HTML5-Day 01-Hands_On_Problem<Rushabh Ramesh Bhusanur>

Question 1:
Assessment Goal: Check if learners understand basic HTML structure and content creation.
Hands-on Tasks:

1. Create a basic HTML page with proper structure (DOCTYPE, head, body)
2. Add a heading and a paragraph introducing yourself
3. Create an unordered list showing your hobbies
4. Create an ordered list showing daily routine steps
5. Create a simple table showing:

- Student Name
- Subject
- Marks

Code:

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <title>My First HTML Page</title>

</head>

<body>

  <h1>Welcome to My Profile</h1>

  <p>

    Hello! My name is Rushabh. I am learning web development and this is my first HTML hands-on practice.

    I am excited to build websites and improve my technical skills.

  </p>

  <h2>My Hobbies</h2>

  <ul>

    <li>Reading</li>

    <li>Playing Cricket</li>

    <li>Listening to Music</li>

    <li>Learning New Technologies</li>

  </ul>

  <h2>My Daily Routine</h2>

  <ol>
```

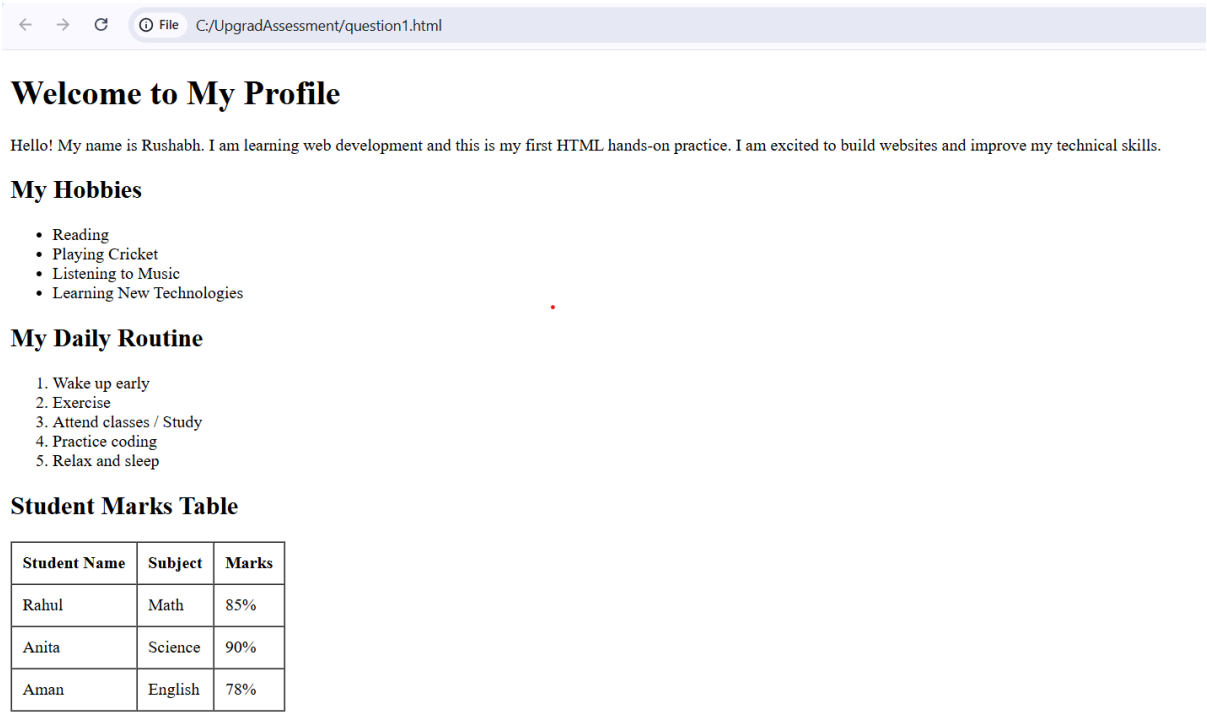
```
      <li>Wake up early</li>
      <li>Exercise</li>
      <li>Attend classes / Study</li>
      <li>Practice coding</li>
      <li>Relax and sleep</li>
    </ol>
    <h2>Student Marks Table</h2>
    <table border="1" cellpadding="10" cellspacing="0">
      <tr>
        <th>Student Name</th>
        <th>Subject</th>
        <th>Marks</th>
      </tr>
      <tr>
        <td>Rahul</td>
        <td>Math</td>
        <td>85%</td>
      </tr>
      <tr>
        <td>Anita</td>
        <td>Science</td>
        <td>90%</td>
      </tr>
      <tr>
        <td>Aman</td>
        <td>English</td>
        <td>78%</td>
      </tr>
    </table>
  </body>
</html>
```

Code Screenshot:

File Edit View

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>My First HTML Page</title>
</head>
<body>
    <h1>Welcome to My Profile</h1>
    <p>
        Hello! My name is Rushabh. I am learning web development and this is my first HTML hands-on practice.
        I am excited to build websites and improve my technical skills.
    </p>
    <h2>My Hobbies</h2>
    <ul>
        <li>Reading</li>
        <li>Playing Cricket</li>
        <li>Listening to Music</li>
        <li>Learning New Technologies</li>
    </ul>
    <h2>My Daily Routine</h2>
    <ol>
        <li>Wake up early</li>
        <li>Exercise</li>
        <li>Attend classes / Study</li>
        <li>Practice coding</li>
        <li>Relax and sleep</li>
    </ol>
    <h2>Student Marks Table</h2>
    <table border="1" cellpadding="10" cellspacing="0">
        <tr>
            <th>Student Name</th>
            <th>Subject</th>
            <th>Marks</th>
        </tr>
        <tr>
            <td>Rahul</td>
            <td>Math</td>
            <td>85%</td>
        </tr>
        <tr>
            <td>Anita</td>
            <td>Science</td>
            <td>90%</td>
        </tr>
        <tr>
            <td>Aman</td>
            <td>English</td>
            <td>78%</td>
        </tr>
    </table>
</body>
</html>
```

