

Web Lab Exercise 5



Name	Satyaprakash Swain
Reg. no	22BCE1351
Professor	Jenila Livingston M
Subject	Web Programming
Slot	L15+L16+L19+L20
Venue	AB3 – 202

Exercise –5

HTML –Semantic tags, Frames and Media Elements

(A) Design a web page using HTML frames to divide it into multiple sections, including a **header**, **navigation**, **main content**, **aside**, and **footer**. In the **main content frame**, create a professional resume using semantic HTML5 tags. Incorporate the following elements:

1. `<header>`: For the top section, showcasing your name, professional title, and a tagline.
2. `<nav>`: To provide navigation links for easy access to various sections of the resume (e.g., About Me, Education, Experience, Skills).
3. `<section>`: To structure key content areas, such as education, work experience, and technical skills.
4. `<article>`: To detail specific achievements, projects, or publications.
5. `<aside>`: To display supplementary information, such as quick facts, a brief profile summary, or links to a portfolio.
6. `<figure>`: To include images (e.g., profile photo or project visuals) with captions.
7. `<progress>`: To visually represent proficiency levels for different skills.
8. `<meter>`: To highlight measurable achievements, certifications, or milestones.
9. `<details>` and `<summary>`: To toggle additional information, such as hobbies, extracurricular activities, or future goals.
10. `<footer>`: To include contact details, social media links, and additional resources.

Ensure the page is divided as follows:

- The **header** is displayed in a dedicated frame at the top.
- The **navigation** is shown in a vertical frame on the left.
- The **main content** occupies the central frame.
- The **aside** is placed in a frame on the right for supplementary information.
- The **footer** is displayed in a frame at the bottom.

Focus on creating a visually appealing, accessible, and well-structured layout. The sample webpage is shown below.

Sample Page:

My Professional Resume

About Me
Education
Experience
Skills
Media

John Doe

Software Engineer | Problem Solver | Innovator

About Me

A motivated software engineer with 5+ years of experience in building scalable web applications.



John Doe - Software Engineer

Quick Facts

- Proficient in HTML5, CSS3, and JavaScript
- 5+ years of professional experience
- Certified Scrum Master
- Published 3 technical articles

© 2025 John Doe. All rights reserved.
Contact: johndoe@example.com

Resume frame content

John Doe

Software Engineer | Problem Solver | Innovator

About Me

A motivated software engineer with 5+ years of experience in building scalable web applications.

Education

Bachelor of Technology in Computer Science

XYZ University, 2019 - 2020

Experience

Software Engineer

ABC Corporation, 2020 - Present

- Developed and maintained web applications using JavaScript and Python.
- Optimized database performance, improving query speed by 30%.

Skills

Quick Facts

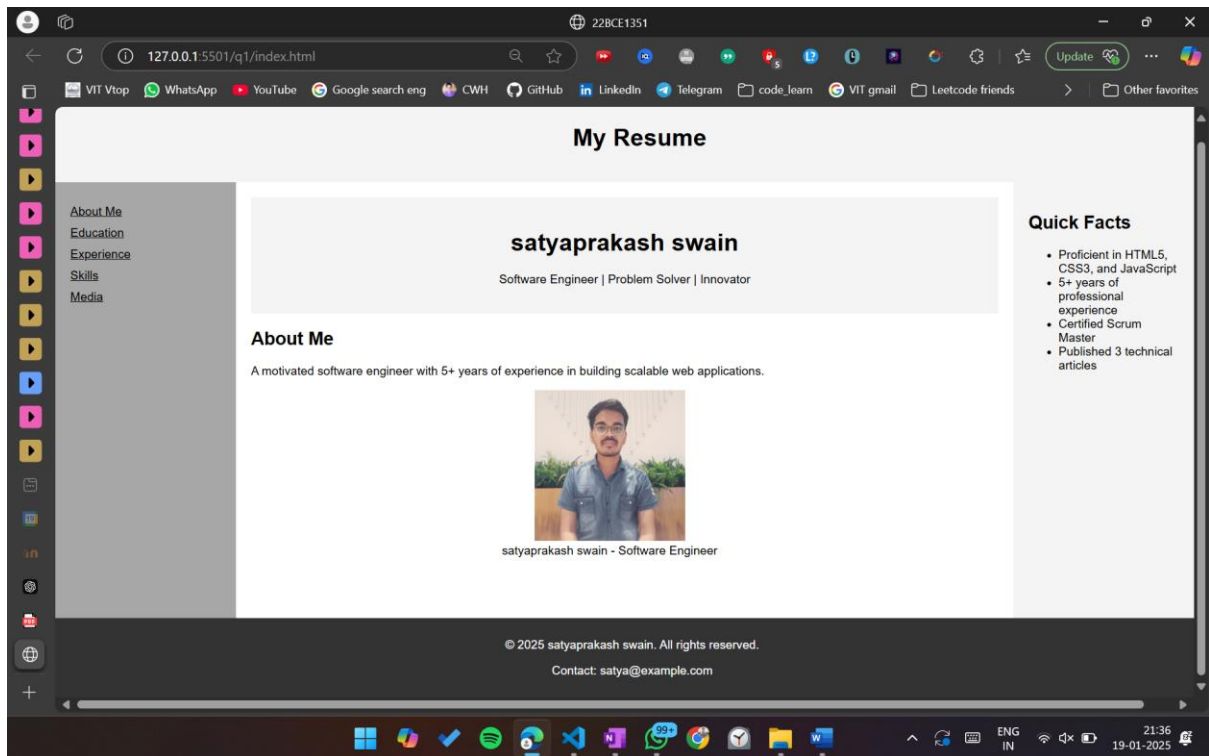
- Proficient in JavaScript, Python, and Java
- Certified AWS Developer

