Prog-1. **Lists, Links and Images**

a. Write a HTML program, to explain the working of lists. Note: It should have an ordered list, unordered list, nested lists and ordered list in an unordered list and definition lists.

b. Write a HTML program, to explain the working of hyperlinks using <a> tag and href, target Attributes.

c. Create a HTML document that has your image and your friend's image with a specific height and width. Also, when clicked on the images it should navigate to their respective profiles.

d. Write a HTML program, in such a way that, rather than placing large images on a page, the preferred technique is to use thumbnails by setting the height and width parameters to something like to 100* 100 pixels. Each thumbnail image is also a link to a full-sized version of the image. Create an image gallery using this technique.

☑ Basic HTML Tutorial

📌 What is HTML?

HTML (HyperText Markup Language) is the standard language used to create and design web pages.

🛠 Basic HTML Structure:

```
html
CopyEdit
<!DOCTYPE html>
<html>
<head>
  <title>Page Title</title>
</head>
<body>
  <h1>Main Heading</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

- `<html>`: Root tag of HTML.
- `<head>`: Metadata like title and links to styles/scripts.
- `<body>`: Visible content like text, images, links, etc.

☑ 1. Lists, Links and Images

◇ (a) HTML Program – Lists (Ordered, Unordered, Nested, Definition)

☑ Code:

```
html
CopyEdit
<!DOCTYPE html>
<html>
<head>
  <title>HTML Lists Example</title>
</head>
<body>
  <h1>HTML List Types</h1>

  <h2>Ordered List</h2>
  <ol>
    <li>Introduction</li>
    <li>Chapter 1</li>
    <li>Conclusion</li>
  </ol>

  <h2>Unordered List</h2>
  <ul>
    <li>Apples</li>
    <li>Bananas</li>
    <li>Cherries</li>
  </ul>

  <h2>Nested List (Unordered inside Ordered)</h2>
  <ol>
    <li>Frontend
      <ul>
        <li>HTML</li>
        <li>CSS</li>
      </ul>
    </li>
    <li>Backend</li>
  </ol>

  <h2>Ordered List inside Unordered List</h2>
  <ul>
    <li>Steps:
      <ol>
        <li>Login</li>
        <li>Fill Form</li>
        <li>Submit</li>
```

```
      </ol>
    </li>
  </ul>

  <h2>Definition List</h2>
  <dl>
    <dt>HTML</dt>
    <dd>HyperText Markup Language</dd>

    <dt>CSS</dt>
    <dd>Cascading Style Sheets</dd>
  </dl>
</body>
</html>
```

☑ Output:

You will see different types of lists with bullets, numbers, nesting, and definitions.

◇ (b) HTML Program – Hyperlinks using `<a>`, `href`, `target`

☑ Code:

```
html
CopyEdit
<!DOCTYPE html>
<html>
<head>
  <title>Hyperlinks Example</title>
</head>
<body>
  <h1>Working with Hyperlinks</h1>

  <!-- Basic link -->
  <p>Visit <a href="https://www.google.com">Google</a></p>

  <!-- Open in a new tab -->
  <p>Visit <a href="https://www.wikipedia.org" target="_blank">Wikipedia (New
Tab)</a></p>

  <!-- Same tab -->
  <p>Visit <a href="https://www.openai.com" target="_self">OpenAI (Same
Tab)</a></p>
</body>
</html>
```

☑ Output:

Clicking the links will take you to the specified websites. `target="_blank"` opens it in a new tab.

◇ (c) HTML Document with Images Linked to Profiles

☑ Code:

```
html
CopyEdit
<!DOCTYPE html>
<html>
<head>
  <title>Profile Images</title>
</head>
<body>
  <h1>My Friends and Me</h1>

  <!-- Your image -->
  <a href="https://www.linkedin.com/in/yourprofile" target="_blank">
    <img src="your-image.jpg" alt="My Photo" width="150" height="150">
  </a>

  <!-- Friend's image -->
  <a href="https://www.linkedin.com/in/friendprofile" target="_blank">
    <img src="friend-image.jpg" alt="Friend Photo" width="150" height="150">
  </a>
</body>
</html>
```

☑ Output:

Two images shown (yours and friend’s), each linking to respective profile when clicked.

◇ (d) HTML Image Gallery with Thumbnails

☑ Code:

```
html
CopyEdit
<!DOCTYPE html>
<html>
<head>
  <title>Thumbnail Image Gallery</title>
</head>
<body>
```

```
  <h1>My Image Gallery</h1>

  <!-- Thumbnail 1 -->
  <a href="full1.jpg" target="_blank">
    <img src="thumb1.jpg" alt="Image 1" width="100" height="100">
  </a>

  <!-- Thumbnail 2 -->
  <a href="full2.jpg" target="_blank">
    <img src="thumb2.jpg" alt="Image 2" width="100" height="100">
  </a>

  <!-- Thumbnail 3 -->
  <a href="full3.jpg" target="_blank">
    <img src="thumb3.jpg" alt="Image 3" width="100" height="100">
  </a>
</body>
</html>
```

📌 Folder Structure Example:

```
matlab
CopyEdit
gallery.html
thumb1.jpg
thumb2.jpg
thumb3.jpg
full1.jpg
full2.jpg
full3.jpg
```

☑ Output:

- 3 thumbnail images (100x100 pixels).
- Clicking a thumbnail opens the full-sized image in a new tab.