Aim:
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.
Source Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>HTML Lists Example</title>
</head>
<body>

    <h1>HTML Lists Demonstration</h1>

    <h2>1. Ordered List</h2>
    <p>An ordered list is a list where each item is numbered:</p>
    <ol>
        <li>First item</li>
        <li>Second item</li>
        <li>Third item</li>
    </ol>

    <h2>2. Unordered List</h2>
    <p>An unordered list is a list where each item is marked with a bullet point:</p>
    <ul>
        <li>Item A</li>
        <li>Item B</li>
        <li>Item C</li>
    </ul>

    <h2>3. Nested Lists</h2>
    <p>A nested list is a list inside another list:</p>
    <ul>
        <li>Main item 1
            <ul>
                <li>Subitem 1a</li>
                <li>Subitem 1b</li>
            </ul>
        </li>
```

```html
    <li>Main item 2
      <ol>
        <li>Subitem 2a</li>
        <li>Subitem 2b</li>
      </ol>
    </li>
  </ul>

  <h2>4. Ordered List in an Unordered List</h2>
  <p>An ordered list inside an unordered list:</p>
  <ul>
    <li>Unordered item 1
      <ol>
        <li>Ordered item 1.1</li>
        <li>Ordered item 1.2</li>
      </ol>
    </li>
    <li>Unordered item 2
      <ol>
        <li>Ordered item 2.1</li>
        <li>Ordered item 2.2</li>
      </ol>
    </li>
  </ul>

  <h2>5. Definition List</h2>
  <p>A definition list is used to define terms and descriptions:</p>
  <dl>
    <dt>HTML</dt>
    <dd>HyperText Markup Language used to create webpages.</dd>
    <dt>CSS</dt>
    <dd>Cascading Style Sheets used for styling webpages.</dd>
    <dt>JavaScript</dt>
    <dd>Programming language used to create interactive effects on webpages.</dd>
  </dl>

</body>
</html>
```

Output:-
Ordered List: 1. First item 2. Second item 3. Third item
Unordered List: Bullet points for "Item A," "Item B," "Item C."
Nested Lists: A mix of unordered and ordered lists within the same list item.
Ordered List in Unordered List: An unordered list with an ordered list as a sublist.

Definition List: A list of terms and their respective descriptions (HTML, CSS, JavaScript).

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

Source Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>HTML Hyperlinks Example</title>
</head>
<body>

    <h1>HTML Hyperlinks Example</h1>

    <h2>1. Basic Hyperlink</h2>
    <p>This is a basic hyperlink to an external webpage:</p>
    <a href="https://www.example.com">Visit Example Website</a>

    <h2>2. Hyperlink with Target Attribute (Open in New Tab)</h2>
    <p>Clicking this link will open the page in a new tab:</p>
    <a href="https://www.example.com" target="_blank">Visit Example Website (New Tab)</a>

    <h2>3. Hyperlink to an Anchor within the Same Page</h2>
    <p>This link will jump to a section further down the page:</p>
    <a href="#section2">Go to Section 2</a>

    <h2>4. Hyperlink to a Specific Section on Another Page</h2>
    <p>This link will navigate to a specific section (if the page supports it):</p>
    <a href="https://www.example.com#section">Visit Example Website - Section</a>

    <h2>5. Hyperlink to Email</h2>
    <p>Clicking this link will open your email client with a new email to the specified address:</p>
    <a href="mailto:someone@example.com">Send an Email to Someone</a>

    <h2 id="section2">Section 2: Hyperlink to Anchor within Same Page</h2>
    <p>This is the section you jumped to when you clicked the link above.</p>

</body>
</html>
```

Output:-

Basic Hyperlink: Clicking "Visit Example Website" takes you to the external URL https://www.example.com.

Target Attribute: The second link opens the external site in a new tab.

Anchor Link: The link "Go to Section 2" takes you to the section on the same page with id="section2".

Email Link: Clicking the email link opens the default email client with the recipient's email address pre-filled.

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.

Source Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Image Hyperlinks Example</title>
</head>
<body>

    <h1>Image Links to Profiles</h1>

    <h2>My Profile</h2>
    <p>Click on my image to visit my profile:</p>
    <a href="https://www.example.com/myprofile" target="_blank">
        <img src="your-image.jpg" alt="Your Name" width="200" height="200">
    </a>

    <h2>My Friend's Profile</h2>
    <p>Click on my friend's image to visit their profile:</p>
    <a href="https://www.example.com/friendsprofile" target="_blank">
        <img src="friends-image.jpg" alt="Friend's Name" width="200" height="200">
    </a>

</body>
</html>
```

Output:-

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

Source Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Image Gallery with Thumbnails</title>
    <style>
        /* Style for the gallery */
        .gallery {
            display: flex;
            flex-wrap: wrap;
        }

        .gallery a {
            margin: 10px;
            border: 2px solid #ccc;
            padding: 5px;
        }

        .gallery img {
            width: 100px;
            height: 100px;
            transition: transform 0.3s ease;
        }

        .gallery img:hover {
            transform: scale(1.1);
        }
    </style>
</head>
<body>

    <h1>Image Gallery</h1>
    <p>Click on any thumbnail to view the full-size image.</p>

    <div class="gallery">
        <a href="fullsize1.jpg" target="_blank">
            <img src="thumbnail1.jpg" alt="Image 1">
```

```html
      </a>
      <a href="fullsize2.jpg" target="_blank">
         <img src="thumbnail2.jpg" alt="Image 2">
      </a>
      <a href="fullsize3.jpg" target="_blank">
         <img src="thumbnail3.jpg" alt="Image 3">
      </a>
      <a href="fullsize4.jpg" target="_blank">
         <img src="thumbnail4.jpg" alt="Image 4">
      </a>
      <a href="fullsize5.jpg" target="_blank">
         <img src="thumbnail5.jpg" alt="Image 5">
      </a>
   </div>

</body>
</html>
```

Output:-