**PROGRAM-1**

A)

**write a html program to explain the working of lists(note :it should have an ordered list ,unordered list,nested lists and unordered lists in an unordered list and definition lists)**

Here is an HTML program that demonstrates the working of lists, including ordered lists, unordered lists, nested lists, and definition lists:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Understanding HTML Lists</title>

<style>

body {

font-family: Arial, sans-serif;

line-height: 1.6;

margin: 20px;

}

h1 {

color: #333;

}

.example {

margin-bottom: 20px;

}

ul, ol, dl {

margin: 10px 0 20px 20px;

}

</style>

</head>

<body>

<h1>Understanding Lists in HTML</h1>

<p>Lists are used to group related items in HTML. There are different types of lists: ordered, unordered, nested, and definition lists.</p>

<div class="example">

<h2>Example 1: Ordered List</h2>

<p>An ordered list is used when the sequence of items matters:</p>

<ol>

<li>First item</li>

<li>Second item</li>

<li>Third item</li>

</ol>

</div>

<div class="example">

<h2>Example 2: Unordered List</h2>

<p>An unordered list is used when the sequence of items does not matter:</p>

<ul>

<li>Item A</li>

<li>Item B</li>

<li>Item C</li>

</ul>

</div>

<div class="example">

<h2>Example 3: Nested Lists</h2>

<p>Lists can be nested inside one another:</p>

<ol>

<li>Main Item 1

<ul>

<li>Sub-item 1.1</li>

<li>Sub-item 1.2</li>

</ul>

</li>

<li>Main Item 2</li>

</ol>

</div>

<div class="example">

<h2>Example 4: Unordered Lists in an Unordered List</h2>

<p>Multiple unordered lists can be nested within each other:</p>

<ul>

<li>Category 1

<ul>

<li>Sub-category 1.1</li>

<li>Sub-category 1.2</li>

</ul>

</li>

<li>Category 2

<ul>

<li>Sub-category 2.1</li>

<li>Sub-category 2.2</li>

</ul>

</li>

</ul>

</div>

<div class="example">

<h2>Example 5: Definition List</h2>

<p>A definition list is used to define terms:</p>

<dl>

<dt>HTML</dt>

<dd>HyperText Markup Language, used to structure web content.</dd>

<dt>CSS</dt>

<dd>Cascading Style Sheets, used to style web content.</dd>

<dt>JavaScript</dt>

<dd>A programming language used to add interactivity to web pages.</dd>

</dl>

</div>

</body>

</html>

**Features in the Program:**

1. **Ordered List (<ol>)**: Displays items in a numbered sequence.
2. **Unordered List (<ul>)**: Displays items with bullet points.
3. **Nested Lists**:
   * An ordered list containing unordered lists.
   * Unordered lists within unordered lists.
4. **Definition List (<dl>)**:
   * Contains terms (<dt>) and their descriptions (<dd>).

Save this code as an .html file and open it in your browser to see how the lists are displayed.

**B)**

**write a html program that explains the working of hyperlinks using <a> tag and href target attributes**

**<a>: The Anchor element**

The **<a>** [HTML](https://developer.mozilla.org/en-US/docs/Web/HTML) element (or *anchor* element), with [its href attribute](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/a#href), creates a hyperlink to web pages, files, email addresses, locations in the same page, or anything else a URL can address.

Content within each <a> *should* indicate the link's destination. If the href attribute is present, pressing the enter key while focused on the <a> element will activate it.

**<a> tag and href target attributes**

The <a> tag in HTML is used to create hyperlinks, which are clickable links that navigate users to another location, such as a web page, a file, or a specific part of the current page. The href and target attributes are essential in defining the behavior of these links.

**Structure of the <a> Tag**

<a href="URL" target="value">Link Text</a>

**Key Attributes**

**1. href (Hyperlink Reference)**

* Specifies the URL of the page or resource to navigate to when the link is clicked.
* Can point to:
  + An external website (https://example.com)
  + A file (/files/document.pdf)
  + An email address (mailto:example@example.com)
  + An anchor on the same page (#section)

**2. target**

* Specifies where to open the linked document.
* Common values:
  + \_self (default): Opens the link in the same tab or window.
  + \_blank: Opens the link in a new tab or window.
  + \_parent: Opens the link in the parent frame (useful in framesets).
  + \_top: Opens the link in the full body of the window, replacing any frames.

