Introduction to HTML and CSS

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

HTML is made up of various elements that act as the building blocks of web pages. For the purpose of styling, elements are divided into two categories: block-level elements and inline elements. In summary, a element is used as an inline element and a element as a block level element.
Basically, an inline element does not cause a line break (start on a new line) and does not take up the full width of a page, only the space bounded by its opening and closing tag. It is usually used within other HTML elements.

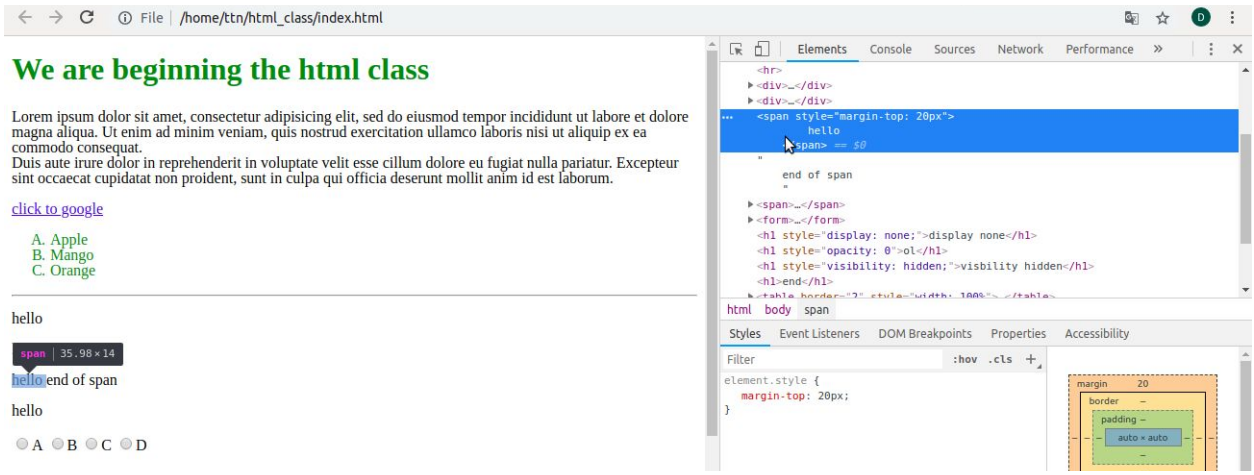
Other examples of inline elements are:

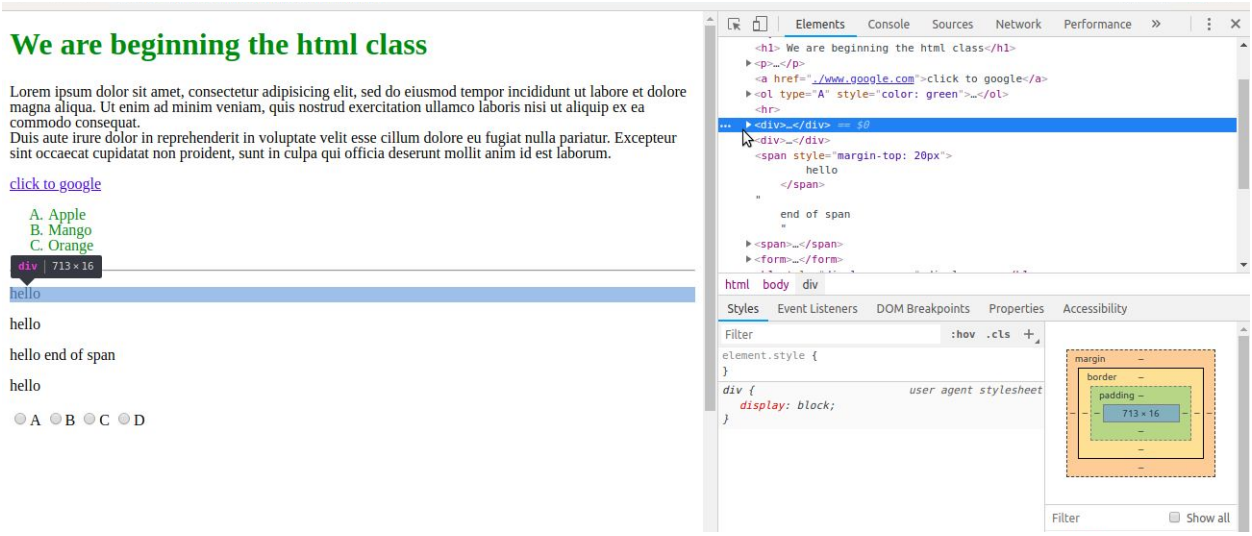
- anchor <a> tag
- emphasis tag
- image <img> tag

