

# Introduction to PHP for Beginners

What is PHP?

PHP (Hypertext Preprocessor) is a popular server-side scripting language used to create dynamic websites. Unlike HTML (which is static), PHP allows websites to interact with databases, handle forms, and generate customized content.

Key Features of PHP:

- ✓ Open-source (free to use)
- ✓ Works with MySQL, PostgreSQL, and other databases
- ✓ Runs on servers (Apache, Nginx)
- ✓ Easy to learn for beginners

## Basic Syntax:

PHP code is embedded in HTML and enclosed in `<?php ... ?>` tags.

Example:

```
<?php  
    echo "Hello, World!"; // Outputs text  
?>
```

# Setting Up PHP

To run PHP, you need:

A server environment (e.g., XAMPP, WAMP, or MAMP for local testing).

A code editor (e.g., VS Code, Sublime Text).

Installing XAMPP:

Download XAMPP from <https://www.apachefriends.org>.

Install and start Apache (for PHP) and MySQL (for databases).

Save PHP files in the htdocs folder.

Testing PHP:

Create a file named test.php with:

```
<?php
    phpinfo(); // Displays PHP configuration
?>
```

Open <http://localhost/test.php> in your browser.

# PHP Basics

## Variables & Data Types

Variables start with \$. PHP supports:

- Strings (\$name = "John");
- Integers (\$age = 25;)
- Booleans (\$is\_active = true;)

Example:

```
<?php
$greeting = "Welcome to PHP!";
echo $greeting;
?>
```

## Control Structures

### Conditionals (if, else)

```
<?php
$age = 18;
if ($age >= 18) {
    echo "You are an adult.";
} else {
```

```
    echo "You are a minor.";
}
?>
```

## **Loops (for, while)**

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

# **Working with Forms & Databases**

## **Handling Forms**

HTML form (form.html):

```
<form action="process.php" method="post">
    <input type="text" name="username">
    <button type="submit">Submit</button>
</form>
```

PHP processing (process.php):

```
<?php
```

```
$user = $_POST['username'];  
echo "Hello, $user!";  
?>
```

## Connecting to MySQL

```
<?php  
$conn = mysqli_connect("localhost", "root", "", "mydb");  
if (!$conn) {  
    die("Connection failed: " . mysqli_connect_error());  
}  
echo "Connected successfully!";  
?>
```