



PES
UNIVERSITY

CELEBRATING 50 YEARS

Web Design

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Web Design

Designing Websites

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Web Design

Image Tag



- The `` tag is used to embed an image in an HTML page.
- Images are not **technically** (usually not physically inserted into a web page) inserted into a web page;
- instead, they are linked to the page using HTML. **This is done with the `` tag**
- The `` tag creates a holding space for the referenced image.



Web Design

Images Formats



- JPEG (.jpg, .jpeg)
- PNG (.png)
- GIF (.gif)
- WEBP (.webp)
- SVG (.svg)
- BMP (.bmp)
- ICO (.ico)
- AVIF (.avif)
- APNG (.apng)
- TIFF (.tif, .tiff)



GIF (Graphic Interchange Format) –

- 8-bit /Pixel color (256 different colors)

each pixel in the image is represented by an 8-bit value. **This 8-bit value can represent up to 256 different colors.**

An **8-bit value per pixel** means that each pixel can store $2^8 = 256$ distinct values.

This limited color range can make **GIFs less suitable for images** that require a wide spectrum of colors.

it works well for simpler graphics and images with fewer **colors, like logos and icons.**



JPEG (Joint Photographic Experts Group)

- 24-bit color/Pixel (16 million different colors)

Widely used for **photographs and images** with gradients due to its efficient compression.

- Both use compression, but JPEG **compression is better**.
- which means that the **image quality is preserved** without any loss of data



Web Design

Images



- **Portable Network Graphics (PNG)**

- Bitmap format, transparent and larger number of colors
- Should eventually replace both gif and jpeg
- Information about PNG can be found in www.w3.org/Graphics/PNG
- **Better compression than GIF** while keeping image quality. reduces file size without losing any image detail.
- Web graphics with sharp edges (logos, icons).
- Screenshots and technical diagrams where clarity is important.

- **8-bit indexed PNG** → 256 colors

- **24-bit truecolor PNG** → ~16.7 million colors

- **32-bit PNG** (truecolor + alpha) → ~16.7 million colors + 256 transparency levels



Web Design Images



- **JPEG (Joint Photographic Experts Group)** – A widely used compressed image format ideal for photographs and web use.
- **JPG (Joint Photographic Experts Group)** – Same as JPEG; just a shorter file extension used mainly in Windows.
- **PNG (Portable Network Graphics)** – A lossless image format that supports transparency, ideal for web graphics.
- **GIF (Graphics Interchange Format)** – Supports 256 colors and animation; commonly used for simple moving images.
- **WEBP (Web Picture format)** – A modern format by Google offering better compression and quality, supporting transparency and animation.



Web Design

Images



- **SVG (Scalable Vector Graphics)** – An XML-based vector image format that scales without loss of quality, perfect for logos and icons.
- **BMP (Bitmap Image File)** – A raster graphics image format that is uncompressed and large in size, rarely used on websites.
- **ICO (Icon format)** – Used for small icons like website favicons; supports multiple sizes and resolutions.
- **TIFF / TIF (Tagged Image File Format)** – A high-quality image format used in printing and scanning, with limited browser support.



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Images attributes



The tag has two required attributes:

- src - Specifies the path to the image
- alt - Alternate text for the image

Alt : providing a description of the image so they can understand its content and context.
It provides a description of the image content if image is not displayed

Example:

```
<img src = “comets.jpg” alt= "Picture of cat" />
```

The tag has 30 different attributes, including width and height (in pixels)

<https://www.w3.org/TR/html401/struct/objects.html#edef-IMG>



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Images attributes



width and height (*optional*):

Define the width and height of the image in pixels or percentages. Html

```

```

style (*optional*):

Used to apply CSS styles directly.

```

```



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Images attributes



Example of Complete Image Tag:

```

```



Web Design

Image Tag

Example 1

```
<!DOCTYPE html>
<html>
<body>

<h1>The img element</h1>



</body>
</html>
```

The **img** element





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Images Alignments



The most common and useful ones include:

1. vertical-align:baseline; *(default)*

Aligns the bottom edge of the image to the baseline of the surrounding text.

2. vertical-align:top;

Aligns the top edge of the image to the top of the tallest text in the line.

