CSS Basics - I

→ appearance
→ Styling
→ Formatting
} How the Content will appear?
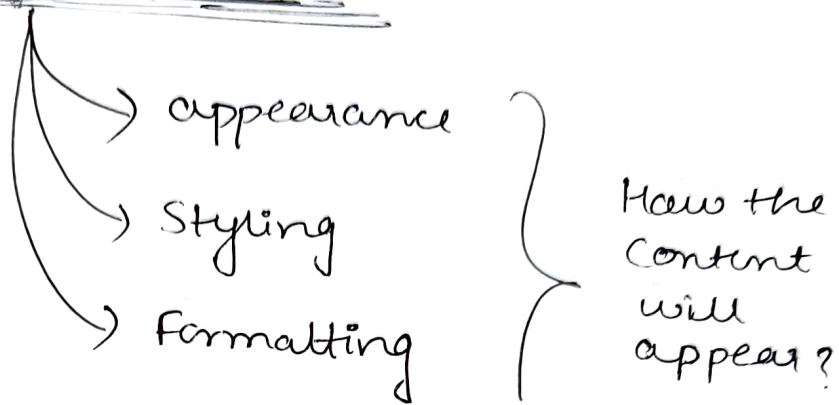
CSS :- Cascading Style Sheet.

→ To Style the web page.

→ We add the properties

→ all about appearance (visual)

Selectors in CSS :- is a way using which we can select an element(s).

1) Simple Selector.

+ Element Selector
+ class Selector
+ ID Selector

2) Psuedo - class Selector

3) Multiple Selector.

→ Selector

a {

    Color : # 02b3c4 ;

} property   value

① **Element Selector**

    ↳ also known as type-selector and Tag Selector.

CSS can Select HTML elements by using an element's tag name. A tag name is the word (or character) b/w HTML angle brackets.

→ It changes every Tag properties present in your Document.

Syntax:-

    P {

        Color : red ;

    }

② Class Selector

Limited selecting elements by tag name.

→ grouping the tags for styling.

→ giving class name.

→ To select an HTML element by its class using CSS, a period (.) must be prepended to the class's name.

→ Classes will NOT be unique, always use for grouping.

─────────── Example ───────────

```
<p class = "green"> ABCD  </p>
<p class = "green"> ABCD </p>
<p class = "blue"> ABCD </p>
```
──────────── x ────────────
```
<style>
  .green {
          color : green;
        }

  . blue {
          color: blue;
        }
</style>
```

3 ID Selector

↳ unique Selector.

→ The delineation is made by using (#) to represent an id.

→ Individual styling.

```
< button id="button"> Submit </button>

    # button {

        color: red;

    }
```

4 pseudo-Classes Selector :-

pseudoclass is a keyword added to a
selector than can change to the
special state of the selected element(s).

ea :-

```
< button > Submit </button
```

CSS :-

```
button:hover {

    color: yellow;

    }          ↑
```
color will change to
yellow when mouse
cursor will go
on the button

(4) Multiple Selector

↳ also called grouping selector.

Multiple Selection of elements

— example —

```
table, tr, td {

        border: 1px solid black;

}
```

— ✗ ———— ✗ —

How to add Styling to HTML?

① Inline

② Internal   } ways of adding
                      CSS

③ External

① Inline CSS :-

Inline CSS is applied in Tag ✓

`<p style="font-style:italic"> Hello u    </P>`

└─────────────┘

inline CSS
in opening tag.

② **Internal CSS :-**

We use `<Style>` tag in
which is written in `<head>` tag.

```
<head>
  <Style>
    h1 {
        text-Shadow: 1px 1px #FF0000;
    }
  </Style>
</head>
<body>
  <h1> Internal CSS applied </h1>
</body>
```

③ **External CSS :-**

We create Seperate CSS File & HTML file.
and then link to each other.