Output Screenshot:



Code Explanation:

In this code, you created a complete basic HTML page using the proper HTML boilerplate including <!DOCTYPE html>, <html lang="en">, <head>, and <body>, which defines the structure of any HTML document. You used the <title> tag to set the browser tab name and <meta charset="UTF-8"> to support all characters. Inside the body, you used heading tags (<h1>, <h2>) to show main titles and section titles, and a <p> tag to introduce yourself. You displayed hobbies using an unordered list (<ul> with <li>) and daily routine steps using an ordered list (<ol> with <li>). You also created a table using <table>, <tr>, <th>, and <td> to show student name, subject, and marks. Attributes like border, cellpadding, and cellspacing were used to make the table readable. Overall, this question demonstrates how to organize simple content on a webpage using basic HTML elements.

Question 2:

Problem 2: Restaurant Menu Webpage (Level-1)
Scenario
A small restaurant wants a basic menu webpage to display their offerings online before moving to a full website.
Requirements
Create an HTML page that displays:

1. Restaurant Name (Heading)
2. About the Restaurant (Paragraph)
3. Menu Categories (Unordered List)
4. Price List (Table)
5.

Actual Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Spice Garden Restaurant</title>
</head>
<body>
  <h1 align="center" title="Restaurant Name">Spice Garden Restaurant</h1>
  <p align="center" title="About the restaurant">
    Welcome to Spice Garden Restaurant! We serve delicious and hygienic food made with fresh ingredients.
    Our goal is to provide tasty meals at affordable prices.
  </p>
  <h2 align="center">Menu Categories</h2>
  <ul title="Menu Categories" style="width: 200px; margin: 0 auto;">
    <li>Main Course</li>
    <li>Breakfast</li>
    <li>Beverages</li>
    <li>Snacks</li>
  </ul>
```

