

1. Describe the and <A> tag with example.

The HTML tag is used to embed an image in a web page. Images are not technically inserted into a web page; images are linked to web pages. The tag creates a holding space for the referenced image. The tag does not have a closing tag.

The tag has two required attribute:

- src – Specifies the path to the image
- alt – Specifies the alternate text for the image

Syntax:

```

```

The <a> tag defines a hyperlink, which is used to link from one page to another. The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

Syntax:

```
<a href="url">Anchor tag</a>
```

2. What are the different types of CSS used in webpage designing? Explain.

CSS is used to set the style in web pages that contain HTML elements. It sets the background-color, font-size, font-family, color, align-items etc.

There are three types of CSS which are given below:

- Inline CSS
- Internal CSS
- External CSS

- **Inline CSS:**

Inline CSS contains the CSS property in the body section attached with element is known as inline CSS. This kind of style is specified within an HTML tag using the style attribute.

Example:

```
<html>
<head>
  <title>Inline CSS</title>
</head>
<body>
  <p style="font-size:18px; color: #111">This the example of inline CSS </p>
</body>
</html>
```

- **Internal CSS:**

Internal CSS can be used when a single HTML document must be styled uniquely. The CSS rule set should be within the HTML file in the head section i.e the CSS is embedded within the HTML file.

Example:

```
<html>
<head>
  <title>Internal CSS</title>
  <style>
    h1{
      text-align: center;
    }
    .para-class{
      font-size: 18px;
    }
    #para-ID{
      background-color: yellow;
      color: black;
    }
  </style>
</head>
<body>
  <h1>Logo</h1>
  <p class="para-class">Internal CSS done with class attribute</p>
  <p id="para-ID">Internal CSS done with id attribute</p>
</body>
</html>
```

- **External CSS:**

External CSS contains separate CSS file which contains only style property with the help of tag attributes. CSS property written in a separate file with .css extension and should be linked to the HTML document using link tag. This means that for each elements style can be set only once and that will be applied across web pages.

HTML code file with index.html

```
<!--index.html-->
<!DOCTYPE html>
<html>
<head>
  <title>External CSS</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <h1>Logo</h1>
  <p class="para-class">External CSS with class attribute</p>
  <p id="para-ID">External CSS with id attribute</p>
</body>
</html>
```

CSS code file with style.css

```
/*style.css*/
h1{
  text-align: center;
}
.para-class{
  font-size: 18px;
}
#para-ID{
  background-color: yellow;
  color: black;
}
```

3. Why do you use JavaScript? Write a JavaScript program to calculate multiplication and division of two numbers provided by users.

JavaScript is a text-based programming language used both on the client-side and server side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user. JavaScript improves the user experience of the web page by converting it from a static page into an interactive one. To recap, JavaScript adds behavior to web pages.

JavaScript program to calculate multiplication and division of two numbers:

```
let firstValue = prompt("Enter a first number ");
let secondValue = prompt("Enter a second value ");
function multiplication(a,b){
    let mult = a*b;
    document.write(`The multiplication of two numbers ${a} and ${b} is ${mult} `);
}
function division(a,b){
    let div = a/b;
    document.write(` The division of two numbers ${a} and ${b} is ${div} `);
}
multiplication(firstValue,secondValue);
division(firstValue,secondValue);
```

4. Explain about Web server? What are the major issues in “httpd.conf” file to troubleshooting web server in Apache?

A web server is a computer that runs website which accepts requests via HTTP or its secure variant HTTPS. The basic objective of the web server is to store, process and deliver web pages to the user. This interconnection is done using Hypertext Transfer Protocol (HTTP).

Apache HTTP server is an effort to develop and maintain an open-source HTTP server for modern operating system including UNIX and Windows. The goal of this project is to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards.

