

Tab 1

# Practical 1: Installing XAMPP server and printing hello in php.

## Installing xampp

Step1:

The image shows two screenshots of web pages related to installing XAMPP.

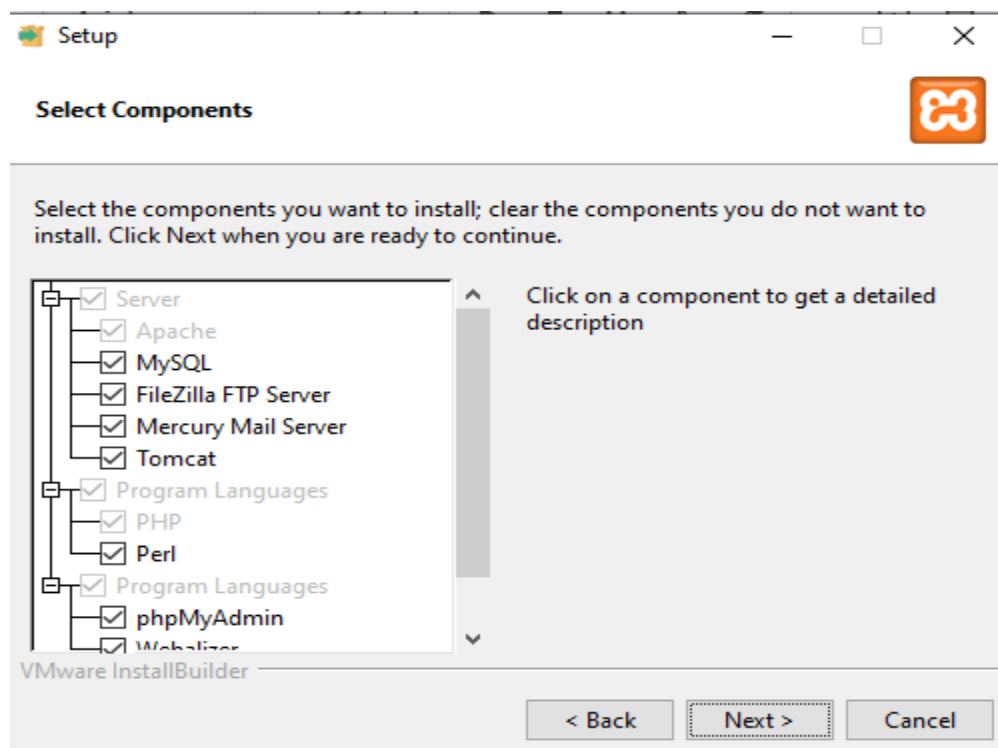
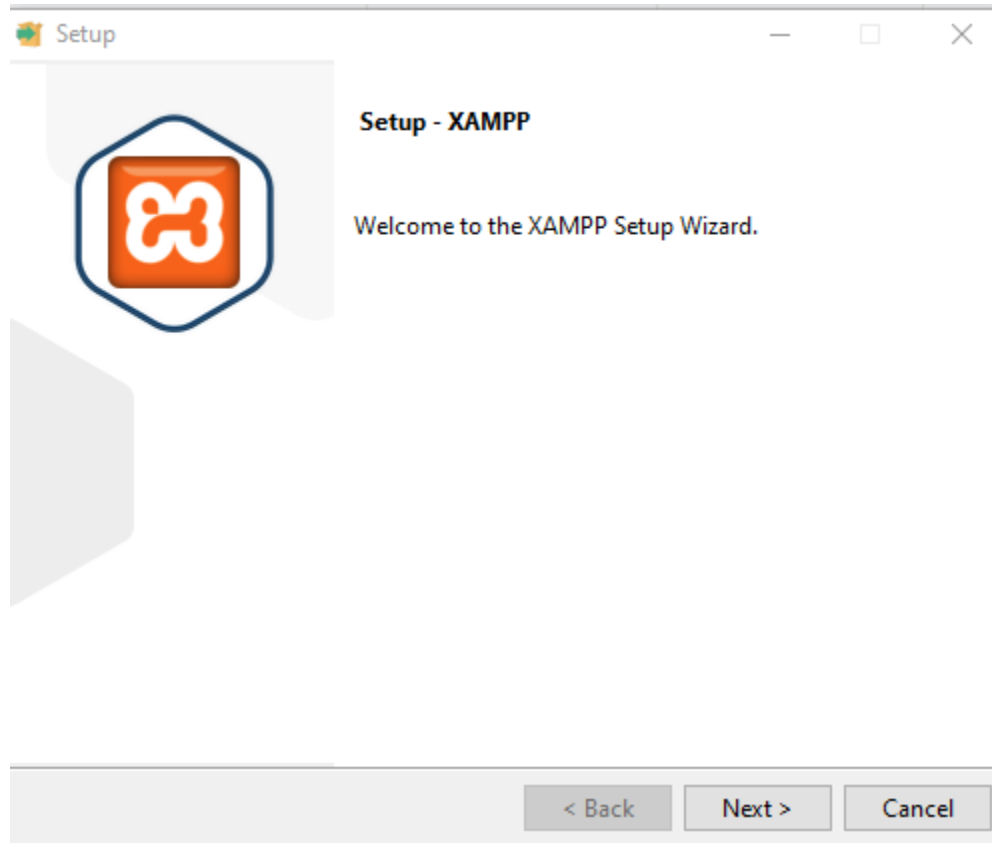
The top screenshot is the Apache Friends download page ([httpd.apache.org/download.html](https://httpd.apache.org/download.html)). It features a navigation bar with links to Apache Friends, Download, Hosting, Community, and About. The main heading is "Download". Below this, a paragraph states: "XAMPP is an easy to install Apache distribution containing MariaDB, PHP, and Perl. Just download and start the installer. It's that easy. Installers created using InstallBuilder." A table lists the available versions for Windows:

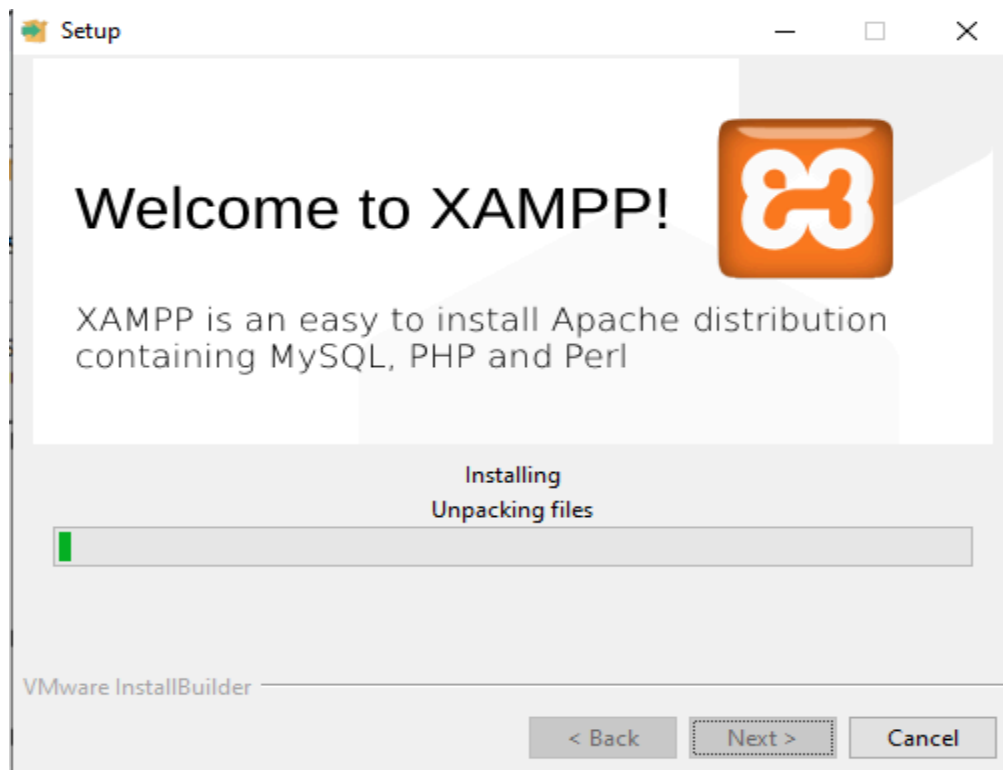
Version	Checksum	Size
8.0.30 / PHP 8.0.30	md5 sha1	144 Mb
8.1.25 / PHP 8.1.25	md5 sha1	148 Mb
8.2.12 / PHP 8.2.12	md5 sha1	149 Mb

Each row includes a "Download (64 bit)" button. To the right, a "Documentation/FAQs" section mentions that there is no real manual and provides links to Linux, Windows, and OS X FAQs. An "Activate Windows" watermark is visible in the bottom right corner.