```
  <h2 align="center">Price List</h2>
  <table border="1" align="center" title="Restaurant Price List" cellpadding="10" cellspacing="0">
    <tr>
      <th>Item Name</th>
      <th>Category</th>
      <th>Price (₹)</th>
    </tr>
    <tr>
      <td>Paneer Butter Masala</td>
      <td>Main Course</td>
      <td>220</td>
    </tr>
    <tr>
      <td>Veg Biryani</td>
      <td>Main Course</td>
      <td>180</td>
    </tr>
    <tr>
      <td>Masala Dosa</td>
      <td>Breakfast</td>
      <td>90</td>
    </tr>
    <tr>
      <td>Cold Coffee</td>
      <td>Beverages</td>
      <td>120</td>
    </tr>
  </table>
</body>
</html>
```

Code Screenshot:

File Edit View

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Spice Garden Restaurant</title>
</head>
<body>
    <h1 align="center" title="Restaurant Name">Spice Garden Restaurant</h1>
    <p align="center" title="About the restaurant">
        Welcome to Spice Garden Restaurant! We serve delicious and hygienic food made with fresh ingredients.
        Our goal is to provide tasty meals at affordable prices.
    </p>
    <h2 align="center">Menu Categories</h2>
    <ul title="Menu Categories" style="width: 200px; margin: 0 auto;">
        <li>Main Course</li>
        <li>Breakfast</li>
        <li>Beverages</li>
        <li>Snacks</li>
    </ul>
    <h2 align="center">Price List</h2>
    <table border="1" align="center" title="Restaurant Price List" cellpadding="10" cellspacing="0">
        <tr>
            <th>Item Name</th>
            <th>Category</th>
            <th>Price (₹)</th>
        </tr>
        <tr>
            <td>Paneer Butter Masala</td>
            <td>Main Course</td>
            <td>220</td>
        </tr>
        <tr>
            <td>Veg Biryani</td>
            <td>Main Course</td>
            <td>180</td>
        </tr>
        <tr>
            <td>Masala Dosa</td>
            <td>Breakfast</td>
            <td>90</td>
        </tr>
        <tr>
            <td>Cold Coffee</td>
            <td>Beverages</td>
            <td>120</td>
        </tr>
    </table>
</body>
</html>
```

Output Screenshot:

Code Explanation:

In this code, you again used the full HTML structure with <!DOCTYPE html>, <html>, <head>, and <body> to create a complete webpage for a restaurant menu. You displayed the restaurant name using <h1> and aligned it to the center using the align attribute, and you added extra information using the title attribute for tooltip text. The restaurant description is written inside a <p> tag. Menu categories are grouped using an unordered list (<ul> and <li>), which is suitable for showing grouped items without any order. The price list is displayed in a structured way using a table with <table>, <tr>, <th>, and <td> to represent item name, category, and price. Table attributes like border, cellpadding, cellspacing, and align are used to improve visibility and layout. This question shows how HTML can be used to present real-world data like menus in a structured and readable format.

Question 3:

Problem 3: Personal Grocery Checklist (Level-1)
Scenario
You are building a simple webpage for personal use to plan your weekly grocery shopping. The page should clearly show priority items and optional items, so it's easy to decide what to buy first.
Requirements
Create an HTML webpage that includes:

1. A page title:
2. Weekly Grocery Checklist
3. A main heading displaying the same title.
4. An Ordered List showing high-priority grocery items.

