

Q. Write a html structure program?

```
<!DOCTYPE html>

<html>

<head>

    <title>HTML Structure</title>

</head>

<body>


    <h1>Welcome to HTML</h1>

    <p>This is a basic HTML structure.</p>


</body>

</html>
```

Q.2 write a html to add html heading, image, link, audio, video

```
<!DOCTYPE html>

<html>

<head>

    <title>HTML Media Example</title>

</head>

<body>


    <!-- Heading -->

    <h1>Welcome to My Web Page</h1>


    <!-- Image -->

    <h2>Image Example</h2>

    
```

```
<!-- Link -->
```

```
<h2>Link Example</h2>
```

```
<a href="https://www.google.com" >
```

```
    Visit Google
```

```
</a>
```

```
<!-- Audio -->
```

```
<h2>Audio Example</h2>
```

```
<audio controls>
```

```
    <source src="audio.mp3" type="audio/mpeg">
```

```
    Your browser does not support audio.
```

```
</audio>
```

```
<!-- Video -->
```

```
<h2>Video Example</h2>
```

```
<video width="400" controls>
```

```
    <source src="video.mp4" type="video/mp4">
```

```
    Your browser does not support video.
```

```
</video>
```

```
</body>
```

```
</html>
```

Q3. Write a html code to make order list, unordered list description list?

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>HTML Lists</title>
```

```
</head>
```

```
<body>
```

<!-- Ordered List -->

<h2>Ordered List</h2>

HTML

CSS

JavaScript

<!-- Unordered List -->

<h2>Unordered List</h2>

Apple

Banana

Mango

<!-- Description List -->

<h2>Description List</h2>

<dl>

<dt>HTML</dt>

<dd>HyperText Markup Language</dd>

<dt>CSS</dt>

<dd>Cascading Style Sheets</dd>

<dt>JS</dt>

<dd>JavaScript</dd>

</dl>

```
</body>
```

```
</html>
```

Q4. Write a html to create table.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>HTML Table</title>
```

```
</head>
```

```
<body>
```

```
  <h2>Student Table</h2>
```

```
  <table border="1">
```

```
    <tr>
```

```
      <th>Roll No</th>
```

```
      <th>Name</th>
```

```
      <th>Class</th>
```

```
    </tr>
```

```
    <tr>
```

```
      <td>1</td>
```

```
      <td>Alice</td>
```

```
      <td>10</td>
```

```
    </tr>
```

```
    <tr>
```

```
      <td>2</td>
```

```
<td>Bob</td>

<td>10</td>

</tr>

</table>


</body>

</html>
```

Q.5 Write a html to create form ?

```
<!DOCTYPE html>

<html>

<head>

  <title>Contact Form</title>

</head>

<body>


  <h2>Contact Us</h2>


  <form>

    <label>Name:</label><br>

    <input type="text" name="name"><br><br>

    <label>Email:</label><br>

    <input type="email" name="email"><br><br>

    <label>Message:</label><br>

    <textarea name="message" rows="4" cols="30"></textarea><br><br>

    <input type="submit" value="Submit">
```

```
</form>
```

```
</body>
```

```
</html>
```

Q.6 Write a program to show inline, internal and external css

Inline

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>Inline CSS</title>
```

```
</head>
```

```
<body>
```

```
  <h1 style="color: red; font-size: 30px;">
```

```
    This is Inline CSS
```

```
  </h1>
```

```
</body>
```

```
</html>
```

Internal

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>Internal CSS</title>
```

```
  <style>
```

```
    h1 {
```

```
      color: blue;
```

```
      font-size: 30px;
```

```
    }  
  </style>  
</head>  
<body>  
  
  <h1>This is Internal CSS</h1>  
  
</body>  
</html>
```

External

HTML file (index.html)

```
<!DOCTYPE html>  
<html>  
<head>  
  <title>External CSS</title>  
  <link rel="stylesheet" href="style.css">  
</head>  
<body>  
  
  <h1>This is External CSS</h1>
```

```
</body>
```

```
</html>
```

CSS file (style.css)

```
h1 {  
  color: green;  
  font-size: 30px;  
}
```

Q7. Write a program to show inline, internal, external javascript?