The major issues in Apache web server while troubleshooting are as follows:

- Apache Won't Start
- SSL Problems
- Blocked Ports/Conflicting Software
- Apache isn't Co-operating with SSL
- Htaccess isn't Working
- Apache isn't Compiling

5. What are the different types of loops used in PHP? Explain the “FOR” loop with example.

Loop is a sequence of instruction that is continually repeated until a certain condition is reached. Loops are used to execute the same block of code again and again, as long as a certain condition is true.

In PHP, we have the following loop types:

for : loops through a block of code a specified number of times.

Syntax

```
for(initialization;condition;increment/decrement){  
    //code to be executed  
}
```

Example:

```
<?php  
for($i=1;$i<=5;$i++){  
    echo "The number is: $i";  
}  
?>
```

while : loops through a block of code as long as the specified condition is true.

Syntax

```
while (condition is true) {  
  //code to be executed  
}
```

Example:

```
<?php  
$x = 1;  
While($x<=5){  
echo "The number is $x";  
$x++;  
}  
?>
```

do ... while : loops through a block of code once, and then repeats the loop as long as the specified condition is true.

Syntax

```
do{  
  //code to executed  
}while(condition is true);
```

Example:

```
<?php  
$x=1;  
do{  
echo"The number is: $x";  
$x++;  
}while($x<=5);  
?>
```

6. Describe the database connection process in PHP?

Before we start building PHP connection to MYSQL database we need to know what PHPMysqlAdmin is. It's control panel from where you can manage the database that you've created. There are many other ways of connecting database using PHP but we will be doing this by localhost here.

Database connection process in PHP are as follows:

1. Create a connection

To create database in localhost we have to go homepage of PHPMysqlAdmin where you find the new button to create a database and name it as a practiceDatabase.

2. Create a folder in htdocs/www

Now, locate the folder where you installed XAMPP and open the htdocs folder. Create new folder inside c:/xampp/htdocs/ and name is "practice" we will place web files in this folder.

Note: if you are using WAMP, then add your practice folder in c:/wamp/www/ folder.

3. Create new PHP file to check your database connection

Create a new PHP file and save it as index.php inside the practice folder.

4. Add connection code in file

After creating PHP file and saved it add connection code in PHP file.

```
<?php
$username = "root";
$servername = "localhost";
$password = "";
$databasename = "practiceDatabase";
$conn = mysqli_connect($servername,$username,$password,$databasename);
if($conn->connect_error){
    echo $conn->connect_error;
}
echo "Congratulations! You've successfully connected your database";
$conn->close();
?>
```

5. Run it

Now open your browser and goto localhost/practice/index.php

1. Write the basic structure of an HTML program and explain with an example.

The basic structure of an HTML program is given below:

```
<!DOCTYPE html>
<html>
<head>
  <title> </title>
</head>
<body>
</body>
</html>
```

<!DOCTYPE html>: This tag is used to tell the HTML version. This currently tells that the version is HTML 5.

<html>: This is called HTML root element and used to wrap all the code. It is used by the browser to manipulate text, images, and other content to display it in the required format.

<head>: Head tag contains metadata, title, CSS etc. Some of the HTML elements that can be used inside the <head> elements are:

<style>

<title>

<script>

<meta> etc.

<body>: Body tag is used to enclose all the data which a web page has from texts to links. All the content that you see rendered in browser is contained within this element. Some tag used inside the body tag are:

<div>

<table>

<h1> <h2> <h6>

<p>

<form>

<button> etc.

2. Explain different types of list in HTML with example.

HTML Lists are used to specify lists of information. All lists may contain one or more elements. There are three different type of HTML lists:

- Unordered List(`ul`)
- Ordered List(`ol`)
- Description List or Definition List(`dl`)

Unordered List

An unordered list starts with the `` tag. Each list item starts with the `` tag.

The list items will be marked with bullets by default.

Example:

```
<ul>
  <li>Analog Computer</li>
  <li>Digital Computer</li>
  <li>Hybrid Computer</li>
</ul>
```

Ordered List

An ordered list starts with the `` tag. Each list item starts with the `` tag.