Actual Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Weekly Grocery Checklist</title>
</head>
<body>
  <h1 align="center" title="Weekly Grocery Checklist">
    Weekly Grocery Checklist
  </h1>
  <h2 align="center">High-Priority Items</h2>
  <ol title="High priority grocery items" style="width: 250px; margin: 0 auto;">
    <li>Rice</li>
    <li>Milk</li>
    <li>Vegetables</li>
    <li>Cooking Oil</li>
  </ol>
  <h2 align="center">Optional Items</h2>
  <ul title="Optional grocery items" style="width: 250px; margin: 0 auto;">
    <li>Snacks</li>
```

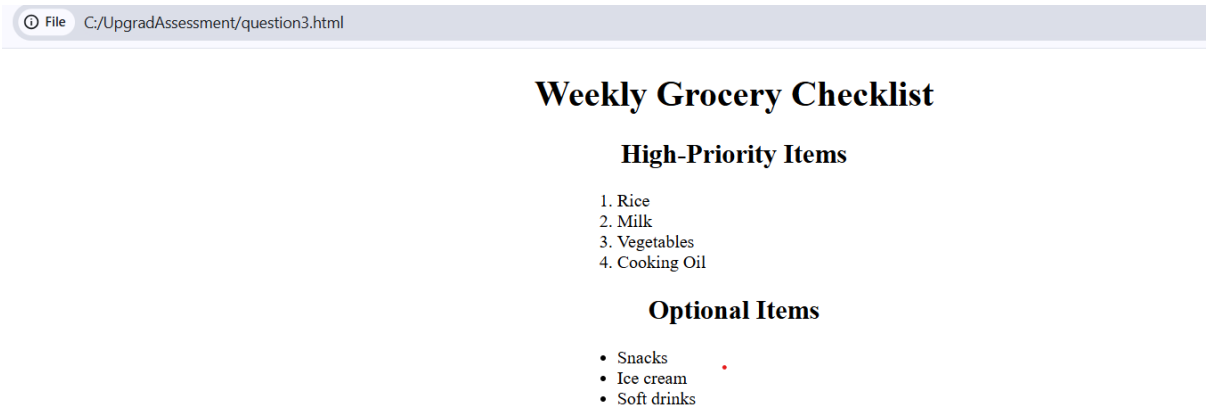
```
        <li>Ice cream</li>
        <li>Soft drinks</li>
    </ul>
</body>
</html>
```

Code Screenshot:

File Edit View

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Weekly Grocery Checklist</title>
</head>
<body>
    <h1 align="center" title="Weekly Grocery Checklist">
        Weekly Grocery Checklist
    </h1>
    <h2 align="center">High-Priority Items</h2>
    <ol title="High priority grocery items" style="width: 250px; margin: 0 auto;">
        <li>Rice</li>
        <li>Milk</li>
        <li>Vegetables</li>
        <li>Cooking Oil</li>
    </ol>
    <h2 align="center">Optional Items</h2>
    <ul title="Optional grocery items" style="width: 250px; margin: 0 auto;">
        <li>Snacks</li>
        <li>Ice cream</li>
        <li>Soft drinks</li>
    </ul>
</body>
</html>
```

Output Screenshot:



Code Explanation:

In this code, you created a simple and clear webpage for planning grocery shopping using proper HTML structure and tags. The <title> tag sets the page title as “Weekly Grocery Checklist,” which appears in the browser tab. The same title is displayed on the page using the <h1> heading. High-priority grocery items are displayed using an ordered list (<ol>), which is appropriate because priority items follow a sequence of importance. Optional items are displayed using an unordered list (<ul>), which shows items without any priority order. Each item is placed inside <li> tags. You also used HTML attributes like title to provide additional meaning and align to center headings. This question demonstrates how to use ordered and unordered lists correctly for different types of information and how to structure a simple personal-use webpage.

Question 4:

Problem 4: Employee Onboarding Page (Level-2)
Scenario
A company wants a basic onboarding page for new employees that HR can later style using CSS.
Requirements
Use Semantic HTML:

- <header> → Company name & welcome message
- <section> → Employee details
- <article> → Company policies
- <footer> → Contact information

Actual Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Employee Onboarding</title>
</head>
<body>
  <header title="Company Header">
    <h1>ABC Technologies</h1>
    <p>Welcome to the Company Onboarding Page</p>
  </header>
  <section title="Employee Details Section">
    <h2>Employee Information</h2>
    <table border="1" cellpadding="8" cellspacing="0" title="Employee Information Table">
      <tr>
        <th>Employee ID</th>
        <th>Name</th>
        <th>Department</th>
        <th>Joining Date</th>
      </tr>
      <tr>
```

