

Name-Pratham Asnani
Roll. No.-63
Batch-T13

Assignment 1

Aim-Develop a web page by using HTML/HTML5 tags

Theory-

The given HTML document represents a structured resume webpage styled with CSS for a clean and professional appearance. It begins with a blue header section highlighting the candidate's name and contact details, creating a strong first impression. The resume is organized into sections such as **Summary**, **Experience**, and **Education**, each placed within styled containers for clarity and readability. Tables are used to present experience and education details systematically, while lists highlight responsibilities under each role. Additionally, a link is provided at the end to view the 12th-grade marksheet, making the resume interactive and informative.

Code-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My Resume</title>
  <style>
    body {
      background-color: #f0f0f0; /* A light grey background color */
      font-family: Arial, sans-serif;
      margin: 0; /* Reset default body margin */
      color: #333;
    }
    .header-blue-bg {
      background-color: #0056b3; /* A shade of blue for the header background */
      color: white; /* White text for contrast on blue background */
      padding: 30px 20px; /* Padding inside the blue header */
      text-align: center;
      margin-bottom: 20px; /* Space below the blue header */
      box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1); /* Subtle shadow */
    }
    .header-blue-bg h1 {
      color: white; /* Ensure h1 text is white */
      margin-top: 0; /* Remove default top margin for h1 */
      margin-bottom: 5px; /* Small margin below h1 */
      font-size: 2.5em; /* Larger font size for name */
    }
    .header-blue-bg p {
      color: white; /* Ensure paragraph text is white */
      margin-top: 0; /* Remove default top margin for p */
    }
  </style>
</head>
<body>
  <div class="header-blue-bg">
    <h1>John Doe</h1>
    <p>Software Engineer</p>
  </div>
  <div class="content">
    <div class="about">
      <h2>About Me</h2>
      <p>I am a passionate software engineer with over 5 years of experience in developing web applications. I specialize in JavaScript, React, and Node.js. I am currently working at ABC Company as a Senior Frontend Developer. I am always looking for new challenges and opportunities to learn and grow. I am a team player and enjoy working with others to achieve common goals. I am also a lifelong learner and stay up-to-date with the latest technologies in the industry. I am excited to bring my skills and experience to your team and contribute to your success. I am looking for a new role where I can continue to grow and make a difference. I am confident that I am a strong candidate for the position and I am excited to hear from you. Thank you for considering me for this role. I look forward to the opportunity to discuss my qualifications further. Sincerely, John Doe</p>
    </div>
    <div class="experience">
      <h2>Work Experience</h2>
      <div class="job">
        <h3>Senior Frontend Developer</h3>
        <p>ABC Company | 2019 - Present</p>
        <ul>
          <li>Developed and maintained web applications using React, JavaScript, and Node.js.</li>
          <li>Collaborated with the design team to create user-friendly interfaces.</li>
          <li>Optimized application performance and reduced load times.</li>
          <li>Mentored junior developers and provided technical guidance.</li>
        </ul>
      </div>
      <div class="job">
        <h3>Frontend Developer</h3>
        <p>XYZ Company | 2017 - 2019</p>
        <ul>
          <li>Designed and built responsive web applications using HTML, CSS, and JavaScript.</li>
          <li>Implemented user authentication and authorization systems.</li>
          <li>Worked closely with the backend team to integrate APIs and services.</li>
          <li>Participated in code reviews and ensured code quality.</li>
        </ul>
      </div>
      <div class="job">
        <h3>Junior Frontend Developer</h3>
        <p>DEF Company | 2015 - 2017</p>
        <ul>
          <li>Assisted in the development of web applications using React and JavaScript.</li>
          <li>Handled bug fixes and minor UI updates.</li>
          <li>Learned from senior developers and gained hands-on experience in the industry.</li>
        </ul>
      </div>
    </div>
    <div class="education">
      <h2>Education</h2>
      <div class="degree">
        <h3>Bachelor's Degree in Computer Science</h3>
        <p>University of ABC | 2011 - 2015</p>
        <ul>
          <li>Graduated with Honors</li>
          <li>Relevant coursework: Data Structures, Algorithms, Operating Systems, Database Systems, Software Engineering.</li>
        </ul>
      </div>
    </div>
    <div class="skills">
      <h2>Skills</h2>
      <ul>
        <li>Programming Languages: JavaScript, Python, Java, C++</li>
        <li>Frontend Frameworks: React, Angular, Vue.js</li>
        <li>Backend Technologies: Node.js, Express.js, Django, Spring</li>
        <li>Database Systems: MySQL, PostgreSQL, MongoDB</li>
        <li>Tools: Git, Docker, Jenkins, JUnit, Selenium</li>
        <li>Soft Skills: Problem-solving, Teamwork, Communication, Leadership</li>
      </ul>
    </div>
  </div>
  <div class="contact">
    <h2>Contact</h2>
    <p>Email: john.doe@example.com | Phone: +1 (123) 456-7890</p>
    <p>Address: 123 Main Street, Suite 456, City, State, ZIP</p>
    <p>LinkedIn: linkedin.com/in/johndoe | GitHub: github.com/johndoe</p>
  </div>
</body>
</html>
```

```

    font-size: 1.1em; /* Slightly larger font for contact info */
}

h2, h3, h4 {
    color: #0056b3; /* A shade of blue for other headings */
}

p {
    line-height: 1.5;
}

section {
    margin: 0 20px 20px 20px; /* Apply horizontal margin and bottom margin */
    padding: 15px;
    background-color: #ffffff;
    border-radius: 8px;
    box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
}

ul {
    list-style-type: disc;
    margin-left: 20px;
}

table {
    width: 100%;
    border-collapse: collapse;
    margin-top: 10px;
}

th, td {
    border: 1px solid #ddd;
    padding: 8px;
    text-align: left;
}

th {
    background-color: #f2f2f2;
    color: #555;
}

/* Horizontal lines between sections */
section + section {
    border-top: 1px solid #ccc;
    padding-top: 20px;
}

.marksheet-link {
    display: block;
    margin-top: 30px; /* Increased margin for better separation */
    text-align: center;
    padding-top: 20px; /* Add padding top to ensure it's below the last section's border */
}

.marksheet-link a {
    display: inline-block;
    padding: 10px 20px;
}

```

```

        background-color: #007bff;
        color: white;
        text-decoration: none;
        border-radius: 5px;
        transition: background-color 0.3s ease;
    }
    .marksheet-link a:hover {
        background-color: #0056b3;
    }
</style>
</head>
<body>
    <div class="header-blue-bg">
        <h1>Pratham Asnani </h1>
        <p>pratham@email.com | 9876543210 </p>
    </div>

    <section>
        <h2>Summary</h2>
        <p>Highly motivated individual seeking opportunities to apply skills in a dynamic
environment. Eager to learn and contribute to team success.</p>
    </section>