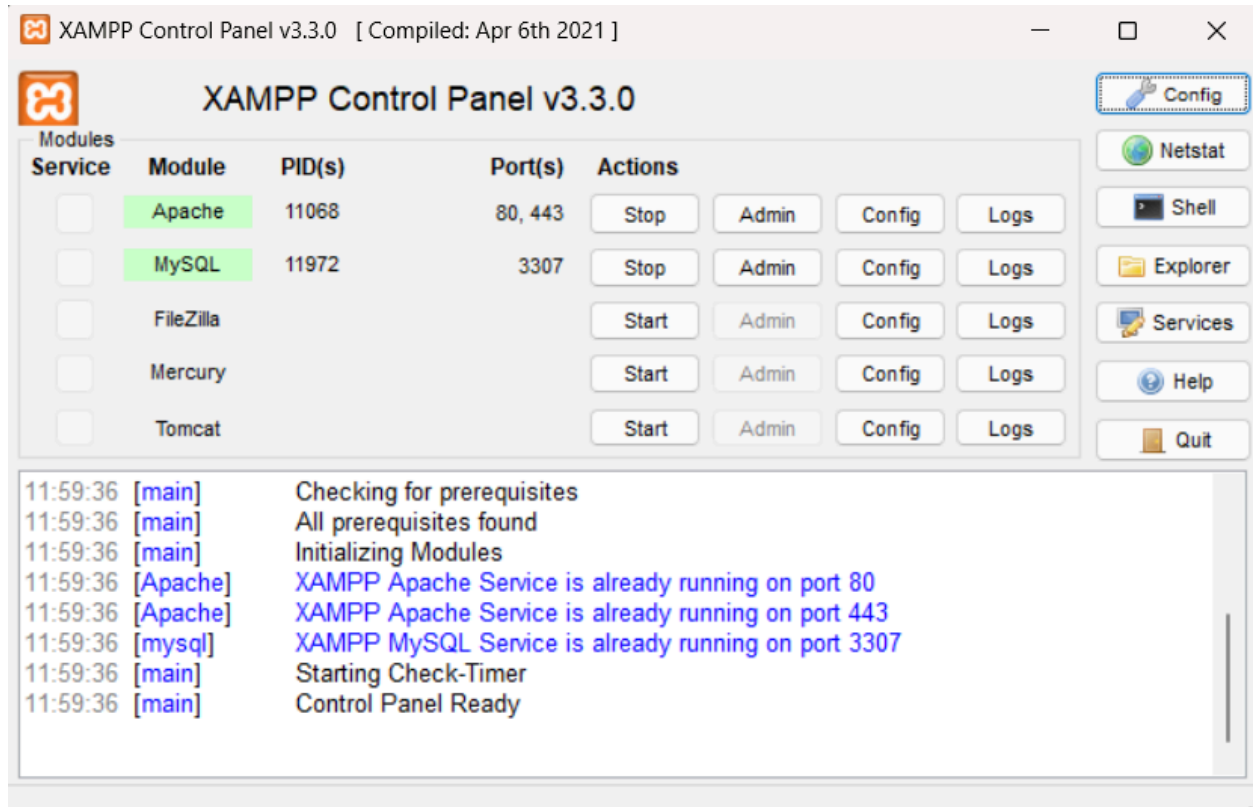
The bottom screenshot is the SourceForge page for XAMPP. The header includes the SourceForge logo and navigation links. The main content area features the XAMPP logo and the text: "An easy to install Apache distribution containing MySQL, PHP, and Perl. Brought to you by: beltranrueda, bitnami, koswalds, kvogelgesang". A progress bar indicates "Your download will start shortly..." with a green circle and the number "0". Below this are buttons for "Get Updates", "Share This", and "Problems Downloading?". A status message reads: "xampp-windows-x64-8.0.30-0-VS16-installer.exe | Scanned for malware ✓". The page also includes a "Mirror Provided by" section with the Excell Media logo and a "Other Useful Business Software" section with a link to "Integrated AI strategy and execution software". An "Activate Windows" watermark is also present in the bottom right corner.

## Step 2: installation





Step 3: start xampp control panel and start apache and mysql



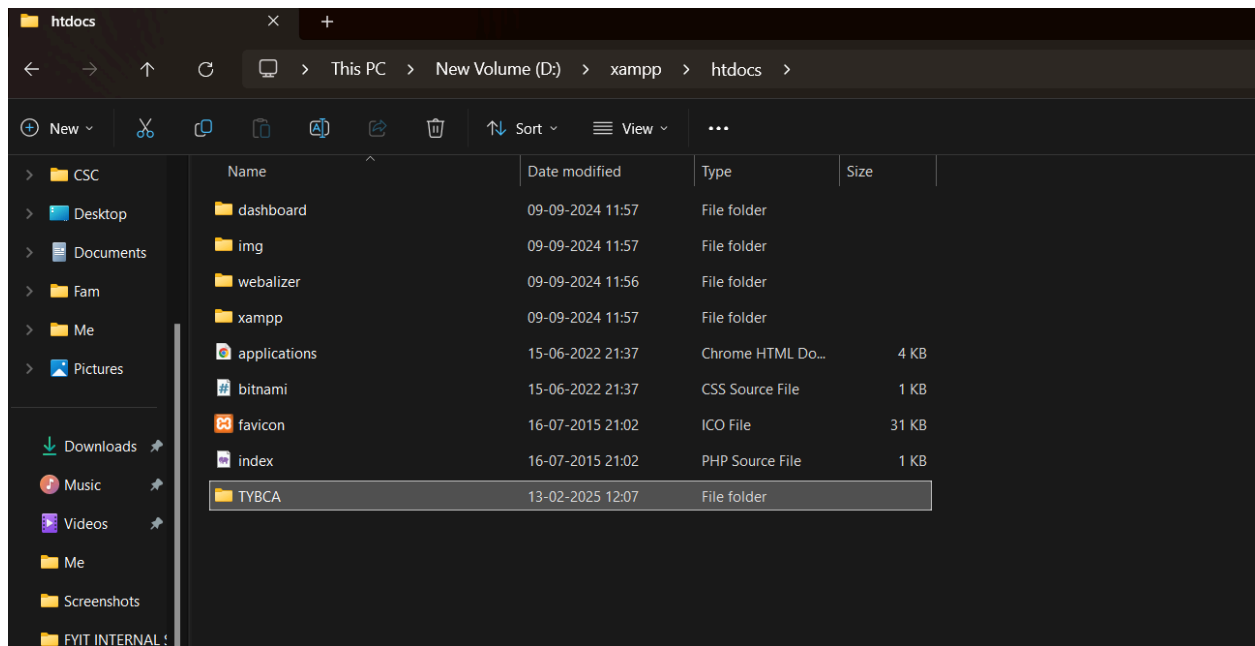
Step 4: go to chrome and type <http://localhost/phpmyadmin/>

## Running php code

Step 1:

Go to c:/xampp/htdocs and create a folder to store your files

In my case D:\xampp\htdocs

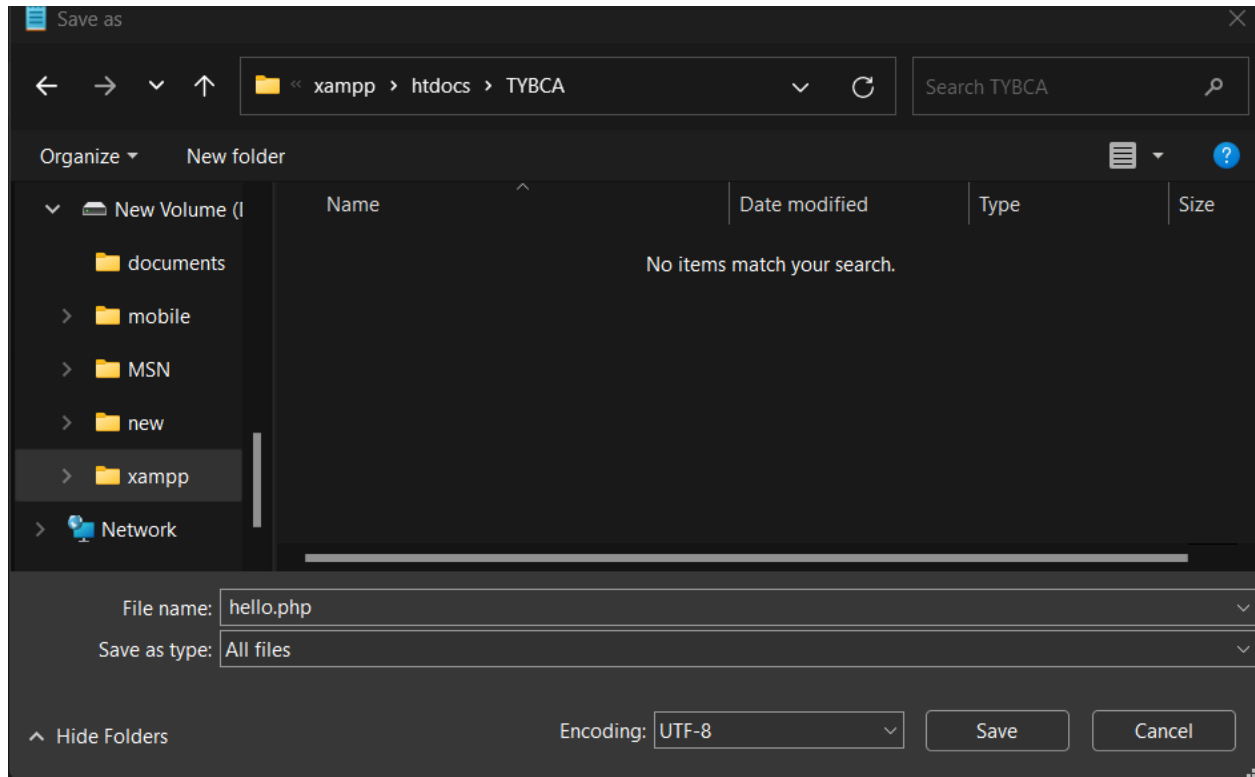


Step 2:

Create a file with .php extension and following code

```
File Edit View

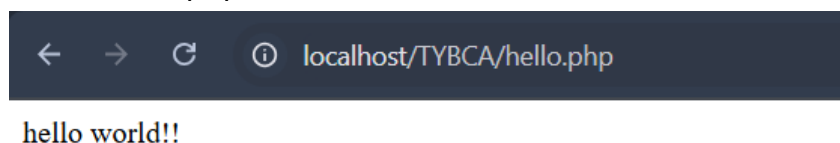
<?php
    echo "hello world!!";
?>
```



Step 3: go to the following folder <http://localhost/TYBCA/>



Step 4: click on the hello.php file to view



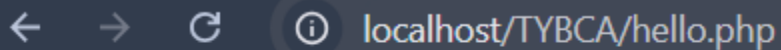
Practical 2: Write a php program to print the sum of digits.

```
<?php

function sumOfDigits($num) {
    return array_sum(str_split($num));
}

$number = 5678;
echo "Sum of digits of $number is: " . sumOfDigits($number);

?>
```

A dark-themed web browser address bar. It contains navigation icons: a back arrow, a forward arrow, a circular refresh icon, and an information icon (a circle with an 'i'). To the right of these icons is the text 'localhost/TYBCA/hello.php'.

