

# C) Server and Language Essentials

## Server Essentials

Laravel requires:

Apache Server

PHP Command Line Interface (CLI)

PHP Composer script

PHP Laravel Artisan script

### Apache Server

-virtual host  
-mode read write

For nginx, refer

(<https://www.digitalocean.com/community/tutorials/how-to-set-up-nginx-server-blocks-virtual-hosts-on-ubuntu-16-04> )

Ubuntu, centos server

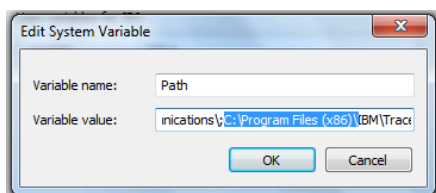
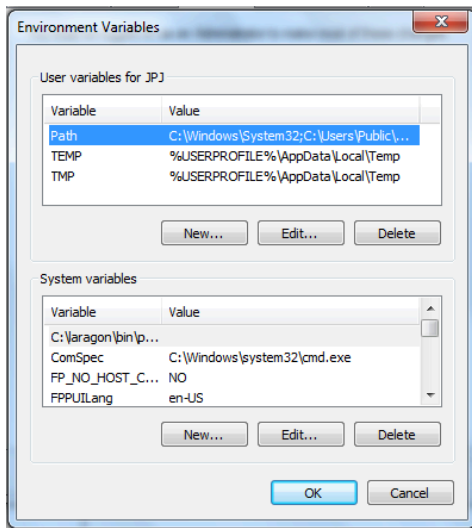
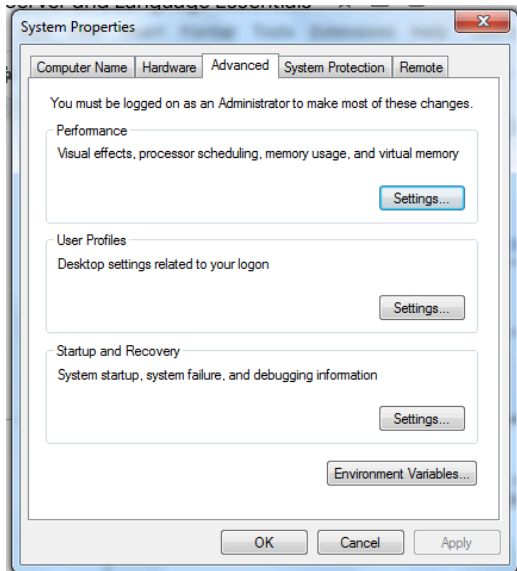
Virtualbox <https://www.virtualbox.org/>