    <section>
        <h2>Experience</h2>
        <table>
            <thead>
                <tr>
                    <th>Role</th>
                    <th>Company</th>
                    <th>Duration</th>
                    <th>Responsibilities</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td>Junior Developer (Intern)</td>
                    <td>Tech Solutions Inc.</td>
                    <td>2025 May - Present</td>
                    <td>
                        <ul>
                            <li>Assisted in web development projects.</li>
                            <li>Collaborated with senior developers.</li>
                        </ul>
                    </td>
                </tr>
            </tbody>
        </table>

```

</section>

<section>

<h2>Education</h2>

<table>

<thead>

<tr>

<th>Degree/Certificate</th>

<th>Institution</th>

<th>Years</th>

<th>Details</th>

</tr>

</thead>

<tbody>

<tr>

<td>Higher Secondary Education</td>

<td>Jai Hind</td>

<td>2020 - 2022</td>

<td></td>

</tr>

<tr>

<td>Bachelor of Science in Information and Technology</td>

<td>TSEC</td>

<td>2022 - Present</td>

<td>Relevant coursework: Data Structures, Algorithms, Web Design.</td>

</tr>

</tbody>

</table>

</section>

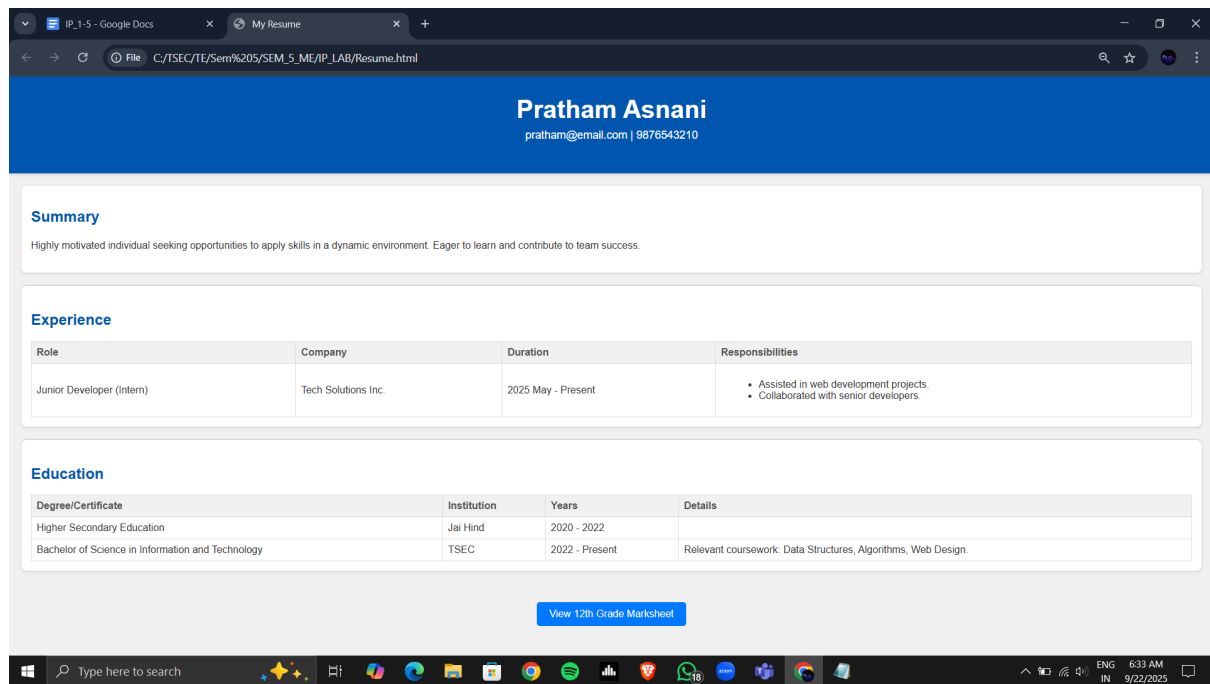
<div class="marksheet-link">

View 12th Grade Marksheet

</div>

</body>

</html>



Conclusion -

This resume webpage effectively showcases the candidate's background in a simple yet professional layout.

It uses structured sections and visual design elements to improve readability and impact. Overall, it serves as a modern, accessible alternative to traditional paper resumes.

Assignment 2

Aim-Using CSS and CSS3 enhance the web page created in Assignment 1

Theory-

CSS (Cascading Style Sheets) is a stylesheet language used to control the visual presentation of HTML elements. It allows developers to separate content from design, providing control over layout, colors, fonts, spacing, and overall look of a webpage. CSS improves consistency across web pages and makes websites more user-friendly and visually appealing.

CSS3 is the advanced version of CSS that introduced powerful new features and modules. It supports animations, transitions, gradients, shadows, media queries for responsive design, and flexible layouts such as Grid and Flexbox. With CSS3, modern websites can achieve dynamic, interactive, and mobile-friendly designs without heavy reliance on external scripts.

Code-

Resume

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Pratham Asnani - Web Developer Resume</title>
  <style>
    body {
      background-color: #f0f0f0;
      font-family: 'Arial', sans-serif;
      margin: 0;
      color: #333;
      line-height: 1.6;
    }

    .header-blue-bg {
      background-color: #0056b3; /* Darker blue for header */
      color: white;
      padding: 40px 20px;
      text-align: center;
      margin-bottom: 25px;
      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2); /* More prominent
shadow */
```

```
        position: relative; /* Needed for absolute positioning of
the image */
    }

    .header-blue-bg h1 {
        color: white;
        margin: 0;
        font-size: 3em; /* Larger name */
        letter-spacing: 1px;
    }

    .header-blue-bg p {
        color: rgba(255, 255, 255, 0.9); /* Slightly muted white
for contact info */
        margin-top: 10px;
        font-size: 1.2em;
    }

    .profile-pic-container {
        position: absolute;
        top: 20px; /* Adjust as needed */
        right: 20px; /* Adjust as needed */
        width: 100px; /* Diameter of the circle */
        height: 100px; /* Diameter of the circle */
        border-radius: 50%; /* Makes it a circle */
        overflow: hidden; /* Hides parts of the image outside the
circle */
        border: 3px solid white; /* White border around the circle
*/
        box-shadow: 0 2px 5px rgba(0, 0, 0, 0.3); /* Shadow for the
image */
    }

    .profile-pic-container img {
        width: 100%; /* Makes the image fill the container */
        height: 100%; /* Makes the image fill the container */
        object-fit: cover; /* Ensures the image covers the area
without distortion */
        display: block; /* Removes extra space below the image */
    }

    h2, h3, h4 {
        color: #0056b3; /* Consistent blue for headings */
    }
}
```

```

        border-bottom: 2px solid #007bff; /* Underline for sections
*/
        padding-bottom: 5px;
        margin-bottom: 15px;
    }

    section {
        margin: 0 25px 30px 25px; /* Increased margins for better
spacing */
        padding: 20px;
        background-color: #ffffff;
        border-radius: 10px; /* Slightly more rounded corners */
        box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
    }

    ul {
        list-style-type: disc;
        margin-left: 25px;
        padding: 0;
    }

    ul li {
        margin-bottom: 8px;
    }

    table {
        width: 100%;
        border-collapse: collapse;
        margin-top: 15px;
        box-shadow: 0 1px 3px rgba(0, 0, 0, 0.05); /* Subtle table
shadow */
    }

    th, td {
        border: 1px solid #e0e0e0; /* Lighter border for tables */
        padding: 12px 15px; /* More padding in table cells */
        text-align: left;
        vertical-align: top;
    }

    th {
        background-color: #f8f8f8; /* Lighter background for table
headers */

```



```

        color: #555;
        font-weight: bold;
    }

    tr:nth-child(even) {
        background-color: #fcfcfc; /* Zebra striping for table rows
*/
    }

    /* Styling for the Skills and Interests sections */
    .skills-list, .interests-list {
        list-style-type: none; /* Remove default bullet points */
        padding: 0;
        display: flex; /* Use flexbox for horizontal layout */
        flex-wrap: wrap; /* Allow items to wrap to the next line */
        gap: 10px; /* Space between skill/interest items */
        /* justify-content: center; /* Optionally center if you
prefer */
    }

    .skills-list li, .interests-list li {
        background-color: #e0f2f7; /* Light blue background for
items */
        padding: 8px 15px;
        border-radius: 20px; /* Pill-shaped items */
        font-size: 0.95em;
        color: #0056b3; /* Darker blue text */
        border: 1px solid #a7d9ee; /* Subtle border */
        white-space: nowrap; /* Prevent breaking names */
        transition: background-color 0.3s ease; /* Smooth hover
effect */
    }

    .skills-list li:hover, .interests-list li:hover {
        background-color: #cce9f5; /* Slightly darker on hover */
    }

    .marksheet-links-container {
        text-align: center;
        padding: 20px 0 40px 0; /* More vertical padding for the
button section */
        margin: 0 25px; /* Align with sections */
    }

```

```

        background-color: #ffffff;
        border-radius: 10px;
        box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
        display: flex; /* Use flexbox for horizontal alignment */
        justify-content: center; /* Center buttons horizontally */
        gap: 20px; /* Space between buttons */
        flex-wrap: wrap; /* Allow buttons to wrap on smaller
screens */
    }

    .marksheet-link a {
        display: inline-block;
        padding: 12px 25px; /* Larger padding for buttons */
        background-color: #007bff; /* Primary button color */
        color: white;
        text-decoration: none;
        border-radius: 6px; /* Slightly more rounded buttons */
        transition: background-color 0.3s ease, transform 0.2s
ease; /* Smooth transition and slight scale */
        font-weight: bold;
        box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1); /* Button shadow
*/
    }

    .marksheet-link a:hover {
        background-color: #0056b3; /* Darker blue on hover */
        transform: translateY(-2px); /* Slight lift effect on hover
*/
        box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
    }
</style>
</head>
<body>
    <div class="header-blue-bg">
        <div class="profile-pic-container">
            
        </div>
        <h1>Pratham Asnani</h1>
        <p>pratham@email.com | +91 9876543210</p>
    </div>

    <section>
        <h2>Summary</h2>

```

<p>

A passionate and detail-oriented Web Developer with a strong foundation in HTML, CSS, JavaScript, and modern frameworks.

Skilled at developing responsive websites, collaborating effectively with teams, and continuously learning new technologies.

Experienced in working on both front-end and full-stack projects with a focus on clean design, efficient code, and exceptional user experience.

