

Session: Introduction to HTML & CSS

Assignment

1. How are inline and block elements different from each other?

Sol. There are two types of display values as block and inline. Every HTML element has a default display value, depending on what type of element it is.

Block-level Elements:

- A block-level element always starts on a new line.
- A block-level element always takes up the full width available (stretches out to the left and right as far as it can).
- A block level element has a top and a bottom margin.

Examples: <h1>-<h6>, , , <p>, <table>, <nav>, <form> etc.

Inline Elements:

- An inline element does not start on a new line.
- An inline element only takes up as much width as necessary.
- A inline element does not have a top and a bottom margin.
- Examples: <a>, ,
, <i>, <button>, <input>, <textarea> etc.

HTML CODE:

```
<!DOCTYPE html>
<html>
  <head>
    <title> Block & Inline</title>
  </head>
  <body>
    <p style="border: 2px solid blue; padding: 20px; margin-left: 10px;" >Hello Block World</p>
    <p> This is a block element example. </p>
    <ol style="border: 1px solid black; padding: 20px; margin-left: 10px;">
      <li> ABC </li>
      <li> DEF </li>
    </ol>
    <div> <h2>Block Element Ends Here </h2></div>
    <center>
      <span style="border: 2px solid red; padding: 20px; margin-left: 10px; font-size: 20px;"> <i> Hello Inline World </i></span><br><br>
```

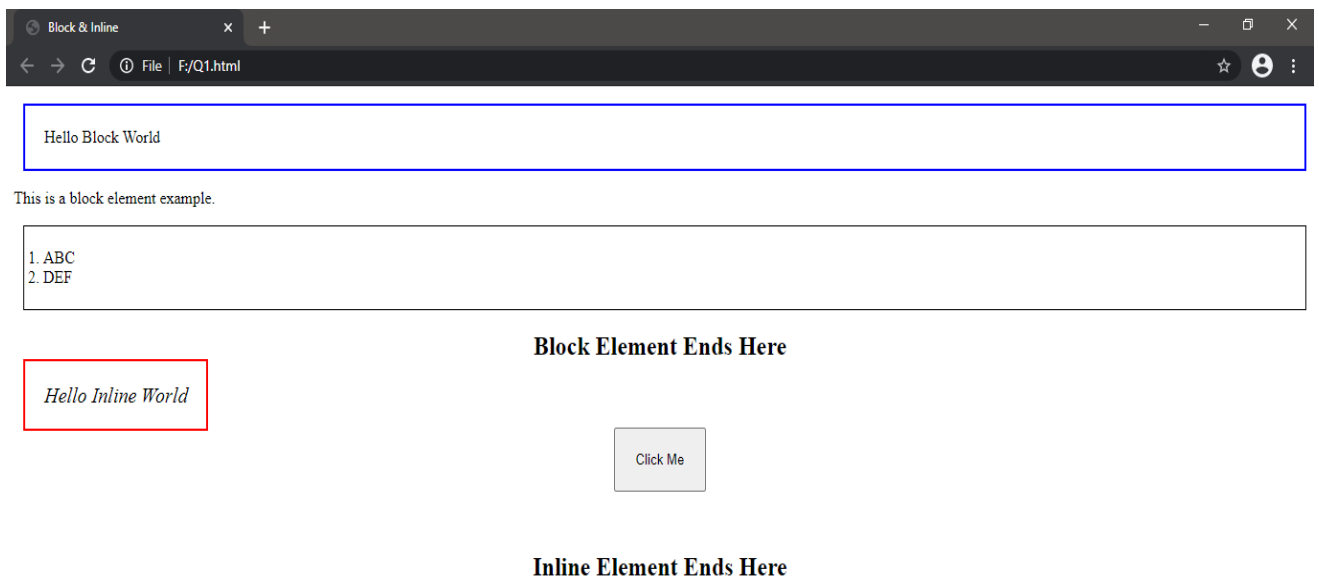
```

        <center>        <button style="padding: 20px;"> Click Me
    </button>    </center><br><br>
        <center>        <div> <h2>Inline Element Ends Here
    </h2></div>    </center>
    </body>

</html>

```

Output:



2. Explain the difference between visibility: hidden and display: none

Sol. Both of them are CSS properties.