A block-level element always starts on a new line and takes up the full width of a page, from left to right. A block-level element can take up one line or multiple lines and has a line break before and after the element.

Other examples of the block-level tag are:

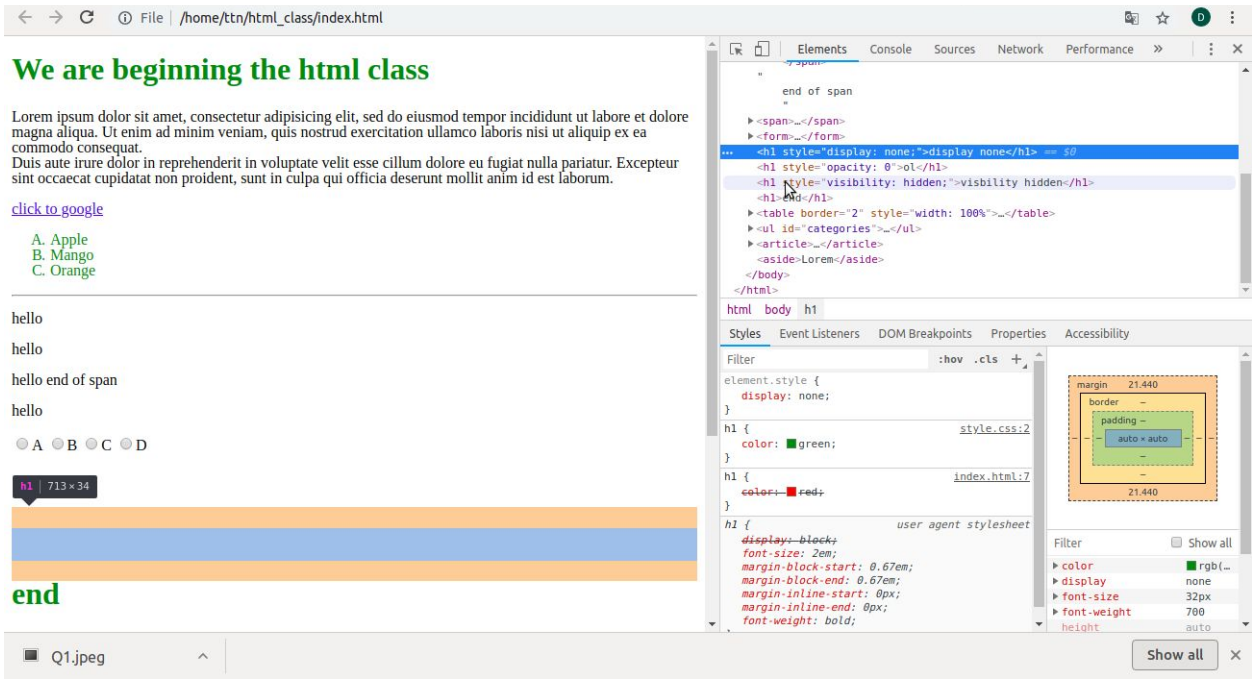
- Heading tags <h1> to <h6>
- List (Ordered, Unordered, Description and List Item) tags <ol> , <ul> ,<dl> ,
- Preformatted text tag <pre>
- Blockquote tag <blockquote>





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

The **display: none** property is used to hide elements without deleting them. It does not take up any space.
The **visibility: hidden** property also hides an element, but affects the layout i.e. takes up space.



Q.3. Explain the clear and float properties.