Inline javascript

```
<!DOCTYPE html>

<html>

<head>

    <title>Inline JavaScript</title>

</head>

<body>

    <button onclick="alert('This is Inline JavaScript')">

        Click Me

    </button>

</body>

</html>
```

Internal javascript

```
<!DOCTYPE html>

<html>

<head>

    <title>Internal JavaScript</title>

    <script>

        alert("|this is internal javascript");

    </script>

</head>

<body>

    <h1> internal js inside head section</h1>

</body>

</html>
```

External Javascript

HTML file (index.html)

```
<!DOCTYPE html>

<html>

<head>

  <title>External JavaScript</title>

  <script src="script.js"></script>

</head>

<body>

  <button onclick="showMessage()">

    Click Me

  </button>

</body>

</html>
```

JavaScript file (script.js)

```
function showMessage() {

  alert("This is External JavaScript");

}
```

8. write a javascript program to find largest number among three numbers using Math.max()

```
<!DOCTYPE html>

<html>

<head>

  <title>Largest Number</title>

</head>

<body>

  <script>
```

```
var a = 10;
```

```
var b = 25;
```

```
var c = 15;
```

```
var largest = Math.max(a, b, c);
```

```
document.write("Largest number is: " + largest);
```

```
</script>
```

```
</body>
```

```
</html>
```

OR

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Largest Number Using if-else</title>
```

```
</head>
```

```
<body>
```

```
<script>
```

```
var a = 10;
```

```
var b = 25;
```

```
var c = 15;
```

```
if (a > b && a > c) {
```

```
    document.write("Largest number is: " + a);
```

```
}
```

```
else if (b > a && b > c) {
```

```
        document.write("Largest number is: " + b);
    }
    else {
        document.write("Largest number is: " + c);
    }
</script>
```

```
</body>
```

```
</html>
```

Q.9 write a javascript program to show variables?

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>JavaScript Variables</title>
```

```
</head>
```

```
<body>
```

```
    <h2>JavaScript Variables Example</h2>
```

```
    <script>
```

```
        // Declaring variables
```

```
        var name = "Alice";    // String variable
```

```
        let age = 25;          // Number variable
```

```
        const country = "India"; // Constant variable
```

```
        // Displaying variables
```

```
        document.write("Name: " + name + "<br>");
```

```
        document.write("Age: " + age + "<br>");
```

```
        document.write("Country: " + country + "<br>");
```

```
</script>
```

```
</body>
```

```
</html>
```

10. Write a javascript program to show function?

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>JavaScript Function Example</title>
```

```
</head>
```

```
<body>
```

```
  <h2>Function Example</h2>
```

```
  <script>
```

```
    // Function declaration
```

```
    function greet() {
```

```
      alert("Hello! Welcome to JavaScript Functions.");
```

```
    }
```

```
    // Calling the function
```

```
    greet();
```

```
  </script>
```

```
</body>
```

```
</html>
```

11. Write a javascript program to show event handling?

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>Simple Event Handling</title>
```

```
</head>
```

```
<body>

  <h2>Event Handling Example</h2>

  <button onclick="showMessage()">Click Me</button>

  <script>

    function showMessage() {

      alert("Button was clicked!");

    }

  </script>

</body>

</html>
```