Link using `<link>` element in HTML.
`<link>` element is written inside
head tag.

| Syntax |
```
<link rel="stylesheet"
      href="style.css>
```
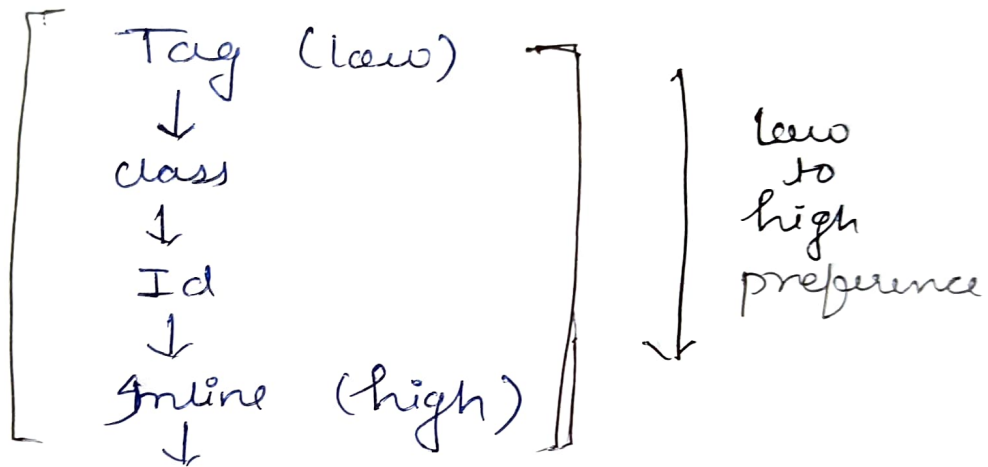
style.css   index.html.

#Specificity :-

→ tag selector
→ class selector
→ id selector
→ inline CSS
→ ! Important (Bad practice)

To know whose Specifity is this.

$$
\begin{bmatrix}
\text{Tag (low)} \\
\downarrow \\
\text{class} \\
\downarrow \\
\text{Id} \\
\downarrow \\
\text{Inline (high)} \\
\downarrow
\end{bmatrix}
\quad
\begin{array}{l}
\text{low} \\
\text{to} \\
\text{high} \\
\text{preference}
\end{array}
$$

! Important (important removes every Selectors & use only selector where Important is written)

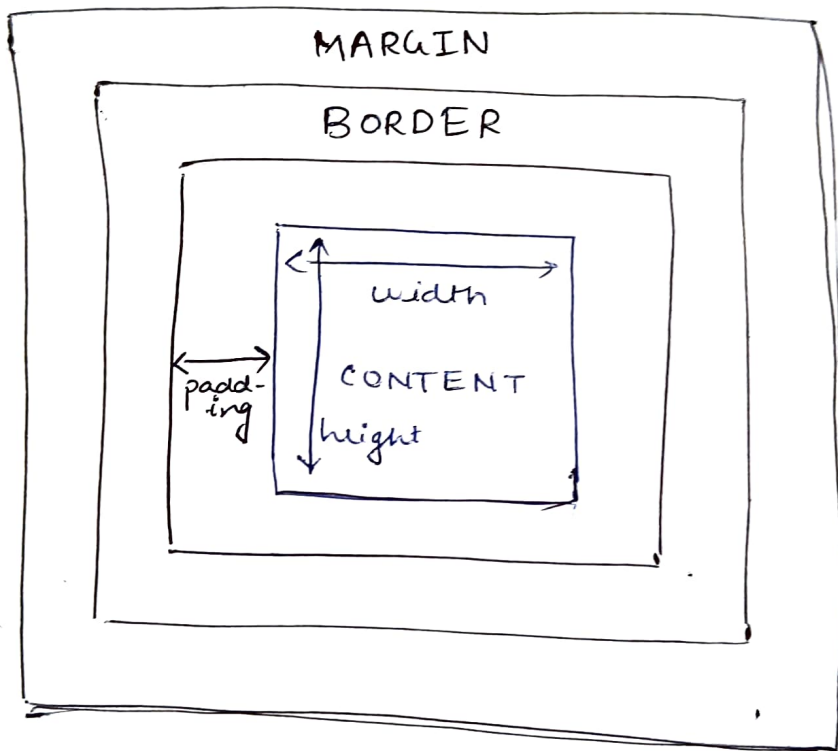
```
<div class ="abc" id ="def"> kya haal hai </div>

<style>
    #def {
            color : red;
          }

    .abc {
            color : blue;
            text-style : italic;
          }

    div { cur : green;
          }
```

> color : red
> &
> text-style : italic
> will be
> applied

Box Model in CSS

→ Basic building block of CSS

→ every element on a page is a rectangular box & may have width, padding, borders & margins


```
MARGIN
  BORDER
     width
     CONTENT
     height
   padd-
   ing
```