The CSS float property specifies how an element should float.
The CSS clear property specifies what elements can float beside the cleared element and on which side.
The float property is used for positioning and formatting content e.g. let an image float left to the text in a container. The float property can have one of the following values:

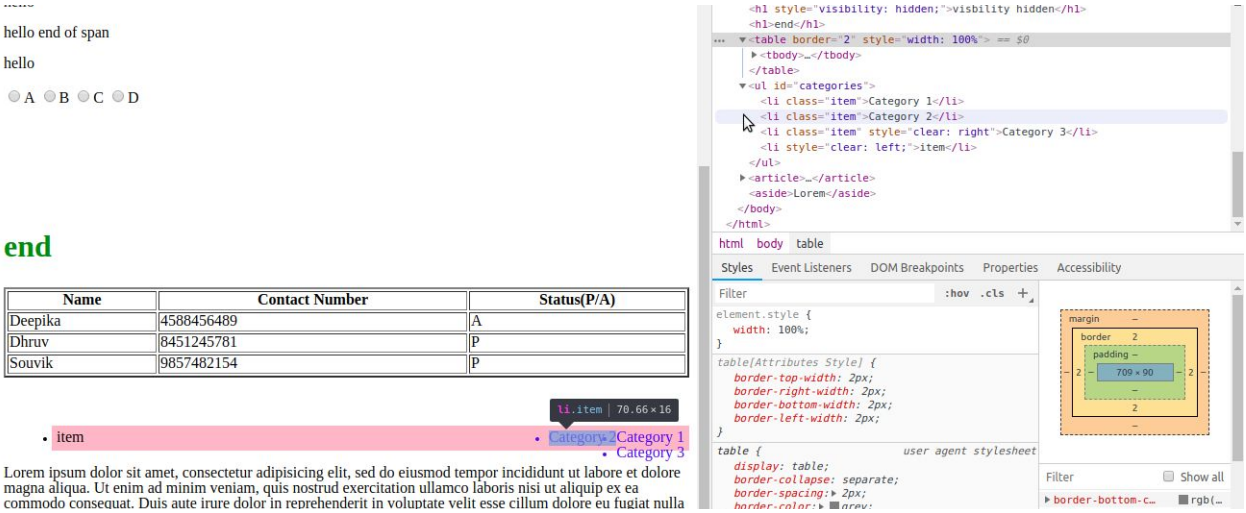
- left - The element floats to the left of its container
- right- The element floats to the right of its container
- none - The element does not float (will be displayed just where it occurs in the text). This
  is default
- inherit - The element inherits the float value of its parent

In its simplest use, the float property can be used to wrap text around images.
The clear property specifies what elements can float beside the cleared element and on which side. The clear property can have one of the following values:

- none - Allows floating elements on both sides. This is default
- left - No floating elements allowed on the left side
- right- No floating elements allowed on the right side
- both - No floating elements allowed on either the left or the right side
- inherit - The element inherits the clear value of its parent

The most common way to use the clear property is after we have used a float property on an element.

When clearing floats, we should match the clear to the float: If an element is floated to the left, then you should clear to the left. Our floated element will continue to float, but the cleared element will appear below it on the web page.



Q.4. explain difference between absolute, relative,fixed and static.