12. Write a javascript program to access DOM?

```
<!DOCTYPE html>

<html>

<head>

  <title>DOM Access Example</title>

</head>

<body>


  <h2 id="heading">Hello, World!</h2>


  <p class="para">Paragraph 1</p>

  <p class="para">Paragraph 2</p>


  <h3>heading 3</h3>

  <h3>heading 3 again</h3>

  <input type="text" name="username" value="Alice">

  <button onclick="accessDOM()">Click to Access DOM</button>
```

```
<script>

function accessDOM() {

    // 1. By ID

    var h = document.getElementById("heading");

    h.innerHTML = "Accessed by ID";


    // 2. By Class Name

    var p = document.getElementsByClassName("para");

    p[0].innerHTML = "Paragraph 1 changed by class name";

    p[1].innerHTML = "Paragraph 2 changed by class name";


    // 3. By Tag Name

    var x = document.getElementsByTagName("h3");

    x[0].innerHTML = "h3 changed by tag name";

    x[1].innerHTML = "h3 again changed by tag name";


    // 4. By Name

    var names = document.getElementsByName("username");

    names[0].value = "Changed by name";

}

</script>

</body>

</html>
```

Q. Write a javascript program to find a factorial of a number?

```
<!DOCTYPE html>

<html>

<head>

    <title>Factorial Using Recursion</title>
```

```
</head>

<body>

  <h2>Factorial of a Number</h2>

  <script>

    // Recursive function to find factorial

    function factorial(n) {

      if (n === 0 || n === 1) {

        return 1; // Base case

      } else {

        return n * factorial(n - 1); // Recursive call

      }

    }

    // Example: Find factorial of 5

    var number = 5;

    var result = factorial(number);

    document.write("Factorial of " + number + " is: " + result);

  </script>

</body>

</html>
```

13 Write a js program to swap the 2 values

```
<!DOCTYPE html>

<html>

<head>

  <title>Swap Two Values</title>

</head>

<body>

<script>

  // Program to swap two values using a temporary variable
```

```
let a = 10;
```

```
let b = 20;
```

```
document.write("Before swap:<br>");
```

```
document.write("a = " + a + "<br>");
```

```
document.write("b = " + b + "<br><br>");
```

```
// swapping using temp variable
```

```
let temp = a;
```

```
a = b;
```

```
b = temp;
```

```
document.write("After swap:<br>");
```

```
document.write("a = " + a + "<br>");
```

```
document.write("b = " + b + "<br>");
```

```
</script>
```

```
</body>
```

```
</html>
```

OR

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>Swap Two Values</title>
```

```
</head>
```

```
<body>
```

```
<script>
```

```
  let a = 10;
```

```
let b = 20;
```

```
document.write("Before swap:<br>");
```

```
document.write("a = " + a + "<br>");
```

```
document.write("b = " + b + "<br><br>");
```

```
// swap using destructuring
```

```
[a, b] = [b, a];
```

```
document.write("After swap:<br>");
```

```
document.write("a = " + a + "<br>");
```

```
document.write("b = " + b + "<br>");
```

```
</script>
```

```
</body>
```

```
</html>
```

Q. Write a js program to find smallest among three numbers.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<script>
```

```
let a = 10;
```

```
let b = 5;
```

```
let c = 8;
```

```
if (a <= b && a <= c) {
```

```
    document.write("The smallest number is: " + a);
```

```
}
```

```
else if (b <= a && b <= c)
```

```
{
```

```
    document.write("The smallest number is: " + b);
```

```
}  
else {  
    document.write("The smallest number is: " + c);  
}  
</script>  
</body>  
</html>
```

Q. Write a JS program to Check a number is even or odd.

```
<!DOCTYPE html>  
  
<html>  
  
<body>  
  
<script>  
  
    let num = 7;  
  
    if (num % 2 === 0) {  
        document.write(num + " is an Even number");  
    } else {  
        document.write(num + " is an Odd number");  
    }  
  
</script>  
  
</body>  
  
</html>
```

Q. Write a javascript to show array ?

```
<!DOCTYPE html>  
  
<html>  
  
<body>
```

```
<script>

let fruits = ["Apple", "Banana", "Orange"];

document.write("Fruits: " + fruits + "<br>");

document.write("First fruit: " + fruits[0] + "<br>");

document.write("Second fruit: " + fruits[1] + "<br>");


// Adding a new element

fruits.push("Mango");

document.write("After adding Mango: " + fruits + "<br>");

// Removing the last element

fruits.pop();

document.write("After removing last element: " + fruits + "<br>");

</script>

</body>

</html>
```

