

# Front End Technologies

## CSS - Day 3

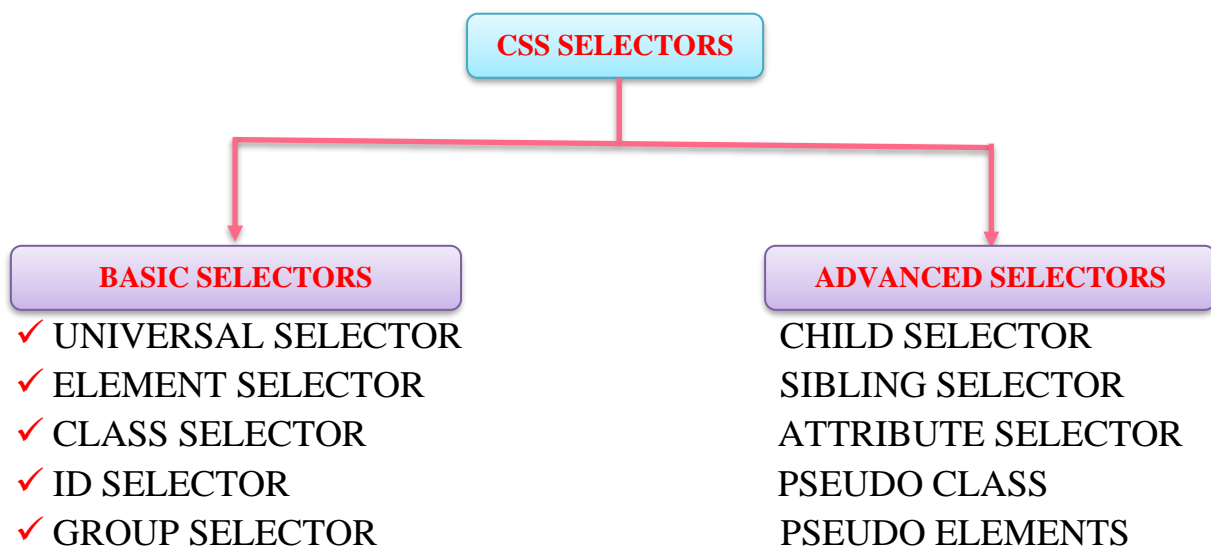
### Agenda

- CSS Selectors



### CSS SELECTORS:

CSS selectors are used to select the content you want to style. CSS Selectors are used to select HTML elements based on their element name, id, attributes, etc. It can select one or more elements simultaneously. There are many different types of **CSS selector** they are listed below.



General syntax of selector is

## Selector

```
{  
  
    property : value;  
  
    property : value;  
  
    property : value;  
  
    .  
  
    .  
  
}
```

Let's explore all different type of selectors one by one

## BASIC SELECTORS

- **UNIVERSAL SELECTOR:** CSS **universal selectors** select any type of elements in an HTML page. It matches a single element. An asterisk i.e. "\*" is used to denote a CSS **universal selector**. This will come into the picture when all the elements inside the **<body> tag** should be styled. Let's understand with an example.

### index.html

```
<!DOCTYPE html>  
<html>  
  <head>  
    <title>Home Page</title>  
    <link rel="stylesheet" type="text/css" href="index.css">  
  </head>  
  <body>  
    <h1>Full Stack Web Development</h1>  
    <p>Full stack development refers to the development of both front end(client side) and back end(server side) portions of web application.</p>  
    <h2>Technologies related to full stack web development</h2>  
    <h3>Front End Technologies</h3>  
    <p>Front End is the visible part of website or web application which is responsible for user experience, built using HTML,CSS,JAVASCRIPT</p>  
      
    <h3>Back End Technologies</h3>  
    <p>It refers to the server-side development of web application with a primary focus on how the website works and is built using languages such as Python,Java,C</p>  
      
    <h3>Database Technologies</h3>  
    <p>Database is the collection of inter-related data which helps in efficient retrieval, insertion and deletion of data from database and organizes the data. The technologies used are SQL,MYSQL,MONGODB</p>  
      
  </body>  
</html>
```

index.css

```
*{  
    background-color: powderblue;  
    font-family: cursive;  
}
```

## OUTPUT:

### Full Stack Web Development

Full stack development refers to the development of both front end(client side) and back end(server side) portions of web application.