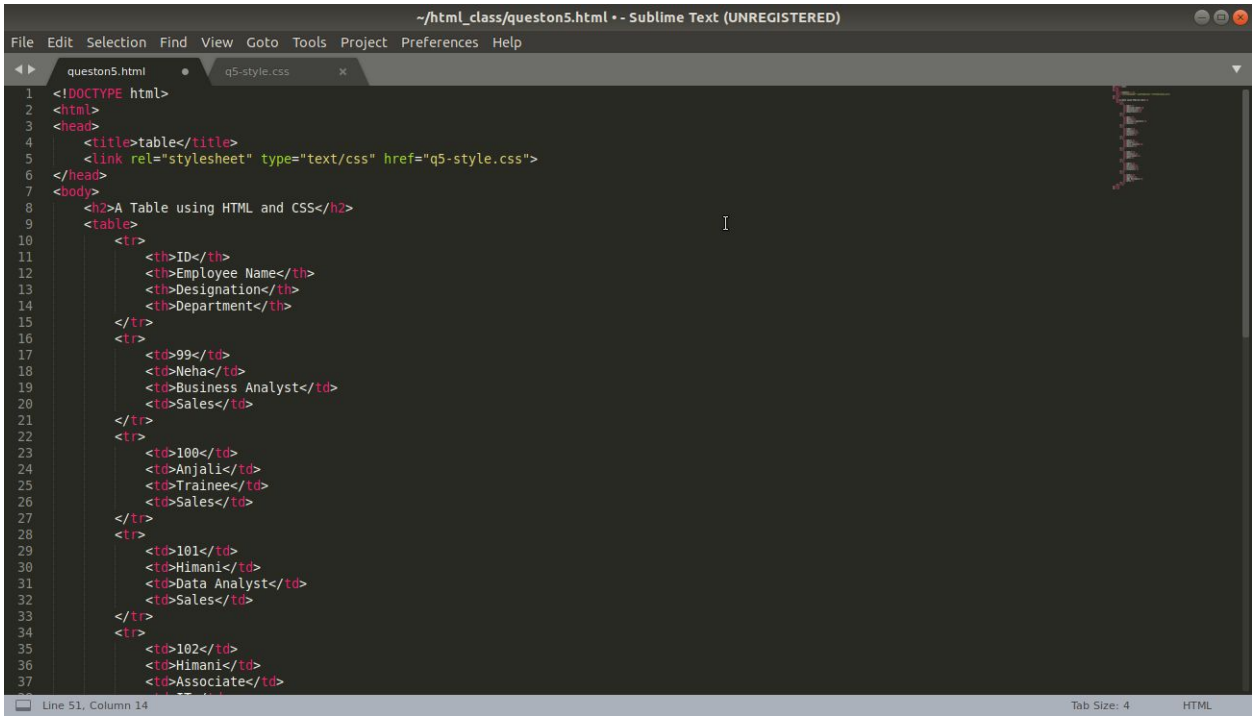
The position property specifies the type of positioning method used for an element.
There are five different position values:

1. static
2. relative
3. fixed
4. absolute
5. sticky

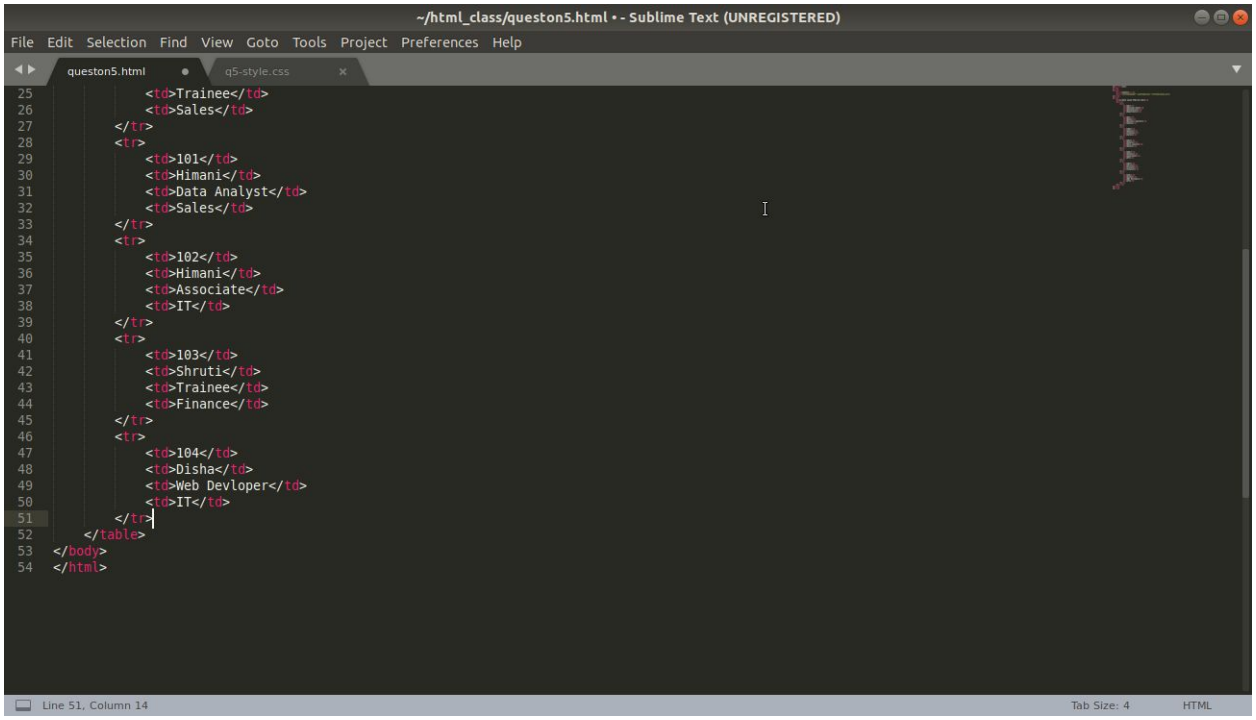
1. position: static;
HTML elements are positioned static by default.
Static positioned elements are not affected by the top, bottom, left, and right properties.
An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page:
2. 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. Other content will not be adjusted to fit into any gap left by the element.
3. 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.
A fixed element does not leave a gap in the page where it would normally have been located.
4. position: absolute;
An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed).
However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.