**Example 1: External Link**

<a href="https://www.google.com" target="\_blank">Visit Google</a>

* Navigates to Google in a new tab.

**Example 2: Internal Link**

<a href="#section2">Go to Section 2</a>

<div id="section2">

<h2>Section 2</h2>

<p>This is Section 2 content.</p>

</div>

* Jumps to a section with id="section2" on the same page.

**Example 3: Mailto Link**

<a href="mailto:example@example.com">Send Email</a>

* Opens the default email client to send an email to example@example.com.

**Example 4: Download Link**

<a href="/files/example.pdf" download>Download PDF</a>

* Allows users to download the file example.pdf.

**Styling Links**

You can use CSS to style links, including hover effects:

<style>

a {

color: blue;

text-decoration: none;

}

a:hover {

text-decoration: underline;

color: darkblue;

}

</style>

This styling changes the appearance of links and enhances user interaction.

Here is an HTML program that explains the working of hyperlinks using the <a> tag, including the href and target attributes:

**Syntax**

**<a target="\_blank|\_self|\_parent|\_top|*framename*">**

Attribute Values

|  |  |
| --- | --- |
| **Value** | **Description** |
| \_blank | Opens the linked document in a new window or tab |
| \_self | Opens the linked document in the same frame as it was clicked (this is default) |
| \_parent | Opens the linked document in the parent frame |
| \_top | Opens the linked document in the full body of the window |
| *framename* | Opens the linked document in the named iframe |

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Hyperlink Example</title>

<style>

body {

font-family: Arial, sans-serif;

line-height: 1.6;

margin: 20px;

}

h1 {

color: #333;

}

a {

color: #0066cc;

text-decoration: none;

}

a:hover {

text-decoration: underline;

}

.example {

margin-bottom: 20px;

}

</style>

</head>

<body>

<h1>Understanding Hyperlinks in HTML</h1>

<p>Hyperlinks are created using the <code>&lt;a&gt;</code> tag in HTML. The <code>href</code> attribute specifies the URL of the page the link goes to, and the <code>target</code> attribute specifies where to open the linked document.</p>

<div class="example">

<h2>Example 1: Open Link in Same Tab</h2>

<p>Click the link below to visit Google. It opens in the same tab by default:</p>

<a href="https://www.google.com" target="\_self">Visit Google</a>

</div>

<div class="example">

<h2>Example 2: Open Link in a New Tab</h2>

<p>Click the link below to visit Bing. It opens in a new tab using <code>target="\_blank"</code>:</p>

<a href="https://www.bing.com" target="\_blank">Visit Bing</a>

</div>

<div class="example">

<h2>Example 3: Link to a Section on the Same Page</h2>

<p>Click the link below to jump to the "More Information" section on this page:</p>

<a href="#more-info">Go to More Information</a>

</div>

<div class="example">

<h2>Example 4: Mailto Link</h2>

<p>Click the link below to send an email:</p>

<a href="mailto:example@example.com">Send Email</a>

</div>

<div id="more-info" class="example">

<h2>More Information</h2>

<p>In this section, we explored how the <code>href</code> and <code>target</code> attributes affect hyperlink behavior. Experiment with different values to see their effects.</p>

<a href="#top">Back to Top</a>

</div>

</body>

</html>

**Explanation:**

1. **href Attribute**: Specifies the URL or the location where the link points.
2. **target Attribute**:
   * \_self: Opens the link in the same tab (default).
   * \_blank: Opens the link in a new tab.
   * \_parent or \_top: Opens the link in the parent or top frame, often used in framesets.
3. **Mailto**: The mailto: prefix is used for email links.

This example demonstrates the most common uses of hyperlinks in HTML. You can save the code in an .html file and open it in a browser to see the results.