The list items will be counted with 1, 2... by default,

Example:

```
<ol>
  <li>Analog Computer</li>
  <li>Digital Computer </li>
  <li>Hybrid Computer</li>
</ol>
```

Definition List (dl)

Definition List also known as description list where entries are listed like dictionary. The definition list is very appropriate when you want to present glossary, list of terms of other name-value list.

Definition List makes use of following three tags.

- `<dl>` – Defines the start of the list
- `<dt>` – A term
- `<dd>` – Term definition
- `</dl>` – Defines the end of the list

Example:

```
<dl>
  <dt>HTML:</dt>
  <dd>This stands for Hyper Text Markup Language</dd>
  <dt>HTTP:</dt>
  <dd>This stands for Hyper Text Transfer Protocol</dd>
</dl>
```

3. How can you use image as hyperlink? Give example.

To use image as a link in HTML, use the tag as well as <a> tag with the href attribute. The tag is for using an image in a web page and the <a> tag is for adding a link. Under the image tag src attribute, add the URL of the image. With that also add height and width of image.

Example:

```
<html>
<head>
  <title>Document</title>
</head>
<body>
  <a href="https://www.facebook.com/">
    
  </a>
</body>
</html>
```

4. List the feature of JavaScript. Write a program in JavaScript to calculate the factorial of a given number.

JavaScript language consists of several different features. Some of the general JavaScript features are as follows.

1. Validating user's input
2. Client-side technology
3. Case sensitive format
4. Handling dates and time
5. Handling events
6. Detecting the user's browser and OS
7. Object-oriented language
8. Light weight and delicate

JavaScript program to calculate the factorial of given number

```
let num = prompt("Enter a number ");
if(num<0){
    document.write("Invalid!!! number must be a positive value ");
}
function getFactorial(a){
    var factorial=1;
    for(var i=1;i<=a;i++){
        factorial=factorial*i;
    }
    document.write("The factorial of "+a+" is "+factorial);
}
getFactorial(num);
```

5. What are the different types of CSS? Describe the inline CSS with suitable example.

CSS is used to set the style in web pages that contain HTML elements. It sets the background-color, font-size, font-family, color, align-items etc.

There are three types of CSS which are given below:

1. Inline CSS
2. Internal CSS
3. External CSS

1. Inline CSS:

Inline CSS contains the CSS property in the body section attached with element is known as inline CSS. This kind of style is specified within an HTML tag using the style attribute.

Example:

```
<!DOCTYPE html>
<html>
<head>
  <title>Inline CSS</title>
</head>
<body>
  <p style="font-size:18px; color: #111">This the example of inline CSS </p>
</body>
</html>
```

6. What are the different types of control structure in JavaScript?

The control structures within JavaScript allow the program flow to change within a unit of code or function. These statements can determine whether or not given statements are executed and provide the basis for repeated execution of a block of code.

Types of control structure in JavaScript are as follows:

Conditional Statement:

This is where the flow of the execution in a program is decided. Based on an expression passed, a conditional statement makes a decision, which results in either TRUE or FALSE. Example if else, if else if, switch etc.

Iterative Statement (Loop):

Looping is a powerful tool in order to execute a set of instructions, repeatedly, while the expression passed is satisfied. Example for loop, while loop and do while loop.

1. What is html? Differentiate between GET and POST methods to send the form data to PHP file.

➤ HTML stands for Hypertext Markup Language. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. A markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most markup languages (e.g. HTML) are human-readable. The language uses tags to define what manipulation has to be done on the text.