Q.5. 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




```
<!DOCTYPE html>
<html>
<head>
    <title>table</title>
    <link rel="stylesheet" type="text/css" href="q5-style.css">
</head>
<body>
    <h2>A Table using HTML and CSS</h2>
    <table>
        <tr>
            <th>ID</th>
            <th>Employee Name</th>
            <th>Designation</th>
            <th>Department</th>
        </tr>
        <tr>
            <td>99</td>
            <td>Neha</td>
            <td>Business Analyst</td>
            <td>Sales</td>
        </tr>
        <tr>
            <td>100</td>
            <td>Anjali</td>
            <td>Trainee</td>
            <td>Sales</td>
        </tr>
        <tr>
            <td>101</td>
            <td>Himani</td>
            <td>Data Analyst</td>
            <td>Sales</td>
        </tr>
        <tr>
            <td>102</td>
            <td>Himani</td>
            <td>Associate</td>
```




```
            <td>Trainee</td>
            <td>Sales</td>
        </tr>
        <tr>
            <td>101</td>
            <td>Himani</td>
            <td>Data Analyst</td>
            <td>Sales</td>
        </tr>
        <tr>
            <td>102</td>
            <td>Himani</td>
            <td>Associate</td>
            <td>IT</td>
        </tr>
        <tr>
            <td>103</td>
            <td>Shruti</td>
            <td>Trainee</td>
            <td>Finance</td>
        </tr>
        <tr>
            <td>104</td>
            <td>Disha</td>
            <td>Web Devloper</td>
            <td>IT</td>
        </tr>
    </table>
</body>
</html>
```

Css

~/html_class/q5-style.css - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

queston5.html × q5-style.css ×

```
1  body{
2      margin: 2em;
3  }
4
5  h2{
6      text-align: center;
7      padding: 10px;
8  }
9
10 table{
11     border: 5px solid black;
12     border-radius: 7px;
13     width: 100%;
14
15 }
16
17 td{
18     padding: 15px;
19     background: #775;
20 }
```

Line 7, Column 19 Tab Size: 4 CSS

RESULT:

File | /home/ttn/html_class/queston5.html

A Table using HTML and CSS

ID	Employee Name	Designation	Department
99	Neha	Business Analyst	Sales
100	Anjali	Trainee	Sales
101	Himani	Data Analyst	Sales
102	Himani	Associate	IT
103	Shruti	Trainee	Finance
104	Disha	Web Devloper	IT

