

PACKETPREP - HTML NOTES

HTML

- HTML stands for **HyperText Markup Language**.
- It is used to create the markup or the structure of a webpage.
- “.html” is the extension which is used to save an html file.
- HTML uses **tags** to describe the content.
- HTML also has **meta** tags which give additional information about the webpage.
- A **meta** tag consists of a **name** and a **value**.
- HTML5 is the current version of HTML.
- **<!DOCTYPE html>** is the declaration used to represent the HTML5 version.
- The basic HTML structure consists of 3 tags.

They are: <html>, <head>, <body>.

The <html> tag is the starting tag of a html document and </html> is the ending tag of an html document. In <head> tag, information related to the website is stored but it is not visible to the user.

Whatever the content user sees in a webpage is embedded in <body> tag using various other tags present in HTML.

- The basic tags of HTML are heading tags, paragraph tag, image tag, media tags, anchor tag.

BODY Tag:

- Whatever the user sees in the website, is written inside the body tag.
- Inside the <body> tag we can write tags such as.
Ex: <h1></h1>...<h6></h6>, <p></p>, , <a> and many more..

Heading tags:

- There are **6 heading tags** in HTML.
- <h1></h1>, <h2></h2>, <h3></h3>, <h4></h4>, <h5></h5>, <h6></h6>
- <h1> is the largest heading whereas <h6> is the smallest heading.

Paragraph tag :

- <p></p> tag represents the paragraph in HTML.

Hyperlink:

- A hyperlink is used to to redirect the user from a web page to another webpage.
- In HTML, <a> tag represents the hyperlink.

- **href** and **target** are the main attributes used along with `<a>` tag. *href* is used to represent the source of the link and *target* attribute is used to open the link in a new window or present window of the browser.

Image Tag:

- To insert images in an html document, **``** tag is used.
- **img** is a self closing tag, since it doesn't have a closing tag.
- Along with image tag **src** and **alt** attributes are used to specify the source or path of the image and image description.
src = shows the path of an image where it is stored
alt = displays the image-description when the image fails to load.

Lists:

- There are two types of lists in HTML. They are:
 1. Unordered list
 2. Ordered list
- A list is commonly used to group related items.
- Unordered list starts with a `` tag and ends with `` tag. List items are included between `` and `` using `..` tag. Unordered list displays text in bullet point format.
- Ordered list starts with a `` tag and ends with `` tag. List items are included between `` and `` using `..` tag. Ordered list displays text in number format.

Tables:

- Using tables, we can place html data in rows and columns.
- To define a table in html, `<table>` tag is used. To create rows `<tr>` tag is used and to define data in columns `<td>` tag is used. Each and every tag in table must be closed with their respective tags.
- Some of the commonly used tags to create table:
`<table></table>`, `<tr></tr>`, `<td></td>`, `<th></th>`

Forms:

- Forms are used to collect information from the user. We can create these forms in html using the `<form>` tag.
- Commonly used tags inside of a form are `<input/>`, `<label></label>`, `<select>` and `<option>`
- `<input/>` tag is also called as a self-closing tag because it doesn't have a closing tag.
- There are a few attributes which are used when declaring an input tag, these give the information about the behavior of the input box.
- Commonly used type attributes inside the input tag are:

type="text", type="email", type="submit", type="file", type="password", type="checkbox", type="radio" and type="date".

- **type="text"** makes sure that the data inside the input box is of type text.
- **type="email"** makes sure that the data inside the input box is a valid email address format.
- **type="password"** makes sure that the data is not visible while typing the password.
- **type="file"** is used to upload the files from users system. It provides a "*browse*" button to search the files.
- **type="date"** creates a calendar in the input field to select the day.
- **type="checkbox"** provides a squared box to select the multiple options from a given options group.
- **type="radio"** is used to select only one option from given list of options.

Empty Tag:

- Most of the html tags contains a starting tag and a ending tag.
Ex: <h1></h1>, <p></p> etc
- But few html tags don't require a closing tag. These tags are known as Empty tag or self-closing tag.
- Following are the self-closing tags present in html
 -
 -

 - <hr/>
 - <input/>
 - <link>
 - <meta>
 - <source>
- These are known as empty tags because there is no need to write content when we declare these tags.
Ex: <h1>content</h1>
<img src=<https://behance.com/images/article.jpg> alt="article-image"/>
In image tag we don't need to mention any content to display the image. Similarly, above tags don't need any content to display in the web page.

HTML Elements:

- HTML Element consists of a starting tag, content and a closing tag.
Ex: <p>content</p>
- Difference between HTML tag and HTML element is a HTML tag lives in angle brackets (<>) where the HTML element contains the content and tags.

Block-level elements and Inliine Elements:

- A block level element takes the entire viewport width while the inline element takes only the width of the content.
- Examples of block-level elements are <div>, heading tags, <p>, , etc.

- Examples of inline elements are ``, `<a>`, ``, `<i>`, ``, `<input/>` etc.

HEAD Tag:

- HTML Head tag contains `<title>`, `<link>`, `<meta>` and `<script>` tags.
- The head doesn't display the data in the web page. The data present in head tag is mostly used for browsers and search engines.
- The `<title>` tag specifies the title of the webpage on top of the browser bar.
- The `<link>` tag is used to link stylesheet, fonts and other third-party resources of the webpage.
- The `<meta>` tag contains the content of the website which is used by browser. It tells the browser how to render and display the webpage. It also specifies the character set used for the website, description, keywords, viewport-width etc.

HTML Semantics:

- HTML Semantic elements describe the meaning of the tag to both the browser and the developer.
- It was introduced in HTML5.
- Examples of HTML Semantic elements are:
 - `<header>`
 - `<footer>`
 - `<article>`
 - `<aside>`
 - `<main>`
 - `<nav>`
 - `<section>`
- If you don't declare `<!DOCTYPE html>` at the starting of the html code these semantics are ignored by the browser and it will consider as a normal tag.