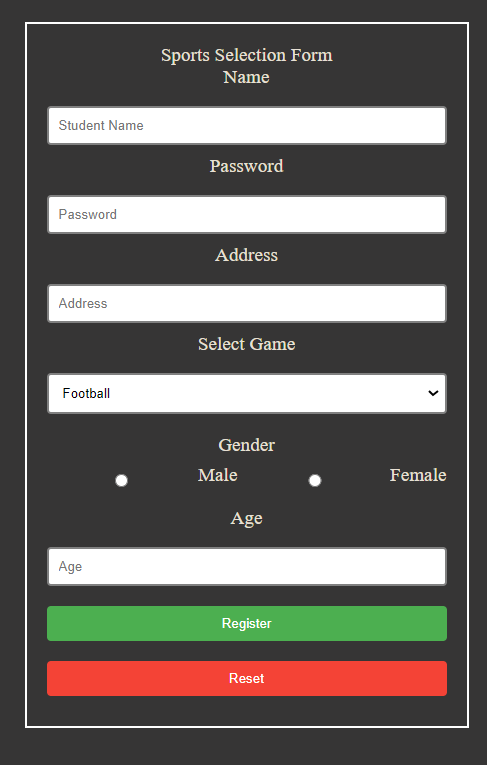
    border-radius: 4px;

  }

  .in input[type="reset"] {

    background: #f44336;

  }

––––––––––

**Experiment 3: Use of Inline, Internal and External stylesheets and incorporating styles in HTML document.**

1. Create a CSS based Sticky footer.

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>CSS Sticky Footer</title>

<link rel="stylesheet" href="styles.css">

</head>

<body>

<div class="wrapper">

  <div class="content">

    <h1>Main Content</h1>

    <p>This is the main content of the webpage.</p>

  </div>

</div>

<div class="footer">

  <p>This is a sticky footer.</p>

</div>

</body>

</html>

**Style.css**

html, body {

    margin: 0;

    padding: 0;

    height: 100%;

    display: flex;

    flex-direction: column;

  }

  .wrapper {

    flex: 1;

    display: flex;

    justify-content: center;

    align-items: center;

  }

  .content {

    text-align: center;

  }

  .footer {

    height: 50px;

    background-color: #333;

    color: #fff;

    text-align: center;

    width: 100%;

  }



1. Using HTML and CSS, create a custom hover and focus effect for navigation items, using CSS transformations.

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Modern Navigation</title>

<link rel="stylesheet" href="styles.css">

</head>

<body>

<nav>

  <a href="#" class="nav-item">Home</a>

  <a href="#" class="nav-item">About</a>

  <a href="#" class="nav-item">Services</a>

  <a href="#" class="nav-item">Contact</a>

</nav>

</body>

</html>

**Style.css**

body {

    font-family: Arial, sans-serif;

    margin: 0;

    padding: 0;

    background-color: #f4f4f4;

  }

  nav {

    background-color: #333;

    padding: 10px 20px;

  }

  .nav-item {

    display: inline-block;

    margin: 0 10px;

    padding: 10px 20px;

    color: #fff;

    text-decoration: none;

    border-radius: 5px;

    transition: background-color 0.3s, transform 0.3s;

  }

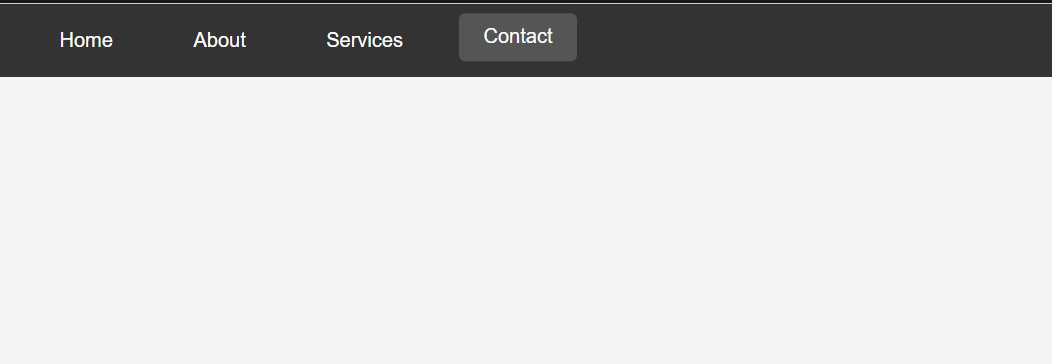
  .nav-item:hover,

  .nav-item:focus {

    background-color: #555;

    transform: translateY(-3px);