Q. Write a function to enter two numbers and find the sum of two numbers in javascript?

```
<!DOCTYPE html>

<html>

<head>

  <title>Sum of Two Numbers</title>

</head>

<body>

<h3>Sum of Two Numbers</h3>

<script>

function sum(a, b) {

  return a + b;

}
```

```
// Enter two numbers

var num1 = 10;

var num2 = 20;

// Call the function

var result = sum(num1, num2);

// Display result

document.write("Sum of " + num1 + " and " + num2 + " is: " + result);

</script>

</body>

</html>
```

Q. Write a javascript to show control statements: Selective(if if-else switch), Looping(for,while,do-while)?

```
<!DOCTYPE html>

<html>

<head>

  <title>JavaScript Control Statements</title>

</head>

<body>

<script>

  // ===== SELECTIVE STATEMENTS =====

  let num = 10;

  // 1. if statement

  if (num > 0) {

    document.write("if: Number is positive<br>");

  }

  // 2. if-else statement

  if (num % 2 === 0) {
```

```
document.write("if-else: Number is even<br>");  
} else {  
document.write("if-else: Number is odd<br>");  
}
```

// 3. switch statement

```
let day = 3; // 1-Mon, 2-Tue, 3-Wed ...
```

```
switch(day) {  
case 1:  
document.write("switch: Monday<br>");  
break;  
case 2:  
document.write("switch: Tuesday<br>");  
break;  
case 3:  
document.write("switch: Wednesday<br>");  
break;  
default:  
document.write("switch: Another day<br>");  
}
```

```
document.write("<br>"); // line break for loops
```

```
// ===== LOOPING STATEMENTS =====
```

// 1. for loop

```
document.write("for loop: ");  
for (let i = 1; i <= 5; i++) {  
document.write(i + " ");
```

```
}  
  
document.write("<br>");  
  
// 2. while loop  
  
document.write("while loop: ");  
  
let j = 1;  
while (j <= 5) {  
    document.write(j + " ");  
    j++;  
}  
  
document.write("<br>");  
  
// 3. do-while loop  
  
document.write("do-while loop: ");  
  
let k = 1;  
  
do {  
    document.write(k + " ");  
    k++;  
} while (k <= 5);  
  
document.write("<br>");  
</script>  
  
</body>  
</html>
```

Q. What is a JavaScript Object?

A **JavaScript object** is a **collection of key-value pairs**. Keys are also called **properties**. Values can be **any data type**: numbers, strings, arrays, functions, even other objects.

```
<!DOCTYPE html>

<html>

<body>

<script>

  // Simple object

  let person = {

    name: "Alice",

    age: 25,

    greet: function() {

      document.write("Hello, my name is " + this.name + "<br>");

    }

  };

  // Accessing properties

  document.write("Name: " + person.name + "<br>");

  document.write("Age: " + person.age + "<br>");

  // Calling method

  person.greet();

</script>

</body>

</html>
```

PHP

What is PHP?

- **PHP** stands for **Hypertext Preprocessor**.
- It is a **server-side scripting language** used to make **dynamic web pages**.
- PHP code runs on the **server** and generates HTML to send to the browser.
- You can embed PHP inside HTML.

2. Uses of PHP

1. **Dynamic web pages** – display content based on user input or database.
2. **Form handling** – get data from forms and process it.
3. **Database interaction** – connect to MySQL, PostgreSQL, etc.
4. **Session management** – login systems, storing user data.
5. **File handling** – read/write files on the server.
6. **Content management systems** – WordPress, Joomla, etc. are written in PHP.