#### Technologies related to full stack web development

##### Front End Technologies

Front End is the visible part of website or web application which is responsible for user experience, built using HTML,CSS,JAVASCRIPT



##### Back End Technologies

It refers to the server-side development of web application with a primary focus on how the website works and is built using languages such as Python,Java,C



##### Database Technologies

Database is the collection of inter-related data which helps in efficient retrieval, insertion and deletion of data from database and organizes the data. The technologies used are SQL,MYSQL,MONGODB



As we can see clearly in the output all the elements present inside the body background color and font as changed to powder-blue and cursive so universal selector means it will select all the elements present inside the body of the HTML page.

- **ELEMENT SELECTOR:** The element selector selects all elements with the specified element name. let's understand with an example.

## index.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
  <link rel="stylesheet" type="text/css" href="index.css">
</head>
<body>
  <h1>Full Stack Web Development</h1>
  <p>Full stack development refers to the development of both front end(client side) and back end(server side) portions of web application.</p>
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  <h3>Database Technologies</h3>
  <p>Database is the collection of inter-related data which helps in efficient retrieval, insertion and deletion of data from database and organizes the data. The technologies used are SQL,MYSQL,MONGODB</p>
  
</body>
</html>
```

## index.css

```
h1{
  background-color: red;
  color:yellow;
  font-family: cursive;
}
```

## Output:

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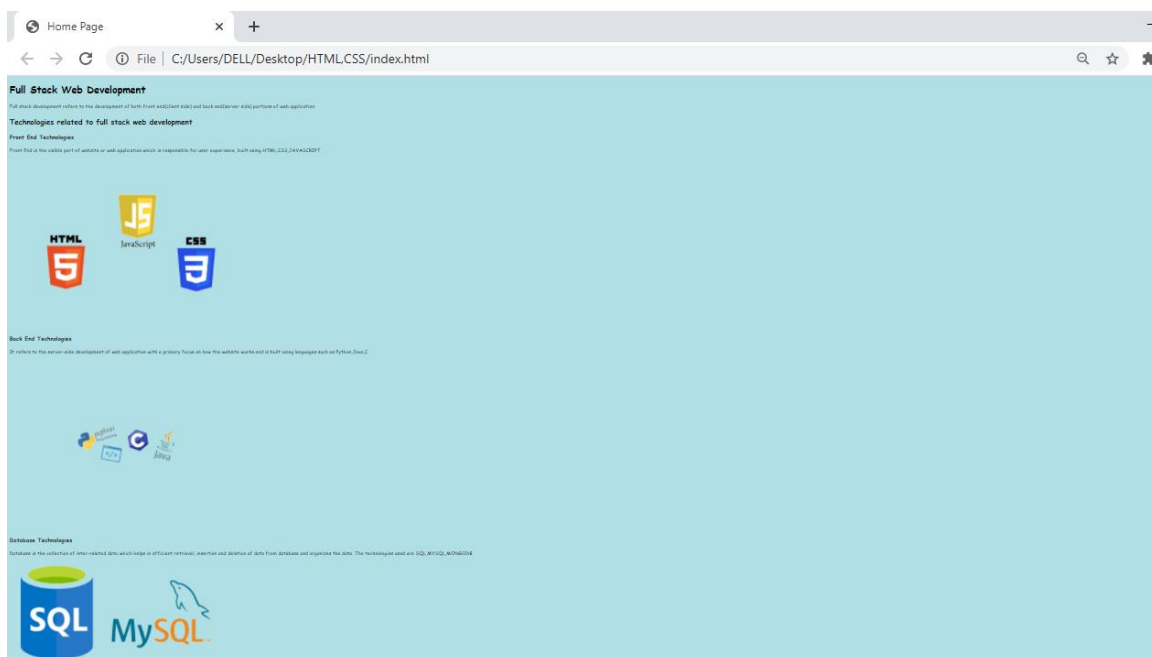


As we can see in the output **element selector** selects all the elements that matches the **selector** in this program it is h1 and applies the styling. If you mention the selector as p tag it will select all the element that matches p tag and applies styling. If we select body element as a selector then styling is applied to body of the html page, if we change the css file of the above example.

## index.css

