

CSS

Chapter #0

What is CSS:-

CSS stands for Cascading Style Sheets.

It is a stylesheet language used to describe the presentation (look and layout) of a document written in HTML.

Key point:-

CSS is a styling language it means that it is the beauty of web-pages.

Without CSS web-pages are just simple and old fashion - But CSS provide them a new beautiful life.

CSS is the beauty of HTML webpages

Types / adding CSS in HTML:

There are three types or three ways to add CSS in our HTML webpage:

- Inline
- Internal
- External

eg:-

```
<html>
```

```
<head>
```

```
<title> CSS Notes </title>
```

```
<link rel="stylesheet" href="name.css">
```

external

```
<style>
```

CSS → Internal

```
</style>
```

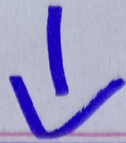
```
</head>
```

```
<body style="css">
```

Inline

```
</body>
```

```
</html>
```

In external file "name" is the name of css file and ".css" is the extension of css file.

Syntax of CSS is:

Selector {

property: value;

property: value;

}

Chapter # 1

Selectors in CSS

Some of the most Important selectors in CSS are given below.

1 → Universal Selector (*)

The universal selector (*) is used to select all elements on the page.

If I am honest it is 99% used for removing default margin and padding from the page.

Syntax:

```
* {
```

```
margin: 0;
```

```
padding: 0;
```

```
}
```

2 → Element Selector:

The element selector is used to

targets all the elements of a specific type.

eg:-

p {

color: blue;

}

Here the p indicates the paragraphs of the whole HTML page - and the property color is used to make the text color blue -

3 → Class Selector (.)::

This selector targets the all elements or tags inside a specific class.

Syntax:-

.class_name {

property : value;

}

4 → ID Selector (#)::

This selector is used to target all the elements inside a specific ~~class~~ Id.

Syntax:

```
#class_name {  
    property: value;  
}
```

5 → Group Selector:

Group selector is used to apply same style to multiple selectors.

Syntax:

```
selector, selector, selector {  
    property: value;  
}
```

6 → Descendant Selector:

This selector is used to target an element inside other element.


```
div p {  
  property : value;  
}
```

This selector is gonna apply that specific CSS property on the paragraph inside the div.

7 → Child Selector (>):

The child selector selects only the direct child elements of a specified element — not grand children or deeper nested elements.

Syntax:

```
parent > child {  
  /* styles */  
}
```


Chapter # 2

CSS Colors and Units

CSS provide different color formats and units of measurement to style elements.

CSS Colors:-

CSS colors are given below

Named Colors

Hexadecimal Colors

RGB Colors

RGBA Colors (with opacity)

HSL Colors.

eg:-

color: red;

color: #00ff00 ^{→ zero not 0}

rgb(0,0,255);

rgba(255,0,0,0.5);

color: hsl(120, 100%, 25%);

Well colors are well defined in video

CSS units:-

CSS units are given below-

1→ Pixels (px) -

It is a fixed size unit in CSS-

2→ Percentage (%) -

This unit is used to give size to the childrens from their parents-

3→ Em(em):-

em is a relative unit of measurement used for fonts, spacing, and layout. It is relative to font size of the parent element.

Free point:-

1em = 16px

4 → Rem (rem):

Rem unit relative to root (<html>) font size.