Programming

Problem Solving

Project Management

Contact: johndoe@example.com | Phone: (+91) 987 654 3210



Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>22BCE1351</title>
  <style>
    body {
      margin: 0;
      font-family: Arial, sans-serif;
      display: flex;
      flex-direction: column;
      min-height: 100vh;
    }
    #experience{
      display: none;
    }
    #skills{
      display: none;
    }
    #education{
      display: none;
    }
    header {
```

```
        background-color: #f4f4f4;
        padding: 20px;
        text-align: center;
        width: 100%;
    }
    .container {
        display: flex;
        flex: 1;
    }
    nav {
        background-color: #a7a7a7;
        color: white;
        padding: 20px;
        width: 200px;
        flex-shrink: 0;
    }
    nav a {
        color: black;
        display: block;
        margin: 10px 0;
    }
    main {
        flex: 1;
        padding: 20px;
    }
    aside {
        background-color: #f4f4f4;
        padding: 20px;
        width: 200px;
        flex-shrink: 0;
        margin-left: 40px;
    }
    footer {
        background-color: #333;
        color: white;
        text-align: center;
        padding: 10px;
        width: 100%;
    }
    section {
        margin-bottom: 20px;
    }
    figure {
        text-align: center;
    }
    img{
        width: 200px;
    }
}
```

```

    </style>
</head>
<body>
    <script src="script.js"></script>
    <header>
        <h1>My Resume</h1>
    </header>

    <div class="container">
        <nav>
            <a href="#about" onclick="showAbout()">About Me</a>
            <a href="#education" onclick="showEducation()">Education</a>
            <a href="#experience" onclick="showExperience()">Experience</a>
            <a href="#skills" onclick="showSkills()">Skills</a>
            <a href="../q2/index.html" target="_blank">Media</a>
        </nav>

        <main>
            <header>
                <h1>satyaprakash swain</h1>
                <p>Software Engineer | Problem Solver | Innovator</p>
            </header>
            <section id="about">
                <h2>About Me</h2>
                <p>A motivated software engineer with 5+ years of experience in building scalable web applications.</p>
                <figure>
                    
                    <figcaption>satyaprakash swain - Software Engineer</figcaption>
                </figure>
            </section>

            <section id="education">
                <h2>Education</h2>
                <p>Bachelor of Technology in Computer Science</p>
                <p>VIT University, 2022-2026</p>
            </section>

            <section id="experience">
                <h2>Experience</h2>
                <article>
                    <h3>Software Engineer</h3>
                    <p>ABC Company, 2019-Present</p>
                    <p>Developed scalable web applications and collaborated with cross-functional teams.</p>
                </article>
            </section>
        </main>
    </div>

```

```

        </section>

        <section id="skills">
            <h2>Skills</h2>
            <ul>
                <li>HTML5</li>
                <li>CSS3</li>
                <li>JavaScript</li>
                <li>React</li>
                <li>Node.js</li>
            </ul>
        </section>
    </main>

    <aside>
        <h2>Quick Facts</h2>
        <ul>
            <li>Proficient in HTML5, CSS3, and JavaScript</li>
            <li>5+ years of professional experience</li>
            <li>Certified Scrum Master</li>
            <li>Published 3 technical articles</li>
        </ul>
    </aside>
</div>

<footer>
    <p>&copy; 2025 satyaprakash swain. All rights reserved.</p>
    <p>Contact: satya@example.com</p>
</footer>
</body>
</html>

```

Script.js