Sum of digits of 5678 is: 26

## Practical 3: Program to check prime number.

```
<?php
function isPrime($num) {
    if ($num < 2) return false; // 0 and 1 are not prime
    for ($i = 2; $i <= sqrt($num); $i++) {
        if ($num % $i == 0) return false;
    }
    return true;
}

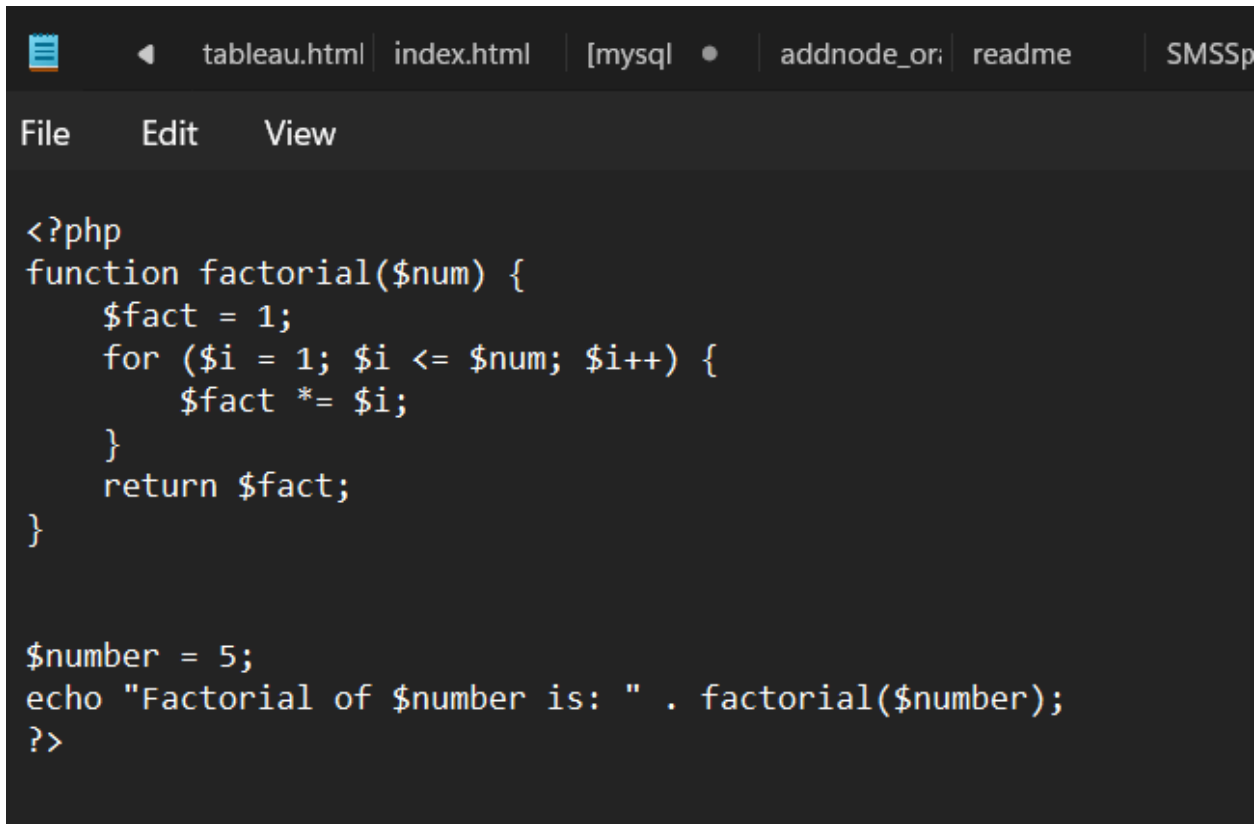
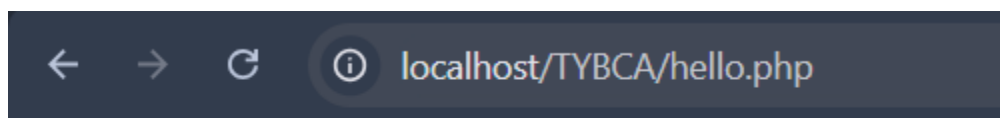
$number = 29;
if (isPrime($number)) {
    echo "$number is a Prime Number";
} else {
    echo "$number is NOT a Prime Number";
}
?>
```

← → ↻ ⓘ localhost/TYBCA/hello.php

29 is a Prime Number



## Practical 4: Program to print factorial of a number.

A screenshot of a code editor with a dark theme. The top bar shows several open files: 'tableau.html', 'index.html', '[mysql', 'addnode\_or', 'readme', and 'SMSSp'. Below the top bar is a menu bar with 'File', 'Edit', and 'View'. The main area contains PHP code for a factorial function. The code defines a function 'factorial(\$num)' that initializes '\$fact' to 1, loops from '\$i = 1' to '\$num' to calculate the product, and returns '\$fact'. Below the function, it sets '\$number = 5' and echoes the result using 'echo "Factorial of \$number is: " . factorial(\$number);'. The code ends with a closing tag '= ?'.

Factorial of 5 is: 120

Practical 5: Write a PHP program to sort elements in an array in ascending order.

```
<?php
// Define an array
$numbers = array(5, 2, 9, 1, 7, 4);

// Sort the array in ascending order
sort($numbers);

// Display the sorted array
echo "Sorted Array: ";
foreach ($numbers as $num) {
    echo $num . " ";
}
?>
```

Practical 6: Create a PHP program in which two values are submitted using form and calculate its addition, subtraction, multiplication, modulation, average and division on the same page. Find the greatest number between them and square of each of them using PHP function

```
<!DOCTYPE html>
<html>
<head>
  <title>PHP Arithmetic Operations</title>
</head>
<body>
  <form method="post">
    Enter First Number: <input type="number" name="num1" required><br>
    Enter Second Number: <input type="number" name="num2" required><br>
    <input type="submit" name="submit" value="Calculate">
  </form>

  <?php
  if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $num1 = $_POST["num1"];
    $num2 = $_POST["num2"];

    // Arithmetic operations
    $sum = $num1 + $num2;
    $diff = $num1 - $num2;
    $product = $num1 * $num2;
    $modulus = $num1 % $num2;
    $average = ($num1 + $num2) / 2;
    $division = ($num2 != 0) ? ($num1 / $num2) : "Undefined (Division by Zero)";
```

```
// Finding the greatest number
$greatest = ($num1 > $num2) ? $num1 : $num2;

// Squaring each number
$square1 = pow($num1, 2);
$square2 = pow($num2, 2);

// Display results
echo "<h3>Results:</h3>";
echo "Addition: $sum <br>";
echo "Subtraction: $diff <br>";
echo "Multiplication: $product <br>";
echo "Modulus: $modulus <br>";
echo "Average: $average <br>";
echo "Division: $division <br>";
echo "Greatest Number: $greatest <br>";
echo "Square of $num1: $square1 <br>";
echo "Square of $num2: $square2 <br>";
}
?>
</body>
</html>
```

## Practical 7: Write a PHP program to change background color based on hour of a day.

```
<?php
// Get current hour
$hour = date("H");

// Define colors based on time
if ($hour >= 6 && $hour < 12) {
    $bgColor = "#FFD700"; // Morning (Yellow)
} elseif ($hour >= 12 && $hour < 18) {
    $bgColor = "#87CEEB"; // Afternoon (Sky Blue)
} elseif ($hour >= 18 && $hour < 21) {
    $bgColor = "#FF4500"; // Evening (Orange)
} else {
    $bgColor = "#2C3E50"; // Night (Dark Blue)
}
?>

<!DOCTYPE html>
<html>
<head>
    <title>Background Color Change</title>
</head>
<body style="background-color: <?= $bgColor ?>;">
    <h2>Background color changes based on the time of the day</h2>
</body>
</html>
```

## Practical 8: Write a PHP Program to create a simple Registration form.

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
</head>
<body>
  <form method="post">
    Name: <input type="text" name="name" required><br>
    Email: <input type="email" name="email" required><br>
    Password: <input type="password" name="password" required><br>
    <input type="submit" name="register" value="Register">
  </form>

  <?php
  if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = htmlspecialchars($_POST["name"]);
    $email = htmlspecialchars($_POST["email"]);
    $password = htmlspecialchars($_POST["password"]); // You may want to hash
this for security

