

A decorative graphic on the left side of the slide. It consists of a blue parallelogram and a light green parallelogram, both tilted at an angle. The blue shape is in the foreground, and the green shape is partially behind it. They are set against a dark blue background with subtle diagonal lines.

# Programming with PHP



# Installation

<https://www.php.net/downloads>

Tutorial for installation on windows:

[https://www.youtube.com/watch?v=OK\\_JCtrrv-c&t=1359s](https://www.youtube.com/watch?v=OK_JCtrrv-c&t=1359s)

For Mac OSX users:

<https://php-osx.liip.ch/>

Alternative choices:

XAMPP, MAMP



# Basic PHP syntax

Files with PHP content are suffixed with .php extension

PHP scripts are wrapped within `<?php ..... ?>` blocks

Content of PHP files are often a mixture of HTML and PHP scripting code

PHP statements end with semicolon ; ***IMPORTANT!***



# Variables

PHP keywords, aren't case sensitive, but variables are **IMPORTANT!**

Variables in PHP are prefixed with \$

# Example

```
index.php
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta http-equiv="X-UA-Compatible" content="IE=edge">
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <title>This is a PHP page</title>
8  </head>
9  <body>
10     <?php
11         ECHO "Good morning" . "<br>";
12         ECHO "Huomenta" . "<br>";
13         echo "god morgon" . "<br>";
14
15         $greeting_message = "Moi MOI !!!" . "<br>";
16         echo $greeting_message . "<br>";
17         echo "GREETING_MESSAGE is" . $GREETING_MESSAGE . "<br>";
18     <?>
19 </body>
20 </html>
```



# Numbers in PHP

An int is a number of the set  $\mathbb{Z} = \{\dots, -2, -1, 0, 1, 2, \dots\}$ .

<https://www.php.net/manual/en/language.types.integer.php>

Floating point numbers (also known as "floats", "doubles", or "real numbers") can be specified using any of the following syntaxes:

<https://www.php.net/manual/en/language.types.float.php>



# Math functions in PHP

<https://www.php.net/manual/en/ref.math.php>

PHP math functions are used for handling float and integer variables.

These functions are inbuilt into PHP.

Important ones: `abs()`, `ceil()`, `floor()`, `sqrt()`, etc.



# If statement

<https://www.php.net/manual/en/control-structures.if.php>

The if construct is one of the most important features of many languages, PHP included. It allows for conditional execution of code fragments. PHP features an if structure that is similar to that of C:





# Switch case

<https://www.php.net/manual/en/control-structures.switch.php>

The switch statement is similar to a series of IF statements on the same expression. In many occasions, you may want to compare the same variable (or expression) with many different values, and execute a different piece of code depending on which value it equals to. This is exactly what the switch statement is for.



# While loop in PHP

while loops are the simplest type of loop in PHP. The basic form of a while statement is:

```
<?php while($value < 1000) {  
    $value++;  
    echo 'Hello';  
}?>
```



# PHP specific syntax

<https://www.php.net/manual/en/control-structures.alternative-syntax.php>

PHP offers an alternative syntax for some of its control structures; namely, if, while, for, foreach, and switch. In each case, the basic form of the alternate syntax is to change the opening brace to a colon (:) and the closing brace to endif;, endwhile;, endfor;, endforeach;, or endswitch;, respectively.



Wait, why is this backend development?



# Practice exercise

Rebuild the number counter application, and migrate its logic to PHP

Rebuild the jackpot application, and migrate its logic to PHP