3. Simple PHP Program

A basic program to **display text**:

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

<?php
  // Simple PHP code
  echo "Hello, World! This is my first PHP program.";
?>

</body>
</html>
```

4. PHP Program to Add Two Numbers

```
<!DOCTYPE html>
<html>
<body>

<?php
  $a = 10;
  $b = 20;
  $sum = $a + $b;

  echo "The sum of $a and $b is: $sum";
?>
```

```
</body>
</html>
```

Output:

The sum of 10 and 20 is: 30

what are Control Statements in PHP?

Control statements **control the flow of execution** of a PHP program – basically, they decide **which code runs, when, and how many times**.

1. Conditional Control Statements

1. if statement

Executes code **only if a condition is true**.

```
<?php
$age = 18;

if ($age >= 18) {
    echo "You are eligible to vote";
}
?>
```

2. if...else statement

Runs one block if condition is true, another if false.

```
<?php
$marks = 45;

if ($marks >= 40) {
    echo "Pass";
} else {
    echo "Fail";
}
?>
```

3. if...elseif...else

Used for **multiple conditions**.

```
<?php
$marks = 85;

if ($marks >= 90) {
    echo "Grade A";
} elseif ($marks >= 75) {
    echo "Grade B";
} elseif ($marks >= 60) {
    echo "Grade C";
} else {
    echo "Fail";
}
?>
```

4. switch statement

Used when comparing **one variable with many values**.

```
<?php
$day = 3;

switch ($day) {
    case 1:
        echo "Monday";
        break;
    case 2:
        echo "Tuesday";
        break;
    case 3:
        echo "Wednesday";
        break;
    default:
        echo "Invalid day";
}
?>
```

2. Looping Control Statements

5. for loop

Used when the number of iterations is **known**.

```
<?php
for ($i = 1; $i <= 5; $i++) {
    echo $i . "<br>";
}
?>
```

6. while loop

Runs as long as the condition is true.

```
<?php
$i = 1;

while ($i <= 5) {
    echo $i . "<br>";
    $i++;
}
?>
```

7. do...while loop

Runs **at least once**, even if condition is false.

```
<?php
$i = 1;

do {
    echo $i . "<br>";
    $i++;
} while ($i <= 5);
?>
```

8. foreach loop

Used for **arrays**.

```
<?php
$colors = array("Red", "Green", "Blue");

foreach ($colors as $color) {
    echo $color . "<br>";
}
?>
```

3. Jump / Branching Statements

9. break

Stops the loop or switch.

```
<?php
for ($i = 1; $i <= 10; $i++) {
    if ($i == 5) {
        break;
    }
    echo $i . "<br>";
}
?>
```

10. continue

Skips current iteration.

```
<?php
for ($i = 1; $i <= 5; $i++) {
    if ($i == 3) {
        continue;
    }
    echo $i . "<br>";
}
?>
```

11. return

Exits a function and returns a value.

```
<?php
function add($a, $b) {
    return $a + $b;
}
```

```
echo add(5, 3);
?>
```

Q. Write a php program to find largest numbers among three numbers.

```
<?php
$a = 10;
$b = 25;
$c = 15;

if ($a >= $b && $a >= $c) {
    echo "Largest number is: $a";
} elseif ($b >= $a && $b >= $c) {
    echo "Largest number is: $b";
} else {
    echo "Largest number is: $c";
}
?>
```

Q. Write a php program to calculate the factorial of a given number ?

