

# Ordered Lists (<ol>) in HTML

## Definition:

An **Ordered List** is used to display a list of items in a specific **sequence** (like steps, rankings, etc.). Each item is automatically numbered by the browser.

## Syntax:

```
<ol>  
  <li>Item 1</li>  
  <li>Item 2</li>  
  <li>Item 3</li>  
</ol>
```

## Output:

1. Item 1
2. Item 2
3. Item 3

## Attributes of <ol>:

Attribute Description	Example
type      Defines the type of numbering	type="A", type="a", type="I", type="i", type="1"
start     Sets the starting number	start="5"
reversed   Reverses the order of numbering	reversed

### **Type Attribute Examples:**

```
<ol type="A">  
  <li>Apple</li>  
  <li>Banana</li>  
</ol>
```

### **Output:**

- A. Apple
- B. Banana

```
<ol type="i">  
  <li>Step One</li>  
  <li>Step Two</li>  
</ol>
```

### **Output:**

- i. Step One
- ii. Step Two

### **Using start and reversed:**

```
<ol start="5">  
  <li>Point A</li>  
  <li>Point B</li>  
</ol>
```

**Output:**

5. Point A
6. Point B

```
<ol reversed>  
  <li>Final Step</li>  
  <li>Second Last Step</li>  
</ol>
```

**Output:**

2. Final Step
1. Second Last Step

**Example:**

```
<html>  
  <head>  
    <title>Order List</title>  
  </head>  
  <body>  
    <ol>  
      <li>Item 1</li>  
      <li>Item 2</li>  
      <li>Item 3</li>  
    </ol><br>
```

```
<hr>
```

```
<ol type="A">
```

```
  <li>Apple</li>
```

```
  <li>Banana</li>
```

```
</ol><br><hr>
```

```
<ol type="i">
```

```
  <li>Step One</li>
```

```
  <li>Step Two</li>
```

```
</ol><br>
```

```
<hr>
```

```
<ol start="5">
```

```
  <li>Point A</li>
```

```
  <li>Point B</li>
```

```
</ol><br>
```

```
<hr>
```

```
<ol reversed>
```

```
  <li>Final Step</li>
```

```
  <li>Second Last Step</li>
```

```
</ol>
```

```
</body>
```

```
</html>
```

## Unordered Lists (<ul>) in HTML

### **Definition:**

An Unordered List is used to display a list of items without a specific order. The list items are typically marked with bullets (●) by default.

### **Syntax:**

```
<ul>  
  <li>Item A</li>  
  <li>Item B</li>  
  <li>Item C</li>  
</ul>
```

### **Output:**

- Item A
- Item B
- Item C

### Attributes of <ul>:

Attribute	Description	Example
type	Defines bullet style (disc, circle, square)	type="circle"

```
<ul type="square">  
  <li>Red</li>  
  <li>Green</li>  
</ul>
```

**Examples:**

```
<html>  
  <head>  
    <title>Order List</title>  
  </head>  
  <body>
```

```
    <ul>  
      <li>Item A</li>  
      <li>Item B</li>  
      <li>Item C</li>  
    </ul><br><hr>
```

```
<ul type="square">  
  <li>Red</li>  
  <li>Green</li>  
</ul><br><hr>
```

```
<ul type="circle">  
<li>MBA</li>  
<li>MCA</li>  
<li>BCA</li>  
<li>BBA</li>  
</ul><br>
```

```
</body>  
</html>
```

## Description Lists (<dl>) in HTML

### **Definition:**

A Description List is used to display terms and their descriptions, such as in a glossary, FAQ, or list of definitions.

### **It is made up of three main tags:**

- <dl> — Description List (wrapper)
- <dt> — Description Term (what is being defined)
- <dd> — Description Definition (the explanation)

### **Syntax:**

```
<dl>  
  <dt>HTML</dt>  
  <dd>A markup language for creating web pages. </dd>  
  <dt>CSS</dt>  
  <dd>A style sheet language used for describing the look of a  
document. </dd>  
</dl>
```

### **Output:**

HTML

A markup language for creating web pages.

CSS

A style sheet language used for describing the look of a document.

# **Assignments**

## **Q1.**

Create an HTML page with the heading “My Favorite Fruits” and use an ordered list (

) to list 5 fruits.

## **Q2.**

Make a webpage that shows a list of subjects you study in school or college using an unordered list (

).