```

function showAbout(){
    const aboutEle = document.querySelector("#about");
    const experienceEle = document.querySelector("#experience");
    const educationEle = document.querySelector("#education");
    const skillsEle = document.querySelector("#skills");

    aboutEle.style.display = "block";
    experienceEle.style.display = "none";
    educationEle.style.display = "none";
}

```

```
        skillsEle.style.display = "none";
    }
    function showExperience() {
        const aboutEle = document.querySelector("#about");
        const experienceEle = document.querySelector("#experience");
        const educationEle = document.querySelector("#education");
        const skillsEle = document.querySelector("#skills");

        aboutEle.style.display = "none";
        educationEle.style.display = "none";
        skillsEle.style.display = "none";
        experienceEle.style.display = "block";
    }

    function showEducation() {
        const aboutEle = document.querySelector("#about");
        const experienceEle = document.querySelector("#experience");
        const educationEle = document.querySelector("#education");
        const skillsEle = document.querySelector("#skills");

        aboutEle.style.display = "none";
        experienceEle.style.display = "none";
        skillsEle.style.display = "none";
        educationEle.style.display = "block";
    }

    function showSkills() {
        const aboutEle = document.querySelector("#about");
        const experienceEle = document.querySelector("#experience");
        const educationEle = document.querySelector("#education");
        const skillsEle = document.querySelector("#skills");

        aboutEle.style.display = "none";
        experienceEle.style.display = "none";
        educationEle.style.display = "none";
        skillsEle.style.display = "block";
    }
}
```


(B) Display media and graphic elements (given below) on the centre frame by clicking the navigation link Media (Audio, Video, SVG and Canvas). Use **iframe** for displaying SVG

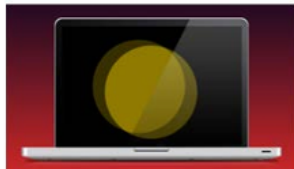
Audio



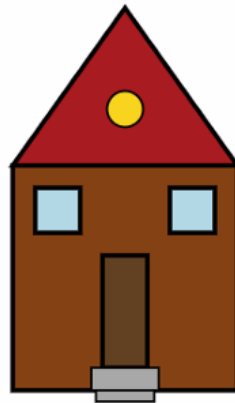
Video



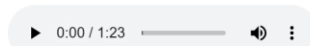
Canvas



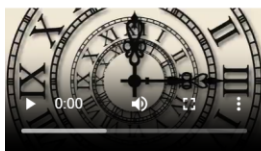
My House using SVG



Audio



Video



Canvas



My House using SVG



```

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>22BCE1351</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      display: flex;
      margin: 0;
      padding: 0;
    }

    #left-panel {
      width: 30%;
      border-right: 1px solid black;
    }

    iframe {
      border: none;
      width: 400px;
      height: 400px;
    }
    h1 {
      text-align: center;
    }

  </style>
</head>

<body>

  <div id="left-panel">
    <h2>Audio</h2>
    <audio controls>
      <source src="love_dose.mp3" type="audio/mpeg">
      Your browser does not support the audio element.
    </audio>
    <h2>Video</h2>
    <video controls width="250">
      <source src="2024-01-09 10-37-33.mp4" type="video/mp4">
      Your browser does not support the video tag.
    </video>
    <h2>Canvas</h2>
    <canvas id="myCanvas" width="200" height="100"></canvas>
  </div>

```

```
<div id="main-content">
  <h1>My House using SVG</h1>
  <iframe src="house.svg"></iframe>
</div>
<script>
  var c = document.getElementById("myCanvas");
  var ctx = c.getContext("2d");

  // Create gradient
  var grd = ctx.createRadialGradient(75, 50, 5, 90, 60, 100);
  grd.addColorStop(0, "red");
  grd.addColorStop(1, "white");

  // Fill with gradient
  ctx.fillStyle = grd;
  ctx.fillRect(10, 10, 150, 80);

  var circleGrd = ctx.createRadialGradient(75, 50, 5, 75, 50, 20);
  circleGrd.addColorStop(0, "#FFA500"); // Gold color
  circleGrd.addColorStop(1, "#FFA500"); // Orange color

  // Draw two overlapping circles with gradient
  ctx.fillStyle = circleGrd;
  ctx.beginPath();
  ctx.arc(75, 50, 20, 0, 2 * Math.PI);
  ctx.fill();

  ctx.beginPath();
  ctx.arc(85, 50, 20, 0, 2 * Math.PI);
  ctx.fill();
</script>
</body>
</html>
```

Thank!
You!