HTML is a markup language used by the browser to manipulate text, images, and other content, in order to display it in the required format. HTML was created by Tim Berners-Lee in 1991. The first-ever version of HTML was HTML 1.0, but the first standard version was HTML 2.0, published in 1999.

| GET | POST |
|---|---|
| <ul style="list-style-type: none">• In GET method, values are visible in the URL. | <ul style="list-style-type: none">• In POST method, values are not visible in the URL. |
| <ul style="list-style-type: none">• GET has a limitation on the length of the values, generally 255 characters. | <ul style="list-style-type: none">• POST has no limitation on the length of the values since they are submitted via the body of HTTP. |
| <ul style="list-style-type: none">• GET performs are better compared to POST because of the simple nature of appending the values in the URL. | <ul style="list-style-type: none">• It has lower performance as compared to GET method because of time spent in including POST values in the HTTP body. |
| <ul style="list-style-type: none">• This method supports only string data types. | <ul style="list-style-type: none">• This method supports different data types, such as string, numeric, binary, etc. |
| <ul style="list-style-type: none">• GET results can be bookmarked. | <ul style="list-style-type: none">• POST results cannot be bookmarked. |
| <ul style="list-style-type: none">• GET request is often cacheable. | <ul style="list-style-type: none">• The POST request is hardly cacheable. |
| <ul style="list-style-type: none">• GET Parameters remain in web browser history. | <ul style="list-style-type: none">• Parameters are not saved in web browser history. |

2. Give the difference between client side and server side scripting languages. Also list the features of JavaScript.

| Server-side Scripting | Client-side Scripting |
|---|--|
| <ul style="list-style-type: none"> It helps work with the back end. | <ul style="list-style-type: none"> It helps work with the front end. |
| <ul style="list-style-type: none"> It doesn't depend on the client. | <ul style="list-style-type: none"> It is visible to the users. |
| <ul style="list-style-type: none"> It runs on the web server. | <ul style="list-style-type: none"> The scripts are run on the client browser. |
| <ul style="list-style-type: none"> It helps provide a response to every request that comes in from the user/client. | <ul style="list-style-type: none"> It runs on the user/client's computer. |
| <ul style="list-style-type: none"> This is not visible to the client side of the application. | <ul style="list-style-type: none"> It depends on the browser's version. |
| <ul style="list-style-type: none"> It requires the interaction with the server for the data to be process. | <ul style="list-style-type: none"> It doesn't interact with the server to process data. |
| <ul style="list-style-type: none"> Server side scripting requires languages such as PHP, ASP.net, ColdFusion, Python, Ruby on Rails. | <ul style="list-style-type: none"> Client side scripting involves languages such as HTML, CSS, JavaScript. |
| <ul style="list-style-type: none"> It is considered to be a secure way of working with applications. | <ul style="list-style-type: none"> It helps reduce the load on the server. |
| <ul style="list-style-type: none"> It can be used to customize web pages. | <ul style="list-style-type: none"> It is considered to be less secure in comparison to client side scripting. |
| <ul style="list-style-type: none"> It can also be used to provide dynamic websites. | |

JavaScript

➤ JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

- JavaScript is the **Programming Language** for the Web.
- JavaScript can update and change both **HTML** and **CSS**.
- JavaScript can **calculate**, **manipulate** and **validate** data.

Features of JavaScript

✓ There are following features of JavaScript:

- 1.All popular web browsers support JavaScript as they provide built-in execution environments.
- 2.JavaScript follows the syntax and structure of the C programming language. Thus, it is a structured programming language.
- 3.JavaScript is a weakly typed language, where certain types are implicitly cast (depending on the operation).
- 4.JavaScript is an object-oriented programming language that uses prototypes rather than using classes for inheritance.
- 5.It is a light-weighted and interpreted language.
- 6.It is a case-sensitive language.
- 7.JavaScript is supportable in several operating systems including, Windows, macOS, etc.
- 8.It provides good control to the users over the web browsers.