```
          <td>EMP101</td>
            <td>Rahul Sharma</td>
            <td>IT</td>
            <td>16-02-2026</td>
          </tr>
        </table>
    </section>
    <article title="Company Policies Article">
        <h2>Company Policies</h2>
        <ol>
            <li>Working hours</li>
            <li>Leave policy</li>
            <li>Code of conduct</li>
        </ol>
    </article>
    <section title="Facilities Provided Section">
        <h2>Facilities Provided</h2>
        <ul>
            <li>Laptop</li>
            <li>Internet access</li>
            <li>Training materials</li>
        </ul>
    </section>
    <footer title="Contact Information Footer">
        <p>Contact HR: hr@abctech.com | Phone: +91-9876543210</p>
    </footer>
</body>
</html>
```

Code Screenshot:

File Edit View

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Employee Onboarding</title>
</head>
<body>
    <header title="Company Header">
        <h1>ABC Technologies</h1>
        <p>Welcome to the Company Onboarding Page</p>
    </header>
    <section title="Employee Details Section">
        <h2>Employee Information</h2>
        <table border="1" cellpadding="8" cellspacing="0" title="Employee Information Table">
            <tr>
                <th>Employee ID</th>
                <th>Name</th>
                <th>Department</th>
                <th>Joining Date</th>
            </tr>
            <tr>
                <td>EMP101</td>
                <td>Rahul Sharma</td>
                <td>IT</td>
                <td>16-02-2026</td>
            </tr>
        </table>
    </section>
    <article title="Company Policies Article">
        <h2>Company Policies</h2>
        <ol>
            <li>Working hours</li>
            <li>Leave policy</li>
            <li>Code of conduct</li>
        </ol>
    </article>
    <section title="Facilities Provided Section">
        <h2>Facilities Provided</h2>
        <ul>
            <li>Laptop</li>
            <li>Internet access</li>
            <li>Training materials</li>
        </ul>
    </section>
    <footer title="Contact Information Footer">
        <p>Contact HR: hr@abctech.com | Phone: +91-9876543210</p>
    </footer>

</body>
</html>
```

Output Screenshot:

ABC Technologies

Welcome to the Company Onboarding Page

Employee Information

Employee ID	Name	Department	Joining Date
EMP101	Rahul Sharma	IT	16-02-2026

Company Policies

1. Working hours
2. Leave policy
3. Code of conduct

Facilities Provided

- Laptop
- Internet access
- Training materials

Contact HR: hr@abctech.com | Phone: +91-9876543210

Code Explanation:

In this code, you used semantic HTML elements such as <header>, <section>, <article>, and <footer> instead of generic tags, which improves readability, structure, and SEO. The <header> contains the company name and welcome message, representing the top section of the page. The employee information is placed inside a <section> and displayed in a table using <table>, <tr>, <th>, and <td> to show structured employee details like ID, name, department, and joining date. The company policies are written inside an <article> using an ordered list (<ol>), which is suitable for rules or steps. Facilities are listed inside another <section> using an unordered list (<ul>). The <footer> contains HR contact details. Meaningful attributes like title and lang are added to improve clarity. This question shows how semantic HTML helps organize content logically and makes the page more understandable for developers, browsers, and search engines.

Question 5:

Problem 5: College Department Information Page (Level-2)
Scenario
A college wants to create a **basic informational webpage** for one of its departments (e.g., Computer Science, Information Technology).
The page will be used by **students and parents** to understand faculty details, subjects offered, and the weekly timetable before the site is enhanced with CSS and backend features.
Requirements
Create an HTML webpage that includes the following sections:

1. **Header**
    - Department Name
    - College Name
2. **Section 1: Faculty Details**
    - Display faculty information in a **table** with columns:
        - Faculty Name
        - Designation

Actual Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Information Technology Department - XYZ College</title>
</head>
<body>
  <header title="Department Header">
    <h1>Information Technology Department</h1>
    <h2>XYZ College of Engineering</h2>
  </header>
  <section title="Faculty Details Section">
    <h3>Faculty Details</h3>
    <table border="1" cellpadding="8" cellspacing="0" title="Faculty Information Table">
      <tr>
```