Virtualbox images <https://www.osboxes.org/ubuntu-server/>

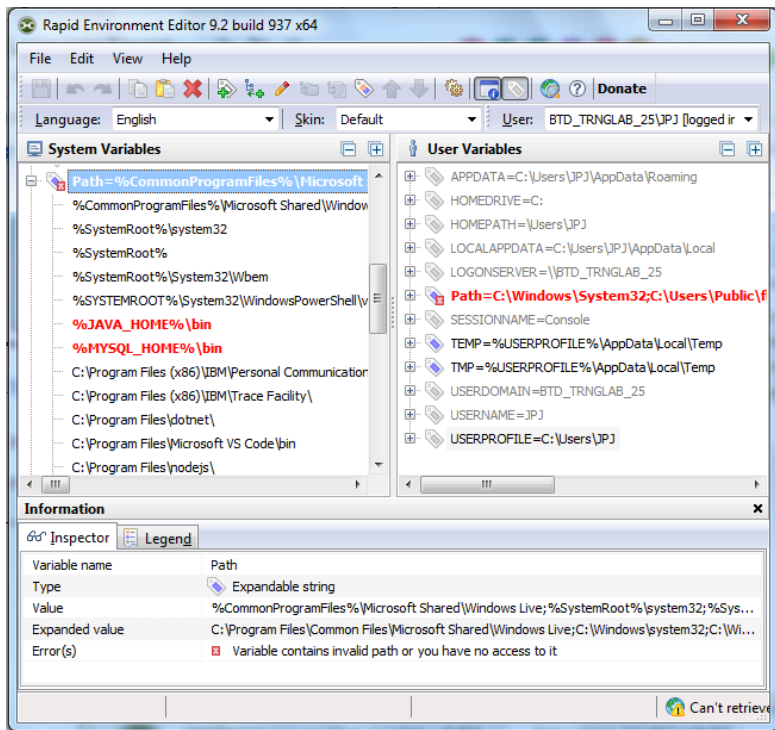
### PHP Tools

## PHP Command Line Interface (CLI)

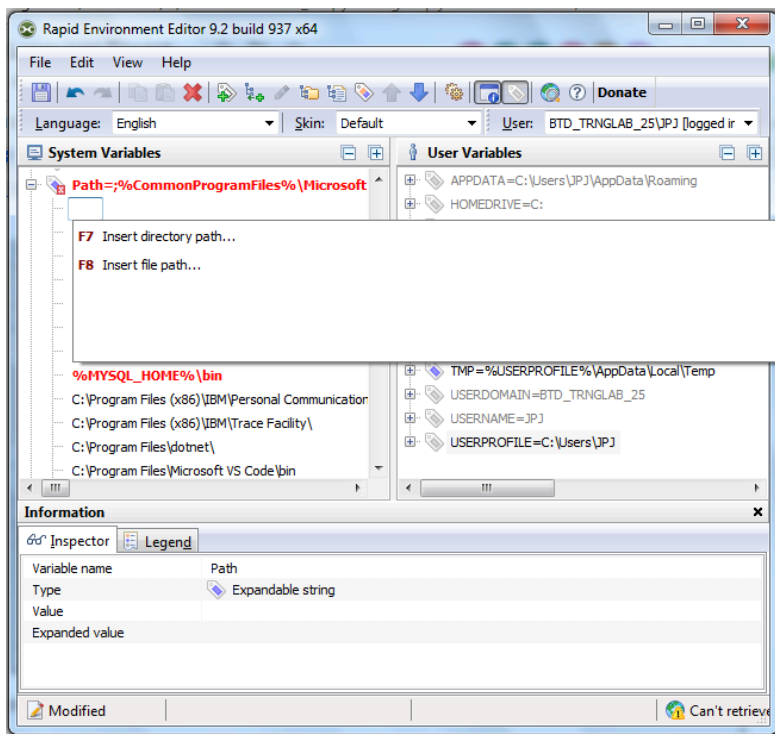
To check PHP installation in windows environment, open windows environment settings, i.e press windows button and search “environment settings”



<https://www.rapidee.com/en/download>



Right click path item and select add value.



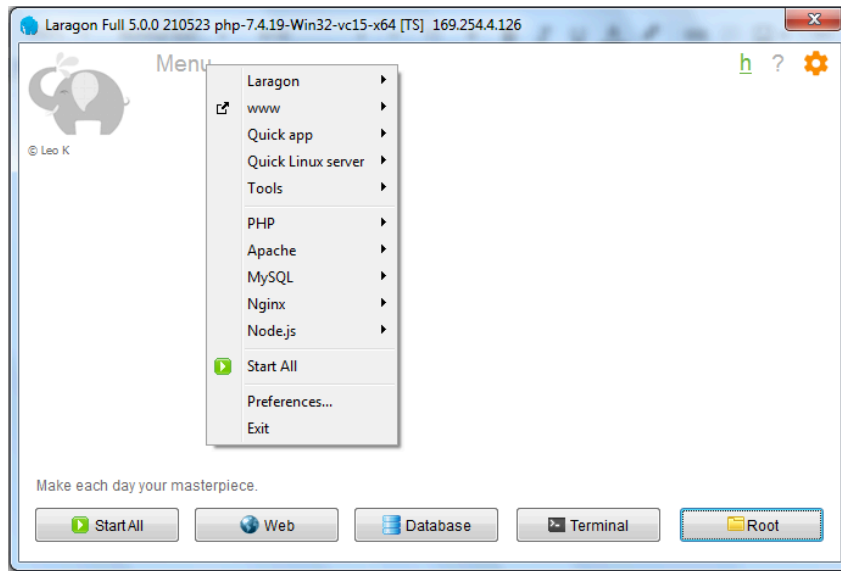
<https://windows.php.net/download>

PHP Composer script

<https://getcomposer.org/download/>

PHP Laravel Artisan script

<https://laravel.com/docs/9.x/installation>



Apache settings

Httpd

.htaccess

Module rewrite

```
LoadModule rewrite_module modules/mod_rewrite.so
```

Folder access

```
<Directory />
```

```
    AllowOverride none
```

```
    Require all denied
```

```
</Directory>
```

Chmod

777

775

File .htaccess

```
<IfModule mod_rewrite.c>
  <IfModule mod_negotiation.c>
    Options -MultiViews -Indexes
  </IfModule>
```

## RewriteEngine On

```
# Handle Authorization Header
RewriteCond %{HTTP:Authorization} .
RewriteRule .* - [E=HTTP_AUTHORIZATION:%{HTTP:Authorization}]

# Redirect Trailing Slashes If Not A Folder...
RewriteCond %{REQUEST_FILENAME} !-d
RewriteCond %{REQUEST_URI} (.+)/$
RewriteRule ^ %1 [L,R=301]

# Send Requests To Front Controller...
RewriteCond %{REQUEST_FILENAME} !-d
RewriteCond %{REQUEST_FILENAME} !-f
RewriteRule ^ index.php [L]
</IfModule>
```

c:\windows\system32\drivers\etc\hosts

```
# Copyright (c) 1993-2009 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
# 102.54.94.97 rhino.acme.com # source server
# 38.25.63.10 x.acme.com # x client host

# localhost name resolution is handled within DNS itself.
# 127.0.0.1 localhost
# ::1 localhost

127.0.0.1 myproject1.test #laragon magic!
```