5 - Viewport Width/Height:-

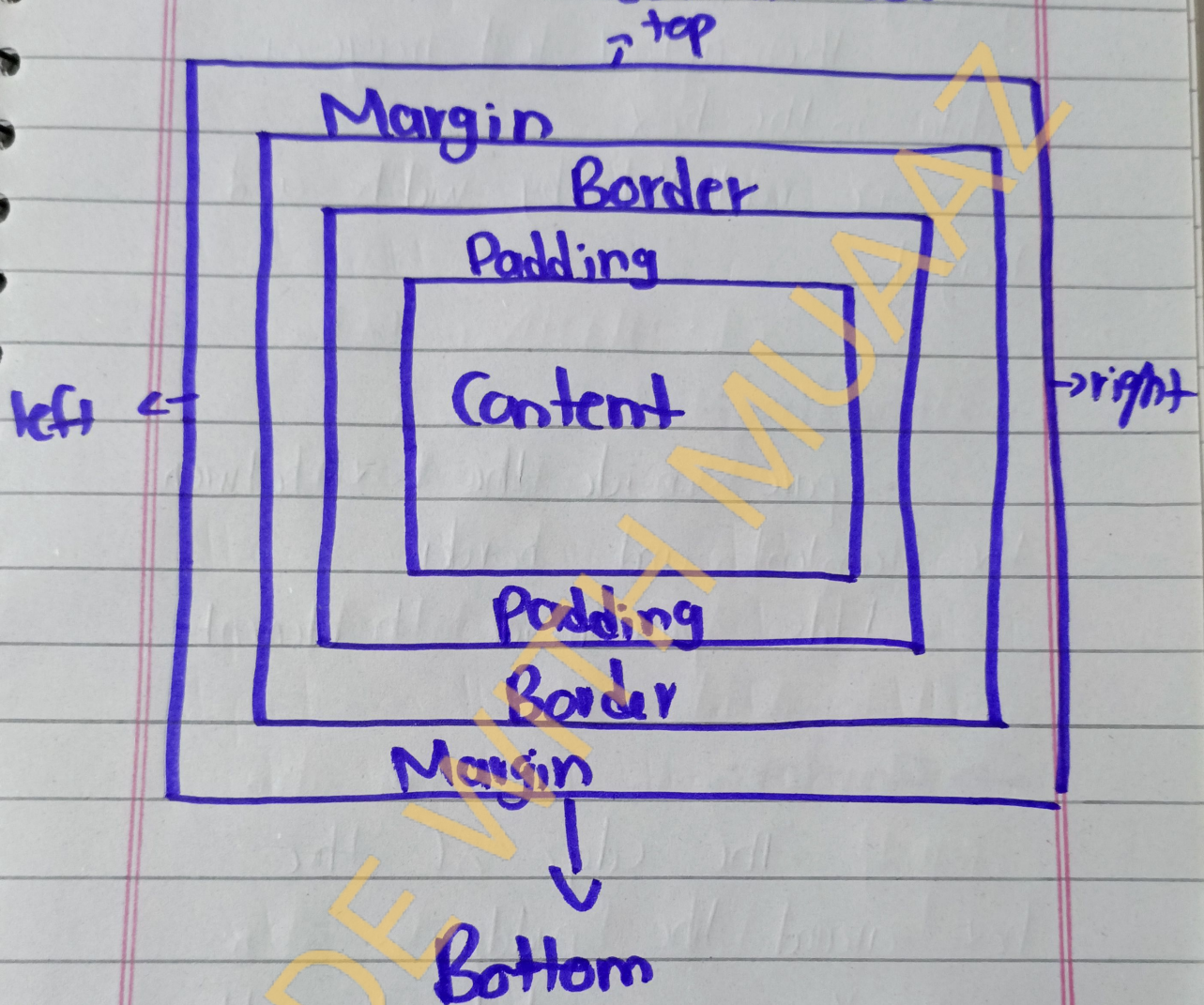
These units are used to give responsive size to the element that depend on the size of width and height of the screen.

vh → height

vw → width

Chapter # 3

Box Model in CSS



The CSS Box Model describe how every HTML element is structured and how space is added around it.

Each element is treated like

a box made up of four layers.

→ Content:

- The actual text, image or data in the box.
- Size controlled by width and height.

→ Padding:

- Space inside the box, between the content and border.
- Adds space inside the element.

→ Border:

- The edge of the box around the padding.
- You can style it with width, color, and type.

→ Margin:

Space outside the box, between the element and other around it.

Chapter # 4

CSS Layout Techniques

Layout Techniques in CSS help you to control how the elements are arranged on a webpage like in rows, columns, or free form styles.

Some CSS layout Techniques are given below.

1 → display Property:

The display property defines how an element behaves in the layout.

Common values:

- **block** - Takes full width (e.g. <div>)
- **inline** - flow within text (e.g.)
- **inline-block** - Like inline but allows width/height
- **none** - Hide all the element completely.

2- Position property:-

The position property controls where an element appears on the page.

Common values:

- **static** - (default) - Normal flow.
- **relative** - Moves relative to its original position.
- **absolute** - A position relative to nearest positioned ancestor.
- **fixed** - Stays in place even when scrolling.
- **sticky** - Sticks to a position when scrolling.

3- float and clear:-

It is used for wrapping elements - (older method)

• **float** - Moves element left or right.

• **clear** - stops elements from wrapping around floated items.

4- z-index in CSS (layer indexing):

The z-index property in CSS is used to control the stack order (layering) of overlapping HTML elements.

Key Points:

- Elements with a higher z-index value appear on top of elements with lower values.
- It only works on elements that have a position set to relative, absolute, fixed or sticky.

Default- Behavior:

- Without z-index, elements stack in the order they appear in the HTML.

- z-index values can be:
 - positive numbers (above others)
 - 0 (normal)
 - negative numbers (behind others)

5- overflow :

Handles content that goes outside the box.

values :

- visible (default)
- hidden
- scroll
- auto