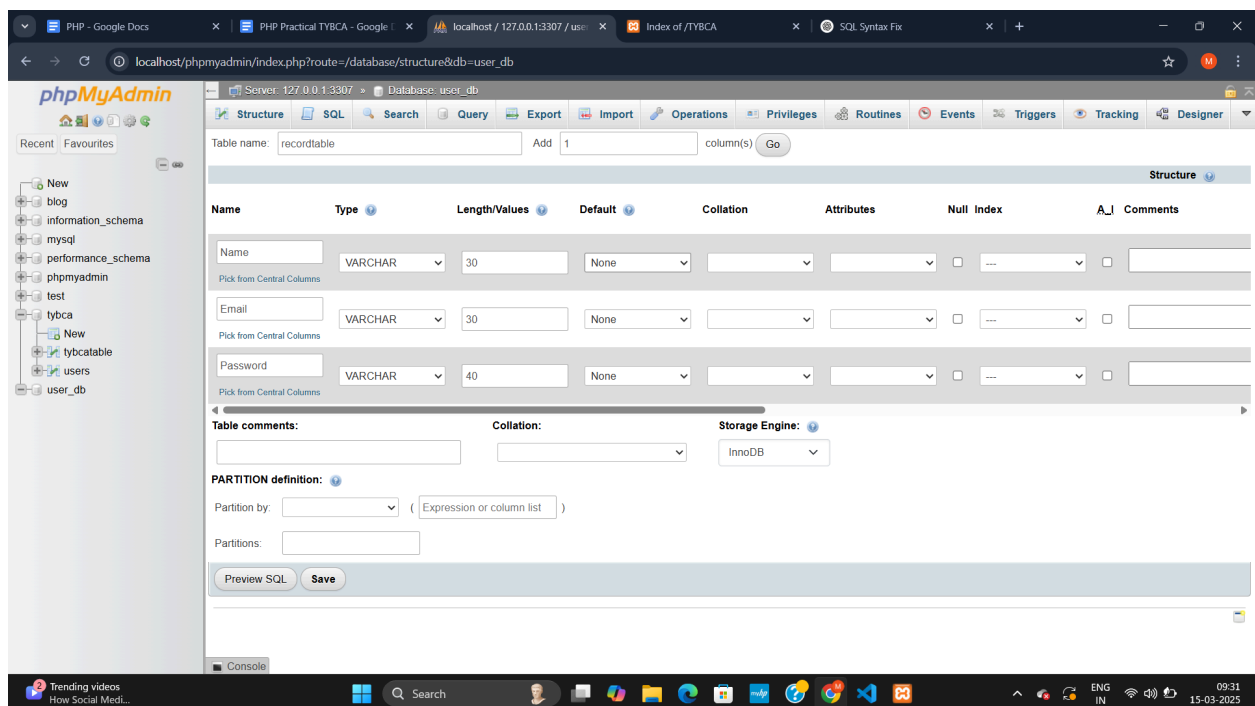
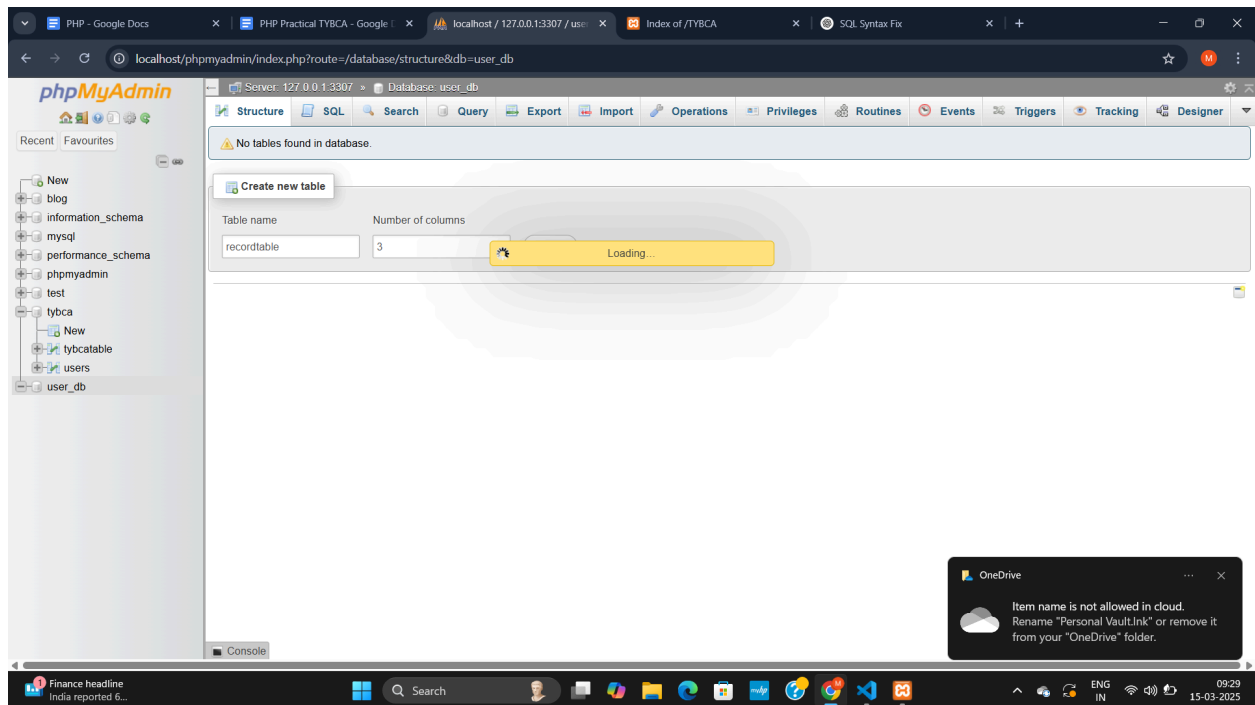
    echo "Registration Successful!<br>";
    echo "Name: $name <br>";
    echo "Email: $email <br>";
  }
  ?>

</body>
</html>
```

# Practical 9: Write a PHP Program to Insert and Display records into the table in database.

Create table into desired database.

userdb(database) & recordtable(table):



PHP - Google Docs x PHP Practical TYBCA - Go... x localhost / 127.0.0.1:3307 x Registration Form x SQL Syntax Fix x Google Password Manager x +

localhost/TYBCA/9record.php

Name:

Email:

Password:

Top Stories  
Indian scholar at...

Search

ENG IN 09:31 15-03-2025

New  
blog  
information\_schema  
mysql  
performance\_schema  
phpmyadmin  
test  
tybca  
New  
tybcatable  
users  
user\_db  
New  
recordtable

Showing rows 0 - 0 (1 total, Query took 0.0004 seconds.)

`SELECT * FROM `recordtable``

☐ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

Name	Email	Password
Minal Rajwar	minalrajwar@gmail.com	Minal@123

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
</head>
<body>
```



```
<form method="post">
    Name: <input type="text" name="name" required><br>
    Email: <input type="email" name="email" required><br>
    Password: <input type="password" name="password" required><br>
    <input type="submit" name="register" value="Register">
</form>
```

```
<?php
$db_server="localhost";
$db_user="root";
$db_pass="";
$db_name="user_db";
$db_port="3307";
$conn="";
```

```
try{
    $conn = mysqli_connect($db_server,
                           $db_user,
                           $db_pass,
                           $db_name,
                           $db_port);
}
catch(mysqli_sql_exception){
    error("could not connect");
}
```

```
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = htmlspecialchars($_POST["name"]);
    $email = htmlspecialchars($_POST["email"]);
    $password = htmlspecialchars($_POST["password"]);

    $sql = "INSERT INTO recordtable (name, email, password) VALUES ('$name',
'$email', '$password')";

    if ($conn->query($sql) === TRUE) {
        echo "New record created successfully";
    } else {
```

```
        echo "Error: " . $sql . "<br>" . $conn->error;
    }

    $sql->close();
}
$conn->close();
?>

</body>
</html>
```

## Practical 10: Write a PHP Program to perform various string operations.

```
<?php
$str = "Hello, PHP String Operations!";
echo "Original String: $str <br>";

// String length
echo "Length: " . strlen($str) . "<br>";

// Word count
echo "Word Count: " . str_word_count($str) . "<br>";

// Reverse string
echo "Reversed: " . strrev($str) . "<br>";

// Convert to uppercase
echo "Uppercase: " . strtoupper($str) . "<br>";

// Convert to lowercase
echo "Lowercase: " . strtolower($str) . "<br>";

// Replace a word
echo "Replace 'PHP' with 'Awesome': " . str_replace("PHP", "Awesome", $str) . "<br>";
?>
```