</p>

</section>

<section>

<h2>Skills</h2>

<ul class="skills-list">

HTML5

CSS3

JavaScript (ES6+)

React.js

Node.js

Express.js

MongoDB

RESTful APIs

Git & GitHub

Responsive Design

UI/UX Principles

Debugging

</section>

<section>

<h2>Experience</h2>

<table>

<thead>

<tr>

<th>Role</th>

<th>Company</th>

<th>Duration</th>

<th>Responsibilities</th>

</tr>

</thead>

<tbody>

<tr>

<td>Junior Developer (Intern)</td>

```

        <td>Tech Solutions Inc.</td>
        <td>May 2025 - Present</td>
        <td>
            <ul>
                <li>Assisted in web development projects
using HTML, CSS, and JavaScript.</li>
                <li>Collaborated with senior developers to
debug and optimize code, improving application performance.</li>
                <li>Actively participated in Agile meetings
and code reviews, contributing to team efficiency and code
quality.</li>
            </ul>
        </td>
    </tr>
</tbody>
</table>
</section>

<section>
    <h2>Projects</h2>
    <table>
        <thead>
            <tr>
                <th>Project Name</th>
                <th>Technologies Used</th>
                <th>Description</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>Portfolio Website</td>
                <td>HTML, CSS, JavaScript</td>
                <td>Designed and developed a personal portfolio
website showcasing skills, projects, and contact details. Implemented a
responsive layout and engaging animations for enhanced user
experience.</td>
            </tr>
            <tr>
                <td>Task Manager App</td>
                <td>React, Node.js, Express, MongoDB</td>
                <td>Built a full-stack task management application
allowing users to add, update, and delete tasks. Integrated user
authentication and developed robust RESTful APIs.</td>
            </tr>
        </tbody>
    </table>
</section>

```

```

        </tr>
        <tr>
            <td>Weather Dashboard</td>
            <td>JavaScript, OpenWeather API, Bootstrap</td>
            <td>Created an interactive weather dashboard
utilizing the OpenWeather API. Users can search for cities and view
current weather conditions and a multi-day forecast.</td>
        </tr>
    </tbody>
</table>
</section>

<section>
    <h2>Education</h2>
    <table>
        <thead>
            <tr>
                <th>Degree/Certificate</th>
                <th>Institution</th>
                <th>Years</th>
                <th>Details</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>Higher Secondary Education</td>
                <td>Jai Hind</td>
                <td>2020 - 2022</td>
                <td>Science stream with Computer Science as a core
subject.</td>
            </tr>
            <tr>
                <td>Bachelor of Science in Information and
Technology</td>
                <td>TSEC</td>
                <td>2022 - Present</td>
                <td>Relevant coursework includes: Data Structures,
Algorithms, and Web Design.</td>
            </tr>
        </tbody>
    </table>
</section>

```

```

<section>
  <h2>Interests</h2>
  <ul class="interests-list">
    <li>Web Development</li>
    <li>Coding Challenges</li>
    <li>Gadgets & Technology</li>
    <li>Reading Tech Blogs</li>
    <li>Gaming (Strategy Games)</li>
    <li>Learning New Languages (Programming)</li>
    <li>Open Source Contributions</li>
    <li>Photography</li>
  </ul>
</section>

<div class="marksheet-links-container">
  <div class="marksheet-link">
    <a href="marksheet_12th.html" target="_blank">View 12th
Grade Marksheet</a>
  </div>
  <div class="marksheet-link">
    <a href="marksheet_10th.html" target="_blank">View 10th
Grade Marksheet</a>
  </div>
</div>

</body>
</html>

```

10th Marksheet

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>10th Grade SSC Marksheet</title>
  <style>
    body {
      font-family: 'Inter', sans-serif;
      background-color: #f3f4f6;
      display: flex;
      justify-content: center;
      align-items: center;
    }
  </style>

```

```
        min-height: 100vh;
        padding: 20px;
        box-sizing: border-box;
    }
    .marksheet-container {
        max-width: 800px;
        width: 100%;
        background-color: #ffffff;
        border-radius: 12px;
        box-shadow: 0 10px 25px rgba(0, 0, 0, 0.1);
        overflow: hidden;
    }
    .header {
        background-color: #1e3a8a;
        color: #ffffff;
        padding: 24px 32px;
        text-align: center;
        border-top-left-radius: 12px;
        border-top-right-radius: 12px;
    }
    .header h1 {
        font-size: 2.5rem;
        font-weight: 700;
        margin-bottom: 8px;
    }
    .header p {
        font-size: 1.1rem;
        opacity: 0.9;
    }
    .details-section {
        padding: 24px 32px;
        border-bottom: 1px solid #e5e7eb;
    }
    .details-item {
        display: flex;
        justify-content: space-between;
        margin-bottom: 10px;
        font-size: 1rem;
    }
    .details-item span:first-child {
        font-weight: 600;
        color: #4b5563;
    }
}
```

```
.details-item span:last-child {
    color: #1f2937;
}

.marks-table-section {
    padding: 24px 32px;
}

.marks-table-section h2 {
    font-size: 2rem;
    font-weight: 600;
    color: #1f2937;
    margin-bottom: 16px;
}

table {
    width: 100%;
    border-collapse: separate;
    border-spacing: 0;
    border-radius: 8px;
    overflow: hidden;
}

th, td {
    padding: 12px 16px;
    text-align: left;
    border-bottom: 1px solid #e5e7eb;
}

th {
    background-color: #eff6ff;
    font-weight: 600;
    color: #1e40af;
    text-transform: uppercase;
    font-size: 0.875rem;
}

tr:last-child td {
    border-bottom: none;
}

.marks-summary {
    padding: 24px 32px;
    background-color: #f9fafb;
    border-bottom-left-radius: 12px;
    border-bottom-right-radius: 12px;
}

.marks-summary h2 {
    font-size: 2rem;
    font-weight: 600;
}
```



```
        color: #1f2937;
        margin-bottom: 16px;
    }
    .summary-item {
        display: flex;
        justify-content: space-between;
        margin-bottom: 10px;
        font-size: 1.1rem;
    }
    .summary-item span:first-child {
        font-weight: 600;
        color: #374151;
    }
    .summary-item span:last-child {
        font-weight: 700;
        color: #1f2937;
    }
    .status-pass {
        color: #065f46;
        font-weight: 600;
    }
    .result {
        text-align: center;
        margin-top: 20px;
        font-size: 1.5rem;
        font-weight: 800;
        padding: 12px;
        border-radius: 8px;
        background-color: #d1fae5;
        color: #065f46;
    }
    .result.fail {
        background-color: #fee2e2;
        color: #991b1b;
    }
    .note-text {
        text-align: center;
        font-size: 0.875rem;
        color: #4b5563;
        margin-top: 16px;
    }
}

</style>
</head>
```

```
<body>
  <div class="marksheet-container">
    <div class="header">
      <h1>Secondary School Examination</h1>
      <p>Class X - Academic Year 2019-2020</p>
    </div>

    <div class="details-section">
      <div class="details-item">
        <span>Student Name:</span>
        <span>Pratham Asnani</span>
      </div>
      <div class="details-item">
        <span>Roll Number:</span>
        <span>17</span>
      </div>
      <div class="details-item">
        <span>School Name:</span>
        <span>St. Joseph High School</span>
      </div>
      <div class="details-item">
        <span>Date of Issue:</span>
        <span>July 14, 2020</span>
      </div>
    </div>

    <div class="marks-table-section">
      <h2>Subject-wise Marks</h2>
      <table>
        <thead>
          <tr>
            <th>Subject</th>
            <th>Total Marks</th>
            <th>Passing Marks</th>
            <th>Marks Obtained</th>
            <th>Status</th>
          </tr>
        </thead>
        <tbody>
          <tr>
            <td>English</td>
            <td>100</td>
            <td>33</td>
```

```
<td>85</td>
<td class="status-pass">PASS</td>
</tr>
<tr>
<td>Mathematics</td>
<td>100</td>
<td>33</td>
<td>90</td>
<td class="status-pass">PASS</td>
</tr>
<tr>
<td>Science</td>
<td>100</td>
<td>33</td>
<td>76</td>
<td class="status-pass">PASS</td>
</tr>
<tr>
<td>History</td>
<td>100</td>
<td>33</td>
<td>78</td>
<td class="status-pass">PASS</td>
</tr>
<tr>
<td>Geography</td>
<td>100</td>
<td>33</td>
<td>80</td>
<td class="status-pass">PASS</td>
</tr>
<tr>
<td>Hindi</td>
<td>100</td>
<td>33</td>
<td>88</td>
<td class="status-pass">PASS</td>
</tr>
<tr>
<td>Marathi</td>
<td>100</td>
<td>33</td>
<td>72</td>
```

```

        <td class="status-pass">PASS</td>
    </tr>
    <tr>
        <td>French</td>
        <td>100</td>
        <td>33</td>
        <td>83</td>
        <td class="status-pass">PASS</td>
    </tr>
</tbody>
</table>
</div>

<div class="marks-summary">
    <h2>Overall Result</h2>
    <div class="summary-item">
        <span>Total Marks:</span>
        <span>800</span>
    </div>
    <div class="summary-item">
        <span>Marks Obtained:</span>
        <span>772</span>
    </div>
    <div class="summary-item">
        <span>Percentage:</span>
        <span>96.50%</span>
    </div>
    <div class="result">
        RESULT: PASS
    </div>
</div>
</div>
</body>
</html>

```

12th marksheet

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">