6. Why do we use meta tags?

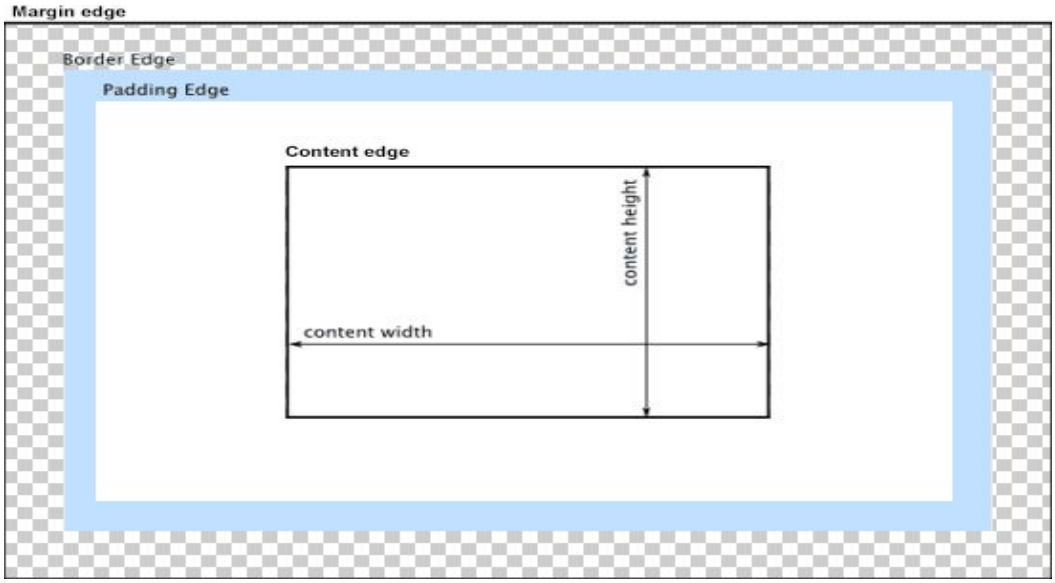
Metadata is data (information) about data.
The <meta> tag provides metadata about the HTML document. Metadata will not be displayed on the page, but will be machine parsable.
Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.
The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.
<meta> tags always go inside the <head> element.
Metadata is always passed as name/value pairs.

- Define keywords for search engines:
  <meta name="keywords" content="HTML, CSS, XML, XHTML, JavaScript">
- Define a description of your web page:
  <meta name="description" content="Free Web tutorials on HTML and CSS">
- Define the author of a page:
  <meta name="author" content="John Doe">
- Refresh document every 30 seconds:
  <meta http-equiv="refresh" content="30">
- Setting the viewport to make your website look good on all devices:
  HTML5 introduced a method to let web designers take control over the viewport (the user's visible area of a web page), through the <meta> tag.The viewport is the user's visible area of a web page. It varies with the device, and will be smaller on a mobile phone than on a computer screen.

  You should include the following <meta> viewport element in all your web pages:
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  A <meta> viewport element gives the browser instructions on how to control the page's dimensions and scaling.The width=device-width part sets the width of the page to follow the screen-width of the device(which will vary depending on the device).The initial-scale=1.0 part sets the initial zoom level when the page is first loaded by the browser.
  <meta name="viewport" content="width=device-width, initial-scale=1.0">

Q. 7. Explain box model.

All HTML elements can be considered as boxes. In CSS, the term "box model" is used when talking about design and layout.
The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content.
The image below illustrates the box model:



Explanation of the different parts:
● Content - The content of the box, where text and images appear
● Padding - Clears an area around the content. The padding is transparent
● Border - A border that goes around the padding and content
● Margin - Clears an area outside the border. The margin is transparent
The box model allows us to add a border around elements, and to define space between elements.

8. What are the different types of CSS Selectors?

A CSS rule-set consists of a selector and a declaration block.
CSS selector
The selector points to the HTML element you want to style.

CSS selectors are used to "find" (or select) HTML elements based on their element name, id, class, attribute, and more.

The element Selector
The element selector selects elements based on the element name.

```
p {
text-align: center;
color: red;
}
```

The id Selector

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

```
#para1 {
text-align: center;
color: red;
}
```

The class Selector

The class selector selects elements with a specific class attribute.
To select elements with a specific class, write a period (.) character, followed by the name of the class.

```
.center {
text-align: center;
color: red;}
```