3. Write a program in JavaScript to calculate the sum of numbers from 1 to 100.



```
// program to display the sum of numbers from numbers to 1 to 100.  
<script>  
const number = 100;  
let sum = 0;  
for (let i = 1; i <= number; i++) {  
    sum += i;  
}  
console.log('The sum of natural numbers:'+sum);  
</script>
```

4. What are the different types of CSS? Describe the internal CSS with suitable example.

➤ Cascading Style Sheet(CSS) is used to set the style in web pages that contain HTML elements. It sets the background color, font-size, font-family, color, ... etc property of elements on a web page.

There are three types of CSS which are given below:

1)Inline CSS

2)Internal or Embedded CSS

3)External CSS

Internal or Embedded CSS: This can be used when a single HTML document must be styled uniquely. The CSS rule set should be within the HTML file in the head section i.e the CSS is embedded within the HTML file.

Example:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Internal CSS</title>
    <style>
      .main {
        text-align:center;
      }

      p{
        color:blue;
        font-size:20px;
      }

    </style>
  </head>
  <body>
    <div class = "main">
      <p> Internal css</p>
    </div>
  </body>
</html>
```

5. Create a form containing two text boxes and one button to send the data using GET method and display the values using PHP script.

➤ The GET method sends the encoded user information appended to the page request. The page and the encoded information are separated by the ? character.

Example : test.php

```
<?php
if( $_GET["name"] || $_GET["age"] ) {
    echo "Welcome ". $_GET['name']. "<br />";
    echo "You are ". $_GET['age']. " years old.";
    exit();
}
?>
<html>
<body>
    <form action = "<?php $_PHP_SELF ?>" method = "GET">
        Name: <input type = "text" name = "name" />
        Age: <input type = "text" name = "age" />
        <input type = "submit" />
    </form>
</body>
</html>
```

It will produce the following result –



The screenshot shows a web browser displaying the output of the PHP script. It features a form with two text input fields. The first field is preceded by the label 'Name:' and the second by 'Age:'. To the right of the second input field is a button labeled 'Submit'.

6. How to connect to MYSQL database using php? Explain with appropriate example.

➤ MySQL is a highly popular database management system that can power projects of all sizes. Its ability to handle huge volumes of data without breaking a sweat is one of its biggest selling points. Connect MySQL with PHP code, you can make use of one of three methodologies.

There are three types of methods in PHP to connect MySQL database through backend:

- MySQL
- MySQLi
- PDO

Connect MySQL Database with PHP

1. [Create MySQL Database at the Localhost](#)
2. [Create Database](#)
3. [Create a Folder in htdocs](#)
4. [Create Database Connection File In PHP](#)
5. [Create new php file to check your database connection](#)
6. [Run it](#)

Connection.php file

```
<?php

$servername = "localhost";
$username = "root";
$password = "";

// Connection
$conn = mysqli_connect($servername,
                      $username, $password);

