MODERN HTML ASSIGNMENT

1. **Features of HTML5**:
   HTML5 introduced numerous features and improvements over its predecessors, including:
   - **Semantic Elements**: New elements like `<header>`, `<nav>`, `<article>`, and `<footer>` to better structure web content.
   - **Audio and Video Support**: Native support for embedding audio and video without plugins using `<audio>` and `<video>` elements.
   - **Canvas**: A drawing surface for creating graphics and animations.
   - **Local Storage**: The `localStorage` and `sessionStorage` APIs for client-side storage.
   - **Web Workers**: The ability to run JavaScript code in the background to improve performance.
   - **Geolocation**: Support for determining a user's geographical location.
   - **Form Enhancements**: New input types (e.g., `date`, `email`, `number`) and attributes (e.g., `placeholder`, `required`).
   - **Offline Web Applications**: Support for creating web apps that work offline using the Application Cache API.
   - **Improved Accessibility**: Enhanced support for accessibility features.
   - **WebSocket**: A protocol for real-time, full-duplex communication.

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2. **HTML Entities**:
   HTML entities are special characters represented by their corresponding entity names or codes. Here are five commonly used HTML entities:
   - `&lt;` for <
   - `&gt;` for >
   - `&amp;` for &
   - `&quot;` for "
   - `&copy;` for ©

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3. **Web Accessibility (WAI)**:
   - **Web Accessibility Initiative (WAI)**: It's an effort by the World Wide Web Consortium (W3C) to improve the accessibility of the web for people with disabilities.

- **Assistive Devices**: Common assistive devices include screen readers (e.g., JAWS, NVDA), screen magnifiers, braille displays, voice recognition software, and keyboard alternatives.

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4. **Ways to Improve Accessibility of HTML**:
   - Use semantic HTML elements.
   - Provide descriptive alt text for images.
   - Ensure keyboard navigation and focus management.

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5. **Tab Index**:
   The `tabindex` attribute specifies the order in which elements receive keyboard focus when a user presses the "Tab" key. It's used to control the sequence of focusable elements on a web page, allowing developers to customize the tabbing order for accessibility or usability purposes.

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6. **Semantic HTML Tags**:
   - `<header>`: Represents introductory content, typically containing headings and navigation.
   - `<nav>`: Represents a section with navigation links.
   - `<article>`: Represents a self-contained composition, such as a blog post or news article.
   - `<section>`: Represents a thematic grouping of content.
   - `<footer>`: Represents the footer of a document or section.

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7. **Benefits of Using Semantic Tags**:
   - Improved Accessibility: Assistive technologies can better understand and navigate the content.
   - SEO: Search engines can better index and rank content.
   - Maintenance: Easier to read and maintain code.
   - Consistency: Promotes consistent structure and styling.
   - Clarity: Enhances the understanding of content's meaning and purpose.

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8. Create a simple webpage with semantic HTML which has the header, main, and footer sections. The header section must contain links to navigate to different sections of the webpage. The main section must contain three subsections about what is HTML. What is semantic HTML

and a list of commonly used semantic tags/ In the end, the footer section must contain your name

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Simple Webpage</title>

</head>

<body>

    <header>

        <nav>

            <ul>

                <li><a href="#whatishtml">What is HTML?</a></li>

                <li><a href="#whatissemantichtml">What is Semantic
HTML?</a></li>

                <li><a href="#commonsemantictags">Common Semantic
Tags</a></li>

            </ul>

        </nav>

    </header>



    <main>

        <section id="whatishtml">
```

```
            <h1>What is HTML?</h1>

            <p>HTML stands for HyperText Markup Language. It is the
standard markup language used to create web pages. HTML defines the
structure and content of a web page, using elements and tags to format
text, images, links, and other media.</p>

        </section>



        <section id="whatissemantichtml">

            <h1>What is Semantic HTML?</h1>

            <p>Semantic HTML refers to the use of HTML elements that
convey meaning beyond their presentation. Semantic tags provide
information about the structure and content of a web page, making it more
accessible to both humans and machines.</p>

        </section>



        <section id="commonsemantictags">

            <h1>Common Semantic Tags</h1>

            <ul>

                <li><strong>&lt;header&gt;:</strong> Represents
introductory content or a container for navigation.</li>

                <li><strong>&lt;nav&gt;:</strong> Represents a section
with navigation links.</li>

                <li><strong>&lt;article&gt;:</strong> Represents a
self-contained composition, such as a blog post or news article.</li>

                <li><strong>&lt;section&gt;:</strong> Represents a
thematic grouping of content.</li>

                <li><strong>&lt;footer&gt;:</strong> Represents the footer
of a document or section.</li>
```

```
            </ul>

        </section>

    </main>



    <footer>

        <p>Created by Your Rohit</p>

    </footer>

</body>

</html>
```