# Practical 11: Write a program for creating a user login and logout system with PHP and MySQLi.

**Step 1:** Let's Create registration page for storing the user entered data to database (9record.php)

```
<!DOCTYPE html>
<html>
<head>
    <title>Registration Form</title>
</head>
<body>
    <form method="post">
        Name: <input type="text" name="name" required><br>
        Email: <input type="email" name="email" required><br>
        Password: <input type="password" name="password" required><br>
        <input type="submit" name="register" value="Register">
    </form>

    <?php
    include "db.php";
    if ($_SERVER["REQUEST_METHOD"] == "POST") {
        $name = htmlspecialchars($_POST["name"]);
        $email = htmlspecialchars($_POST["email"]);
        $password = htmlspecialchars($_POST["password"]);

        $sql = "INSERT INTO recordtable (name, email, password) VALUES ('$name',
' $email', '$password')";

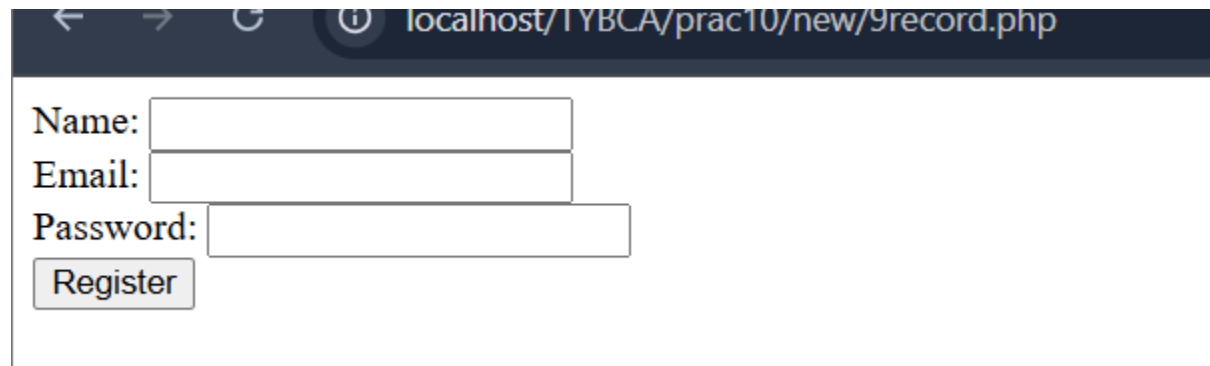
        if ($conn->query($sql) === TRUE) {
            echo "New record created successfully";
            header("Location: login.php");
            exit();
        } else {
            echo "Error: " . $sql . "<br>" . $conn->error;
```

```

    }
}
$conn->close();
?>

</body>
</html>

```



localhost/TYBCA/prac10/new/9record.php

Name:

Email:

Password:

**Step 2:** Create a Login page where after the details are entered successfully the page should be redirected (login.php)

```

<?php
session_start();
include "db.php";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    if (!isset($_POST["email"]) || !isset($_POST["password"])) {
        echo "All fields are required!";
        exit();
    }

    $email = mysqli_real_escape_string($conn, $_POST["email"]);
    $password = $_POST["password"];

    // DEBUG: Show entered credentials
    // echo "Email entered: $email<br>";
    // echo "Password entered: $password<br>";

```

```

$sql = "SELECT * FROM recordtable WHERE Email='$email'";
$result = $conn->query($sql);

if (!$result) {
    die("Query failed: " . $conn->error);
}

if ($result->num_rows == 1) {
    $user = $result->fetch_assoc();

    // DEBUG: Show fetched user data
    echo "<pre>";
    print_r($user);
    echo "</pre>";

    if (isset($user["Password"])) {
        // Plain text comparison
        if ($password === $user["Password"]) {
            $_SESSION["user"] = $user["Name"];
            header("Location: welcome.php");
            exit();
        } else {
            echo "Invalid password!";
        }
    } else {
        echo "Password field missing in database!";
    }
} else {
    echo "No user found with this email!";
}
?>

<!DOCTYPE html>
<html>
<head>

```

```

<title>Login</title>
</head>
<body>
  <h2>User Login</h2>
  <form method="post">
    Email: <input type="email" name="email" required><br>
    Password: <input type="password" name="password" required><br>
    <input type="submit" value="Login">
  </form>
</body>
</html>

```

localhost/TYBCA/prac10/new/login.php

## User Login

Email:

Password:

**Step 3:** Let's create the Welcome page to redirect the user once registered details are logged in successfully (welcome.php)

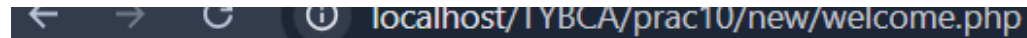
```

<?php
session_start();
if (!isset($_SESSION["user"])) {
    header("Location: login.php");
    exit();
}
?>

<!DOCTYPE html>
<html>
<head>
  <title>Welcome</title>
</head>

```

```
<body>
  <h2>Welcome, <?php echo $_SESSION["user"]; ?>!</h2>
  This is Welcome page
  <a href="logout.php">Logout</a>
</body>
</html>
```

A screenshot of a web browser's address bar. It shows navigation icons (back, forward, refresh) on the left and the URL 'localhost/TYBCA/prac10/new/welcome.php' in the center.

## Welcome, minal!

This is Welcome page [Logout](#)

**Step 4:** Let's create a logout page which would destroy the session and redirect us to the login page.(logout.php)

```
<?php
session_start();
session_destroy();
header("Location: login.php");
exit();
?>
```



# Practical 12: Write a program to merge 2 arrays with and without using predefined functions

## 1. Using Predefined Function: `array_merge()`

```
<?php
$array1 = [1, 2, 3];
$array2 = [4, 5, 6];

$mergedArray = array_merge($array1, $array2);

echo "Merged Array using array_merge(): ";
print_r($mergedArray);
?>
```

OUTPUT:

Merged Array using array\_merge(): Array ( [0] => 1 [1] => 2 [2] => 3 [3] => 4 [4] => 5 [5] => 6 )

## 2. Without Using Predefined Function

```
<?php
$array1 = [1, 2, 3];
$array2 = [4, 5, 6];

$mergedArray = [];

// Copy elements of first array
for ($i = 0; $i < count($array1); $i++) {
    $mergedArray[] = $array1[$i];
}

// Copy elements of second array
for ($j = 0; $j < count($array2); $j++) {
    $mergedArray[] = $array2[$j];
}
```

```
echo "Merged Array without using array_merge():";  
print_r($mergedArray);  
?>
```

Output:

Merged Array without using array\_merge(): Array ( [0] => 1 [1] => 2 [2] => 3 [3]  
=> 4 [4] => 5 [5] => 6 )

## Practical 13: Write a program to create a file in write mode.

```
<?php
$filename = "example.txt";

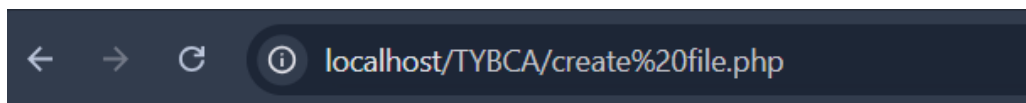
// Open file in write mode ('w' creates the file if it doesn't exist)
$file = fopen($filename, "w");

if ($file) {
    $content = "Hello, this is a sample text written to the file.\nSecond
line of text.";

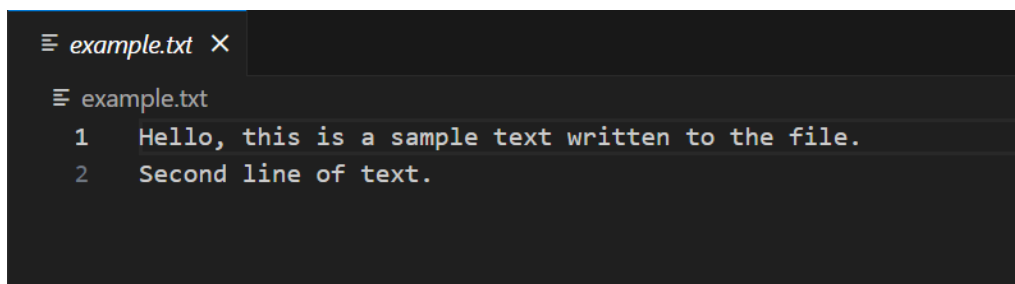
    // Write content to file
    fwrite($file, $content);

    // Close the file
    fclose($file);

    echo "File '$filename' created and content written successfully.";
} else {
    echo "Unable to create or write to file.";
}
?>
```



File 'example.txt' created and content written successfully.



## Practical 14: Write a program to read and display contents of file.

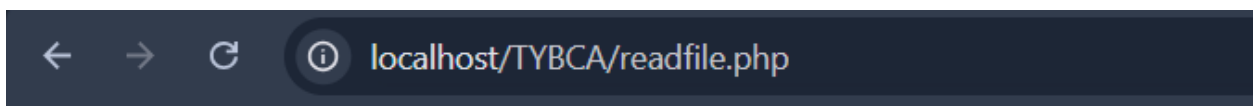
```
<?php
$filename = "example.txt";

// Open file in read mode ('r')
$file = fopen($filename, "r");

if ($file) {
    echo "Contents of '$filename':<br><br>";

    // Read file line by line until end of file (EOF)
    while (!feof($file)) {
        $line = fgets($file); // Read a line
        echo nl2br($line);    // Convert newline to <br> for browser display
    }

    fclose($file);
} else {
    echo "Unable to open file for reading.";
}
?>
```



Contents of 'example.txt':

Hello, this is a sample text written to the file.  
Second line of text.