- The visibility is a property in CSS that specifies the visibility behaviour of an element. The visibility: "hidden" property is used to specify whether an element is visible or not in a webpage but the hidden elements take up space in the web document.
- The display: "none" property is used to specify whether an element exist or not on the webpage. The display: "none" completely hides the tag, as it had never existed in the webpage.

HTML CODE:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>
```

```
        Difference CSS
```

```
    </title>
```

```
</head>
```

```
<body>
```

```
    <center>
```

```
        <h1 style="color: green;">
```

```
            Difference between display:"none" and visibility:
```

```
"hidden"</h1>
```

```
        <br>
```

```
        <h3>
```

```
            Display:
```

```
            <span style="display:none">
```

```
                This line is not displayed on web page
```

```
            </span> none Example </h3>
```

```
        <br> <br>
```

```
        <h3>
```

```
            Visibility:
```

``

This line is hidden on web page

` hidden Example`

`</h3>`

`
`

`<p style="font-size: 20px">` You can see that the display: none don't have any blank space but visibility: hidden has the blank space. `</p>`

`</center>`

`</body>`

`</html>`

OUTPUT



Difference between display:"none" and visibility: "hidden"

Display: none Example

Visibility:

hidden Example

You can see that the display: none don't have any blank space but visibility: hidden has the blank space.

3. Explain the clear and float properties.

Sol.

Clear Property: The clear property specifies what elements can float beside the cleared element and on which side. When clearing floats, we should match the clear to the float. If an element is floated to the left, then we should clear to the left. The floated element will continue to float, but the cleared element will appear below it on the web page. The clear property can have values as: left, right, none, inherit, both.

Float Property: The CSS float property specifies how an element should float and is used for positioning and formatting content on webpage. In its simplest use, the float property can be used to wrap text around images. The float property can have values as: left, right, none, inherit.

HTML CODE:

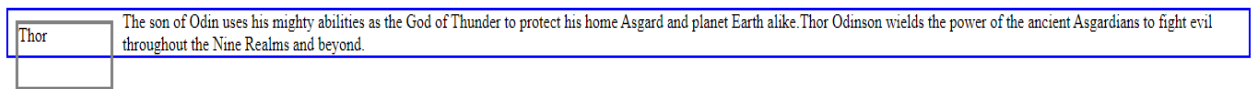
```
<!DOCTYPE html>
<html>
<head>
<style>
.div1 {
  float: left;
  width: 100px;
  height: 50px;
  margin: 10px;
  border: 3px solid grey;
}
.div2 {
  border: 2px solid blue;
}
.div3 {
  float: left;
  width: 100px;
  height: 50px;
  margin: 10px;
  border: 3px solid grey;
}
.div4 {
  border: 2px solid blue;
  clear: left;
}
</style>
</head>
```

```
<body>
<h2>Without clear</h2>
<div class="div1">Thor</div>
<div class="div2">The son of Odin uses his mighty abilities as the God of Thunder to protect his
home Asgard and planet Earth alike.Thor Odinson wields the power of the ancient Asgardians to
fight evil throughout the Nine Realms and beyond.</div>
<br><br>
<h2>With clear</h2>
<div class="div3">Thor</div>
<div class="div4">The son of Odin uses his mighty abilities as the God of Thunder to protect his
home Asgard and planet Earth alike.Thor Odinson wields the power of the ancient Asgardians to
fight evil throughout the Nine Realms and beyond.</div>
</body></html>
```

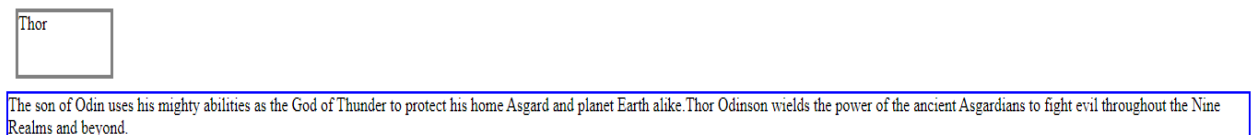
OUTPUT



Without clear



With clear



4. Explain difference between absolute, relative, fixed and static.

Sol. The position property specifies the type of positioning method used for an element to be displayed on a webpage with different position levels as static, relative, fixed, absolute etc.

Position Static: HTML elements are positioned static by default. Static positioned elements are not affected by the top, bottom, left, and right properties and are always positioned according to the normal flow of the page.

Position Relative: An element with position relative is positioned relative to its normal position. Setting the top, right, bottom, and left properties of a relatively-positioned element will cause it to be adjusted away from its normal position.

Position Fixed: An element with position fixed is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled. The top, right, bottom, and left properties are used to position the element.

Position Absolute: An element with position: absolute; is positioned relative to the nearest positioned ancestor (whose position is anything except static) instead of positioned relative to the viewport. If an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.

HTML CODE:

```
<!DOCTYPE html>

<html>

<head>

<title> Different Layouts </title>

<style>

div.txtst {

    position: static;

    width: 200px;

    text-align : center;
```

```
padding: 10px;

border: 3px solid #00FA9A;

}

div.txtrltv {

position: relative;

left: 30px;

text-align : center;

padding: 10px;

width: 200px;

border: 3px solid #FA8072;

}

div.txtfxd {

position: fixed;

text-align : center;

padding: 10px;

right: 0;

width: 200px;

border: 3px solid #73AD21;

}

div.txtabs {

position: absolute;

text-align : center;

padding: 10px;

top: 300px;

right: 500px;

width: 200px;

border: 3px solid #BC8F8F;

</style>
```


</head>

<body>

<center><h2>Position Static</h2></center>

<p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s. Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old.</p>

<div class="txtst"> Static Positioned Text </div>

<center><h2>Position Relative</h2></center>

<p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s. Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old.</p>

<div class="txrtlvt"> Relative Positioned Text </div>

<center><h2>Position Fixed</h2></center>

<p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s. Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old.</p>

<div class="txtfxd"> Fixed Positioned Text </div>

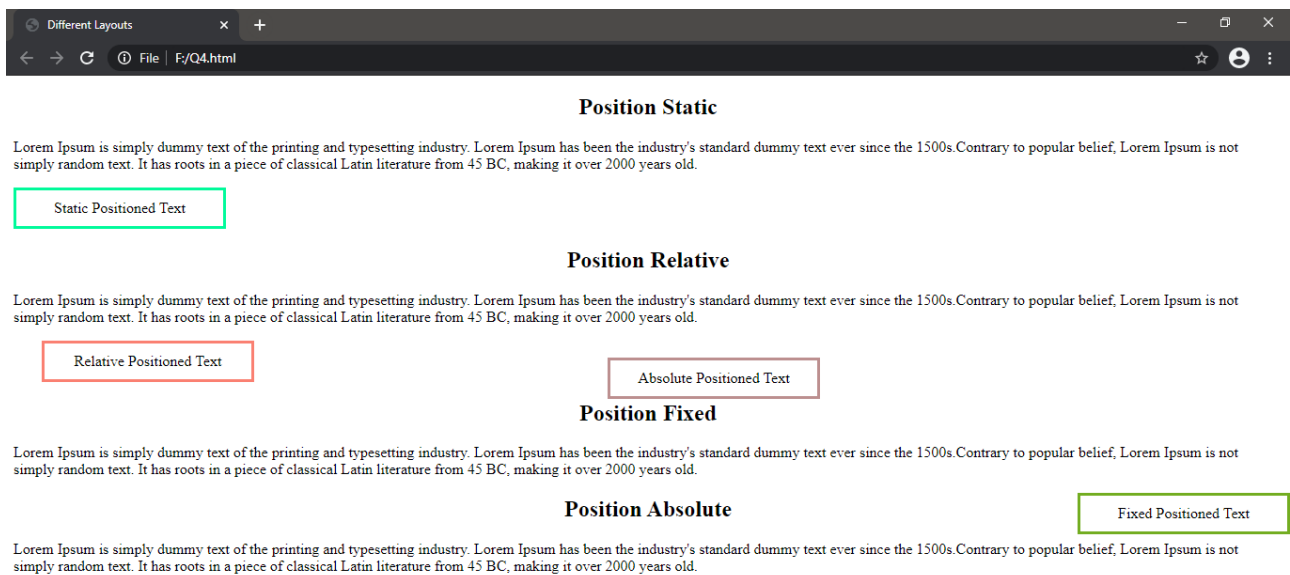
<center><h2>Position Absolute</h2></center>

<p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s. Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old.</p>

<div class="txtabs"> Absolute Positioned Text </div>

</body></html>

OUTPUT



5. Write the HTML code to create a table in which there are 4 columns(ID , Employee Name, Designation, Department) and at least 6 rows. Also do some styling to it.

HTML CODE:

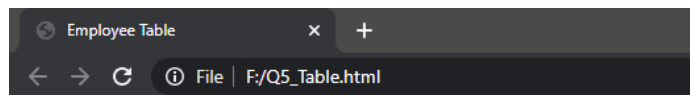
```
<!DOCTYPE html>
<html>
  <head>
    <title> Employee Table      </title></head>
  <body>
    <table border="5" cellspacing="5" cellpadding="12" style="margin: 30px; background-
color: #FAFAD2;">
      <th> ID      </th>
      <th> Employee Name      </th>
      <th> Designation      </th>
      <th> Department      </th>
      <tr>
        <td> 1      </td>
        <td> Parth </td>
        <td> Trainee </td>
        <td> JVM      </td>
      </tr>
      <tr>
        <td> 2      </td>
        <td> Shubham      </td>
```