```
body{  
    background-color: powderblue;  
    color:black;  
    font-family: cursive;  
}
```

## Output:



As we can see in the output using body element, we can style the body of the elements, if you recollect output is similar to that of universal selector but there is a difference between universal selector and element selector. Now let's understand the difference between universal selector and element selector with an example.

## Using Element Selector:

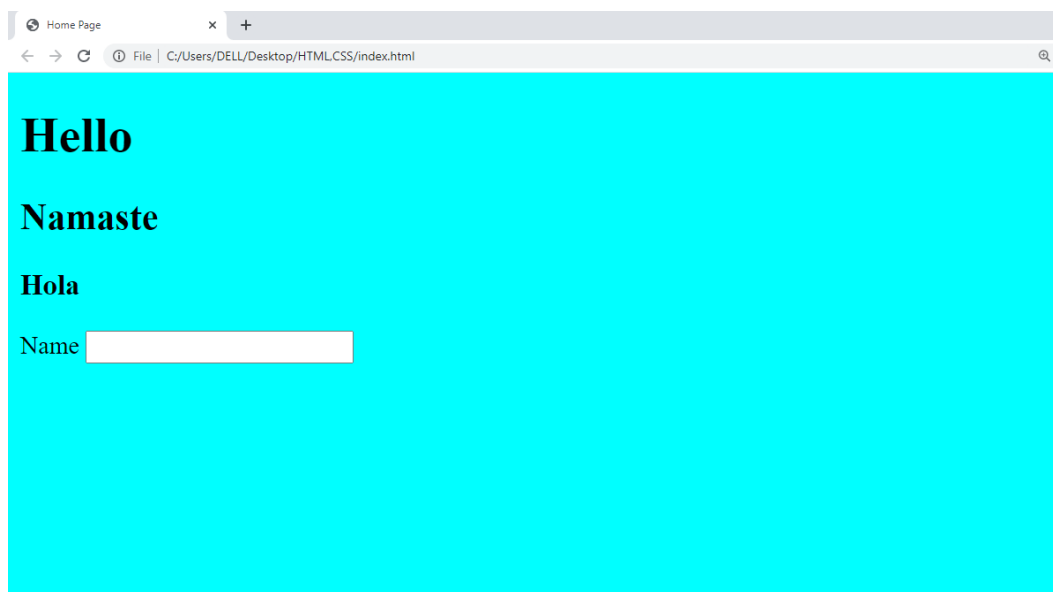
### index.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
  <link rel="stylesheet" type="text/css" href="index.css">
</head>
<body>
  <h1>Hello</h1>
  <h2>Namaste</h2>
  <h3>Hola</h3>
  <label>Name</label>
  <input type="text" name="">
</body>
</html>
```