```

```
<title>12th Grade Marksheet</title>
<style>
  body {
    font-family: 'Inter', sans-serif;
    background-color: #f3f4f6; /* Light gray background */
    display: flex;
    justify-content: center;
    align-items: center;
    min-height: 100vh;
    padding: 20px;
    box-sizing: border-box; /* Ensure padding doesn't add to
total width/height */
  }
  .marksheet-container {
    max-width: 800px;
    width: 100%;
    background-color: #ffffff;
    border-radius: 12px;
    box-shadow: 0 10px 25px rgba(0, 0, 0, 0.1);
    overflow: hidden;
  }
  .header {
    background-color: #1e3a8a; /* Dark blue header */
    color: #ffffff;
    padding: 24px 32px;
    text-align: center;
    border-top-left-radius: 12px;
    border-top-right-radius: 12px;
  }
  .header h1 {
    font-size: 2.5rem; /* Equivalent to text-4xl */
    font-weight: 700; /* Equivalent to font-bold */
    margin-bottom: 8px; /* Equivalent to mb-2 */
  }
  .header p {
    font-size: 1.1rem; /* Equivalent to text-lg */
    opacity: 0.9;
  }
  .details-section {
    padding: 24px 32px; /* Equivalent to p-6 px-8 */
    border-bottom: 1px solid #e5e7eb; /* Light gray border */
  }
  .details-item {
```

```

        display: flex;
        justify-content: space-between;
        margin-bottom: 10px; /* Equivalent to mb-2.5 */
        font-size: 1rem; /* Equivalent to text-base */
    }

    .details-item span:first-child {
        font-weight: 600; /* Equivalent to font-semibold */
        color: #4b5563; /* Equivalent to text-gray-700 */
    }

    .details-item span:last-child {
        color: #1f2937; /* Equivalent to text-gray-900 */
    }

    .marks-table-section {
        padding: 24px 32px; /* Equivalent to p-6 px-8 */
    }

    .marks-table-section h2 {
        font-size: 2rem; /* Equivalent to text-2xl */
        font-weight: 600; /* Equivalent to font-semibold */
        color: #1f2937; /* Equivalent to text-gray-800 */
        margin-bottom: 16px; /* Equivalent to mb-4 */
    }

    table {
        width: 100%;
        border-collapse: separate; /* For rounded corners on table
*/
        border-spacing: 0;
        border-radius: 8px; /* Equivalent to rounded-lg */
        overflow: hidden; /* Ensures rounded corners are visible */
    }

    th, td {
        padding: 12px 16px; /* Equivalent to py-3 px-4 */
        text-align: left;
        border-bottom: 1px solid #e5e7eb; /* Equivalent to border-b
border-gray-200 */
    }

    th {
        background-color: #eff6ff; /* Light blue for table header,
equivalent to bg-blue-50 */
        font-weight: 600; /* Equivalent to font-semibold */
        color: #1e40af; /* Darker blue for header text, equivalent
to text-blue-800 */
        text-transform: uppercase;
        font-size: 0.875rem; /* Equivalent to text-sm */
    }

```

```

    }
    tr:last-child td {
        border-bottom: none;
    }
    .marks-summary {
        padding: 24px 32px; /* Equivalent to p-6 px-8 */
        background-color: #f9fafb; /* Lighter gray for summary,
equivalent to bg-gray-50 */
        border-bottom-left-radius: 12px; /* Equivalent to
rounded-b-xl */
        border-bottom-right-radius: 12px; /* Equivalent to
rounded-b-xl */
    }
    .marks-summary h2 {
        font-size: 2rem; /* Equivalent to text-2xl */
        font-weight: 600; /* Equivalent to font-semibold */
        color: #1f2937; /* Equivalent to text-gray-800 */
        margin-bottom: 16px; /* Equivalent to mb-4 */
    }
    .summary-item {
        display: flex;
        justify-content: space-between;
        margin-bottom: 10px; /* Equivalent to mb-2.5 */
        font-size: 1.1rem; /* Equivalent to text-lg */
    }
    .summary-item span:first-child {
        font-weight: 600; /* Equivalent to font-semibold */
        color: #374151; /* Equivalent to text-gray-800 */
    }
    .summary-item span:last-child {
        font-weight: 700; /* Equivalent to font-bold */
        color: #1f2937; /* Equivalent to text-gray-900 */
    }
    .status-pass {
        color: #065f46; /* Equivalent to text-green-600 */
        font-weight: 600; /* Equivalent to font-semibold */
    }
    .result {
        text-align: center;
        margin-top: 20px; /* Equivalent to mt-5 */
        font-size: 1.5rem; /* Equivalent to text-2xl */
        font-weight: 800; /* Equivalent to font-extrabold */
        padding: 12px; /* Equivalent to py-3 px-4 */
    }

```

```

        border-radius: 8px; /* Equivalent to rounded-lg */
        background-color: #d1fae5; /* Light green for pass,
equivalent to bg-green-100 */
        color: #065f46; /* Dark green for pass text, equivalent to
text-green-700 */
    }
    .result.fail {
        background-color: #fee2e2; /* Light red for fail,
equivalent to bg-red-100 */
        color: #991b1b; /* Dark red for fail text, equivalent to
text-red-700 */
    }
    .note-text {
        text-align: center;
        font-size: 0.875rem; /* Equivalent to text-sm */
        color: #4b5563; /* Equivalent to text-gray-600 */
        margin-top: 16px; /* Equivalent to mt-4 */
    }
</style>
</head>
<body>
    <div class="marksheet-container">
        <div class="header">
            <h1>Higher Secondary Examination</h1>
            <p>Class XII - Academic Year 2021-2022</p>
        </div>

        <div class="details-section">
            <div class="details-item">
                <span>Student Name:</span>
                <span>Pratham Asnani</span>
            </div>
            <div class="details-item">
                <span>Roll Number:</span>
                <span>08</span>
            </div>
            <div class="details-item">
                <span>School Name:</span>
                <span>Jai Hind</span>
            </div>
            <div class="details-item">
                <span>Date of Issue:</span>
                <span>July 14, 2022</span>
            </div>
        </div>
    </div>

```

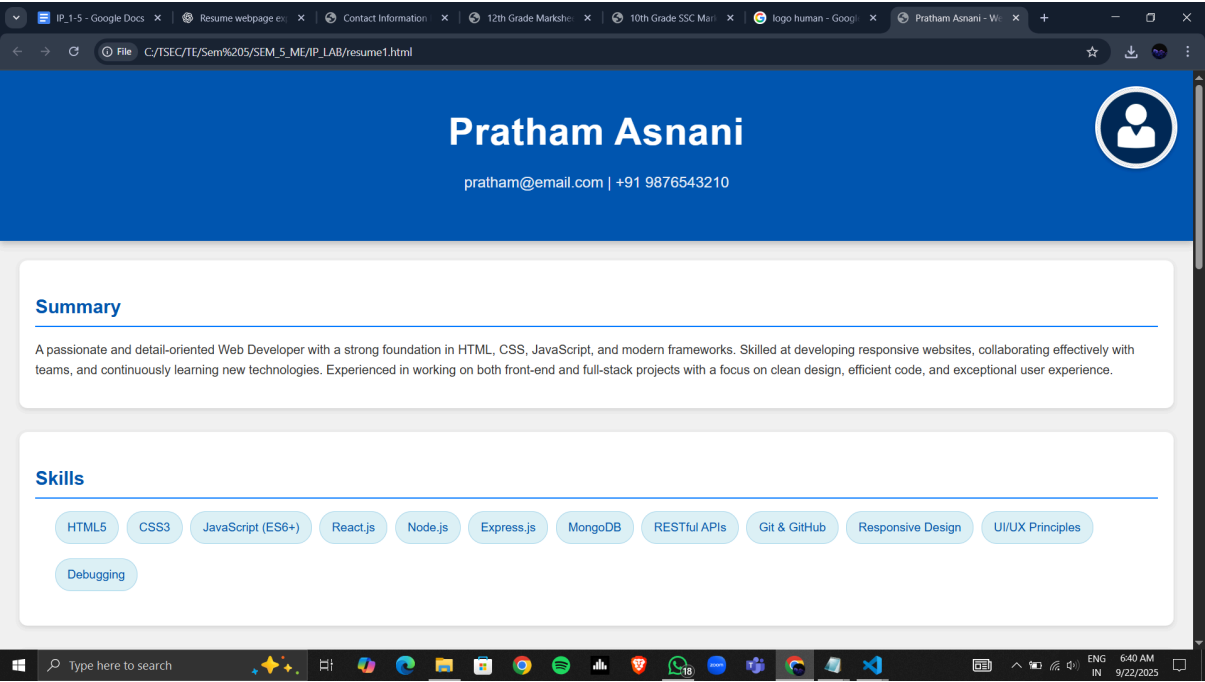


```
</div>
</div>

<div class="marks-table-section">
  <h2>Subject-wise Marks</h2>
  <table>
    <thead>
      <tr>
        <th>Subject</th>
        <th>Total Marks</th>
        <th>Passing Marks</th>
        <th>Marks Obtained</th>
        <th>Status</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td>Mathematics</td>
        <td>100</td>
        <td>33</td>
        <td>85</td>
        <td class="status-pass">PASS</td>
      </tr>
      <tr>
        <td>Physics</td>
        <td>100</td>
        <td>33</td>
        <td>78</td>
        <td class="status-pass">PASS</td>
      </tr>
      <tr>
        <td>Chemistry</td>
        <td>100</td>
        <td>33</td>
        <td>62</td>
        <td class="status-pass">PASS</td>
      </tr>
      <tr>
        <td>Computer Science (Optional)</td>
        <td>100</td>
        <td>33</td>
        <td>91</td>
        <td class="status-pass">PASS</td>
      </tr>
    </tbody>
  </table>
</div>
```

```
        </tr>
    </tbody>
</table>
</div>

<div class="marks-summary">
    <h2>Overall Result</h2>
    <div class="summary-item">
        <span>Total Marks:</span>
        <span>400</span>
    </div>
    <div class="summary-item">
        <span>Marks Obtained:</span>
        <span>316</span>
    </div>
    <div class="summary-item">
        <span>Percentage:</span>
        <span>79.00%</span>
    </div>
    <div class="result">
        RESULT: PASS
    </div>
    <p class="note-text"></p>
</div>
</div>
</body>
</html>
```



IP_1-5 - Google DocsResume webpage exContact Information12th Grade Markshe10th Grade SSC Marlogo human - GooglPratham Asnani - Wi

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Experience

Role	Company	Duration	Responsibilities
Junior Developer (Intern)	Tech Solutions Inc.	May 2025 - Present	<ul style="list-style-type: none">Assisted in web development projects using HTML, CSS, and JavaScript.Collaborated with senior developers to debug and optimize code, improving application performance.Actively participated in Agile meetings and code reviews, contributing to team efficiency and code quality.