```

        <td> Trainee </td>
        <td> WEB </td>
    </tr>
    <tr>
        <td> 3 </td>
        <td> Vardan </td>
        <td> Trainee </td>
        <td> React </td>
    </tr>
    <tr>
        <td> 4 </td>
        <td> Abhay </td>
        <td> Trainee </td>
        <td> Android </td>
    </tr>
    <tr>
        <td> 5 </td>
        <td> Pawan </td>
        <td> Trainee </td>
        <td> FEEN </td>
    </tr>
    <tr>
        <td> 6 </td>
        <td> Rupav </td>
        <td> Trainee </td>
        <td> AI </td>
    </tr>
</table></body></html>

```

OUTPUT



ID	Employee Name	Designation	Department
1	Parth	Trainee	JVM
2	Shubham	Trainee	WEB
3	Vardan	Trainee	React
4	Abhay	Trainee	Android
5	Pawan	Trainee	FEEN
6	Rupav	Trainee	AI

6. Why do we use meta tags?

Sol. The Meta tag defines metadata about an HTML document. Metadata is data (information) about data. Meta tags always go inside the head element, and are typically used to specify character set, page description, keywords, author of the document, and viewport settings. Metadata will not be displayed on the page, but is machine parsable. Metadata is used by browsers (how to display content or reload page), search engines (keywords), and other web services.

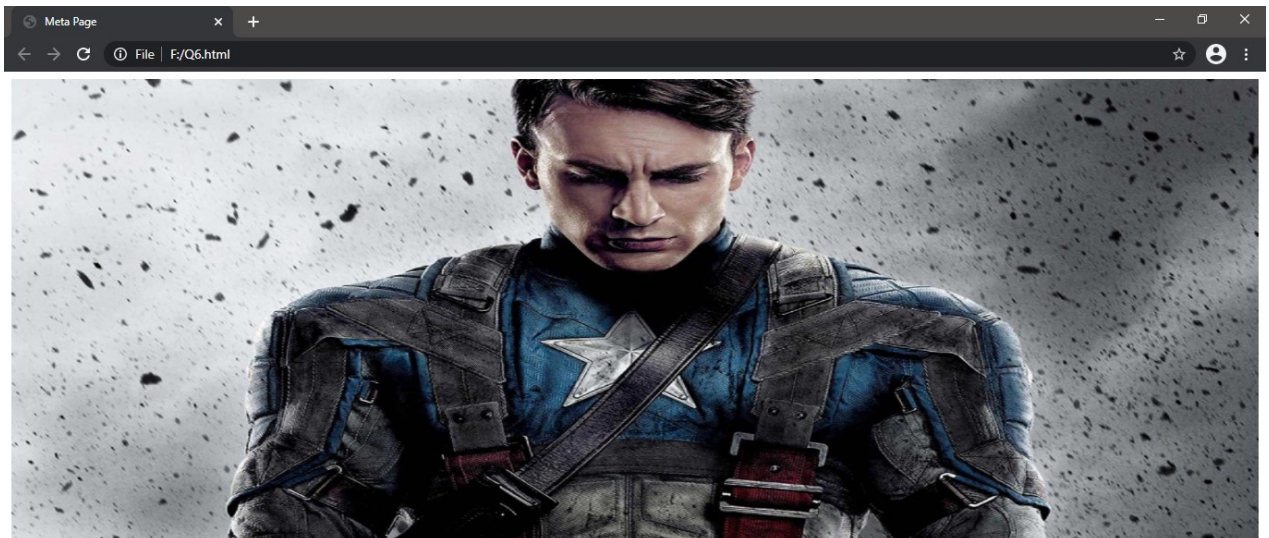
HTML CODE:

```
<!DOCTYPE html>
<html><head>
  <meta charset="UTF-8">
  <meta name="description" content="Meta Data Example">
  <meta name="keywords" content="HTML,CSS,XML,JavaScript">
  <meta name="author" content="Parth ">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title> Meta Page </title>
</head>
<body>

<h1>STEVE ROGERS CAPTAIN AMERICA</h1>
<p>
Recipient of the Super-Soldier serum, World War II hero Steve Rogers fights for American ideals
two years, Steve Rogers and those who stayed by his side came out of hiding to help protect the
Mind Stone from Thanos, making a last stand in Wakanda.
</p></body></head>
```

OUTPUT

- Meta tags are used in codes but are not displayed in the code



STEVE ROGERS CAPTAIN AMERICA

Recipient of the Super-Soldier serum, World War II hero Steve Rogers fights for American ideals as one of the world's mightiest heroes and the leader of the Avengers. America's World War II Super-Soldier continues his fight in the present as an Avenger and untiring sentinel of liberty. Discovered in modern times, Captain America joined forces with the heroes who would become the Avengers during the attack by Loki and the Chitauri on New York. Having lived as a fugitive for two years, Steve Rogers and those who stayed by his side came out of hiding to help protect the Mind Stone from Thanos, making a last stand in Wakanda.

- Opening the same page in phone with meta tag viewport

STEVE ROGERS CAPTAIN AMERICA

Recipient of the Super-Soldier serum, World War II hero Steve Rogers fights for American ideals as one of the world's mightiest heroes and the leader of the Avengers. America's World War II Super-Soldier continues his fight in the present as an Avenger and untiring sentinel of liberty. Discovered in modern times, Captain America joined forces with the heroes who would become the Avengers during the attack by Loki and the Chitauri on New York. Having lived as a fugitive for two years, Steve Rogers and those who stayed by his side came out of hiding to help protect the Mind Stone from Thanos, making a last stand in Wakanda.

- Opening the same page in phone without meta tag viewport

STEVE ROGERS CAPTAIN AMERICA

Recipient of the Super-Soldier serum, World War II hero Steve Rogers fights for American ideals as one of the world's mightiest heroes and the leader of the Avengers. America's World War II Super-Soldier continues his fight in the present as an Avenger and untiring sentinel of liberty. Discovered in modern times, Captain America joined forces with the heroes who would become the Avengers during the attack by Loki and the Chitauri on New York. Having lived as a fugitive for two years, Steve Rogers and those who stayed by his side came out of hiding to help protect the Mind Stone from Thanos, making a last stand in Wakanda.

