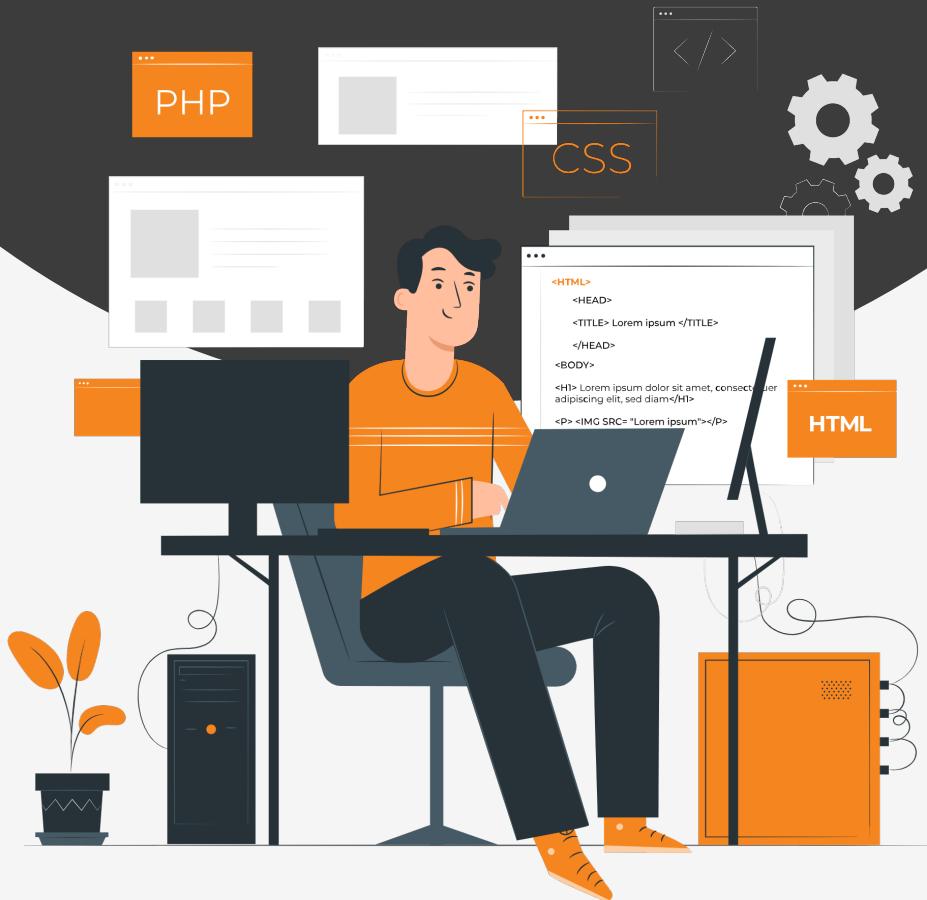


# Lesson:

# SEO - Search Engine Optimization



# Topics Covered

- What is SEO
- Introduction to head tag
- Tags used inside the head tag (title, link, style, meta )
- Introduction to Meta Tags and their usage
- Benefits of using meta tags
- Favicon

## What is SEO

SEO stands for Search Engine Optimization. It helps you optimize your websites so that they have better rankings on Search Engines like Google, Bing and Yahoo.

The ultimate goal of SEO is to rank higher in search engine results pages for relevant keywords and phrases, which can **increase visibility, traffic**, and ultimately revenue for the website.

It is essential for businesses that want to succeed in the digital age. In HTML, a common way to help search engines is to include **document titles** and some important **meta tags**.

Meta tags are important for SEO because they provide information to search engines about the content on your site and can help improve your website's visibility and ranking in search engine results pages

## Introduction to head tag

The <head> tag in HTML is indeed an element that contains important information and metadata about the document. It is placed between the <html> tag and the <body> tag. The <head> tag typically includes various elements that provide additional information and instructions to the web browser and search engines.

The head tag in HTML can consist of a Meta tag, title tag, script tag, and so on.

Example code of Head tag (highlighted in blue colour)

```
Unset
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <meta http-equiv="X-UA-Compatible" content="ie=edge" />
    <title>Document</title>
    <script src=""></script>
  </head>
  <body></body>
</html>
```

## Tags used inside the head tag (title, link, style, meta)

The title, link, style, and meta are some of the tags that are commonly used inside the head tag.

Let's understand them (title, link, style, and meta) in detail

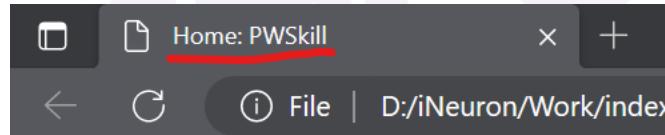
**The title tag “<title>”:** The **<title>** tag specifies the title of the document, which is displayed as the page title in the browser's title bar or tab. It helps users identify the webpage and search engines understand the page's content

### Example illustration of the title tag

```
JavaScript
<!DOCTYPE html>
<html>
  <head>
    <title>Home : PWSkill </title>
  </head>
  <body>
    <!-- Content of the web page goes here -->
  </body>
</html>
```

After running the above code with any Live Server extension in Vscode, Browser output -

This **title** appears in the **Browser Tab** as shown below.