### index.css

```
body{
  background-color: cyan;
}
```

## Output:



## Using Universal Selector:

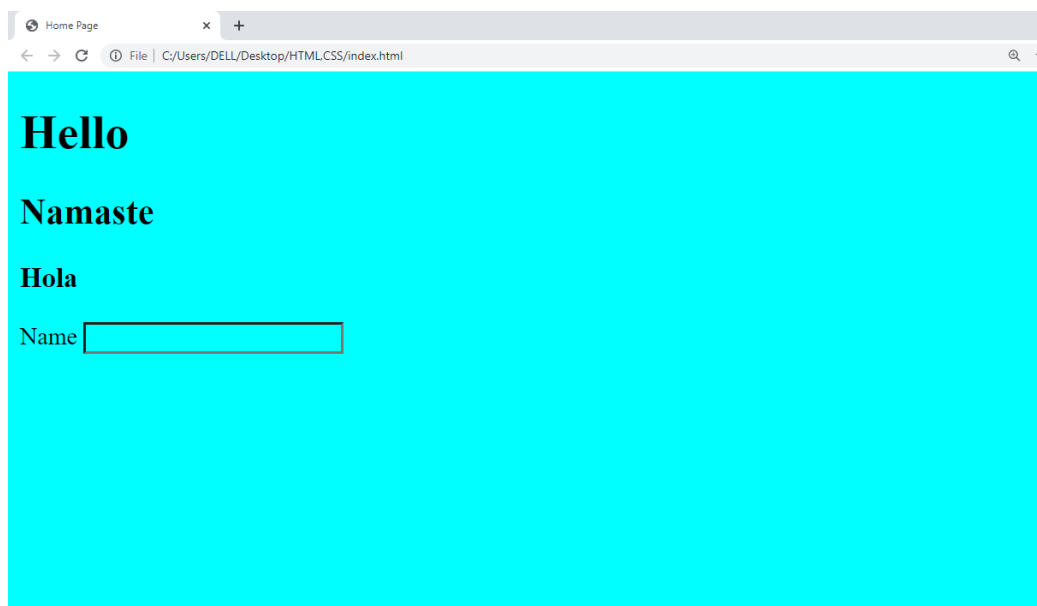
### index.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
  <link rel="stylesheet" type="text/css" href="index.css">
</head>
<body>
  <h1>Hello</h1>
  <h2>Namaste</h2>
  <h3>Hola</h3>
  <label>Name</label>
  <input type="text" name="">
</body>
</html>
```

### index.css

```
*{
  background-color: cyan;
}
```

## Output:



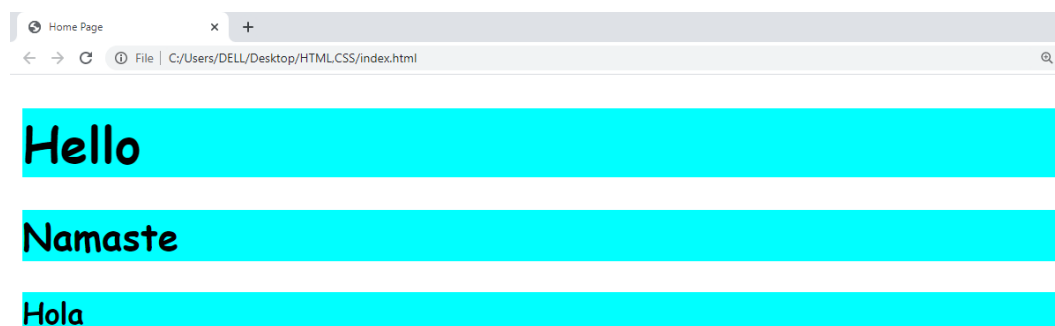


As we can notice the output of element selector and universal selector, we can change the background color of all the elements in the body using universal selector but using element selector it is not possible because few elements have their own css property for example input tag as its own css property that background color is white. This is the main difference between element selector and universal selector.

- **Group selector:** In css group selector is used to group together multiple selectors into one. We have to group together by separating each element with comma. We can give the **same properties to a number of selectors** without having to repeat them, now let's understand this with an example.

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
  <style type="text/css">
    h1,h2,h3{
      background-color: cyan;
      font-family: cursive;
    }
  </style>
</head>
<body>
  <h1>Hello</h1>
  <h2>Namaste</h2>
  <h3>Hola</h3>
</body>
</html>
```