7. Explain box model.

Sol. CSS box model is a container which contains multiple properties including borders, margin, padding and the content itself. It is used to create the design and layout of web pages.

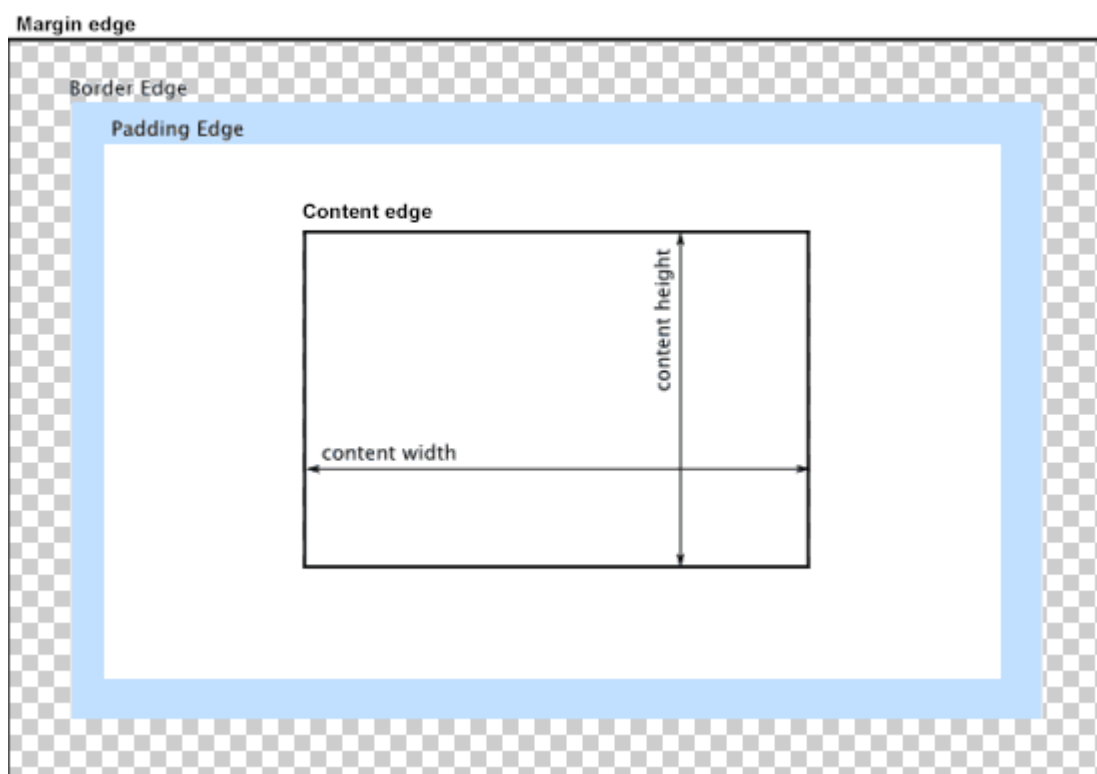
Border Area: It is the area between the box's padding and margin. Its dimensions are given by the width and height of border.

Margin Area: This area consists of space between border and margin. The dimensions of Margin area are the margin-box width and the margin-box height. It is useful to separate the element from its neighbours.

Padding Area: It includes the element's padding. This area is actually the space around the content area and within the border box. Its dimensions are given by the width of the padding-box and the height of the padding-box.

Content Area: This area consists of content like text, image, or other media content. It is bounded by the content edge and its dimensions are given by content box width and height.

BOX MODEL:



HTML CODE:

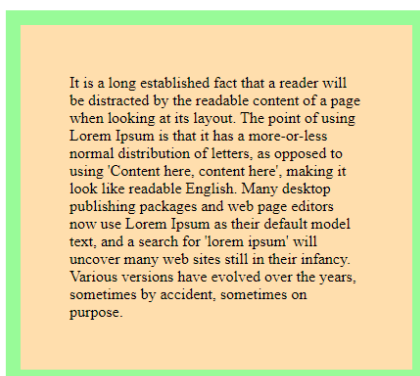
```
<!DOCTYPE html>
<html>
<head>
<title> Box Model</title>
<style>
div {
  background-color: #FFDEAD;
  width: 300px;
  border: 15px solid #98FB98;
  padding: 50px;
  margin: 50px;
}
</style>
</head>
<body>
<center><h2>The Box Model</h2></center>
<p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has
been the industry's standard dummy text ever since the 1500s, when an unknown printer took a
galley of type and scrambled it to make a type specimen book.</p>
<div> It is a long established fact that a reader will be distracted by the readable content of a page
Various versions have evolved over the years, sometimes by accident, sometimes on
purpose.</div>
</body></html>
```

OUTPUT



The Box Model

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.



8. What are the different types of CSS Selectors?

Sol.

Element Selector: The element selector selects HTML elements based on the element name. for Example: <p>, <div>, <select> etc.

ID Selector: The id selector uses the id attribute of an HTML element to select a specific element. The id of an element is unique within a page, so the id selector is used to select one unique element. To select an element with a specific id, use a hash (#) character followed by the id of the element.

Class Selector: The class selector selects HTML elements with a specific class attribute. To select elements with a specific class, use a period (.) character, followed by the class name.

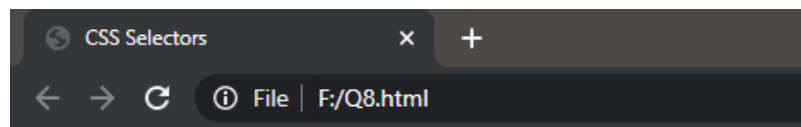
Universal Selector: The universal selector (*) selects all HTML elements on the page.

Grouping Selector: The grouping selector selects all the HTML elements with the same style definitions. for example : p,h2,div{...}

HTML CODE:

```
<!DOCTYPE html>
<html>
<head>
<title> CSS Selectors</title>
<style>
.pid {
  color: blue;
}
.pclass {
  color: green;
}
h3 {
  color: red;
}
</style>
</head>
<body>
<p class="pid">Id Example</p>
<p class="pclass">Class Example</p>
<h3> Element Example</h3>
</body>
</html>
```


OUTPUT



Id Example

Class Example

Element Example

9. Define Doctype.

Sol. **Doctype:** A Doctype or document type declaration is an instruction that tells the web browser about the markup language in which the current page is written. The Doctype is not an element or tag, it lets the browser know about the version of or standard of HTML or any other markup language that is being used in the document. The DOCTYPE for HTML5 is case-insensitive and can be written as: `<!DOCTYPE html>` and it is supported by many browsers such as : Google Chrome, Internet Explorer, Firefox, Opera, Safari.

10. Explain 5 HTML5 semantic tags.

Sol.

Header: The header element represents a container for introductory content. A header element usually contains one or more heading elements, logo or icon, authorship information etc.

Footer: The footer element defines footer for a document or section. A footer element typically contains authorship information, copyright information, contact information etc.

Nav: The nav element defines a set of navigation links.

Aside: The aside element defines some content aside from the content it is placed in.

Mark: The mark tag defines text that should be marked or highlighted.

HTML CODE:

```
<!DOCTYPE html>
<html>
<title> Semantic Tags</title>
<style>
.nav1 {
border: 5px solid gray;
width: 500px;
padding: 20px;
font-size: 20px;
}
a {
padding: 15px;
}
</style>
<body>
  <header>
    <h1>Examples of semantic tags</h1>
  </header>
  <center> <nav class="nav1">
    <a href="#">Header</a> |
    <a href="#">Footer</a> |
    <a href="#">Mark</a> |
    <a href="#">Aside</a> |
    <a href="#">Nav</a>
  </nav></center>
  <p> <mark>Semantic</mark> elements = elements with a <mark>meaning</mark>.</p>
  <p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has
  been the industry's standard dummy text ever since the 1500s, when an unknown printer took a
  galley of type and scrambled it to make a type specimen book.</p>
  <aside>
    <h4>Parth Choudhary</h4>
  </aside>
  <p>Above name is sperated from the rest of paragraphs.</p>
  <footer>
    <p>Footers</p>
    <p>Author: Parth Choudhary</p>
    <p><a href="mailto:pc@example.com">pc@example.com</a></p>
  </footer></body></html>
```

OUTPUT



Examples of semantic tags

[Header](#) | [Footer](#) | [Mark](#) | [Aside](#) | [Nav](#)

Semantic elements = elements with a **meaning**.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

Parth Choudhary

Above name is separated from the rest of paragraphs.

Footers

Author: Parth Choudhary

pc@example.com

11. Create HTML for web-page.jpg (check resources, highest weightage for answers)

Sol. HTML file uploaded to GitHub.

12. Create HTML for form.png (check resources, highest weightage for answers)

Sol. HTML file uploaded to GitHub.