# Language Essentials

## Basic PHP Syntax

```
<?php
// PHP code goes here
?>
```

[https://www.w3schools.com/php/php\\_syntax.asp](https://www.w3schools.com/php/php_syntax.asp)

## Creating (Declaring) PHP Variables

```
<?php
$txt = "Hello world!";
$x = 5;
$y = 10.5;
?>
```

[https://www.w3schools.com/php/php\\_datatypes.asp](https://www.w3schools.com/php/php_datatypes.asp)

## The PHP echo Statement

```
<?php
echo "<h2>PHP is Fun!</h2>";
echo "Hello world!<br>";
echo "I'm about to learn PHP!<br>";
echo "This ", "string ", "was ", "made ", "with multiple parameters.";
?>
```

[https://www.w3schools.com/php/php\\_echo\\_print.asp](https://www.w3schools.com/php/php_echo_print.asp)

## PHP Conditional Statements

```
<?php
$t = date("H");

if ($t < "20") {
    echo "Have a good day!";
}
```

```
}  
?>
```

[https://www.w3schools.com/php/php\\_if\\_else.asp](https://www.w3schools.com/php/php_if_else.asp)

## Array and Loop

```
<?php  
$colors = array("red", "green", "blue", "yellow");  
  
foreach ($colors as $value) {  
    echo "$value <br>";  
}  
?>
```

## Associative array and Loop

```
<?php  
$age = array("Peter"=>"35", "Ben"=>"37", "Joe"=>"43");  
  
foreach($age as $key => $value) {  
    echo "$key = $value<br>";  
}  
?>
```

[https://www.w3schools.com/php/php\\_looping\\_foreach.asp](https://www.w3schools.com/php/php_looping_foreach.asp)

[https://www.w3schools.com/php/phptryit.asp?filename=tryphp\\_loop\\_foreach2](https://www.w3schools.com/php/phptryit.asp?filename=tryphp_loop_foreach2)

## PHP Functions

```
<?php  
function writeMsg() {  
    echo "Hello world!";  
}
```



```
writeMsg(); // call the function  
?>
```

[https://www.w3schools.com/php/php\\_functions.asp](https://www.w3schools.com/php/php_functions.asp)

PHP anonymous function , inline

```
$multiply = function ($x, $y) {  
    return $x * $y;  
};
```

<https://www.phptutorial.net/php-tutorial/php-anonymous-functions/>

PHP arrays

```
<?php  
$cars = array("Volvo", "BMW", "Toyota");  
echo "I like " . $cars[0] . ", " . $cars[1] . " and " . $cars[2] . ".";  
?>
```

[https://www.w3schools.com/php/php\\_arrays.asp](https://www.w3schools.com/php/php_arrays.asp)

Looping through indexed arrays

```
<?php  
$cars = array("Volvo", "BMW", "Toyota");  
$arrlength = count($cars);  
  
for($x = 0; $x < $arrlength; $x++) {  
    echo $cars[$x];  
    echo "<br>";  
}  
?>
```

[https://www.w3schools.com/php/php\\_arrays\\_indexed.asp](https://www.w3schools.com/php/php_arrays_indexed.asp)

### Looping through associative array

```
<?php
$age = array("Peter"=>"35", "Ben"=>"37", "Joe"=>"43");

foreach($age as $x => $x_value) {
    echo "Key=" . $x . ", Value=" . $x_value;
    echo "<br>";
}
?>
```

[https://www.w3schools.com/php/php\\_arrays\\_associative.asp](https://www.w3schools.com/php/php_arrays_associative.asp)

### Looping through multi dimensional array

```
$cars = array (
    array("Volvo",22,18),
    array("BMW",15,13),
    array("Saab",5,2),
    array("Land Rover",17,15)
);

<?php
for ($row = 0; $row < 4; $row++) {
    echo "<p><b>Row number $row</b></p>";
    echo "<ul>";
    for ($col = 0; $col < 3; $col++) {
        echo "<li>".$cars[$row][$col]."</li>";
    }
    echo "</ul>";
}
?>
```

### Sorting arrays

```
<?php
$age = array("Peter"=>"35", "Ben"=>"37", "Joe"=>"43");
asort($age);
?>
```

#### Form handling with GET and POST method

```
<html>
<body>

<form action="welcome.php" method="post">
Name: <input type="text" name="name"><br>
E-mail: <input type="text" name="email"><br>
<input type="submit">
</form>

</body>
</html>
```

#### REFERENCES:

<https://www.w3schools.com/php/>