## Practical 15: Write a PHP script to display string, values within a table

```
<?php
// Sample data as an associative array
$data = [
    ["Name" => "Minal", "Age" => 22, "City" => "Mumbai"],
    ["Name" => "Vipul", "Age" => 24, "City" => "Pune"],
    ["Name" => "Aarti", "Age" => 23, "City" => "Delhi"]
];
?>

<!DOCTYPE html>
<html>
<head>
    <title>Display Data in Table</title>
    <style>
        table {
            border-collapse: collapse;
            width: 50%;
            margin: 20px;
        }
        th, td {
            border: 1px solid black;
            padding: 8px;
            text-align: center;
        }
        th {
            background-color: #f2f2f2;
        }
    </style>
</head>
<body>

<h2>User Data Table</h2>

<table>
    <tr>
```

```

        <th>Name</th>
        <th>Age</th>
        <th>City</th>
    </tr>

    <?php
    // Loop through data and display each row
    foreach ($data as $row) {
        echo "<tr>";
        echo "<td>" . $row["Name"] . "</td>";
        echo "<td>" . $row["Age"] . "</td>";
        echo "<td>" . $row["City"] . "</td>";
        echo "</tr>";
    }
    ?>
</table>

</body>
</html>

```



## User Data Table

Name	Age	City
Minal	22	Mumbai
Vipul	24	Pune
Aarti	23	Delhi

## Practical 16: Write a PHP script to get the last error.

```
<?php
// Enable error reporting
ini_set('display_errors', 1);
error_reporting(E_ALL);

// Register shutdown function to capture fatal errors
register_shutdown_function('checkLastError');

function checkLastError() {
    $error = error_get_last();
    if ($error !== NULL) {
        echo "<h3>Last Error Details:</h3>";
        echo "Type: " . $error['type'] . "<br>";
        echo "Message: " . $error['message'] . "<br>";
        echo "File: " . $error['file'] . "<br>";
        echo "Line: " . $error['line'] . "<br>";
    } else {
        echo "No errors detected.";
    }
}

// Intentionally trigger a fatal error
testUndefinedFunction(); // This function does not exist
?>
```

localhost/TYBCA/lasterror.php

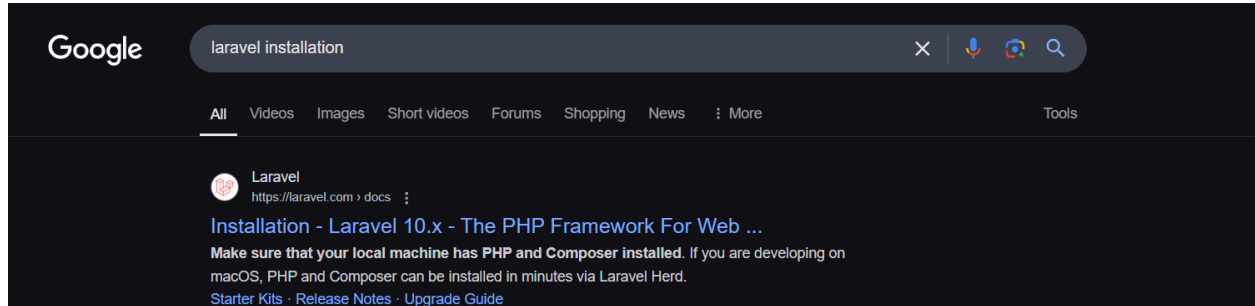
**Fatal error:** Uncaught Error: Call to undefined function testUndefinedFunction() in D:\xampp\htdocs\TYBCA\lasterror.php:23 Stack trace: #0 {main} thrown in D:\xampp\htdocs\TYBCA\lasterror.php on line 23

### Last Error Details:

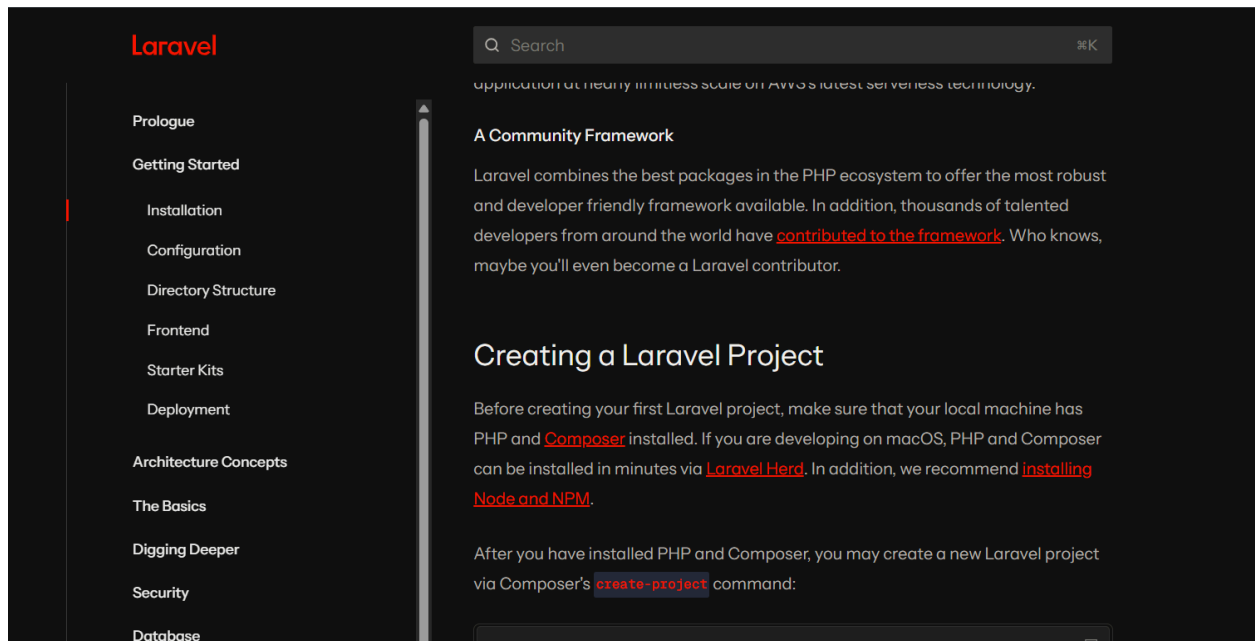
Type: 1  
Message: Uncaught Error: Call to undefined function testUndefinedFunction() in D:\xampp\htdocs\TYBCA\lasterror.php:23 Stack trace: #0 {main} thrown  
File: D:\xampp\htdocs\TYBCA\lasterror.php  
Line: 23

# Practical 17: Installation of Laravel

Step 1: Go to:

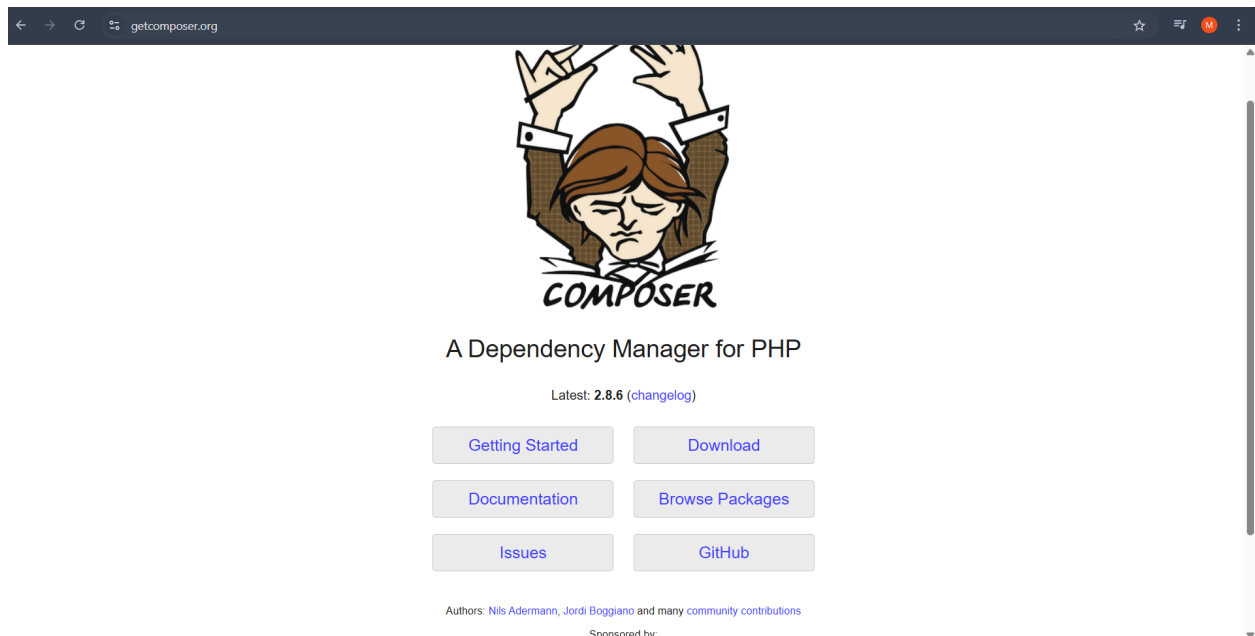


Step 2: Go to Getting Started > Installation > Composer

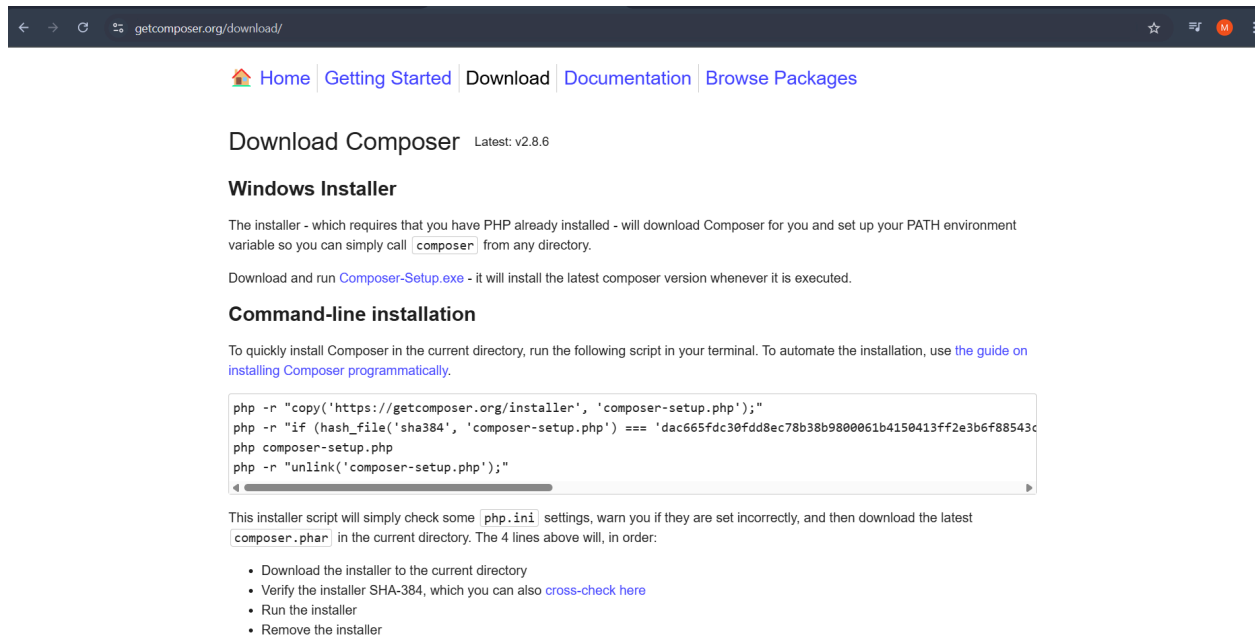




Following page will be viewed:



Step 3: Click on Download.



Click on **Composer-Setup.exe**

## Step 4: Installation


Composer Setup

**Installation Options**

Choose your installation type.

Setup will install Composer to a fixed location for all users. This includes a Control Panel uninstaller and is the recommended option. Click Next to use it.

☒ **Developer mode**  
Take control and just install Composer. An uninstaller will not be included.



Next

Cancel

Composer Setup

</

## Settings Check

We need to check your PHP and other settings.



Choose the command-line PHP you want to use:

D:\xampp\php\php.exe

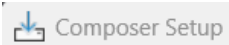
Browse...

This will add PHP to your path. Click Next to use it.

Back

Next

Cancel



## Proxy Settings

Choose if you need to use a proxy.

☐ Use a proxy server to connect to internet

Enter proxy url

[Back](#)

Next

Cancel



Composer Setup



### Information

Please read the following information before continuing.



### Important

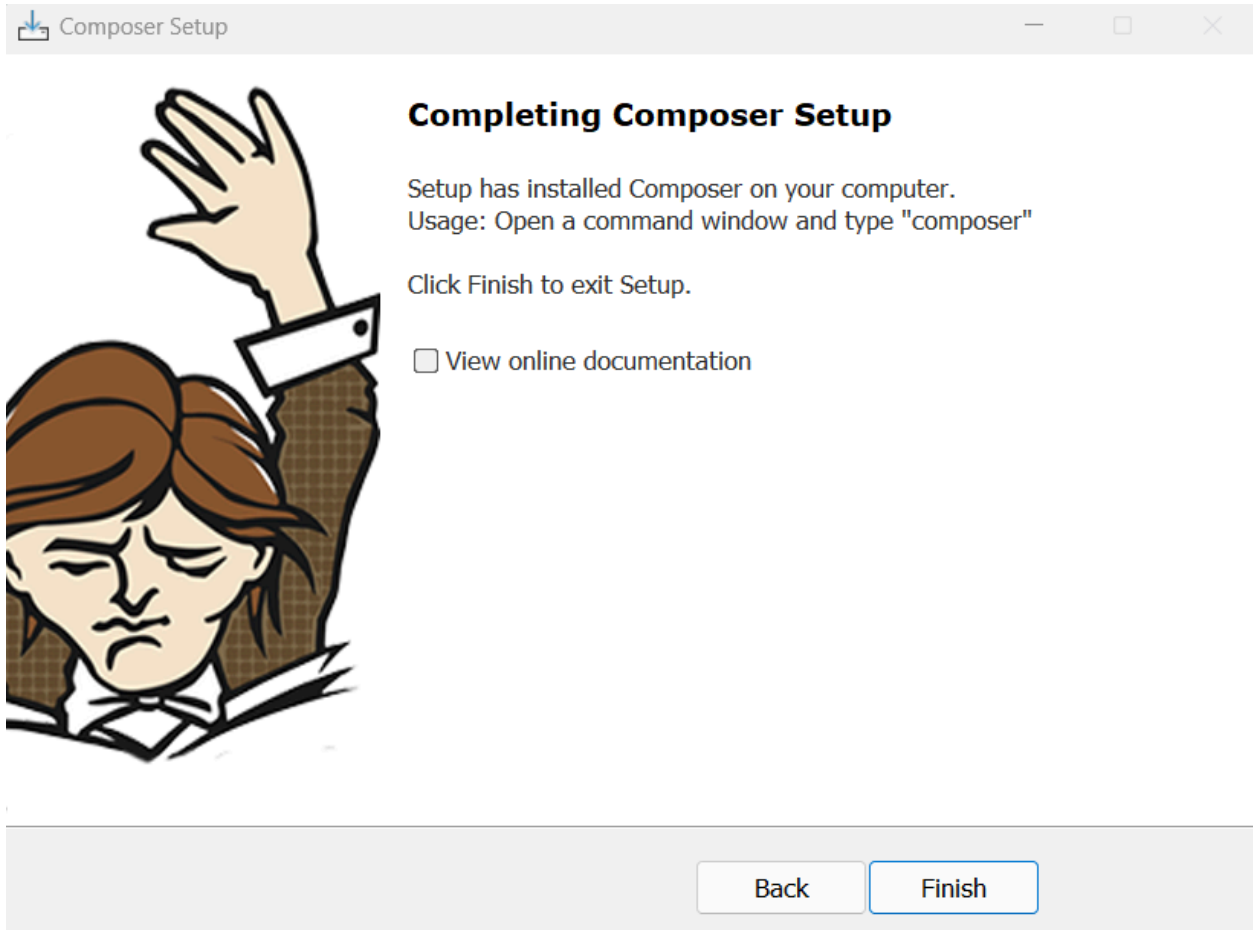
You must open a new command window to use Composer for the first time, because your environment has changed and running programs may not be aware of this.

If this does not work, you will have to do one of the following:

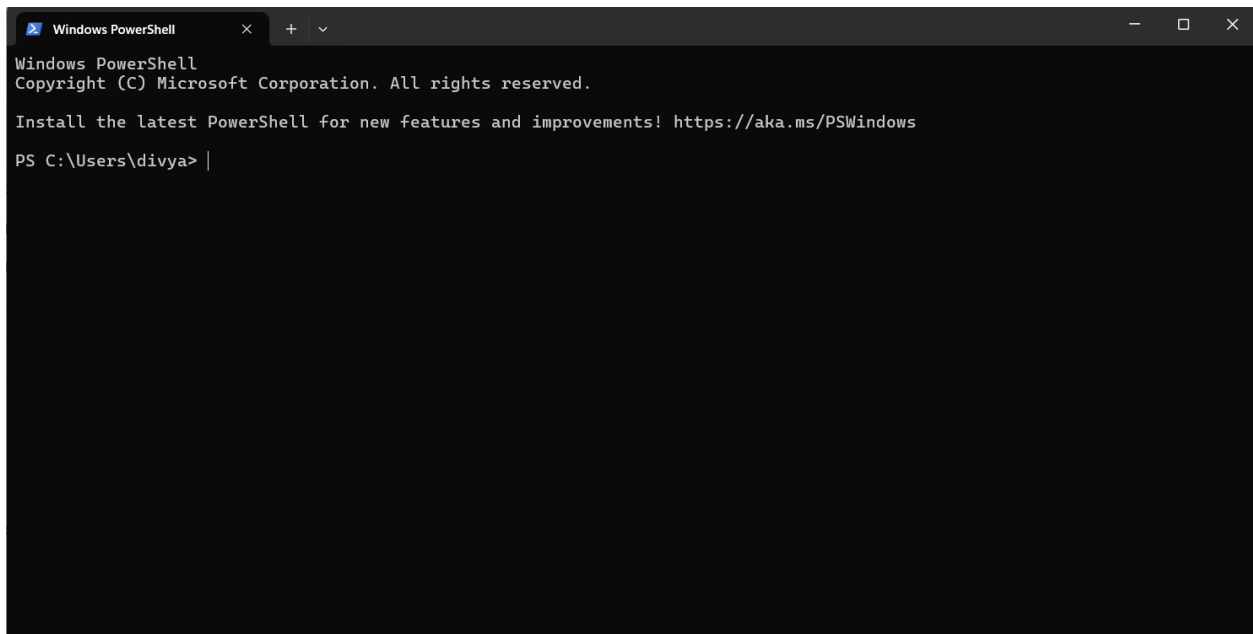
- Close all File Explorer windows, then open a new command window. OR
- Logoff and Logon again, then open a new command window.

As a last resort, you may need to restart your computer.