3. vertical-align:bottom;

Aligns the bottom of the image with the bottom of the text's baseline, making the image appear lower.

4. vertical-align:middle;

Vertically aligns the center of the image to the center of the surrounding text line.



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Images Alignments



5.vertical-align:text-top;

Aligns the top of the image with the top of the text's font, often slightly above the standard "top".

6.vertical-align:text-bottom;

Aligns the bottom of the image with the bottom of the text's font, slightly higher than standard "bottom".



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Images

Example 2

```
<html>
  <body>

    <h1>Align image inline CSS</h1>

    <h2>vertical-align: bottom</h2>
    <p>This is some text.
    
    This is some text. This is some text. This is some text. </p>

    <h2>vertical-align: middle</h2>
    <p>This is some text.
    This is some text. This is some text. This is some text. </p>

  </body>
</html>
```



Web Design

Images

Example 2 - Output

Align image with CSS

vertical-align: bottom



This is some text.

This is some text. This is some text. This is some text.

vertical-align: middle



This is some text.

This is some text. This is some text. This is some text.



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Images



The image will be positioned differently relative to the baseline of the surrounding text, depending on whether vertical-align: bottom or vertical-align: middle is used.

•vertical-align: bottom: Aligns the bottom of the image with the bottom of the text's baseline. This can make the image appear lower relative to the surrounding text.

•vertical-align: middle: Aligns the middle of the image with the middle of the text's line height. This can make the image appear vertically centered with the surrounding text.

Align image with CSS

vertical-align: bottom



This is some text.

This is some text. This is some text. This is some text.

vertical-align: middle



This is some text.

This is some text. This is some text. This is some text.



Web Design

Images



Example 3

Aidan's Airplanes

The best in used airplanes

"We've got them by the hangarful!"

Special of the month

1960 Cessna 210

577 hours since major engine overhaul

1022 hours since prop overhaul



Buy this fine airplane today at a remarkably low price
Call 999-555-1111 today!



Web Design

Images



Example 4

Content on the Left, Image on the Right

This is some text content that will appear on the left side of the page. The image is aligned to the right, so the text wraps around the image on the left side. You can continue writing more text here, and it will automatically adjust around the image.

More text content below the image. If the text is long enough, it will continue to wrap around the image and then return to full width below it.

- Top fun facts about roses for kids and adults 1. Roses are in the same family as apples and crab apples (the rose family – Rosaceae).
- 2. A rose produces a fruit – a rose hip that resembles a crabapple. Rose hips are packed with vitamin C and can be dried to create a refreshing tea. People also use rose hips for making jam, marmalade, and fruit juice.
- 3. Rosa canina and Rosa rugosa produce the best tasting hips.
- 4. Both rose hips and rose petals are edible (if grown organically).

The Rose Parade is an annual tradition that dates back to 1890. It's held in Pasadena, California on New Year's Day (but never on Sundays). The parade travels along a 5.5-mile route through Pasadena and features dozens of commercial, non-commercial, and self-built floats covered with flowers, along with marching bands and equestrian units.



<http://127.0.0.1:52226/preview/app/index.html>



EL 1

Create a webpage for a restaurant named “Tasty Treats”. Include the following:

- Main heading: Tasty Treats (bold, large)
- Subheading: “Delicious dishes served fresh”
- Quote: "Your hunger ends here!" (in italics)
- Section: Dish of the Month
- Content: Name of a dish, preparation time, and calories (use line breaks)
- Image: Picture of the dish (use any image or placeholder)
- Message: Invite the user to visit or call a number



Web Design

Images



Output - EL1

Tasty Treats

Delicious dishes served fresh

"Your hunger ends here!"

Dish of the Month

Spicy Paneer Masala (images)

25 minutes to prepare

420 calories per serving

![Aloo Paratha] (images)

Buy this delicious dish today at a special price!

Call 987-654-3210 now!



Web Design

Images



EL2

Create a webpage for img tag by including all the image alignments

EL 3

Tech Product Promotion

Design an HTML ad page for a gadget (e.g., Smartwatch). Include:

- Main heading with product name
- Subheading with slogan
- A quote in italics
- Technical details (battery, screen size, features) using

- Product image
- Call-to-action message with contact number



THANK YOU

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