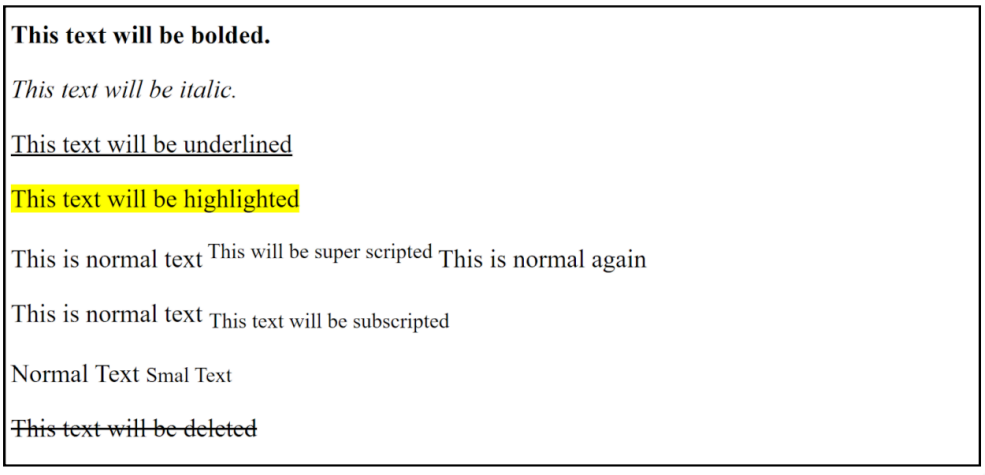
1. Build a simple webpage that displays text as shown in the below image.

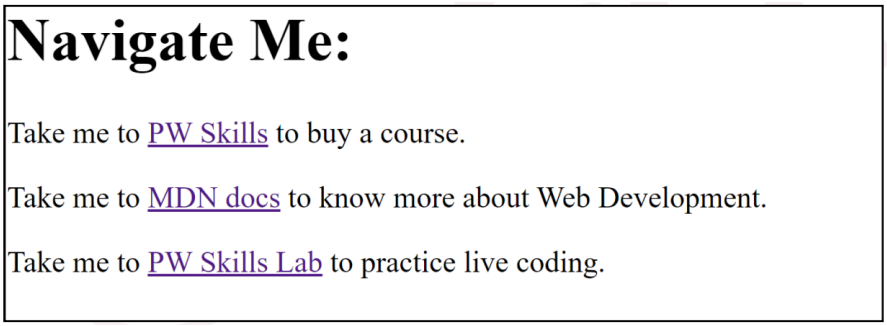


Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Document</title>
</head>
<body>
   <p>
   <strong>This text will be bolded</strong>
   <br><i>This text will be italic</i>
   <br><u>This text will be underlined</u>
   <br>This is normal text <sup>This will be super scripted</sup> This is normal again
   <br>This is normal text <sub>This text will be subscripted</sub>
   <br><del>This text will be deleted</del>
   </p>
</body>
</html>
```

Output:

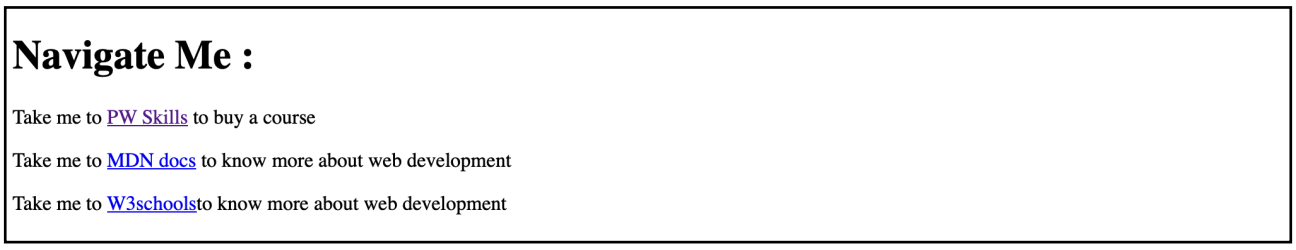
2. Build a simple webpage that helps users navigate different web development-related websites. Note: On clicking the hyperlink the web pages should open in a new tab. Below is a reference image.



Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Document</title>
</head>
<body>
   <h1>Navigate Me :</h1>
   <p>Take me to <a href="https://pwskills.com/"><u>PW Skills</u></a> to buy a course</p>
   <p>Take me to <a href="https://developer.mozilla.org/en-US/"><u>MDN docs</u></a> to
know more about web development</p>
   <p>Take me to <a href="https://www.w3schools.com/tags/default.asp"><u>W3schools</u></
a>to know more about web development</p>
</body>
</html>
```

