CSS

Cascading Style Sheets

What is css.......?

- CSS is used to add style to the HTML code.
- CSS can be added to the HTML file in 3 ways
1. Inline CSS
2. External CSS
3. Internal CSS.

Inline CSS

Adding CSS in the HTML tags using attribute 'style'.

```
<!DOCTYPE hmtl>
<html>
  <head>
    <title>
        Inline CSS
    </title>
  </head>
  <body>
    <h1 style="font-size:200px;color:blue;">Inline css </h1>
  </body>
</html>
```

Internal CSS

```
<!DOCTYPE hmtl>
<html>
  <head>
    <style>
     h1 {
        font-size:200px;
        color:blue;
     }
    </style>
  </head>
  <body>
    <h1>Inline css </h1>
  </body>
</html>
```

External CSS

```
<!DOCTYPE hmtl>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="sample.css">
  </head>
  <body>
    <h1>Inline css </h1>
  </body>
</html>
```

HTML Classes and Id's

- Classes are added to html tags CSS properties are defined to group of classes using it.

```
.header {color: inherit;}
```

- Id's are similar to classes but used to uniquely identify HTML tags.

```
#header{color: inherit;}
```

CSS borders:

Borders are drawn around the text or content. Defined using 'border-style', 'border-width', and 'border-color'. There are 4 different attributes each of it.

```
h1 {
  border-top: 3px solid green;
  border-bottom: 3px solid red;
  border-right: 3px solid blue;
  border-left: 3px solid black;
  border-radius: 2px;   /* used for curving or rounding the edges */
}
```

CSS margins and Padding

Margins are used to provide space around the content.
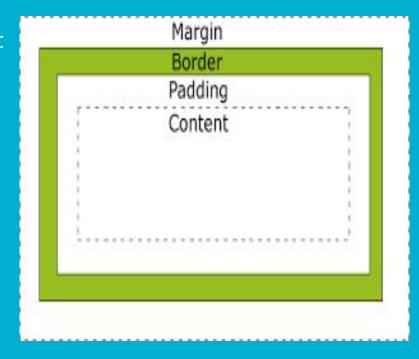
```css
p {
    margin: 10px 10px 10px 10px;
}
```

Padding is also used in providing space around it's content

```css
p {
    padding: 10px 10px 10px 10px;
}
```

margin vs padding

Padding enables the space around the content and within the border.

Margin gives the space around the border of the given content.

| Margin |
| Border |
| Padding |
| Content |

CSS Backgrounds

Adding backgrounds using background attribute has 5 different properties in it.

```css
/* Normal property defination */
body {
  background-color: black;
  background-repeat: no-repeat;
  background-image: url('any_url');
  background-attachment: inherit;
  background-position: bottom;
}

/* short hand notation */
body {
  background: #f1f1f1 url('any_img') no-repeat fixed top;
}
```

Text, height and width:

Different text properties along with height, width, color and text properties.

```css
.edit {
  color: blue;
  height: 10%;
  width: 10%;
  text-indent: 100px;
  text-align: center;
  text-transform: capitalize;
  text-decoration: underline;
  text-shadow: 4px 4px #00ff00; /* specifies horizontal, vertical width, color
}
```

Max and min width, position:

Min and max width properties specify the minimum and maximum width of the selected element. While setting the width fixes the specific width to the element.

Position attribute specifies the type of position of the element.

Z-index specifies the top element in the stack.

Fonts and Icons

Different fonts and font-styles for the text can be provided using css property 'font'

Just add the below link to enable usage of font-awesome icons

```
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
```

Link to the list of font awesome icons
https://www.w3schools.com/icons/fontawesome_icons_webapp.asp

Design following table

Name	Ancestor Name	mark	mark	mark	mark	mark	mark	mark	mark
ap	apd	100	100	100	100	100	100	100	100
bc	bcd	90	90	90	90	90	90	90	90
cc	ccd	80	80	80	80	80	80	80	80

Use hover property such that on hovering a row the row should change its color.

Float and Overflow:

- Float property just specifies the positioning of an element in the web pages.
- It has 4 values -- left, right, inherit, none.

- Overflow property controls the display of content in the specific divisions.
- It generally takes values hidden, scroll, auto
- It has two other values in it. One is overflow-x (defines horizontal properties), overflow-y (defines vertical properties).

Hover and Opacity

- Hover and opacity are some of the coolest attributes in css. Hover detects if the mouse pointer is placed on any element(such as buttons, inputs, images etc).
- Hover is used in defining separate set of css properties on hover.

- Opacity just defines the transparency of the image. It generally takes the values between 0 and 1.

Animations

- Apart of js animations, css also provide some native animations.
- @keyframes property is used in providing the native animations.

```
@keyframes sampleone {
    from{width:200px;height:200px;}
    to{width:400px;height:400px;}
}
```

- The image represent a sample animation named sampleone with the specific animation.

Combinators

- Combinactors are used in identifying relationship between different selectors or elements.
- The mostly used combinactors are
1. Descendants. (used alike 'div ~p')
2. Child (used alike 'div p')

Lists styling in CSS

- There is an attribute named list-style. This has many sub attributes in it.

Eg:

1. list-style-image
2. list -style-position
3. list-style- type

Let's design a simple navbar using it.

Forms

- You can apply a basic styling to the yesterday's forms.
- 'input [type=text]' selects the input of input type text
- 'Input [type=submit] ' selects input of type submit (i.e a submit button).

```
<style>input[type=text], select {
    width: 100%;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}

input[type=text]:focus {
    border: 3px solid #555;
}

input[type=submit] {
    width: 50%;
    background-color: #4CBF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    border-radius: 4px;
    cursor: pointer;
}

input[type=submit]:hover {
    background-color: #45a049;
}

div {
    border-radius: 5px;
    background-color: #f2f2f2;
    padding: 20px;
}
</style>
```