**Output:**

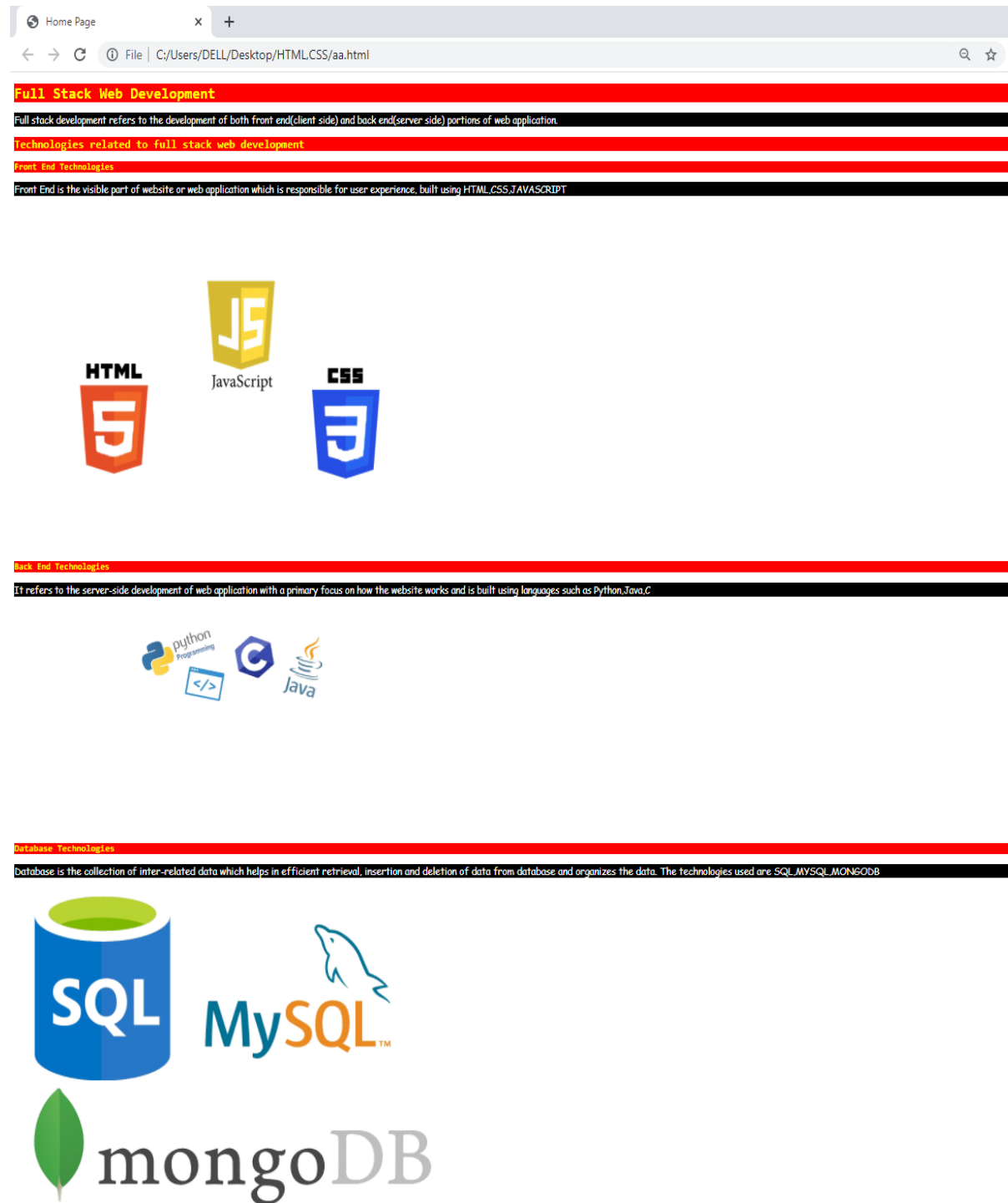


As we can see from the above example using group selector we can style multiple elements simultaneously.

- **Class Selector:** class selector is used to select all elements which belong to a particular class attribute. To select the elements with a particular class, use (.) character with specifying class name. Class name is mostly used to set the CSS property to given class. To give clear picture about class selector let's see the example below.