// Check if connection is
// Successful or not
if (!$conn) {
    die("Connection failed: "
        .mysqli_connect_error());
}
echo "Connected successfully";
?>
```

1. What is web page? Describe static and dynamic web site.

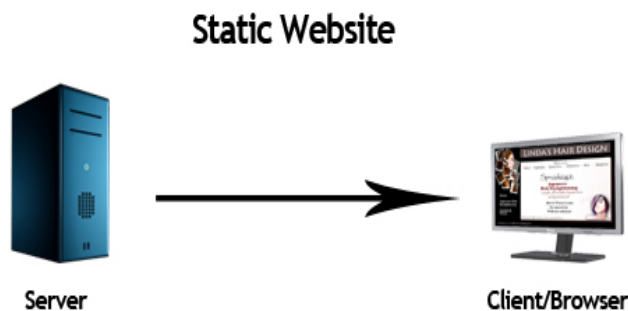
➤ web page is a document available on world wide web. Web Pages are stored on web server and can be viewed using a web browser.

A web page can contain huge information including text, graphics, audio, video and hyperlinks. These hyperlinks are the link to other web pages.

Static Web page

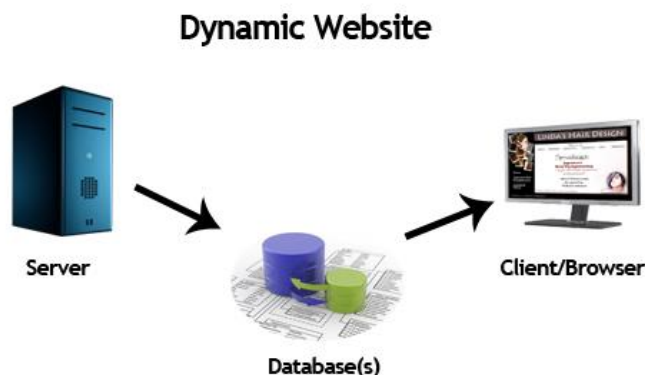
➤ Static web pages are also known as flat or stationary web page. They are loaded on the client's browser as exactly they are stored on the web server. Such web pages contain only static information. User can only read the information but can't do any modification or interact with the information.

Static web pages are created using only HTML. Static web pages are only used when the information is no more required to be modified.



Dynamic website

➤ Dynamic website is a collection of dynamic web pages whose content changes dynamically. It accesses content from a database or Content Management System (CMS). Therefore, when you alter or update the content of the database, the content of the website is also altered or updated.



2. What is html ? Write its features

➤ HTML stands for HyperText Markup Language. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. A markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most markup languages (e.g. HTML) are human-readable. The language uses tags to define what manipulation has to be done on the text.

HTML is a markup language used by the browser to manipulate text, images, and other content, in order to display it in the required format. HTML was created by Tim Berners-Lee in 1991. The first-ever version of HTML was HTML 1.0, but the first standard version was HTML 2.0, published in 1999.

Features of HTML

- 1) It is a very **easy and simple language**. It can be easily understood and modified.
- 2) It is very easy to make an **effective presentation** with HTML because it has a lot of formatting tags.
- 3) It is a **markup language**, so it provides a flexible way to design web pages along with the text.
- 4) It facilitates programmers to add a **link** on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.
- 5) It is **platform-independent** because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.
- 6) It facilitates the programmer to add **Graphics, Videos, and Sound** to the web pages which makes it more attractive and interactive.
- 7) HTML is a case-insensitive language, which means we can use tags either in lower-case or upper-case.

3. Describe types of html lists with example.

➤ HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

- **** – An unordered list. This will list items using plain bullets.
- **** – An ordered list. This will use different schemes of numbers to list your items.
- **<dl>** – A definition list. This arranges your items in the same way as they are arranged in a dictionary.

Unordered Lists (UL)

➤ An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML **** tag. Each item in the list is marked with a bullet.

we can use **type** attribute for **** tag to specify the type of bullet you like. By default, it is a disc.

Example

```
<!DOCTYPE html>

<html>

  <head>
    <title>HTML Unordered List</title>
  </head>
  <body>
    <ul>
      <li>Beetroot</li>
      <li>Ginger</li>
      <li>Potato</li>
      <li>Radish</li>
    </ul>
  </body>
</html>
```

Ordered Lists (OL)

- If we are required to put your items in a numbered list instead of bulleted, then HTML ordered list will be used. This list is created by using **** tag. The numbering starts at one and is incremented by one for each successive ordered list element tagged with ****.

Example

```
<!DOCTYPE html>

<html>

  <head>

    <title>HTML Ordered List</title>

  </head>

  <body>

    <ol>

      <li>Beetroot</li>

      <li>Ginger</li>

    </ol>

  </body>

</html>
```

Definition Lists

- HTML and XHTML supports a list style which is called **definition lists** where entries are listed like in a dictionary or encyclopedia. The definition list is the ideal way to present a glossary, list of terms, or other name/value list.

Definition List makes use of following three tags.

- **<dl>** – Defines the start of the list
- **<dt>** – A term
- **<dd>** – Term definition
- **</dl>** – Defines the end of the list

Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Definition List</title>
  </head>
  <body>
    <dl>
      <dt><b>HTML</b></dt>
      <dd>This stands for Hyper Text Markup Language</dd>
      <dt><b>HTTP</b></dt>
      <dd>This stands for Hyper Text Transfer Protocol</dd>
    </dl>
  </body>
</html>
```