Output:



3. Build a simple blog web page with 3 pages home, web development, and web design. Each page must contain hyperlinks to other pages in the top, a heading of the page topic and a paragraph of information. For the home page you can add some information about yourself?

Ans) *Code:*

Ex3.1.html(Home page)

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>My Blog</title>
</head>
<body>
   <a href="Ex3.2.html">Web Development</a>
    <a href="Ex3.3.html">Web design</a>
   <h1>Web Development</h1>
   <h2>Introduction to Web Development</h2>
   <p>Web development is the process of creating and maintaining websites and web applications. It involves a combination of coding, design, and problem-solving to build functional and visually appealing digital platforms. With the growing reliance on the internet for business, communication, and entertainment, web development has become an essential skill for companies and individuals alike. Whether it's a simple personal blog or a complex e-commerce platform, web development plays a crucial role in shaping the online experience.</p>
</body>
</html>
```

Ex3.2.html(Web Development page)

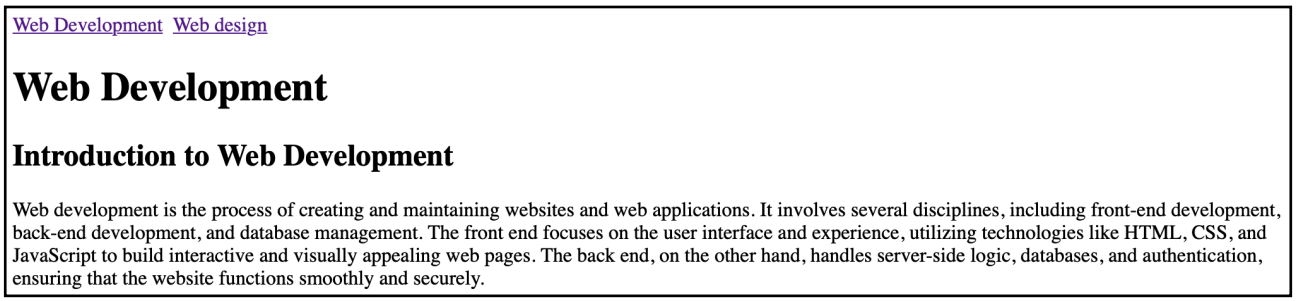
```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Web Development</title>
</head>
<body>
   <a href="Ex3.1.html">Home</a>
    <a href="Ex3.3.html">Web design</a>
   <h2>Web Development</h2>
   <p>Web development consists of two main areas: front-end and back-end development. Front-end development focuses on the user interface and experience, using technologies like HTML, CSS, and JavaScript to create interactive and responsive websites. Back-end development, on the other hand, involves server-side programming, databases, and application logic using languages such as Python, PHP, and Node.js. Full-stack developers are skilled in both front-end and back-end technologies, enabling them to build and manage entire web applications. Additionally, frameworks and libraries like React, Angular, and Django help streamline the development process.</p>
</body>
</html>
```

Ex3.3.html(Web Design page)

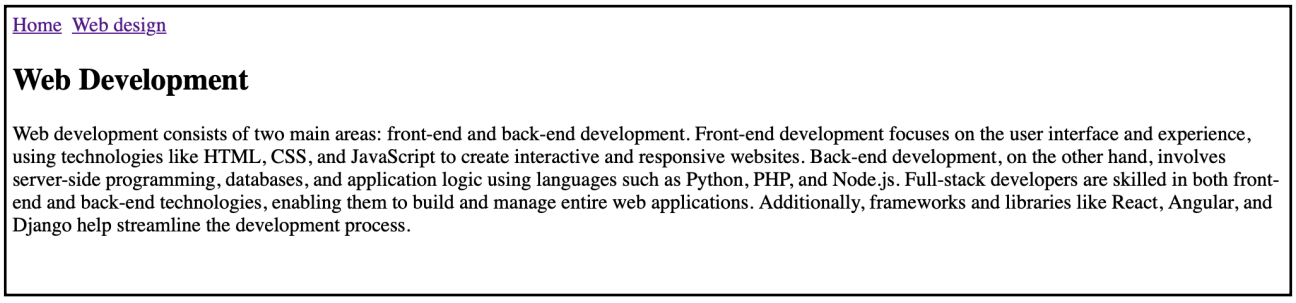
```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Web Design</title>
</head>
<body>
   <a href="Ex3.1.html">Home</a>
    <a href="Ex3.2.html">Web Development</a>