(default margin)
→ 8px

✓ Space b/w Border & content → padding
✓ Outer Side of Border Spacing → margin

margin = 10px
          (includes all left, right, top bottom)

margin - left
margin - right   } Specific
margin - top
margin - bottom
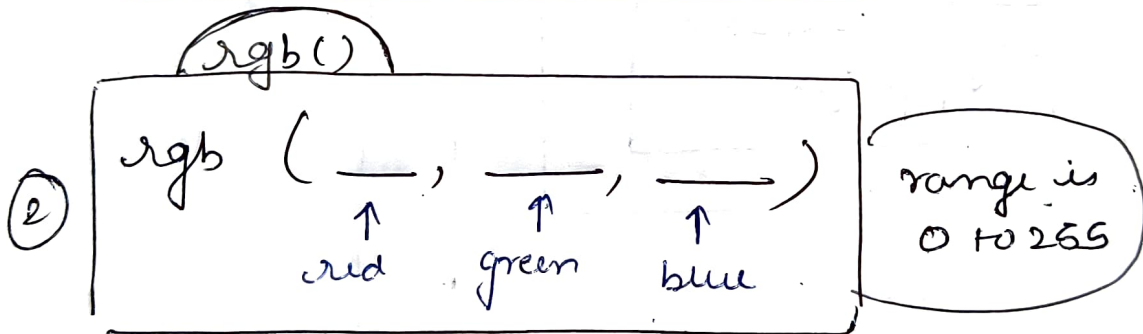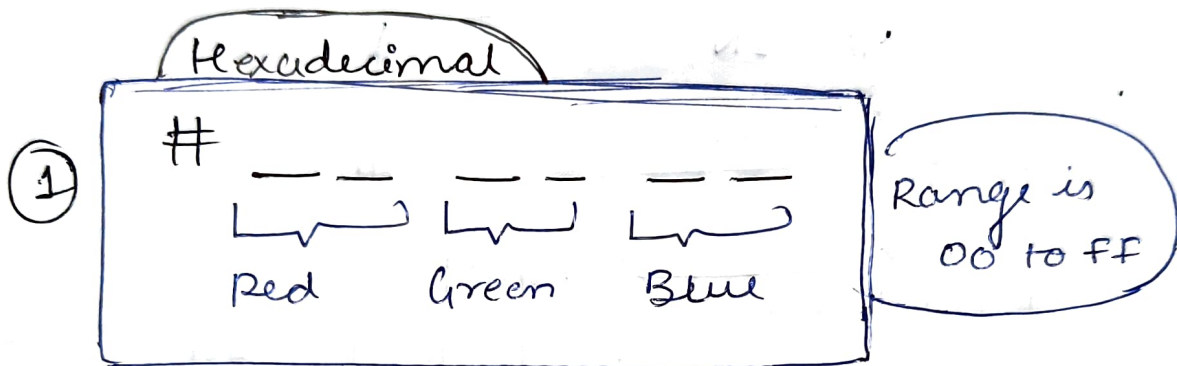
same goes
For padding.

Colors in CSS :-

✓ways to add colors :-

(1) Hexadecimal colors (eg:- #00ffff.)

(2) RGB colors (eg:- rgb(0,0,255))

①
```
Hexadecimal
#  _ _   _ _   _ _
   └──┘  └──┘  └──┘
   Red   Green  Blue
```
Range is 00 to FF

②
```
rgb()
rgb ( __ , __ , __ )
      ↑     ↑     ↑
     red  green  blue
```
range is 0 to 255

rgb() → rgb function.

_____×_____×_____

(3) predefined / Cross - browser color Names .

↳ (140) predefined colors by Name

Units in CSS

$$PX = \frac{1}{96} \text{ inch}$$

(1) Absolute unit
- mm
- cm
- in
- px (fixed) For all devices

(2) Percentage unit
→ 10% (percentage of parent element)
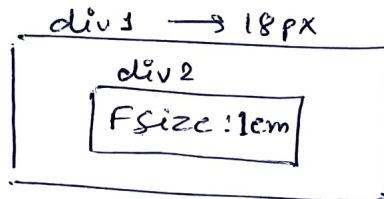
(3) Relative unit

① Relative to font size
- em
- rem

② Relative to Document
- vm
- vh

✓ em → relative to parent element font size.

$$1 \text{ em} = 1 \times \text{parent size.}$$

eg:-
div 1 → 18px

div 2
FSize : 1em

1 em = 1 × 18 ✓
2 em = 2 × 18 = 36 ✓

✓ rem → relative to root (root is html)

$$1 \text{ rem} = 1 \times 16 = 16px$$

✓ vw = $\frac{1}{100}$ × width of viewport

✓ vh = $\frac{1}{100}$ × height of viewport (display area)