



# Chapter 4

## Introduction to PHP







**PHP**





**PHP**

PHP is a recursive acronym for “PHP: Hypertext Preprocessor” -- It is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.

- PHP is a server-side scripting language
- PHP scripts are executed on the server
- PHP supports many databases (MySQL, Informix, Oracle, Sybase, Solid, PostgreSQL, Generic ODBC, etc.)
- PHP is open source software
- PHP is free to download and use

```
<!-- ... height="450" viewBox="0 0 450 450" ... -->
<defs>
  <linearGradient x1="100%" y1="0%" x2="0%" y2="100%" id="bg-gradient">
    <stop stop-color="#000000" offset="0%" />
    <stop stop-color="#101010" offset="100%" />
  </linearGradient>
</defs>
<rect width="450" height="450" rx="0" fill="url(#bg-gradient)" />
</svg>
<div class="media-control">
  <svg width="96" height="96" viewBox="0 0 96 96" id="media-control">
    <defs>
      <linearGradient x1="0%" y1="0%" x2="100%" y2="100%" id="media-gradient">
        <stop stop-color="white" stop-opacity="0" offset="0%" />
        <stop stop-color="white" offset="100%" />
      </linearGradient>
      <filter x="500%" y="500%" width="1000%" height="1000%" id="media-filter">
        <feOffset dy="16" in="SourceAlpha" result="offsetAlpha"></feOffset>
        <feGaussianBlur stdDeviation="4" in="offsetAlpha" result="blurAlpha"></feGaussianBlur>
        <feColorMatrix values="1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix"></feColorMatrix>
      </filter>
      <fill-rule="evenodd">
        <path d="M 48 48 C 48 48 48 48 48 48" />
      </fill-rule>
    </defs>
  </svg>
</div>
```





**PHP can generate dynamic page content**  
**PHP can create, open, read, write, delete, and close files on the server**

- **PHP can collect form data**
- **PHP can send and receive**
- **PHP can add, delete, modify data in your database**
- **PHP can be used to control user-access**
- **PHP can encrypt data**





**PHP**

## Why PHP?

- PHP runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)
- PHP supports a wide range of databases
- PHP is free. Download it from the official PHP resource: [www.php.net](http://www.php.net)
- PHP is easy to learn and runs efficiently on the server side

```
<!-- height="450" viewBox="0 0 450 450" rel="http://www.w3.org/1999/
  <linearGradient x1="100%" y1="0%" x2="0%" y2="100%" id="bg1">
    <stop stop-color="#000000" offset="0%" />
    <stop stop-color="#101010" offset="100%" />
  </linearGradient>
</defs>
<rect width="800" height="450" rx="0" fill="url(#bg1)" />
</svg>
<div class="media-control">
  <svg width="96" height="96" viewBox="0 0 96 96" id="media-control">
    <defs>
      <linearGradient x1="0%" y1="0%" x2="100%" y2="100%" id="bg2">
        <stop stop-color="#fff" stop-opacity="0" offset="0%" />
        <stop stop-color="#fff" offset="100%" />
      </linearGradient>
      <filter x="-500%" y="-500%" width="1000" height="1000">
        <feGaussianBlur stdDeviation="20" />
        <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix" />
      </filter>
      <fill-rule="evenodd" />
    </defs>
  </svg>
</div>
```









**PHP**

```
<html>
<body>
<?php
$a = "red";
$b= "black";
$c= "blue";
echo "My car is " . $a . "<br>";
echo "My house is " . $c . "<br>";
echo "My boat is " . $b . "<br>";
?>
</body>
</html>
```

