PHP

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Advantages of PHP
- Open source
- Platform independent
- Memory management
- Simple
- Reusable
- Secure
- Error reporting
- Dynamic typing
- Flexible
- Fast
- Easy to learn
- Object oriented
- Support database
- Cross platform
- Extensible
- Reliable
- Maintainable

Basic Syntax

<?php ... ?>

Hello World

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

Comments

```
// single line comment
# single line comment
/* multi line
   comment */
```

Variables

```
$variable = value;
```

Variable Scope

```
$x = 5;
function myTest() {
    $x = 10;
    echo $x;
}
myTest();
echo $x;
```

Output: 10 5

Echo

```
echo "Hello World!";
```

Print

```
print "Hello World!";
```

Data Types

```
$x = "Hello World!";
$x = 5;
$x = 5.34;
$x = true;
$x = array("Volvo", "BMW", "Toyota");
$x = null;
```

Constants

```
define("MY_CONSTANT", "Hello World!");
echo MY_CONSTANT;
```

Operators

```
$x + $y   // Addition
$x - $y   // Subtraction
$x * $y   // Multiplication
$x / $y   // Division
$x % $y   // Modulus
$x == $y  // Equal
$x != $y  // Not equal
$x > $y   // Greater than
$x < $y   // Less than
$x >= $y  // Greater or equal
$x <= $y  // Less or equal
$x && $y  // And
$x || $y  // Or
$x . $y   // Concatenation
```

Conditions

```
if (condition) {
    code to be executed if condition is true
} elseif (condition) {
    code to be executed if condition is false
} else {
    code to be executed if condition is false
}
```

Switch

```
switch (expression) {
    case label1:
        code to be executed if expression = label1
        break;
    case label2:
        code to be executed if expression = label2
        break;
    default:
        code to be executed if expression != label1 && != label2
}
```

While Loop

```
while (condition) {
    code to be executed;
}
```

Do While Loop

```
do {
    code to be executed;
} while (condition);
```

For Loop

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

Foreach Loop

```
foreach ($array as $value) {
    code to be executed;
}
```

Functions

```
function myFunction() {
    code to be executed;
}
myFunction();
```

Function Parameters

```
function myFunction($name, $age) {
    echo "Name: $name, Age: $age";
}
myFunction("John", 25);
```

Function Return Values

```
function myFunction($x, $y) {
    return $x + $y;
}
echo myFunction(5, 3);
```

Output: 8

Arrays

```
$array = array("Volvo", "BMW", "Toyota");
$array[0] = "Volvo";
$array[1] = "BMW";
$array[2] = "Toyota";
```

Array Functions

```
count($array);
sort($array);
rsort($array);
array_push($array, "Mercedes");
array_pop($array);
array_shift($array);
array_unshift($array, "Mercedes");
array_merge($array1, $array2);
array_slice($array, 2, 3);
array_search("Volvo", $array);
in_array("Volvo", $array);
```

Output: 3 Volvo BMW Toyota Volvo BMW Toyota Mercedes Toyota Toyota Mercedes Volvo Mercedes Volvo BMW Toyota 0 1

Forms

```
<form action="welcome.php" method="post">
    Name: <input type="text" name="name">
    Email: <input type="text" name="email">
    <input type="submit">
</form>
```

```
<form action="welcome.php" method="get">
    Name: <input type="text" name="name">
    Email: <input type="text" name="email">
    <input type="submit">
</form>
```

```
<?php echo $_POST["name"]; ?>
<?php echo $_POST["email"]; ?>
```

```
<?php echo $_GET["name"]; ?>
<?php echo $_GET["email"]; ?>
```

Form Validation

```
<?php
$name = $email = $gender = $comment = $website = "";
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = test_input($_POST["name"]);
    $email = test_input($_POST["email"]);
    $website = test_input($_POST["website"]);
    $comment = test_input($_POST["comment"]);
    $gender = test_input($_POST["gender"]);
}
function test_input($data) {
    $data = trim($data);
    $data = stripslashes($data);
    $data = htmlspecialchars($data);
    return $data;
}
?>
```

```
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>" method="post">
    Name: <input type="text" name="name">
    Email: <input type="text" name="email">
    Website: <input type="text" name="website">
    Comment: <textarea name="comment">
    Gender: <input type="radio" name="gender">
    <input type="submit">
</form>
```

Form Validation

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<?php
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    return $data;
}
?>
```

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    Website: <input type="text" name="website">
    Comment: <textarea name="comment">
    Gender: <input type="radio" name="gender">
    <input type="submit">
</form>
```