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
  <style type="text/css">
    .heading{
      background-color: red;
      color: yellow;
      font-family: monospace;
    }
    .info{
      background-color: black;
      color: white;
      font-family: cursive;
    } </style>
  </head>
<body>
  <h1 class="heading">Full Stack Web Development</h1>
  <p class="info">Full stack development refers to the development of both front end(client side) and back end(server side) portions of web application.</p>
  <h2 class="heading">Technologies related to full stack web development</h2>
  <h3 class="heading">Front End Technologies</h3>
  <p class="info">Front End is the visible part of website or web application which is responsible for user experience, built using HTML,CSS,JAVASCRIPT</p>
  
  <h3 class="heading">Back End Technologies</h3>
  <p class="info">It refers to the server-side development of web application with a primary focus on how the website works and is built using languages such as Python,Java,C</p>
  
  <h3 class="heading">Database Technologies</h3>
  <p class="info">Database is the collection of inter-related data which helps in efficient retrieval, insertion and deletion of data from database and organizes the data. The technologies used are SQL,MYSQL,MONGODB</p>
  
</body>
</html>
```

## Output:

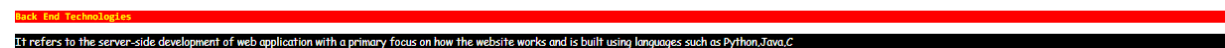
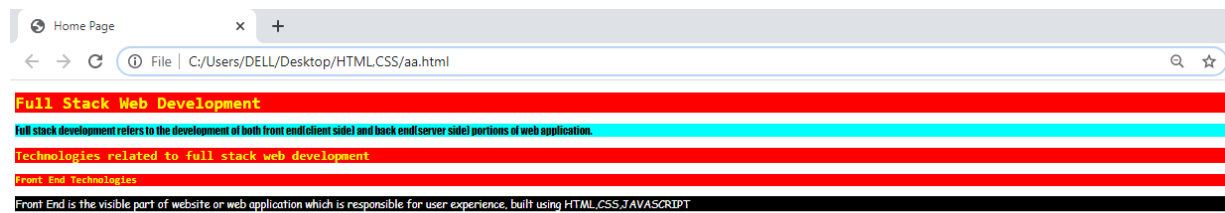


As we can see from the above example using **class selector** we can group different elements into a certain class and apply styling.

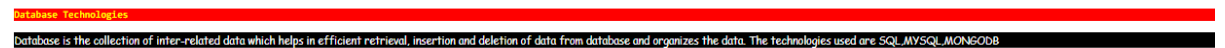
- **Id selector:** The id selector is used to set the style of given id. The id attribute is the unique identifier in HTML document. The id of an element is unique within a page, so the id selector is used to select one unique element. The id selector is used with # character. Let's now understand with an example.

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
  <style type="text/css">
    .heading{
      background-color: red;
      color: yellow;
      font-family: monospace;
    }
    .info{
      background-color: black;
      color: white;
      font-family: cursive;
    }
    #intro{
      background-color: cyan;
      color: black;
      font-family: fantasy;
    }
  </style>
</head>
<body>
  <h1 class="heading">Full Stack Web Development</h1>
  <p id="intro">Full stack development refers to the development of both front end(client side) and back end(server side) portions of web application.</p>
  <h2 class="heading">Technologies related to full stack web development</h2>
  <h3 class="heading">Front End Technologies</h3>
  <p class="info">Front End is the visible part of website or web application which is responsible for user experience, built using HTML,CSS,JAVASCRIPT</p>
  
  <h3 class="heading">Back End Technologies</h3>
  <p class="info">It refers to the server-side development of web application with a primary focus on how the website works and is built using languages such as Python,Java,C</p>
  
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</body>
</html>
```

# Output:



It refers to the server-side development of web application with a primary focus on how the website works and is built using languages such as Python,Java,C



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