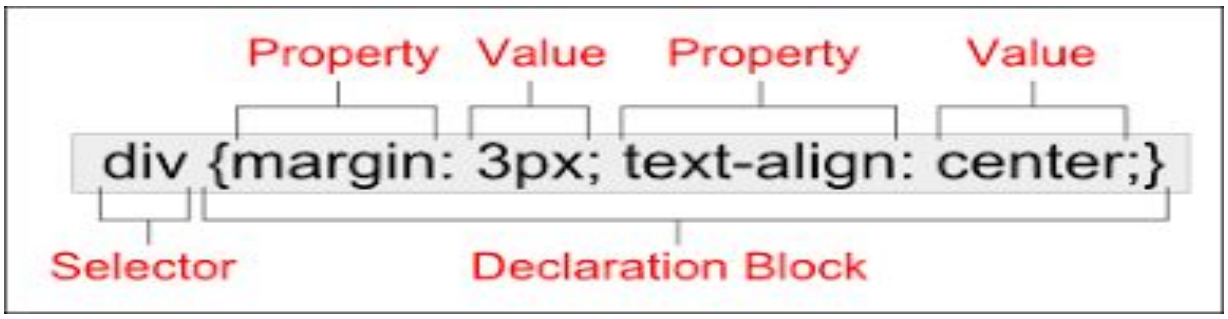
We can also group the selectors, to minimize the code. To group selectors, separate each selector with a comma.

Pseudo-classes selectors

A pseudo-class is used to define a special state of an element.
For example, it can be used to:

- Style an element when a user mouses over it
- Style visited and unvisited links differently
- Style an element when it gets focus

```
selector:pseudo-class {
Property:value;}
```



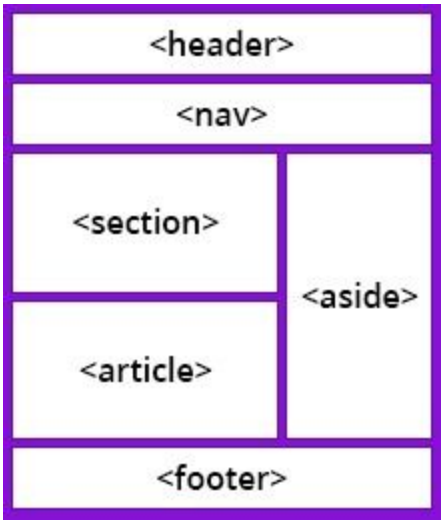
Q.9. Define Doctype.

<!DOCTYPE html> or <!doctype html>
The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag. The <!DOCTYPE> declaration is not an HTML tag; it is an instruction to the web browser about what version of HTML the page is written in.

In HTML 4.01, the <!DOCTYPE> declaration refers to a DTD, because HTML 4.01 was based on SGML. The DTD specifies the rules for the markup language, so that the browsers render the content correctly.
HTML5 is not based on SGML, and therefore does not require a reference to a DTD.
It is advisable to always add the <!DOCTYPE> declaration to your HTML documents, so that the browser knows what type of document to expect.

Q.10. Explain 5 HTML5 semantic tags.

HTML5 introduced semantic elements. Their constancy helps search engines and developers.



- <article>
  The <article> element is one of the major HTML5 semantic tags. It is used to define the article content on your website. It is usually used for big parts of the text.

  ```
  <article>
    <h1>Fun Fact</h1>
    <p>Fun fact: most of the fun facts on the Internet are not actually fun.</p>
  </article>
  ```

- <aside>
  The <aside> semantic element defines the content which will be set to the side. It is occasionally used for creating sidebars but can also be used for less important content sharing.

  ```
  <aside>
    <h4>Lake</h4>
    <p>Oxford lake is a lake in the state.</p>
  </aside>
  ```

- <details>This is one of the HTML5 semantic tags that defines the details on your website. The details can either be visible to the audience of hidden.

- <footer>
  The HTML5 element <footer> describes the footnote for your website or part of the content.

  ```
  <footer>
    <address>
      Postal Address: Door No.00, Street, City, State, Country.
    </address>
    <p>Copyright © 2018 All rights reserved.</p>
  </footer>
  ```

- <figcaption>
  The <figcaption> tag generates a title for <figure> element. It always goes together with <figure> element.

  ```
  <figure>
    <figcaption>Dog</figcaption>
    <img src="image.png" alt="The Bread Dog" width="300" height="300">
  </figure>.
  ```

  Q 11 and 12 are in the other files.