Projects

Project Name	Technologies Used	Description
Portfolio Website	HTML, CSS, JavaScript	Designed and developed a personal portfolio website showcasing skills, projects, and contact details. Implemented a responsive layout and engaging animations for enhanced user experience.
Task Manager App	React, Node.js, Express, MongoDB	Built a full-stack task management application allowing users to add, update, and delete tasks. Integrated user authentication and developed robust RESTful APIs.
Weather Dashboard	JavaScript, OpenWeather API, Bootstrap	Created an interactive weather dashboard utilizing the OpenWeather API. Users can search for cities and view current weather conditions and a multi-day forecast.

Type here to search

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IP_1-5 - Google DocsResume webpage exContact Information12th Grade Markshe10th Grade SSC Marlogo human - GooglPratham Asnani - Wi

FileC:/TSEC/TE/Sem%205/SEM_5_ME/IP_LAB/resume1.html

Education

Degree/Certificate	Institution	Years	Details
Higher Secondary Education	Jai Hind	2020 - 2022	Science stream with Computer Science as a core subject.
Bachelor of Science in Information and Technology	TSEC	2022 - Present	Relevant coursework includes: Data Structures, Algorithms, and Web Design.

Interests

Web Development

Coding Challenges

Gadgets & Technology

Reading Tech Blogs

Gaming (Strategy Games)

Learning New Languages (Programming)

Open Source Contributions

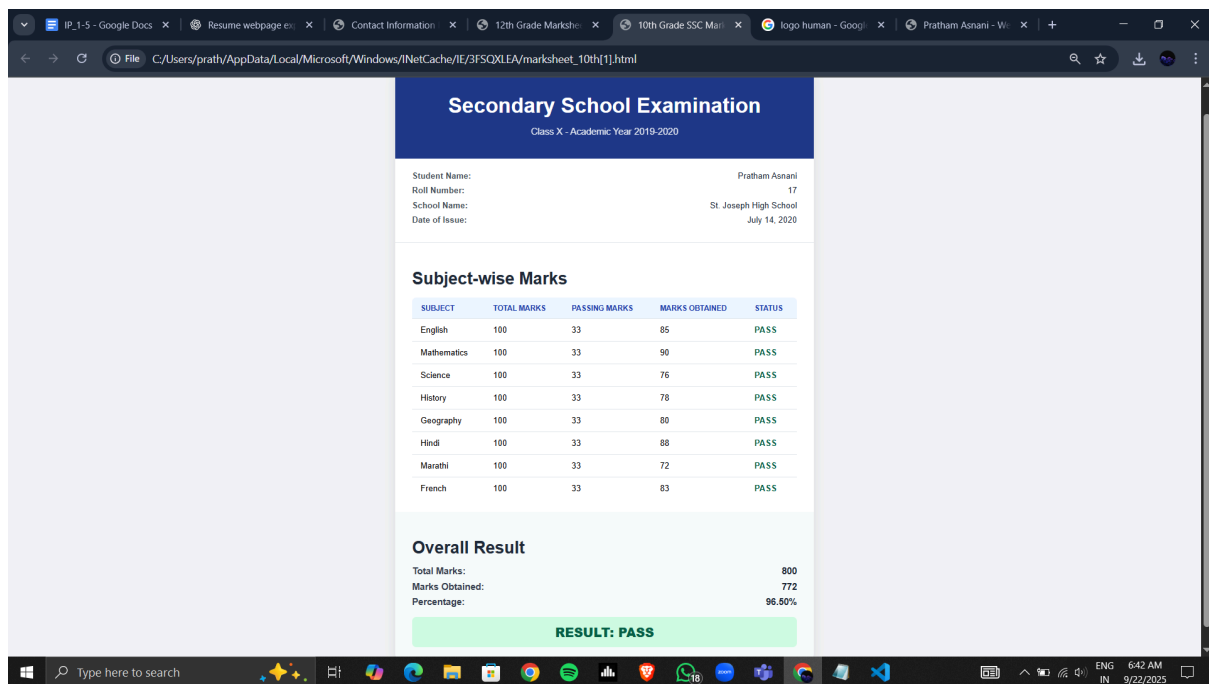
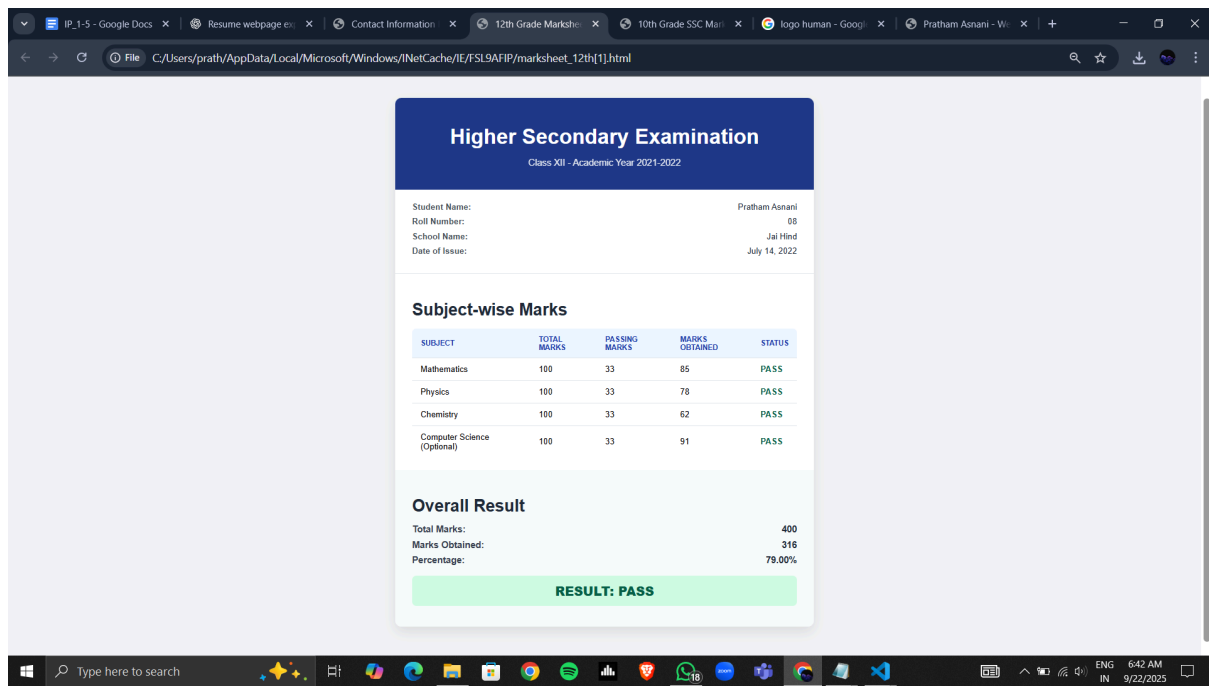
Photography

View 12th Grade Marksheet

View 10th Grade Marksheet

Type here to search

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Conclusion -

CSS and CSS3 enhance web design by separating style from structure.

CSS3's advanced features make websites more responsive and interactive.

Together, they form the foundation of modern, visually rich web development.

Assignment 3

Aim-Design a web page having the concept of the following (typography, color mode, Button, Transitions, Transformations and Animations)

Theory-

This webpage demonstrates the core concepts of modern CSS such as **typography, color modes, buttons, transitions, transformations, and animations**. Typography ensures readability, while color mode improves user accessibility with light/dark themes. Buttons use transitions and transformations for interactive effects, and animations enhance the visual appeal by adding dynamic motion to elements.

Typography → Controls font style, size, weight, and readability of text.

Color Mode → Switches between light and dark themes for better accessibility.

Button → Provides interactive clickable elements with styling.

Transitions → Smoothly animates changes like color or size when hovering.

Transformations → Alters element shape, position, or scale (e.g., rotate, scale).

Animations → Creates continuous motion effects using keyframes.

