Image Elements

Image Tag :

The *<img>* tag is an HTML element used to embed images in a web page. It is a self-closing tag, meaning it does not require a closing tag. The *<img>* tag has several attributes that define how the image should be displayed, including the src attribute, which specifies the URL of the image, the alt attribute, which provides alternative text for the image, and the width and height attributes, which specify the dimensions of the image.

The syntax for the *img* tag is as follows:

```
<img src="image_url" alt="alternative_text" width="width_pixels" height="height_pixels">
```

Attributes :

1. Source : src (required) specifies the URL of the image to be displayed.

2. Alternative Text : alt (required) provides an alternative text description of the image for users who are visually impaired or who have images disabled in their browser.

3. Width : width (optional) specifies the width of the image in pixels.

4. Height : height (optional) specifies the height of the image in pixels.

5. Loading : The *loading* attribute in the *<img>* tag is used to control how the browser loads and displays images on a web page. It is a new attribute introduced in HTML5 and is used to optimize the loading and rendering of images to improve web page performance.The *loading* attribute can have three possible values:

- *auto* : This is the default value, and it tells the browser to load the image as soon as possible.
- *lazy :* This tells the browser to delay loading the image until it is about to come into the viewport or the visible area of the web page. This can help reduce the initial load time of the page and improve performance, especially for images that are located below the fold or not immediately visible to the user.
- *eager* : This tells the browser to load the image immediately, even if it is not currently visible in the viewport. This can be useful for images that are critical to the content or layout of the page and need to be loaded and displayed as soon as possible.

Note : It is an self closing tag.

Example :

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Image Elements</title>
</head>
<body style="display: flex;flex-direction:column;">
    <h1>Image Tag</h1>
    <img src="./image.png" alt="no image" width="200px" height="200px"/>
    <h1>Eager Loading</h1>
    <img src="./image.png" alt="no image" width="200px" height="200px"
loading="eager" />
    <img src="./image.png" alt="no image" width="200px" height="200px"
loading="eager"/>
    <img src="./image.png" alt="no image" width="200px" height="200px"
loading="eager"/>
    <img src="./image.png" alt="no image" width="200px" height="200px"
loading="eager"/>
    <img src="./image.png" alt="no image" width="200px"
height="200px"loading="eager"/>
    <img src="./image.png" alt="no image" width="200px"
height="200px"loading="eager"/>
    <img src="./image.png" alt="no image" width="200px"
height="200px"loading="eager"/>
    <h1>Lazy Loading</h1>
    <img src="./image.png" alt="no image" width="200px" height="200px"
loading="lazy" />
    <img src="./image.png" alt="no image" width="200px" height="200px"
loading="lazy"/>
```

```html
        <img src="./image.png" alt="no image" width="200px" height="200px"
loading="lazy"/>
        <img src="./image.png" alt="no image" width="200px" height="200px"
loading="lazy"/>
        <img src="./image.png" alt="no image" width="200px"
height="200px"loading="lazy"/>
        <img src="./image.png" alt="no image" width="200px"
height="200px"loading="lazy"/>
        <img src="./image.png" alt="no image" width="200px"
height="200px"loading="lazy"/>


</body>
</html>
```

Output :

Image Tag

Eager Loading

Output

Lazy Loading

Output

Explanation :

This is a basic HTML document with an image tag that displays an image file called *"image.png"*. The tag includes the *"src"* attribute, which specifies the path to the image file. The *"alt"* attribute is also included, which provides a text description of the image in case it cannot be displayed.

In addition to the basic image tag, there are multiple image tags included with the *"loading"* attribute set to *"eager"* or *"lazy"*. The *"loading"* attribute specifies when and how the browser should load the image. *"Eager"* loading means the browser will load the image as soon as possible, while *"lazy"* loading means the browser will wait until the image is needed before loading it. This can help improve website performance by reducing the amount of unnecessary resources loaded on a page.