Next



## Step 5: Open Terminal



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\divya> composer
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\divya> composer

Composer version 2.8.6 2025-02-25 13:03:50

Usage:
  command [options] [arguments]

Options:
  -h, --help                Display help for the given command. When no command is given display help for the list
                             command
  -q, --quiet               Do not output any message
  -V, --version             Display this application version
  --ansi|--no-ansi         Force (or disable --no-ansi) ANSI output
```

## Step 6: Install Node

nodejs.org/en

Node.js launches an official Discord community

node Learn About Download Blog Docs Contribute Certification

Search Start typing... Ctrl + K

# Run JavaScript Everywhere

Node.js® is a free, open-source, cross-platform JavaScript runtime environment that lets developers create servers, web apps, command line tools and scripts.

[Download Node.js \(LTS\)](#)

Downloads Node.js v22.14.0 with long-term support. Node.js can also be installed via version managers.

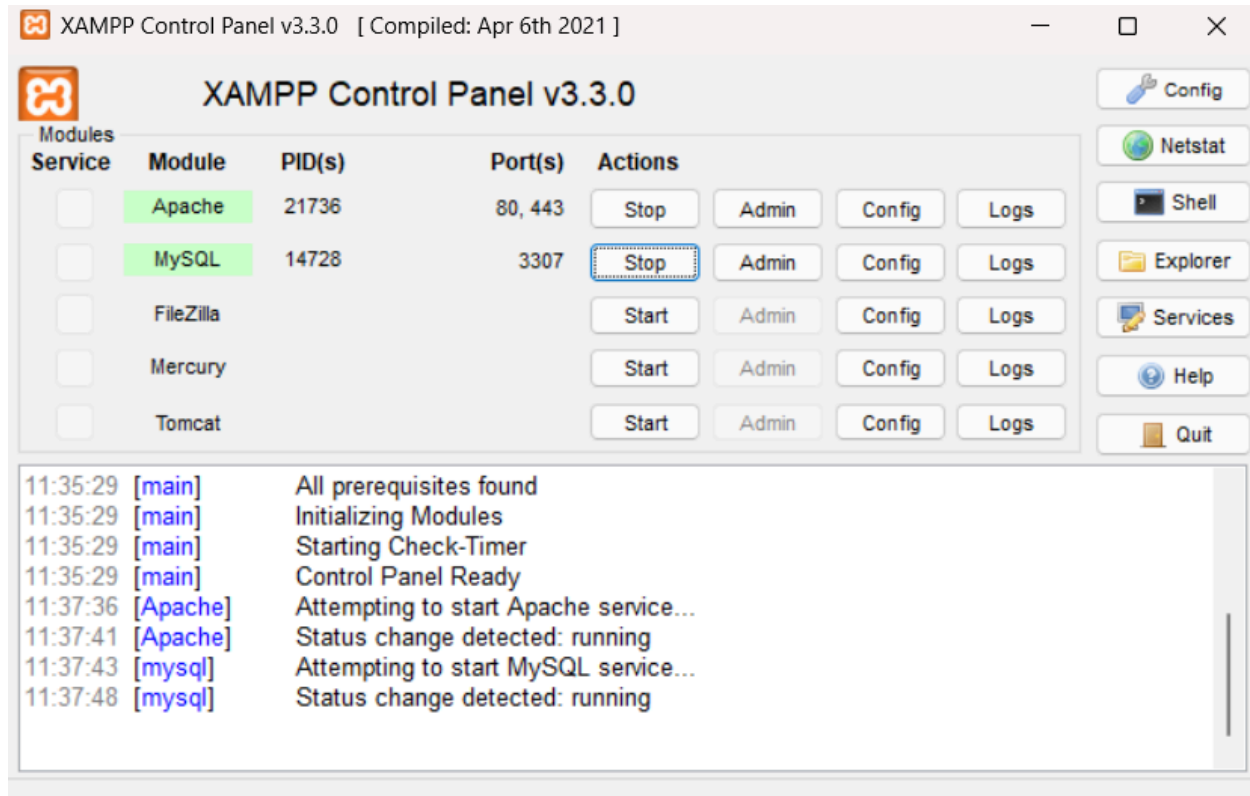
Create an HTTP Server Write Tests Read and Hash a File Streams Pipeline Work with Thre

```
1 // server.mjs
2 import { createServer } from 'node:http';
3
4 const server = createServer((req, res) => {
5   res.writeHead(200, { 'Content-Type': 'text/plain' });
6   res.end('Hello World!\n');
7 });
8
9 // starts a simple http server locally on port 3000
10 server.listen(3000, '127.0.0.1', () => {
11   console.log('Listening on 127.0.0.1:3000');
12 });
13
14 // run with 'node server.mjs'
```

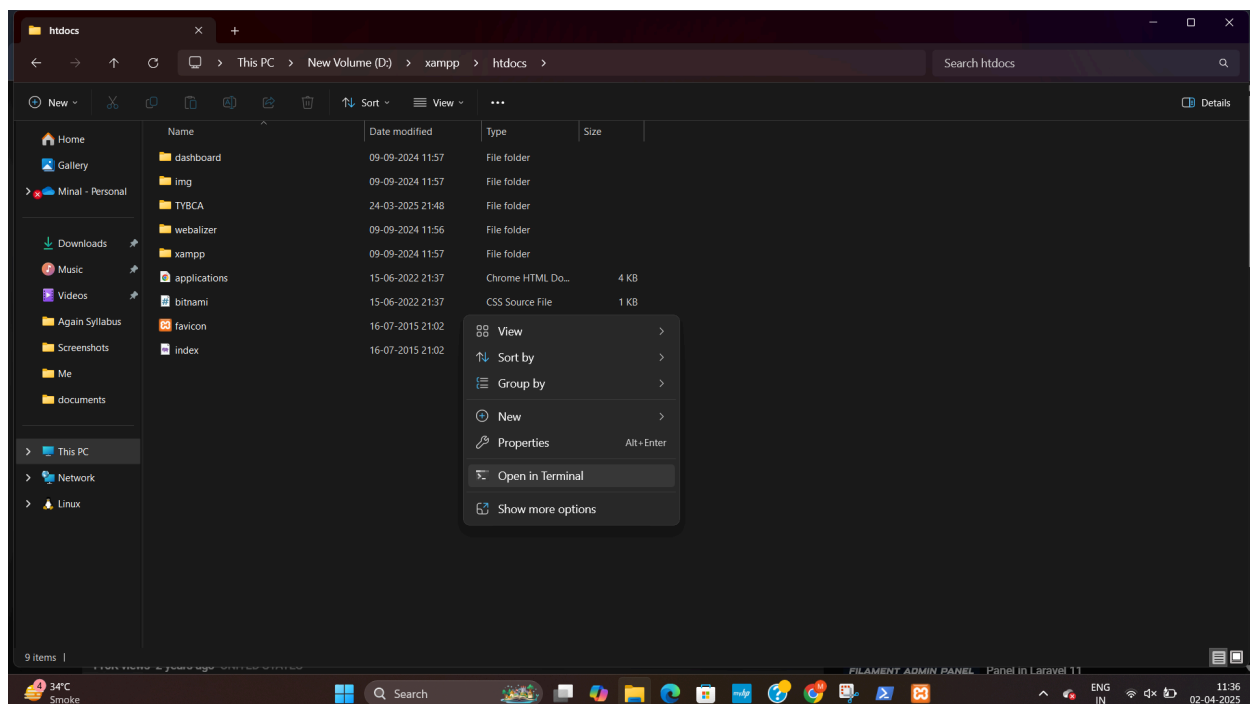
JavaScript [Copy to clipboard](#)



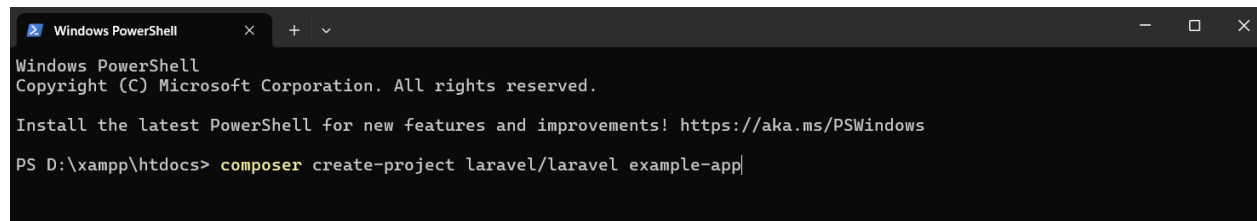
## Step 7: Turn on Xampp Control Panel (apache and phpmyadmin)



## Step 8: Open terminal for xampp\htdocs



Write the following code:



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\xampp\htdocs> composer create-project laravel/laravel example-app
```

Tab 2

### Lab: PHP Programming (CMP717)

Practical No.	Practical	Activities
1		Installation of XAMPP Server and print "hello world" in PHP.
2		Write a PHP program to print sum of digits.
3		Write a PHP program to check prime number.
4		Write a PHP program to print factorial of a number.
5		Write a PHP program to sort elements in an array in ascending order.
6		Create a PHP program in which two values submitted using form and calculate its addition, subtraction, multiplication, modulus, average and division on the same page. Find the greatest number between them and square of each of them using PHP function
7		Write a PHP program to change background color based on hour of a day.
8		Write a PHP Program to create a simple Registration form.
9		Write a PHP program to Insert and display records to the table in Database.
10		Write a PHP Program to perform various string operations.
11		Write a program for creating a user login and logout system with PHP and MySQLi.
12		Write a program to merge 2 arrays with and without using predefined functions.
13		Write a program to create a file in write mode.
14		Write a program to read and display the contents of file.
15		Write a PHP script to display string, values, within a table.
16		Write a PHP Script to get Last occurred error.
17		Installation of Laravel.
18		Installation of WordPress(Online/Offline).
19		Miniproject – Design a WordPress website.

Activate Win  
Go to Settings to