Code-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>CSS Concepts Demo</title>
  <style>
    /* Basic Reset */
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
    }

    body {
      font-family: 'Segoe UI', sans-serif; /* Typography */
      background-color: #f4f4f4;
      color: #333;
      line-height: 1.6;
      transition: background-color 0.5s ease, color 0.5s ease; /* Transition for dark mode */
    }

    /* Dark Mode */
    body.dark {
```

```
background-color: #121212;
color: #f4f4f4;
}

header {
  text-align: center;
  padding: 30px;
  background: linear-gradient(135deg, #007bff, #00c6ff);
  color: white;
  font-size: 2.5em; /* Typography */
  font-weight: bold;
}

section {
  max-width: 900px;
  margin: 30px auto;
  padding: 20px;
}

h2 {
  font-size: 2em;
  margin-bottom: 15px;
  color: #007bff;
}

p {
  font-size: 1.1em;
  margin-bottom: 15px;
}

/* Button */
.btn {
  display: inline-block;
  padding: 12px 25px;
  background-color: #007bff;
  color: white;
  text-decoration: none;
  border-radius: 8px;
  font-weight: bold;
  transition: background-color 0.4s ease, transform 0.3s ease;
}

.btn:hover {
  background-color: #0056b3;
  transform: scale(1.1); /* Transformation */
}

/* Animation Example */
```

```

.box {
  width: 100px;
  height: 100px;
  background: #ff6b6b;
  margin: 40px auto;
  border-radius: 12px;
  animation: bounce 2s infinite;
}

@keyframes bounce {
  0%, 100% { transform: translateY(0); }
  50% { transform: translateY(-50px); }
}

/* Dark mode button */
.toggle-btn {
  position: fixed;
  top: 20px;
  right: 20px;
  background: #333;
  color: white;
  border: none;
  padding: 10px 15px;
  border-radius: 5px;
  cursor: pointer;
  transition: background 0.3s ease;
}
.toggle-btn:hover {
  background: #555;
}
</style>
</head>
<body>
  <button class="toggle-btn" onclick="toggleMode()">Toggle Dark Mode</button>

  <header>CSS Concepts Demo</header>

  <section>
    <h2>Typography</h2>
    <p>This text demonstrates different font styles, sizes, and weights. Typography enhances readability and gives the page a professional look.</p>

    <h2>Color Mode</h2>
    <p>Click the button on the top-right to switch between <b>Light</b> and <b>Dark</b> mode.</p>

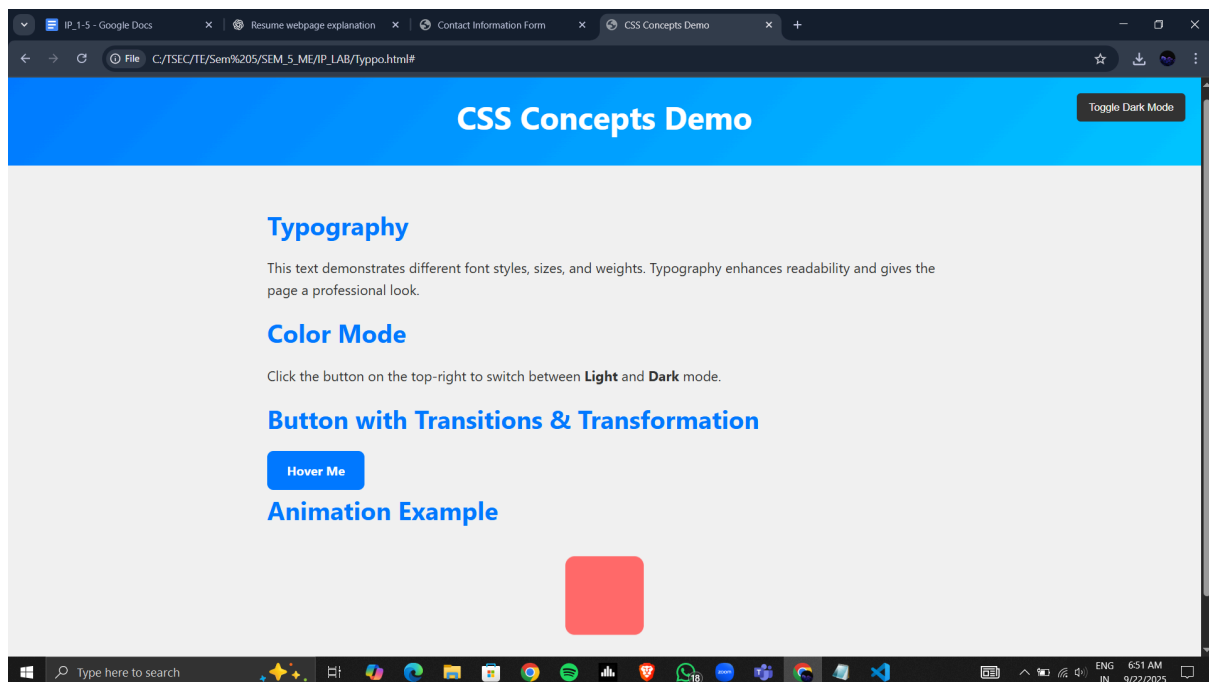
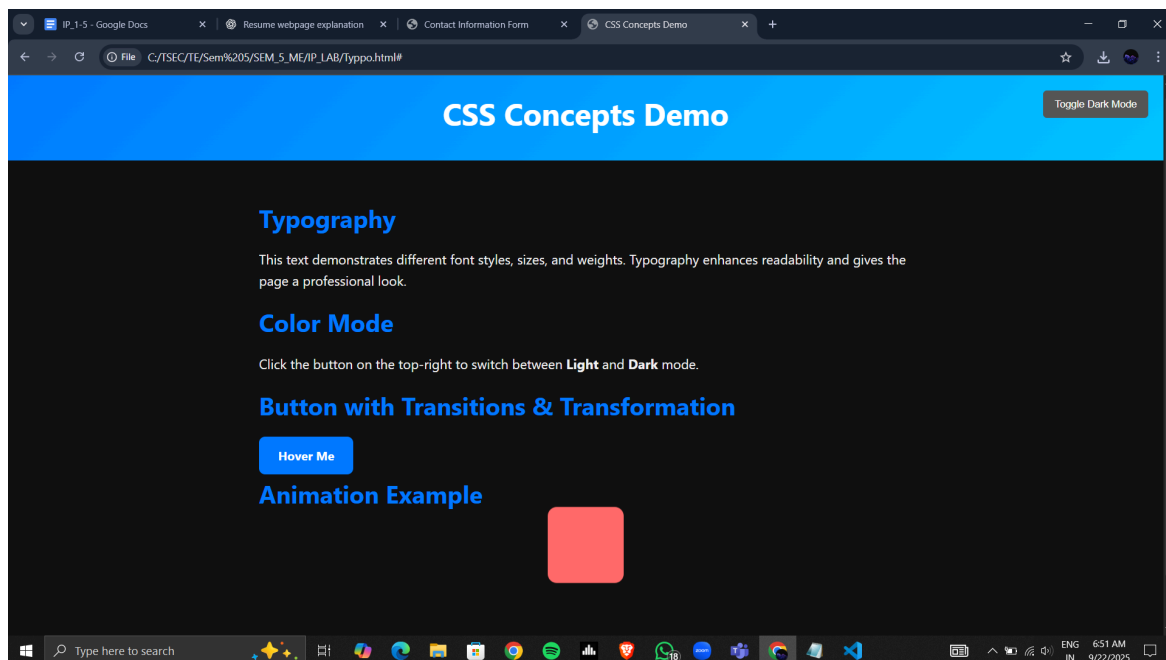
    <h2>Button with Transitions & Transformation</h2>
    <a href="#" class="btn">Hover Me</a>

```