C)

create a html document that has your image and your friends image with a specific height and width.also when clicked on the images it should navigate to their respective profiles

Here is an HTML document that displays an image of "you" and your friend with specific dimensions, and clicking on the images navigates to their respective profiles.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Image Links</title>

<style>

body {

font-family: Arial, sans-serif;

text-align: center;

margin: 20px;

}

h1 {

color: #333;

}

.image-container {

margin: 20px 0;

}

img {

border: 2px solid #ccc;

border-radius: 10px;

margin: 10px;

transition: transform 0.3s, box-shadow 0.3s;

}

img:hover {

transform: scale(1.05);

box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);

}

</style>

</head>

<body>

<h1>Image Links to Profiles</h1>

<p>Click on the images below to navigate to their respective profiles.</p>

<div class="image-container">

<!-- Your Image -->

<a href="https://example.com/your-profile" target="\_blank">

<img src="your-image.jpg" alt="Your Image" width="200" height="200">

</a>

<p>Your Name</p>

</div>

<div class="image-container">

<!-- Friend's Image -->

<a href="https://example.com/friend-profile" target="\_blank">

<img src="friend-image.jpg" alt="Friend's Image" width="200" height="200">

</a>

<p>Friend's Name</p>

</div>

</body>

</html>

**Explanation:**

1. **Images**:
   * The <img> tag is used to display images.
   * width="200" and height="200" are used to specify the size of the images.
   * src should point to the file path or URL of the image (replace your-image.jpg and friend-image.jpg with actual paths or URLs).
2. **Links**:
   * The <a> tag wraps the <img> tag to make the images clickable.
   * The href attribute specifies the URL to navigate to.
   * The target="\_blank" ensures the link opens in a new tab.
3. **Styling**:
   * The img:hover CSS selector adds a hover effect to the images (slight zoom and shadow).

**Usage:**

* Replace "your-image.jpg" and "friend-image.jpg" with the paths to your and your friend's images.
* Replace https://example.com/your-profile and https://example.com/friend-profile with the actual profile URLs.

Save this code as an .html file, and open it in a browser to see the results.

D) write a html program in such a way that rather than placing large images in one page the preferred technique is to use thumb nails by setting the height and width parameters to something like 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

Thumbnail Image

A thumbnail is a small image that represents a larger image (when clicked on), and is often recognized with a border around it:

[](https://www.w3schools.com/howto/img_forest.jpg)

Here is an HTML program that creates an image gallery using thumbnail images as links to the full-sized versions of the images:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Thumbnail Image Gallery</title>

<style>

body {

font-family: Arial, sans-serif;

text-align: center;

margin: 20px;

}

h1 {

color: #333;

}

.gallery {

display: flex;

flex-wrap: wrap;

justify-content: center;

gap: 20px;

}

.gallery a {

display: inline-block;

text-decoration: none;

border: 2px solid #ccc;

border-radius: 10px;

overflow: hidden;

transition: transform 0.3s, box-shadow 0.3s;

}

.gallery a:hover {

transform: scale(1.05);

box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);

}

.gallery img {

display: block;

width: 100px;

height: 100px;

object-fit: cover;

}

</style>

</head>

<body>

<h1>Thumbnail Image Gallery</h1>

<p>Click on any thumbnail to view the full-sized image.</p>

<div class="gallery">

<a href="image1-full.jpg" target="\_blank">

<img src="image1-thumbnail.jpg" alt="Image 1">

</a>

<a href="image2-full.jpg" target="\_blank">

<img src="image2-thumbnail.jpg" alt="Image 2">

</a>

<a href="image3-full.jpg" target="\_blank">

<img src="image3-thumbnail.jpg" alt="Image 3">

</a>

<a href="image4-full.jpg" target="\_blank">

<img src="image4-thumbnail.jpg" alt="Image 4">

</a>

<a href="image5-full.jpg" target="\_blank">

<img src="image5-thumbnail.jpg" alt="Image 5">

</a>

</div>

</body>

</html>

**Explanation:**

1. **Thumbnail Images**:
   * Use the <img> tag for thumbnails with width="100" and height="100" to keep them small.
   * Replace image1-thumbnail.jpg, image2-thumbnail.jpg, etc., with the actual paths to your thumbnail images.
2. **Full-Sized Images**:
   * Each <a> tag links to the full-sized version of the image (e.g., image1-full.jpg).
   * Clicking the thumbnail will open the full-sized image in a new tab because of target="\_blank".
3. **Gallery Layout**:
   * The .gallery class uses flexbox to create a responsive and neatly aligned image gallery.
4. **Hover Effect**:
   * The CSS provides a zoom effect on thumbnails when hovered.

**Usage:**

* Replace the placeholders like image1-thumbnail.jpg and image1-full.jpg with your actual image paths or URLs.
* Save the code as an .html file and open it in your browser to view the gallery.

This technique is efficient for web pages as it loads smaller images initially, reducing load time and improving user experience.