4. What are the different types of css used in webpage designing ? Explain.

➤ Cascading Style Sheet(CSS) is used to set the style in web pages that contain HTML elements. It sets the background color, font-size, font-family, color, ... etc property of elements on a web page. There are three types of CSS which are given below:

- Inline CSS
- Internal or Embedded CSS
- External CSS

Inline CSS

➤ Inline CSS contains the CSS property in the body section attached with element is known as inline CSS. This kind of style is specified within an HTML tag using the style attribute.

Example:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Inline CSS</title>
  </head>

  <body>
    <p style = "color:#009900; font-size:50px;
      font-style:italic; text-align:center;">
      This is inline css
    </p>

  </body>
</html>
```

Internal or Embedded CSS

➤ This can be used when a single HTML document must be styled uniquely. The CSS rule set should be within the HTML file in the head section i.e the CSS is embedded within the HTML file.

Example:

```
<!DOCTYPE html>
<html>
  <head>
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      .main {
        text-align:center;
      }
    </style>
  </head>
  <body>
    <div class="main">
      <p>This is internal CSS</p>
    </div>
  </body>
</html>
```

```

P{
Color:blue;
Font-size:px;
}

</style>
</head>
<body>
  <div class = "main">
    <p> Internal css</p>
  </div>
</body>
</html>

```

External CSS

- External CSS contains separate CSS file which contains only style property with the help of tag attributes (For example class, id, heading, ... etc). CSS property written in a separate file with .css extension and should be linked to the HTML document using **link** tag. This means that for each element, style can be set only once and that will be applied across web pages.

Example: The file given below contains CSS property. This file save with .css extension. For Ex: **external.css**

```

body {
    background-color:powderblue;
}
.main {
    text-align:center;
}
p {
    color:#009900;    font-size:50px;    font-weight:bold;
}

```

Below is the HTML file that is making use of the created external style sheet

- **link** tag is used to link the external style sheet with the html webpage.
- **href** attribute is used to specify the location of the external style sheet file.

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" href="geeks.css"/>
  </head>

  <body>
    <div class = "main">
      <p> external css </p>
    </div>
  </body>
</html>
```

5. What is selectors in CSS ? Explain in brief id and class selector.

➤ A **CSS selector** selects the HTML element(s) for styling purpose. CSS selectors select HTML elements according to its id, class, type, attribute etc.

There are many basic different types of selectors.

- Element Selector
- Id Selector
- Class Selector
- Universal Selector
- Group Selector

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, write a hash (#) character, followed by the id of the element.

Example

The CSS rule below will be applied to the HTML element with id="para1":

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

Class Selector

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

Example

In this example all HTML elements with class="center" will be red and center-aligned:

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

6. Describe grouping selector and universal selector with suitable example.

➤ **Group-selector:** This selector is used to style all comma separated elements with the same style.

style.css: The following code is used in the above HTML code using the group selector. Suppose you want to apply common styles to different selectors, instead of writing rules separately you can write them in groups as shown below.

```
#div-container, .paragraph-class,  
h1{  
  color: white;  
  background-color: purple;  
  font-family: monospace;  
}
```

universal-selector

➤ The * selector in CSS is used to select all the elements in a HTML document. It also selects all elements which are inside under another element.

style.css: The following code is used in the above HTML code using the universal selector. This CSS rule will applied to each and every HTML element on the page:

```
* {  
    color: white;  
    background-color: black;  
}
```