```
<h2>Animation Example</h2>
<div class="box"></div>
</section>
```

```
<script>
function toggleMode() {
    document.body.classList.toggle("dark");
}
</script>
</body>
</html>
```



Conclusion -

CSS concepts make webpages more engaging and user-friendly.

They improve both design consistency and interactivity.

Together, they form the foundation of modern web design practices.

Assignment 4

Aim-Develop a web page using bootstrap framework

Theory-

Bootstrap is a popular open-source front-end framework used for developing responsive and mobile-first websites. It provides a collection of pre-designed components like navigation bars, buttons, forms, modals, and grids, which speed up web development. Its grid system allows easy layout design, while built-in CSS and JavaScript utilities ensure consistency across different devices and browsers. Bootstrap also supports customization, enabling developers to adapt the framework to specific project needs.

Code-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Home - MySite</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.m
in.css" rel="stylesheet" />
  <style>
    .custom-lightgrey-navbar {
      background-color: #f8f9fa !important;
    }
  </style>
</head>
<body>

  <!-- Navbar -->
  <nav class="navbar navbar-expand-lg navbar-light
custom-lightgrey-navbar">
    <div class="container-fluid">
      <a class="navbar-brand" href="index.html">MySite</a>
      <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target="#navbarNav"
      aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
        <span class="navbar-toggler-icon"></span>
      </button>
      <div class="collapse navbar-collapse" id="navbarNav">
        <ul class="navbar-nav ms-auto me-3">
```

```
<li class="nav-item">
  <a class="nav-link active" href="index.html">Home</a>
</li>
<li class="nav-item">
  <a class="nav-link" href="about.html">About</a>
</li>
<li class="nav-item">
  <a class="nav-link" href="contact.html">Contact</a>
</li>
</ul>

</div>
</div>
</nav>

<!-- Carousel -->
<div id="homepageCarousel" class="carousel slide mt-3"
data-bs-ride="carousel">
  <div class="carousel-indicators">
    <button type="button" data-bs-target="#homepageCarousel"
data-bs-slide-to="0" class="active" aria-current="true"
aria-label="Slide 1"></button>
    <button type="button" data-bs-target="#homepageCarousel"
data-bs-slide-to="1" aria-label="Slide 2"></button>
    <button type="button" data-bs-target="#homepageCarousel"
data-bs-slide-to="2" aria-label="Slide 3"></button>
  </div>

  <div class="carousel-inner">
    <div class="carousel-item active">
      
      <div class="carousel-caption d-none d-md-block">
        <h5>Welcome to MySite</h5>
        <p>Your one-stop solution for modern web design.</p>
      </div>
    </div>
    <div class="carousel-item">
      
      <div class="carousel-caption d-none d-md-block">
        <h5>Responsive Layouts</h5>
        <p>Designed to look great on all devices.</p>
      </div>
    </div>
  </div>
</div>
```

```

    </div>
    <div class="carousel-item">
      
      <div class="carousel-caption d-none d-md-block">
        <h5>Get in Touch</h5>
        <p>Contact us today to build your dream website.</p>
      </div>
    </div>
  </div>

  <!-- Controls -->
  <button class="carousel-control-prev" type="button"
data-bs-target="#homepageCarousel" data-bs-slide="prev">
    <span class="carousel-control-prev-icon"
aria-hidden="true"></span>
    <span class="visually-hidden">Previous</span>
  </button>
  <button class="carousel-control-next" type="button"
data-bs-target="#homepageCarousel" data-bs-slide="next">
    <span class="carousel-control-next-icon"
aria-hidden="true"></span>
    <span class="visually-hidden">Next</span>
  </button>
</div>

<!-- Optional CTA below carousel -->
<div class="container mt-5">
  <h2 class="text-center">Welcome to MySite</h2>
  <p class="text-center">This is the home page of your
Bootstrap-based responsive website. Explore more using the navigation
menu above.</p>
  <div class="text-center">
    <a href="contact.html" class="btn btn-primary">Contact Us</a>
  </div>
</div>

<!-- Bootstrap JS -->
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bun
dle.min.js"></script>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1"
/>
  <title>About - MySite</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.m
in.css" rel="stylesheet" />
</head>
<body>

  <!-- Navbar -->
  <nav class="navbar navbar-dark bg-danger">
    <div class="container-fluid">
      <a class="navbar-brand" href="index.html">MySite</a>
      <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target="#navbarNav">
        <span class="navbar-toggler-icon"></span>
      </button>
      <div class="collapse navbar-collapse" id="navbarNav">
        <ul class="navbar-nav ms-auto">
          <li class="nav-item"><a class="nav-link"
href="index.html">Home</a></li>
          <li class="nav-item"><a class="nav-link active"
href="about.html">About</a></li>
          <li class="nav-item"><a class="nav-link"
href="contact.html">Contact</a></li>
        </ul>
      </div>
    </div>
  </nav>

  <!-- Content Section -->
  <div class="container my-5">
    <h1 class="mb-4">About Web Designing</h1>
    <p>
      Web designing involves the creation of visually appealing and
      user-friendly websites. It includes everything from layout and color
      schemes to typography and responsive design. Good web design enhances
      the user experience and reflects the brand's identity.
    </p>

```

```

<h4>Key Aspects of Web Designing:</h4>
<ul>
  <li>Responsive Design</li>
  <li>User Experience (UX)</li>
  <li>User Interface (UI)</li>
  <li>Typography and Colors</li>
  <li>Accessibility</li>
</ul>
<p>Frameworks like Bootstrap make it easier to create professional
websites quickly and efficiently.</p>
</div>

<footer class="bg-dark text-white text-center p-3">
  All rights reserved.
</footer>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Contact Us</title>
  <!-- Bootstrap CSS -->
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet" />
  <style>
    /* Navbar turquoise background example (replace if you want) */
    .custom-lightgrey-navbar {
      background-color: #f8f9fa !important; /* Bootstrap light grey */
    }
  </style>
</head>
<body>

```

```

<!-- Navbar with dropdowns and logo -->
<nav class="navbar navbar-expand-lg navbar-light
custom-lightgrey-navbar">
  <div class="container-fluid">
    <a class="navbar-brand" href="index.html">MySite</a>

    <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target="#navbarNavDropdown"
    aria-controls="navbarNavDropdown" aria-expanded="false"
aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>

  <div class="collapse navbar-collapse" id="navbarNavDropdown">
    <ul class="navbar-nav ms-auto me-3">

      <li class="nav-item dropdown">
        <a class="nav-link dropdown-toggle" href="#"
id="homeDropdown" role="button" data-bs-toggle="dropdown"
        aria-expanded="false">Home</a>
        <ul class="dropdown-menu" aria-labelledby="homeDropdown">
          <li><a class="dropdown-item" href="index.html">Main
Home</a></li>
          <li><a class="dropdown-item" href="#">Another Home
Link</a></li>
        </ul>
      </li>

      <li class="nav-item dropdown">
        <a class="nav-link dropdown-toggle" href="#"
id="aboutDropdown" role="button" data-bs-toggle="dropdown"
        aria-expanded="false">About</a>
        <ul class="dropdown-menu" aria-labelledby="aboutDropdown">
          <li><a class="dropdown-item" href="about.html">About
Us</a></li>
          <li><a class="dropdown-item" href="#">Our Team</a></li>
        </ul>
      </li>

      <li class="nav-item dropdown">
        <a class="nav-link dropdown-toggle active" href="#"
id="contactDropdown" role="button" data-bs-toggle="dropdown"
        aria-expanded="false">Contact</a>

```



```

        <ul class="dropdown-menu"
aria-labelledby="contactDropdown">
            <li><a class="dropdown-item active"
href="contact.html">Contact Form</a></li>
            <li><a class="dropdown-item" href="#">Support</a></li>
        </ul>
    </li>

</ul>

    <!-- Circular small logo on right -->
    
</div>
</nav>

<!-- Main Content -->
<div class="container mt-4">
    <h2>Contact Us</h2>

    <!-- Progress Bar -->
    <div class="progress mb-4">
        <div class="progress-bar progress-bar-striped
progress-bar-animated" role="progressbar" style="width: 50%;"
        aria-valuenow="50" aria-valuemin="0" aria-valuemax="100">
            50%
        </div>
    </div>

    <!-- Contact Form -->
    <form>
        <div class="mb-3">
            <label for="name" class="form-label">Name</label>
            <input type="text" class="form-control" id="name"
placeholder="Enter your full name" required />
        </div>
        <div class="mb-3">
            <label for="email" class="form-label">Email address</label>
            <input type="email" class="form-control" id="email"
placeholder="name@example.com" required />
        </div>
        <div class="mb-3">