```
        <th>Faculty Name</th>
        <th>Designation</th>
        <th>Subject Handled</th>
      </tr>
      <tr>
        <td>Dr. Ramesh Patil</td>
        <td>Professor</td>
        <td>Operating Systems</td>
      </tr>
      <tr>
        <td>Ms. Neha Kulkarni</td>
        <td>Assistant Professor</td>
        <td>Database Management Systems</td>
      </tr>
    </table>
  </section>
  <section title="Subjects Offered Section">
    <h3>Subjects Offered</h3>
    <ul>
      <li>Programming in C</li>
      <li>Data Structures</li>
      <li>Operating Systems</li>
      <li>Database Management Systems</li>
      <li>Computer Networks</li>
    </ul>
  </section>
  <section title="Weekly Timetable Section">
    <h3>Weekly Timetable</h3>
    <table border="1" cellpadding="8" cellspacing="0" title="Weekly Timetable Table">
      <tr>
        <th>Day</th>
```

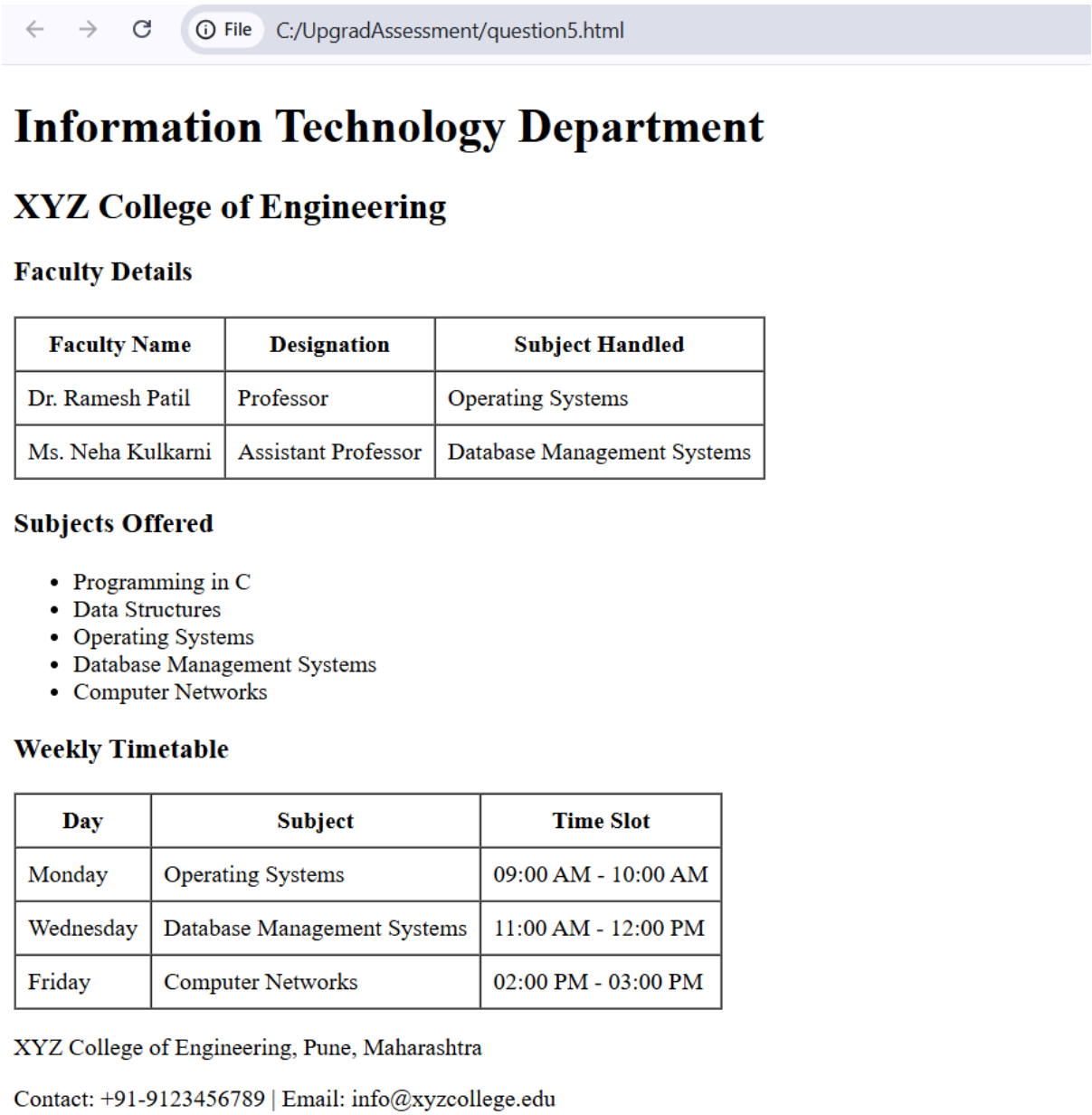
```
            <th>Subject</th>
            <th>Time Slot</th>
        </tr>
        <tr>
            <td>Monday</td>
            <td>Operating Systems</td>
            <td>09:00 AM - 10:00 AM</td>
        </tr>
        <tr>
            <td>Wednesday</td>
            <td>Database Management Systems</td>
            <td>11:00 AM - 12:00 PM</td>
        </tr>
        <tr>
            <td>Friday</td>
            <td>Computer Networks</td>
            <td>02:00 PM - 03:00 PM</td>
        </tr>
      </table>
    </section>
    <footer title="College Contact Information">
      <p>XYZ College of Engineering, Pune, Maharashtra</p>
      <p>Contact: +91-9123456789 | Email: info@xyzcollege.edu</p>
    </footer>
</body>
</html>
```

Code Screenshot:

File Edit View

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Information Technology Department - XYZ College</title>
</head>
<body>

    <header title="Department Header">
        <h1>Information Technology Department</h1>
        <h2>XYZ College of Engineering</h2>
    </header>

    <section title="Faculty Details Section">
        <h3>Faculty Details</h3>
        <table border="1" cellpadding="8" cellspacing="0" title="Faculty Information Table">
            <tr>
                <th>Faculty Name</th>
                <th>Designation</th>
                <th>Subject Handled</th>
            </tr>
            <tr>
                <td>Dr. Ramesh Patil</td>
                <td>Professor</td>
                <td>Operating Systems</td>
            </tr>
            <tr>
                <td>Ms. Neha Kulkarni</td>