**The link tag <link>:** The **<link>** tag is used to reference external resources such as CSS stylesheets, icon files (favicon), or alternate versions of the page for different devices or languages.

### Example illustration of link tag

```
JavaScript
<link rel="stylesheet" href="style.css">
```

The above example illustration uses link tags, which, link to an external stylesheet.

**The style tag “<style>”:** The **<style>** tag is used to define internal CSS styles that are applied to the document. It allows you to specify custom styling rules for elements on the page.

## Example illustration of style tag inside the Head tags

```
JavaScript
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Home: PWSkill</title>
  <style>
    body {
      background-color: powderblue;
    }
  </style>
</head>
```

Output – change the background colour of the web pages.

**The meta tag <meta>:** The <meta> tag provides metadata about the document, including character encoding, viewport settings for responsive design, author information, keywords, and descriptions for search engines.

We will see more about meta tags with examples in the next section

These elements within the <head> tag are essential for providing relevant information, optimizing the document for search engines, and controlling various aspects of the web page's presentation and behaviour.

It's important to note that the <head> tag does not directly affect the visible content of the webpage but plays a crucial role in enhancing the user experience, improving search engine visibility, and controlling the presentation and functionality of the document.

The head tag in HTML is a crucial element for Search Engine Optimization (SEO) as it provides important information and signals to search engines about the web page's content

## Introduction to Meta Tags and their Usage

Meta tag <meta> in HTML is used to provide information about a web page to search engines, browsers, and other web services.

### Usage of Meta tags

Some of the uses of meta tags are as follows –

- charset – This Meta tag specifies the characters encoding for the document.

Example meta tag (charset)

```
JavaScript
<meta charset="UTF-8" />
```

viewport - This viewport meta tag helps in making the web pages responsive on different devices by setting the viewport width to the device's width and ensuring the initial zoom is 1.0

### **Example illustration of style tag inside the Head tags**

JavaScript

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

description - This meta tag Provides a brief description of the page's content, often used by search engines to display a snippet in search results.

### **Example of meta tags (description)**

JavaScript

```
<meta name="description" content="Write something about the
website">
```

- author - This meta tag indicates the author of the web page

Example of meta tags(author)

JavaScript

```
<meta name="author" content=" Enter website author name">
```

- keywords - This meta tag specifies a list of keywords or phrases that are relevant to the page's content. However, major search engines like Google no longer consider this meta tag for ranking purposes.

### **Example of meta tags(keyword)**

JavaScript

```
<meta name="keywords" content="keyword1, keyword2,
keyword3">
```

- refresh - This meta tag redirects the user to another URL or refreshes the page itself after a specific time

### **Example of meta tags (refresh) - page redirect after 5 sec.**

JavaScript

```
<meta http-equiv="refresh"
content="5;URL=https://example.com/">
```

## Benefits of using meta tags

Using meta tags in HTML documents provides several benefits for web developers, search engines, and users. Some of the key benefits include

- **SEO (Search Engine Optimization):** Meta tags, such as the "description" and "keywords" tags, can help improve a webpage's visibility on search engine result pages (SERPs). A well-crafted meta description can attract users to click on the link, while the keywords tag, although less impactful than in the past, can still provide search engines with relevant information about the page's content.
- **Social Media Sharing:** Meta tags like the Open Graph Protocol tags allow developers to control how web pages are displayed when shared on social media platforms like Facebook, Twitter, and LinkedIn. They define the title, description, and image that appear in social media posts, making shared links more attractive and informative.
- **Character Encoding and Language:** The meta tag specifying the character encoding (e.g., UTF-8) ensures that the browser interprets the text correctly, especially when dealing with special characters or multilingual content.
- **Viewport Control:** The viewport meta tag is crucial for responsive web design. It allows developers to set the initial scale and width of the viewport, making sure the webpage adapts well to different screen sizes and resolutions,
- **HTTP-Equiv Tags:** Meta tags with http-equiv attribute (e.g., <meta http-equiv="refresh">) enable specific HTTP header functionalities, like refreshing or redirecting the page after a certain time. While overusing them can be detrimental, there are valid use cases for handling page behavior.
- **Web Accessibility:** Certain meta tags can improve web accessibility by providing additional information to assistive technologies, making it easier for users with disabilities to navigate and understand the content.

## Favicon

A favicon (favourite icon) is a tiny icon included along with a website, which is displayed in places like the browser's address bar, page tabs and bookmarks menu.

Usually, a favicon is **16 x 16 pixels** in size and stored in the **GIF, PNG, or ICO** file format.

They are used to improve user experience and enforce brand consistency. When a familiar icon is seen in the browser's address bar, for example, it helps users know they are in the right place.

### Example of meta tags(keyword)

1. **Create a favicon image** - create a favicon image using some photo editor software or an online favicon generator like "<https://favicon.io/>"
2. **Save the image** - name the image with the desired name and save it with the extension of ico png or gif.  
Example: **favicon.ico** or **favicon.png** or **favicon.gif**
3. Add the **favicon.ico** image using the link tag

Unset

```
<link rel="icon" href="image/favicon.ico" />
```

## Browser output -