```

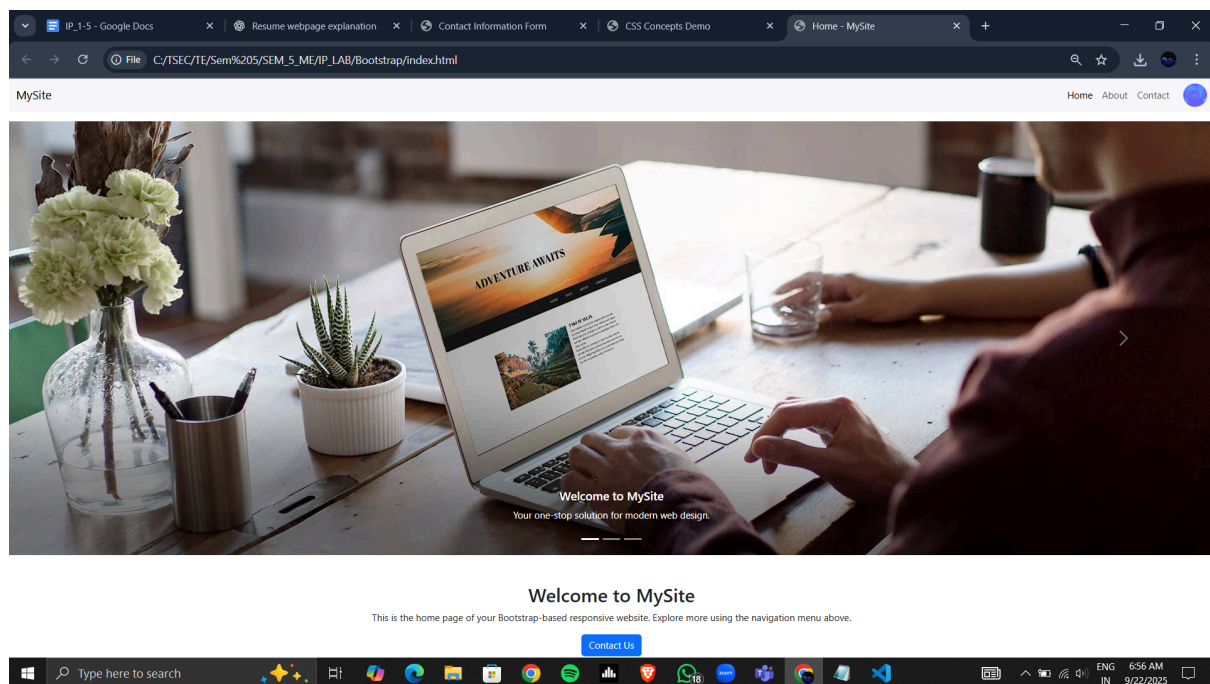
```

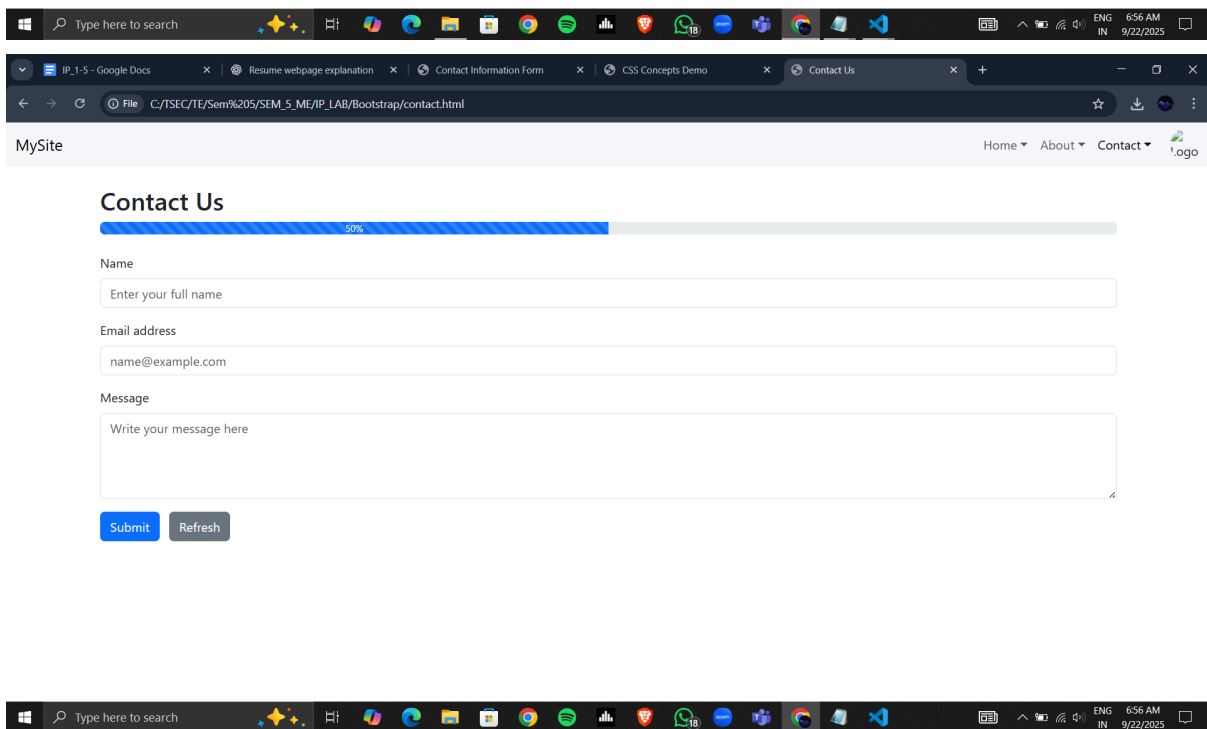
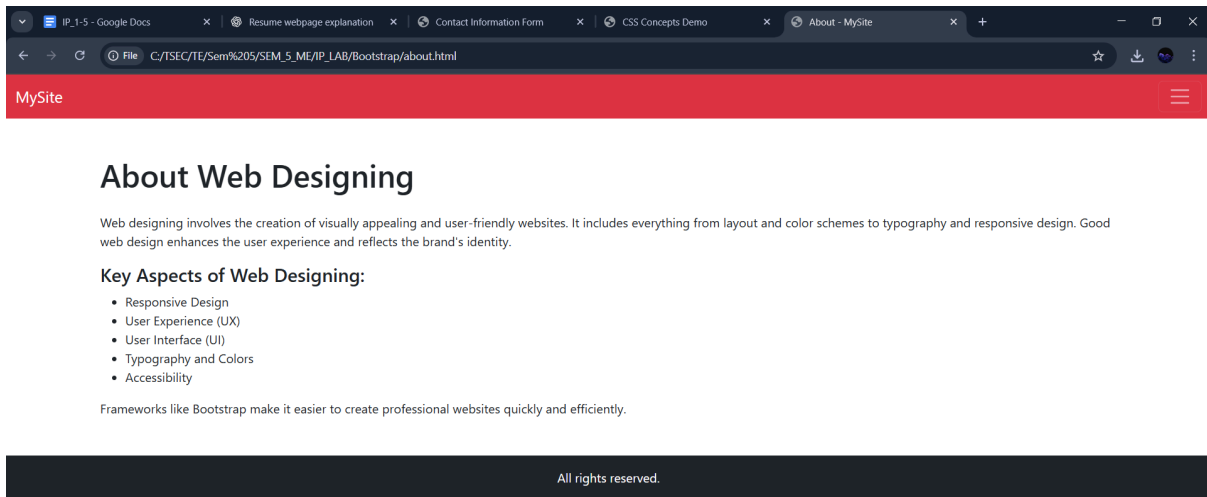
        <label for="message" class="form-label">Message</label>
        <textarea class="form-control" id="message" rows="4"
placeholder="Write your message here" required></textarea>
    </div>

    <!-- Buttons -->
    <button type="submit" class="btn btn-primary
me-2">Submit</button>
    <button type="reset" class="btn btn-secondary">Refresh</button>
</form>
</div>

<!-- Bootstrap JS Bundle (for dropdowns and other JS components) -->
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bun
dle.min.js"></script>
</body>
</html>

```





Conclusion -

Bootstrap simplifies web development with reusable components.

It ensures responsive design across devices with minimal effort.

Overall, it is a powerful tool for building modern, professional websites quickly.

Assignment 5

Aim- Develop a program in java Script

Theory-

JavaScript is a versatile, high-level programming language mainly used to add interactivity and dynamic behavior to web pages. It allows developers to manipulate HTML and CSS, handle events, and communicate with servers through APIs. JavaScript supports both client-side and server-side development, making it essential for modern web applications. With features like DOM manipulation, asynchronous programming, and frameworks such as React or Node.js, it powers a wide range of web solutions.

Code-

```
// 1. Conditional Statement
function checkNumber(num) {
    if (num > 0) {
        console.log(num + " is Positive");
    } else if (num < 0) {
        console.log(num + " is Negative");
    } else {
        console.log("Number is Zero");
    }
}

checkNumber(5);
checkNumber(-2);
checkNumber(0);

// 2. Loops
console.log("Loop Example:");
for (let i = 1; i <= 5; i++) {
    console.log("Iteration: " + i);
}

// 3. Function
function add(a, b) {
    return a + b;
}

console.log("Sum of 5 and 10:", add(5, 10));

// 4. Inheritance (OOP)
class Person {
    constructor(name) {
        this.name = name;
    }
}
```

```

    greet() {
        console.log(`Hello, my name is ${this.name}`);
    }
}

class Student extends Person {
    constructor(name, subject) {
        super(name); // calls parent constructor
        this.subject = subject;
    }
    study() {
        console.log(`${this.name} is studying ${this.subject}`);
    }
}

let student1 = new Student("Pratham", "JavaScript");
student1.greet();
student1.study();

// 5. Iterator
const numbers = [1, 2, 3];
const numIterator = numbers[Symbol.iterator]();

console.log("Iterator Example:");
console.log(numIterator.next().value); // 1
console.log(numIterator.next().value); // 2
console.log(numIterator.next().value); // 3
console.log(numIterator.next().done); // true

// 6. Generator
function* countUpTo(limit) {
    for (let i = 1; i <= limit; i++) {
        yield i; // pause and return value
    }
}

console.log("Generator Example:");
const counter = countUpTo(5);
for (let num of counter) {
    console.log(num);
}

```

Output-

```
PS C:\TSEC\TE\Sem 5\SEM_5_ME\IP_LAB> node ass-5.js
```

5 is Positive

-2 is Negative

Number is Zero

Loop Example:

Iteration: 1

Iteration: 2

Iteration: 3

Iteration: 4

Iteration: 5

Sum of 5 and 10: 15

Hello, my name is Pratham

Pratham is studying JavaScript

Iterator Example:

1

2

3

true

Generator Example:

1

2

3

4

5

Conclusion -

JavaScript makes websites interactive and dynamic.

It bridges the gap between design and functionality.

Being widely adopted, it is a core technology of the modern web.

Its flexibility ensures use in both frontend and backend development.