   <h2>Web Design</h2>
   <p>Web design is a crucial aspect of web development that focuses on the aesthetics and usability of a website. A well-designed website ensures a seamless user experience by incorporating elements such as color schemes, typography, and navigation. Designers use tools like Adobe XD, Figma, and Sketch to create layouts before developers bring them to life with code. Responsive design is also a key component, ensuring that websites adapt to different screen sizes and devices. A good web design not only enhances the look of a website but also improves user engagement and accessibility.</p>
</body>
</html>
```

Output:

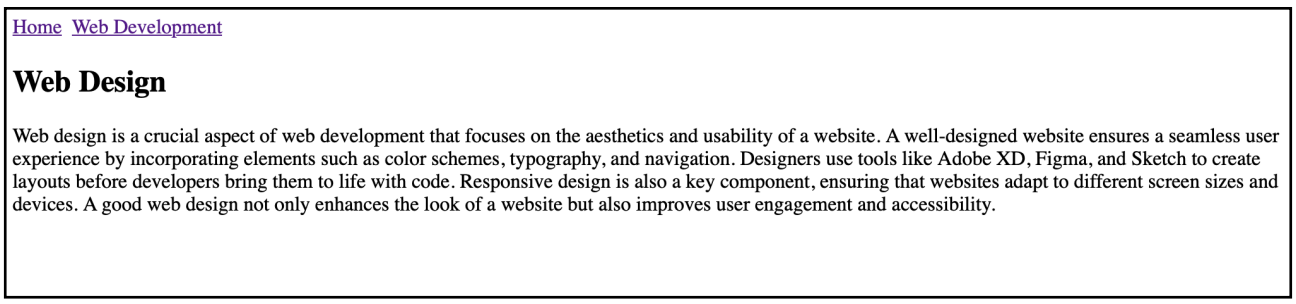
Home page



Web Development page



Web Design page



4. Create an ordered list of HTML tags. Each list item must include the tag name and some information about the tag?

Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>HTML Tags</title>
</head>
<body>
   <h1>HTML Tags</h1>
   The following are some of the HTML tags:
   <p><ol>
      <li>
         <u><strong>Anchor Tags:</strong></u> Anchor tags are used to embed hyper links
in a HTML document.
      </li>
      <br>
      <li>
         <u><strong>Bold Tag:</strong></u> Bold tags are used to make any text apprear in
bold with in the opening and closing of the tag.
      </li>
      <br>
      <li>
         <u><strong>hr tag:</strong></u> hr tags is used to add an horizontal line in the
HTML document.
      </li>
   </ol>
There are many other HTML tags too which can be assed through the link below.
<br><a href="https://developer.mozilla.org/en-US/">MDN docs</a></p>
</body>
</html>
```

Output:

HTML Tags

The following are some of the HTML tags:

1. **Anchor Tags:** Anchor tags are used to embed hyper links in a HTML document.
2. **Bold Tag:** Bold tags are used to make any text apprear in bold with in the opening and closing of the tag.
3. **hr tag:** hr tags is used to add an horizontal line in the HTML document.

There are many other HTML tags too which can be assed through the link below.
MDN docs

5. Create a description list of full stack web development tech stack, using the tag. Each term should be a tech stack name and each description should be a brief explanation of what the tech stack is used for?

Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Full Stack Web Development Tech Stack</title>
</head>
<body>
   <h1>Full Stack Web Development Tech Stack</h1>
   <dl>
      <dt>HTML (HyperText Markup Language)</dt>
      <dd>The standard language for structuring web pages and content.</dd>
      <dt>CSS (Cascading Style Sheets)</dt>
      <dd>Used to style web pages, control layout, and enhance the visual appearance of
websites.</dd>
     <dt>JavaScript</dt>
      <dd>A scripting language that enables interactive elements and dynamic content on
web pages.</dd>
      <dt>React</dt>
      <dd>A JavaScript library for building user interfaces, especially single-page
applications.</dd>
      <dt>Node.js</dt>
      <dd>A runtime environment that allows JavaScript to be used for back-end
development.</dd>
      <dt>MySQL</dt>
      <dd>A relational database management system used to store and manage structured
data.</dd>
      <dt>Git</dt>
      <dd>A version control system that helps developers track changes in their code and
collaborate.</dd>
   </dl>
</body>
</html>
```

Output:

Full Stack Web Development Tech Stack

HTML (HyperText Markup Language)
: The standard language for structuring web pages and content.

CSS (Cascading Style Sheets)
: Used to style web pages, control layout, and enhance the visual appearance of websites.

JavaScript
: A scripting language that enables interactive elements and dynamic content on web pages.

React
: A JavaScript library for building user interfaces, especially single-page applications.

Node.js
: A runtime environment that allows JavaScript to be used for back-end development.

MySQL
: A relational database management system used to store and manage structured data.

Git
: A version control system that helps developers track changes in their code and collaborate.

6. Create an ordered list of the full stack web development tech stack HTML, CSS, and JS. For each tech stack, create a table that lists the tech stack name, its primary use cases, and some key features or benefits. Below is a reference image.

Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Full Stack Web Development Tech Stack</title>
</head>
<body>
  <h1>Full Stack Web Development Tech Stack</h1>
  <ol>
    <li>HTML</li>
    <table border="1" cellpadding = "10" cellspacing = "10">
      <tr>
        <th>Tech Stack</th>
        <th>Primary Use Cases</th>
        <th>Key Features/Benefits</th>
      </tr>
      <tr>
        <td>HTML</td>
        <td>Structuring web pages and content</td>
        <td><ol><li>Simple</li><li>universal essential for web development</li></ol></td>
      </tr>
    </table><br>
    <li>CSS</li>
    <table border="1" cellpadding = "10" cellspacing = "10">
      <tr>
        <th>Tech Stack</th>
        <th>Primary Use Cases</th>
        <th>Key Features/Benefits</th>
      </tr>
      <tr>
        <td>CSS</td>
        <td>Styling web pages and layouts</td>
        <td><ol> <li>Enhances aesthetics</li><li>supports responsive design</li></ol></td>
      </tr>
    </table><br>
    <li>JavaScript</li>
    <table border="1" cellpadding = "10" cellspacing = "10">
      <tr>
        <th>Tech Stack</th>
        <th>Primary Use Cases</th>
        <th>Key Features/Benefits</th>
      </tr>
      <tr>
        <td>JavaScript</td>
        <td>Adding interactivity and dynamic behavior</td>
        <td><ol><li>Enables interactive elements</li><li>widely supported</li></ol></td>
      </tr>
    </table>
  </ol>
</body>
</html>
```

Output:

Full Stack Web Development Tech Stack

1. HTML

Tech Stack	Primary Use Cases	Key Features/Benefits
HTML	Structuring web pages and content	1. Simple 2. universal essential for web development

2. CSS

Tech Stack	Primary Use Cases	Key Features/Benefits
CSS	Styling web pages and layouts	1. Enhances aesthetics 2. supports responsive design

3. JavaScript

Tech Stack	Primary Use Cases	Key Features/Benefits
JavaScript	Adding interactivity and dynamic behavior	1. Enables interactive elements 2. widely supported

7. Build a complex nested list structure representing a multi-level table of contents. Use unordered lists (ul) and list items (li) with inline-block styling to create a structured layout. Apply formatting tags to enhance the presentation of list items.

Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Full Stack Web Development Tech Stack</title>
</head>
<body style="color: rgb(22, 102, 140);">
   <h1 style="color: black;">Full Stack Web Development Tech Stack</h1>
   <h2 style="color: black;">Table of Contents</h2>
   <u>
   <ul style="border: solid black; width: fit-content;">
      <u><li><b>1. Introduction</b></li></u>
      <li><b><u>2. Frontend Development</u></b>
         <u><ul>
            <li><i>2.1 HTML</i>
               <ul>
                  <li>2.1.2 Elements & Structure</li><li>2.1.2 Forms & Inputs</li><li>2.1.3 Semantic HTML</li>
               </ul>
            </li>
            <li><i>2.2 CSS</i>
               <ul><li>2.2.1 Selectors & Properties</li><li>2.2.2 Flexbox & Grid</li><li>2.2.3 Animations &
Transitions</li></ul>
            </li>
            <li><i>2.3 JavaScript</i>
               <ul><li>2.3.1 Variables & Data Types</li><li>2.3.2 Functions & Events</li><li>2.3.3 DOM
Manipulation</li></ul>
            </li>
         </ul></u>
      </li>
      <li><b>3 Backend Development</b>
         <ul>
            <li><i>3.1 Node.js</i>
               <ul><li>3.1.1 Server-side JavaScript</li><li>3.1.2 Asynchronous Programming</li></ul>
            </li>
            <li><i>3.2 Databases</i>
               <ul><li>3.2.1 SQL (MySQL, PostgreSQL)</li><li>3.2.2 NoSQL (MongoDB)</li></ul>
            </li>
            <li><i>3.3 APIs</i>
               <ul><li>3.3.1 RESTful APIs</li>
                  <li>3.3.2 GraphQL</li>
               </ul>
            </li>
         </ul>
      </li>
   </ul>
   </u>
</body>
</html>
```

Output:

Full Stack Web Development Tech Stack

Table of Contents

8. Create a table to display a conference schedule. Each row corresponds to a time slot, and each column corresponds to a room. Some time slots might have multiple sessions running simultaneously in different rooms. Utilize rowspan and colspan attributes as necessary to accommodate this complex schedule. (use table attribute “cellpadding” to give extra padding in each table cell).

Ans) *Code:*

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Conference Schedule</title>
</head>
<body>
  <h1>Conference Schedule</h1>
  <table border="1" cellpadding = "5" cellspacing = "5">
    <tr>
      <th>Time</th>
      <th>Room 1</th>
      <th>Room 2</th>
      <th>Room 3</th>
      <th>Room 4</th>
    </tr>
    <tr>
      <td rowspan="3">9:00 AM - 10:00 AM</td>
      <td rowspan="2">Keynote</td>
      <td>Session A</td>
      <td>Session B</td>
      <td rowspan="3">Session C</td>
    </tr>
    <tr>
      <td>Session D</td>
      <td>Session E</td>
    </tr>
    <tr>
      <td>10:30 AM - 11:30 AM</td>
      <td colspan="2">Session F</td>
    </tr>
    <tr>
      <td>12:00 PM - 1:00 PM</td>
      <td colspan="4">Lunch Break</td>
    </tr>
    <tr>
      <td rowspan="2">1:00 PM - 2:00 PM</td>
      <td>Session G</td>
      <td rowspan="2">Session H</td>
      <td>Session I</td>
      <td>Session J</td>
    </tr>
    <tr>
      <td>Session K</td>
      <td>Session L</td>
      <td>Session M</td>
    </tr></table>
</body>
</html>
```

Output:

Conference Schedule

Time	Room 1	Room 2	Room 3	Room 4
9:00 AM - 10:00 AM	Keynote	Session A	Session B	Session C
		Session D	Session E	
	10:30 AM - 11:30 AM	Session F		
12:00 PM - 1:00 PM	Lunch Break			
1:00 PM - 2:00 PM	Session G	Session H	Session I	Session J
	Session K		Session L	Session M