  }



1. Using HTML, CSS creates a zoom in zoom out animation.

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Zoom In Zoom Out Animation</title>

<link rel="stylesheet" href="styles.css">

</head>

<body>

<div class="container">

  <div class="box">

    <div class="content">

      <h1>Hii I'm Wasi.</h1>

      <p>Follow me on GitHub @reallywasi</p>

    </div>

  </div>

</div>

</body>

</html>

**Style.css**

.container {

    display: flex;

    justify-content: center;

    align-items: center;

    height: 100vh;

  }

  .box {

    width: 200px;

    height: 200px;

    background-color: #ee544f;

    border: 2px solid rgb(107, 47, 47);

    border-radius: 10px;

    overflow: hidden;

    position: relative;

    transition: transform 0.5s;

  }

  .content {

    text-align: center;

    padding: 20px;

  }

  .box:hover {

    transform: scale(1.8);

  }

Before Hovering On hover

**Experiment 4: Responsive Design with Media Queries**

1. Add a CSS media query and appropriate styles so that the webpage looks similar even when resized to smaller widths. Specifically:
2. The sidebar should be hidden.
3. The body should have no padding.
4. The images shouldn't exceed the width of the window.
5. The navigation items should each be on their own line.
6. The header should be fixed, so that it stays at the top after scrolling.

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Restaurant Website</title>

    <link rel="stylesheet" href="styles.css">

</head>

<body>

    <header class="header">

        <h1>The Xar</h1>

        <nav class="nav">

            <ul>

                <li><a href="#">Home</a></li>

                <li><a href="#">Menu</a></li>

                <li><a href="#">About</a></li>

                <li><a href="#">Contact</a></li>

            </ul>

        </nav>

    </header>

    <div class="content">

        <section class="main">

                       <img src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQah18ANappGuwEqzQTeS4gVDOD1Kj7QrmVmA&usqp=CAU" alt="Restaurant" class="restaurant-image">

            <h2>Welcome to The Xar</h2>

            <p>

Xar Restaurant tantalizes taste buds with an eclectic fusion of Mughlai, South Indian, and Turkish cuisines. Immerse yourself in a culinary journey that blends rich spices, diverse flavors, and traditional recipes for an unforgettable dining experience.</p>

            <div class="gallery">

                <img src="data:image/jpeg;base64,/9j/4.jpeg" alt="Image 3" class="gallery-image">

                <img src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcR3mHo4xS0grMZHqaqeXP-pWQ3X5Zy0SWEE1Q&usqp=CAU" alt="Image 4" class="gallery-image">

                <img src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTbV\_3Dp2f0p741geMZUuTqn1\_-rHF\_rxakGQ&usqp=CAU" alt="Image 5" class="gallery-image">

                <img src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTSpEpdN0u6b-yDOQKDQKSXOA4hqvqNNlAaTw&usqp=CAU" alt="Image 6" class="gallery-image">

            </div>

        </section>

    </div>

</body>

</html>

**Style.css**

body {

    font-family: Arial, sans-serif;

    margin: 0;

    padding: 20px;

}

.header {

    background-color: #f8f9fa;

    padding: 10px 20px;

    text-align: center;

}

.header h1 {

    margin: 0;

}

.nav ul {

    list-style-type: none;

    margin: 0;

    padding: 0;

}

.nav ul li {

    display: inline;

    margin-right: 10px;

}

.nav ul li a {

    color: #343a40;

    text-decoration: none;

}

.content {

    padding-top: 80px;

}

.main {

    text-align: center;

}

.restaurant-image {

    max-width: 100%;

}

.gallery {

    display: flex;

    flex-wrap: wrap;

    justify-content: center;

    margin-top: 20px;

}

.gallery-image {

    max-width: 100%;

    margin: 10px;

}

@media screen and (max-width: 600px) {

    .nav ul {

        text-align: center;

    }

    .nav ul li {

        display: block;

        margin-bottom: 10px;

    }

    .content {

        padding-top: 120px;

    }

    .header {

        padding: 10px 0;

    }

}

