

Variable Naming Conventions

- Variable names in PHP start with a dollar sign (`$`)
- The name must begin with a letter or underscore (`_`), followed by letters, numbers, or underscores.
- Variable names are case-sensitive, meaning `$myVariable` and `$myvariable` are treated as different variables.
- PHP does not require you to declare a variable before using it; it automatically creates the variable when you assign a value to it.

```
$name="John";  
$age=30;
```

Variable Types

PHP is a loosely typed language, which means you don't need to declare the data type of a variable explicitly. PHP determines the data type based on the value assigned to it. Common data types in PHP include

- **Strings:** Textual data enclosed in single (") or double (") quotes.
- **Integers:** Whole numbers.
- **Floats (or Doubles):** Numbers with decimal points.
- **Booleans:** True or false values.
- **Arrays:** Ordered collections of data.
- **Objects:** Instances of user-defined classes.
- **Null:** Represents a variable with no value.

```
$name="John Smith";  
  
$age=30;  
  
$price= 19.99;  
  
$isStudent=true;  
  
$fruits=array(`"apple"`, ` "banana"`, ` "cherry"`);  
  
class Person {  
    public $name;  
    public $age;  
}  
  
$person1 = new Person();  
$person1->name = "Alice";  
$person1->age = 25;  
  
$noValue = null;
```

Variable Scope

PHP variables have different scopes, which determine where the variable can be accessed. The main variable scopes in PHP are

- **Local Scope:** Variables declared within a function are only accessible within that function.
- **Global Scope:** Variables declared outside of any function can be accessed anywhere in the script.
- **Superglobals:** Special global arrays like `$_GET`, `$_POST`, `$_SESSION`, etc., which are accessible from anywhere in the script.

Local Scope: Variables declared within a function have local scope, meaning they are only accessible within that function.

```
function greet() {  
    $message = "Hello, World!";  
    echo $message;  
}  
  
greet();
```

Global Scope: Variables declared outside of any function have global scope and can be accessed from anywhere in your script.

```
$name = "John";  
  
function greet() {  
    global $name;  
    echo "Hello, $name!";  
}  
  
greet(); // Outputs: Hello, John!  
  
// You can also access $name outside of the function.  
echo "Outside function: $name"; // Outputs: Outside function: John
```

#php