## **Q3.**

Create a description list (

) of 3 computer parts with their names and short descriptions. Example:

- Monitor – It displays the output.
- Keyboard – Used to type data.
- Mouse – Used to control the pointer.

## **Q4.**

Create an ordered list titled “Steps to Start a Computer” with 4–5 simple steps like pressing the power button, waiting for loading, etc.

## **Q5.**

Design a basic webpage with:

- Your school’s name and class using a description list
- Your 5 best friends’ names using an unordered list
- Your daily school activities using an ordered list

## Anchor Tag (<a href="">)

### **Definition:**

The anchor tag <a> is used to create hyperlinks in HTML. It allows users to navigate to another webpage, section, or file.

### **Basic Syntax:**

```
<a href="URL">Link Text</a>
```

- href stands for hypertext reference
- URL can be a web address, email, or internal page link
- The text between <a> and </a> is the clickable link

### **Types of Links**

#### Internal Links

Used to link within the same website or page.

Example: Link to another page in the same website

```
<a href="about.html">About Us</a>
```

Example: Link to a specific section on the same page

```
<! -- Link -->
```

```
<a href="#contact">Go to Contact Section</a>
```

```
<! -- Target section -->
```

```
<h2 id="contact">Contact Us</h2>
```

## External Links

Used to link to other websites outside your domain.

### **Example:**

```
<a href="https://www.google.com">Visit Google</a>
```

## Opening Links in a New Tab

Use the target="\_blank" attribute to open the link in a new tab.

### **Example:**

```
<a href="https://www.w3schools.com" target="_blank">Open  
W3Schools in New Tab</a>
```

Tip: For security, you can also add rel="noopener noreferrer" with target="\_blank".(HTML5)

```
<a href="https://www.example.com" target="_blank" rel="noopener  
noreferrer">
```

Visit Example Site

```
</a>
```

## **Other Common Attributes:**

<b>Attribute</b>	<b>Description</b>
href	Destination URL
target="_blank"	Opens link in a new tab
title	Shows tooltip on hover
download	Forces download of the linked file
id	Used to target sections with internal links

## **Summary:**

<b>Link Type</b>	<b>Example Code</b>	<b>Opens In</b>
Internal Page	<code>&lt;a href="home.html"&gt;Home&lt;/a&gt;</code>	Same tab
Page Section	<code>&lt;a href="#footer"&gt;Footer&lt;/a&gt;</code>	Scrolls on page
External Link	<code>&lt;a href="https://google.com"&gt;Google&lt;/a&gt;</code>	Same tab
New Tab	<code>&lt;a href="https://abc.com" target="_blank"&gt;Visit&lt;/a&gt;</code>	New tab

## **Example:**

```
<html>
<head>
  <title>Anchor Tag Example</title>
</head>
<body>
  <h1>Anchor Tag Examples</h1>
  <h2>1. Internal Link</h2>
  <p>
    <a href="class_02_ol.html">Go to OL Page</a>
  </p>
```

```
<h2>2. Link to Section on Same Page</h2>
```

```
<p>
```

```
 <a href="#contact">Jump to Contact Section</a>
```

```
</p>
```

```
<h2>3. External Link</h2>
```

```
<p>
```

```
 <a href="https://www.google.com">Visit Google</a>
```

```
</p>
```

```
<h2>4. Open Link in New Tab</h2>
```

```
<p>
```

```
 <a href="https://www.usbm.ac.in" target="_blank" >
```

```
   Open USBM in a New Tab
```

```
 </a>
```

```
</p><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>
```

```
<br><br><br>
```

```
<h2 id="contact">Contact Us</h2>
```

```
<p>Email: contact@example.com</p>
```

```
</body>
```

```
</html>
```

# Anchor Tag Assignments

## **Q1. Create a Link to Google**

### **Task:**

Create a simple HTML page with a clickable link that takes the user to [www.google.com](http://www.google.com).

## **Q2. Open a Website in a New Tab**

### **Task:**

Create a link to [www.wikipedia.org](http://www.wikipedia.org) and make it open in a **new tab** using target="\_blank".

## **Q3. Link Two Pages**

### **Task:**

Create two pages:

- page1.html
- page2.html

Add a link on page1.html to open page2.html, and vice versa.

## **Q4. Create a Link to an Image**

### **Task:**

Create a link that opens an image (e.g., photo.jpg) when clicked.