My car is red  
My house is blue  
My boat is black

```
<defs>
  <linearGradient x1="100%" y1="0%" x2="0%" y2="100%" id="grad1">
    <stop stop-color="red" offset="0%" />
    <stop stop-color="blue" offset="100%" />
  </linearGradient>
</defs>
<rect width="800" height="450" rx="0" fill="url(#grad1)" />
</svg>
<div class="media-control">
  <svg width="96" height="96" viewBox="0 0 96 96">
    <defs>
      <linearGradient x1="87.583%" y1="19.875%" x2="100%" y2="100%" id="grad2">
        <stop stop-color="red" offset="0%" />
        <stop stop-color="blue" offset="100%" />
      </linearGradient>
      <filter x="-500%" y="-500%" width="5000" height="5000" result="blur">
        <feOffset dy="16" in="SourceGraphic" />
        <feGaussianBlur stdDeviation="40" />
        <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix" />
      </filter>
    </defs>
    <rect width="96" height="96" rx="48" fill="url(#grad2)" filter="url(#blur)" />
  </svg>
</div>
```





**PHP**

## Comments in PHP

A comment in PHP code is a line that is not executed as a part of the program. Its only purpose is to be read by someone who is looking at the code.

### Comments can be used to:

- Let others understand your code
- Remind yourself of what you did
- Leave out some parts of your code

```
<defs>
  <linearGradient x1="100%" y1="0%" x2="0%" y2="100%" id="url(media-control)"/>
  <stop stop-color="#000000" offset="0%"/>
  <stop stop-color="#101010" offset="100%"/>
</defs>
<rect width="800" height="450" rx="0" fill="url(media-control)"/>
</svg>
<div class="media-control">
  <svg width="96" height="96" viewBox="0 0 96 96" id="url(media-control)"/>
  <defs>
    <linearGradient x1="0%" y1="0%" x2="100%" y2="100%" id="url(media-control)"/>
    <stop stop-color="#fff" stop-opacity="0" offset="0%"/>
    <stop stop-color="#fff" offset="100%"/>
  </defs>
  <rect width="96" height="96" fill="url(media-control)"/>
  <filter x="0" y="0" width="100%" height="100%" id="url(media-control)"/>
  <feGaussianBlur stdDeviation="10" in="url(media-control)"/>
  <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix"/>
  </filter>
  <fill-rule="evenodd"
  <path d="M 0 0 L 96 0 L 96 96 L 0 96 L 0 0"
  </path>
  </fill>
</div>
```





# </html>





**PHP**

## PHP Variables

In PHP, a variable starts with the **\$** sign, followed by the name of the variable:

```
<html>
```

```
<body>
```

```
<?php
```

```
$x = 12;
```

```
$y = "ALI";
```

```
echo $x;
```

```
echo "<br>";
```

```
echo $y;
```

```
?>
```

```
</body>
```

```
</html>
```

12  
ALI

```
<?php  
$x = 12;  
$y = "ALI";  
echo $x;  
echo "<br>";  
echo $y;  
?>
```





# PHP Variables





PHP

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<?php
```

```
$x = 15;
```

```
$y = 12;
```

```
echo $x + $y;
```

```
echo "<br>";
```

```
echo $x - $y;
```

```
?>
```

```
</body>
```

```
</html>
```

## PHP Variables

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3

```
<defs>  
  <linearGradient x1="100%" y1="0%" x2="0%" y2="100%" id="grad1">  
    <stop stop-color="#000000" offset="0%" />  
    <stop stop-color="#000000" offset="100%" />  
  </linearGradient>  
</defs>  
<rect width="800" height="450" rx="0" fill="url(#grad1)" stroke="black" />  
</svg>  
<div class="media-control">  
  <svg width="96" height="96" viewBox="0 0 96 96" id="media-control">  
    <defs>  
      <linearGradient x1="87.565X" y1="15.878X" x2="15.878X" y2="87.565X" id="grad2">  
        <stop stop-color="#fff" stop-opacity="0" offset="0%" />  
        <stop stop-color="#fff" offset="100%" />  
      </linearGradient>  
      <filter x="-500%" y="-500%" width="1000%" height="1000%" id="filter1">  
        <feOffset dy="16" in="SourceGraphic" result="offset"></feOffset>  
        <feGaussianBlur stdDeviation="40" in="offset" result="blur"></feGaussianBlur>  
        <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix" />  
      </filter>  
      <full-rule="evenodd" />  
    </defs>  
    <rect width="96" height="96" rx="48" fill="url(#grad2)" stroke="black" />  
    <rect width="96" height="96" rx="48" fill="url(#grad2)" stroke="black" />  
  </svg>  
</div>
```





**PHP**

## Variable Types

PHP supports the following data types:

- String
- Integer
- Float (floating point numbers - also called double)
- Boolean
- Array
- Object
- NULL
- Resource

To get the data type of a variable, use the **var\_dump()** function.

