PHP Basics

What is PHP?

PHP (Hypertext Preprocessor) is a widely-used, open-source scripting language especially suited for web development.

It can be embedded into HTML and is commonly used to create dynamic content on websites. PHP runs on the server side,

meaning it processes the logic on the server before sending the result (usually HTML) to the user's browser.

PHP Basics

1. Syntax:

PHP code is executed on the server and can be embedded directly in HTML. To write PHP code, you must start and end with PHP tags:

```
<?php
  // PHP code goes here
?>
```

2. Echo and Print:

Both 'echo' and 'print' are used to output data in PHP.

- echo: Outputs one or more strings.

  Example:

```
  <?php
    echo "Hello, World!";
```

```
  ?>
```

- print: Outputs one string and returns a value.

   Example:

```php
  <?php
    print "Hello, World!";
  ?>
```

3. Comments:

PHP supports single-line and multi-line comments:

- Single-line comment:

```php
  // This is a single-line comment
```

- Multi-line comment:

```php
  /*
    This is a multi-line comment
  */
```

4. Variables:

Variables in PHP are declared using a dollar sign ($), followed by the variable name. Variable names are case-sensitive.

Example:

```php
<?php
$myVariable = "Hello, PHP!";
$number = 10;
echo $myVariable; // Outputs: Hello, PHP!
?>
```

5. PHP Data Types:

PHP supports various data types:

- String: A sequence of characters.

  Example: $string = "Hello, PHP!";

- Integer: Non-decimal numbers.

  Example: $int = 42;

- Float: Decimal numbers.

  Example: $float = 3.14;

- Boolean: Represents true or false.

  Example: $isTrue = true;

- Array: A collection of values.

  Example: $array = array("Apple", "Banana");

6. Strings:

PHP provides a variety of string operations, including concatenation and accessing string length.

- Concatenation:

  Example: $firstName . " " . $lastName;

- String Length:

  Example: strlen($myString);

7. Numbers and Math:

PHP supports basic arithmetic operations:

- Addition (+)

- Subtraction (-)

- Multiplication (*)

- Division (/)

- Modulus (%)

- Power: pow(2, 3) // 2 raised to the power of 3

PHP also includes built-in math functions like abs(), sqrt(), round(), etc.