## **Q5. Link to a YouTube Video**

### **Task:**

Create a link that opens a YouTube video in the browser. You can use any video link of your choice.

# Images and Multimedia in HTML

## 1. Inserting Images: <img> Tag

### Purpose:

The <img> tag is used to display images in a webpage.

### Basic Syntax:

```

```

## 2. Important Attributes of <img>

Attribute	Description	Example
src	Source of the image file	src="pic.jpg"
alt	Alternate text shown if image doesn't load	alt="Logo Image"
width	Sets the width of the image (in px or %)	width="200"
height	Sets the height of the image (in px or %)	height="150"

### Example:

```

```

## 3. Embedding Videos and Audio

### Video Element: <video>

Used to embed a video file in your webpage.

### Example:

```
<video width="320" height="240" controls>
```

```
<source src="movie.mp4" type="video/mp4">  
Your browser does not support the video tag.  
</video>
```

### **Audio Element: <audio>**

Used to embed sound or music.

#### **Example:**

```
<audio controls>  
<source src="song.mp3" type="audio/mpeg">  
Your browser does not support the audio tag.  
</audio>
```

## **4. HTML5 Multimedia Elements**

<b>Element</b>	<b>Purpose</b>
<video>	Embeds video files
<audio>	Embeds audio/music files
<source>	Defines multiple media sources for audio/video
controls	Adds play, pause, volume controls
autoplay, loop, muted	Optional playback features

## **5. Embedding YouTube Videos**

To embed a YouTube video, use the iframe tag:

Steps:

1. Go to the YouTube video.
2. Click on Share → Embed.
3. Copy the <iframe> code and paste it into your HTML.

### **Example:**

```
<iframe width="560" height="315"  
src="https://www.youtube.com/embed/VIDEO_ID"  
title="YouTube video player" frameborder="0"  
allow="accelerometer; autoplay; clipboard-write; encrypted-media gyroscope;  
picture-in-picture"  
allowfullscreen>  
</iframe>
```

### **Summary Table**

<b>Feature</b>	<b>Tag</b>	<b>Example</b>
Image	<img>	
Video	<video>	<video src="movie.mp4" controls>
Audio	<audio>	<audio src="song.mp3" controls>
YouTube	<iframe>	<iframe src="..."></iframe>

## **Examples:**

```
<html>
<head>
    <title>Module 4: Images and Multimedia</title>
</head>
<body>

    <h1> Images and Multimedia</h1>

    <!-- Image Section -->
    <h2>1. Inserting an Image</h2>
    

    <hr>

    <!-- Video Section -->
    <h2>2. Embedded Video</h2>
    <video width="400" height="300" controls>
        <source src="sample-video.mp4" type="video/mp4">
        Your browser does not support the video tag.
    </video>

    <hr>
```

```
<!-- Audio Section -->

<h2>3. Embedded Audio</h2>

<audio controls>

  <source src="sample-audio.mp3" type="audio/mpeg">
  Your browser does not support the audio element.

</audio>

<hr>

<!-- YouTube Video Section -->

<h2>4. Embedded YouTube Video</h2>

<iframe width="560" height="315"
  src="https://www.youtube.com/embed/dQw4w9WgXcQ"
  title="YouTube video player" frameborder="0"
  allow="accelerometer; autoplay; clipboard-write; encrypted-
media; gyroscope; picture-in-picture"
  allowfullscreen>

</iframe>

</body>

</html>
```

## Assignments – Images & Multimedia

## **Q1. Insert an Image**

Create a simple HTML page with a heading “My Favorite Picture” and insert any image using the `<img>` tag.

Use `src`, `alt`, `width`, and `height` attributes.

## **Q2. Embed a Video**

Create a webpage that shows a short video using the `<video>` tag.

Use the `controls` attribute so users can play/pause it.

## **Q3. Embed an Audio Clip**

Design a page titled “My Favorite Song” and embed an audio file using the `<audio>` tag.

Make sure it has play/pause controls.

## **Q4. Embed a YouTube Video**

Create a webpage that includes a YouTube video (any of your choice) using the `<iframe>` tag.

## **Q5. Multimedia Profile Page**

Create a simple “My Profile” webpage that includes:

- A profile image (`<img>`)
- A short video (`<video>`)
- A favorite music clip (`<audio>`)