                <td>Assistant Professor</td>
                <td>Database Management Systems</td>
            </tr>
        </table>
    </section>

    <section title="Subjects Offered Section">
        <h3>Subjects Offered</h3>
        <ul>
            <li>Programming in C</li>
            <li>Data Structures</li>
            <li>Operating Systems</li>
            <li>Database Management Systems</li>
            <li>Computer Networks</li>
        </ul>
    </section>

    <section title="Weekly Timetable Section">
        <h3>Weekly Timetable</h3>
        <table border="1" cellpadding="8" cellspacing="0" title="Weekly Timetable Table">
            <tr>
                <th>Day</th>
                <th>Subject</th>
                <th>Time Slot</th>
            </tr>
            <tr>
                <td>Monday</td>
                <td>Operating Systems</td>
                <td>09:00 AM - 10:00 AM</td>
            </tr>
            <tr>
                <td>Wednesday</td>
                <td>Database Management Systems</td>
                <td>11:00 AM - 12:00 PM</td>
            </tr>
            <tr>
                <td>Friday</td>
                <td>Computer Networks</td>
                <td>02:00 PM - 03:00 PM</td>
            </tr>
        </table>
    </section>

    <footer title="College Contact Information">
        <p>XYZ College of Engineering, Pune, Maharashtra</p>
        <p>Contact: +91-9123456789 | Email: info@xyzcollege.edu</p>
    </footer>

</body>
</html>
```

Output Screenshot:



Code Explanation:

In this code, you created a real-world informational webpage for a college department using proper HTML structure and semantic elements. The <header> is used to display the department name and college name, which represents the top identity section of the page. Faculty details are shown inside a <section> using a table (<table>, <tr>, <th>, <td>) to neatly display faculty name, designation, and subject handled. Subjects offered are displayed using an unordered list (<ul> and <li>), which is ideal for listing items without ranking. The weekly timetable is shown in another <section> using a table to organize day, subject, and time slot in a clear tabular format. The <footer> contains the college address and contact information. Attributes like lang and title are used to add meaning and accessibility. This question demonstrates how to organize large amounts of academic information using semantic HTML so that the page is ready for future styling with CSS and backend integration.