```
<?php
function factorial($n) {
    if ($n == 0 || $n == 1) {
        return 1;    // Base case
    } else {
        return $n * factorial($n - 1); // Recursive call
    }
}
```

```
$number = 5;
echo "Factorial of $number is: " . factorial($number);
?>
```

Q.what is the purpose of mysqli_connect() function in php describe usage and parameters?

The `mysqli_connect()` function is used to establish a connection between a PHP script and a MySQL database server.

Without this connection, PHP cannot create databases, tables, or perform operations like `insert`, `update`, `delete`, or `select`.

Parameters of mysqli_connect()

Parameters	Description
host	Name of the server (usually "localhost")
username	MySQL username (e.g., "root")
password	MySQL password
database	Name of the database to connect to (optional)

Q.Write a PHP program to connect with database (procedure method)

```
<?php
$host = "localhost";
$user = "root";
$password = "";
$dbname = "test_db";

// Create connection
$conn = mysqli_connect($host, $user, $password, $dbname);

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

echo "Database connected successfully!";
?>
```

Q. write down the serverside script to create a database, connect with it, create a table and insert data in it.

- Create a database

- Connect to it
- Create a table
- Insert data

```
<?php
// Step 1: Connect to MySQL server
$conn = mysqli_connect("localhost", "root", "");

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
echo "Connected to server successfully<br>";

// Step 2: Create Database
$sql = "CREATE DATABASE studentdb";
if (mysqli_query($conn, $sql)) {
    echo "Database created successfully<br>";
} else {
    echo "Database already exists<br>";
}

// Step 3: Connect to the Database
$conn = mysqli_connect("localhost", "root", "", "studentdb");

// Step 4: Create Table
$table = "CREATE TABLE students (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(50),
    age INT
)";

if (mysqli_query($conn, $table)) {
    echo "Table created successfully<br>";
} else {
    echo "Table already exists<br>";
}

// Step 5: Insert Data
$insert = "INSERT INTO students (name, age) VALUES ('Rahul', 20)";

if (mysqli_query($conn, $insert)) {
    echo "Data inserted successfully<br>";
```

```
} else {  
    echo "Data insertion failed<br>";  
}  
  
// Close connection  
mysqli_close($conn);  
?>
```

Q.How to you fetch data from database in php and display it in form? Describe
Fetching data from a database and displaying it in a **form** means:

- Retrieve records from MySQL using PHP
- Put those values into HTML form fields (like input boxes) so they can be viewed or edited.

Steps to Fetch Data and Display in a Form

1. Connect PHP with the database
2. Write a SELECT query
3. Execute the query
4. Fetch the data
5. Display data inside HTML form fields

Example Database Table

Table name: students

id	name	age
1	Ram	20

```
<?php
```

```
// Step 1: Connect to database
```

```
$conn = mysqli_connect("localhost", "root", "", "studentdb");
```

```
// Step 2: Select query
```

```
$sql = "SELECT * FROM students WHERE id=1";
```

```
// Step 3: Execute query
```

```
$result = mysqli_query($conn, $sql);
```

```
// Step 4: Fetch data
```

```
$row = mysqli_fetch_assoc($result);
```

```
?>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h3>Student Form</h3>
```

```
<form>
```

Name:

```
<input type="text" name="name" value="<?php echo $row['name']; ?>"><br><br>
```

Age:

```
<input type="text" name="age" value="<?php echo $row['age']; ?>"><br><br>
```

```
</form>
```

```
</body>
```

```
</html>
```

Q. Difference between Server side and scripting language.

Client-Side Scripting	Server-Side Scripting
Executes on the user's browser	Executes on the web server
Used to create interactive web pages	Used to manage database and server operations
Does not require server interaction for execution	Requires server interaction
Faster response time	Slower compared to client side
Cannot directly access databases	Can access databases
Code is visible to the user	Code is hidden from the user
Mainly used for form validation and UI effects	Mainly used for data processing and business logic
Less secure	More secure
Examples: JavaScript	Examples: PHP, ASP.NET, Python
Runs before data is sent to the server	Runs after request reaches the server

Q. Difference between GET and POST Methods

GET Method	POST Method
Sends data through URL	Sends data through HTTP request body
Data is visible in the browser address bar	Data is not visible in the address bar
Less secure	More secure
Limited data size	Can send large amounts of data
Data can be bookmarked	Data cannot be bookmarked
Used for retrieving data	Used for sending data securely
Faster	Slightly slower
Data remains in browser history	Data does not rem