```
<defs>
  <linearGradient x1="100%" y1="0%" x2="0%" y2="100%">
    <stop stop-color="black" offset="0%" />
    <stop stop-color="white" offset="100%" />
  </linearGradient>
</defs>
<rect width="800" height="450" rx="0" fill="url(#media-control)" />
</svg>
<div class="media-control">
  <svg width="96" height="96" viewBox="0 0 96 96">
    <defs>
      <linearGradient x1="0.5653" y1="0.475" x2="0.5653" y2="0.475">
        <stop stop-color="black" offset="0%" />
        <stop stop-color="white" offset="100%" />
      </linearGradient>
      <filter x="16" y="16" in="SourceGraphic" result="media-control">
        <feOffset dy="16" />
        <feGaussianBlur stdDeviation="4" />
        <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix" />
      </filter>
      <fill-rule="evenodd" />
    </defs>
  </svg>
</div>
```





**PHP**

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

```
<pre>  
<?php  
var_dump(5);  
var_dump("John");  
var_dump(3.14);  
var_dump(true);  
var_dump([2, 3, 56]);  
var_dump(NULL);  
?>  
</pre>  
</body>  
</html>
```

## Variables Types

```
int(5)  
string(4) "John"  
float(3.14)  
bool(true)  
array(3) {  
    [0]=>  
    int(2)  
    [1]=>  
    int(3)  
    [2]=>  
    int(56)  
}  
NULL
```

```
<defs>  
    <linearGradient x1="100%" y1="0%" x2="0%" y2="100%" id="grad1">  
        <stop stop-color="red" offset="0%" />  
        <stop stop-color="blue" offset="100%" />  
    </linearGradient>  
</defs>  
<rect width="800" height="450" rx="0" fill="url(#grad1)" />  
</svg>  
<div class="media-control">  
    <svg width="96" height="96" viewBox="0 0 96 96" id="media-control">  
        <defs>  
            <linearGradient x1="0%" y1="0%" x2="100%" y2="100%" id="grad2">  
                <stop stop-color="red" offset="0%" />  
                <stop stop-color="blue" offset="100%" />  
            </linearGradient>  
            <filter x="500" y="500" width="500" height="500" id="filter">  
                <feOffset dy="16" in="SourceGraphic" result="offset"></feOffset>  
                <feGaussianBlur stdDeviation="4" in="offset" result="blur"></feGaussianBlur>  
                <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0" type="matrix" />  
            </filter>  
            <full-rule="evenodd" />  
        </defs>  
        <rect width="96" height="96" rx="48" fill="url(#grad2)" />  
        <rect width="96" height="96" rx="48" fill="url(#grad2)" />  
    </svg>  
</div>
```



The image features a close-up of two hands shaking in a firm grip, signifying a business agreement or partnership. The hands are wearing dark grey or black business suits with white shirts and cuffs visible. The background is a soft-focus office environment with people and architectural elements. Overlaid on the center is a bright red rectangular box containing the word 'THANKS' in large, white, bold, sans-serif capital letters. On the left side, there is a vertical column of ten colored squares in a grid pattern, with colors including dark blue, red, yellow, teal, purple, orange, dark grey, light blue, lime green, and light grey. On the right side, there are several horizontal red bars of varying lengths, some with rounded ends, creating a modern, graphic design.