DOCTORHARISINGHGOUR VISHWAVIDYALAYA

DEPARTMENTOFCOMPUTER APPLICATIONS

CSA-CC-3206 : WEB

APPLICATION LAB

SESSION: 2024-2025

SUBMITTED BY	**SUBMITTEDTO**
SAKSHI PANDEY	**ER.KAMALKANTSIR**
MCAIIISEMESTER	
Y23271024	

QUESTION 1 => WRITE INSTALLATION STEPS OF XAMPP

Here are the steps to install XAMPP on a Windows machine:

Step 1: Download XAMPP

1. Visit the [official XAMPP website](https://www.apachefriends.org/index.html).
2. Choose the version of XAMPP based on your operating system (Windows, Linux, or macOS).
3. Click the "Download" button for the latest version.

Step 2: Run the Installer

1. Once the download is complete, locate the downloaded file (e.g., `xampp-windows-x.x.x-installer.exe` for Windows).
2. Double-click the installer to run it.
3. If prompted by User Account Control (UAC), click "Yes" to allow the installer to make changes to your device.

Step 3: Select Components

1. The installer will open a setup wizard.
2. Click "Next" on the initial welcome screen.
3. You'll be asked to select the components you want to install (e.g., Apache, MySQL, PHP, Perl). By default, all components are selected. You can leave them checked or uncheck any components you don't need.
4. Click "Next."

Step 4: Choose Installation Folder

1. Choose the folder where XAMPP should be installed. By default, it installs in `C:\xampp`.
2. Click "Next."

Step 5: Language Selection

1. Select the language for XAMPP's interface (English or your preferred language).
2. Click "Next."

Step 6: Begin Installation

1. Click "Next" to start the installation process.
2. Wait for the installation to complete. This may take a few minutes depending on your system.

Step 7: Start the XAMPP Control Panel

1. Once the installation is complete, check the box to launch the XAMPP Control Panel.
2. Click "Finish."

Step 8: Run Apache and MySQL

1. In the XAMPP Control Panel, you'll see a list of services (Apache, MySQL, FileZilla, etc.).
2. Click the "Start" button next to Apache and MySQL to start the web server and database server.
3. If the services start successfully, the module names will turn green.

Step 9: Test the Installation

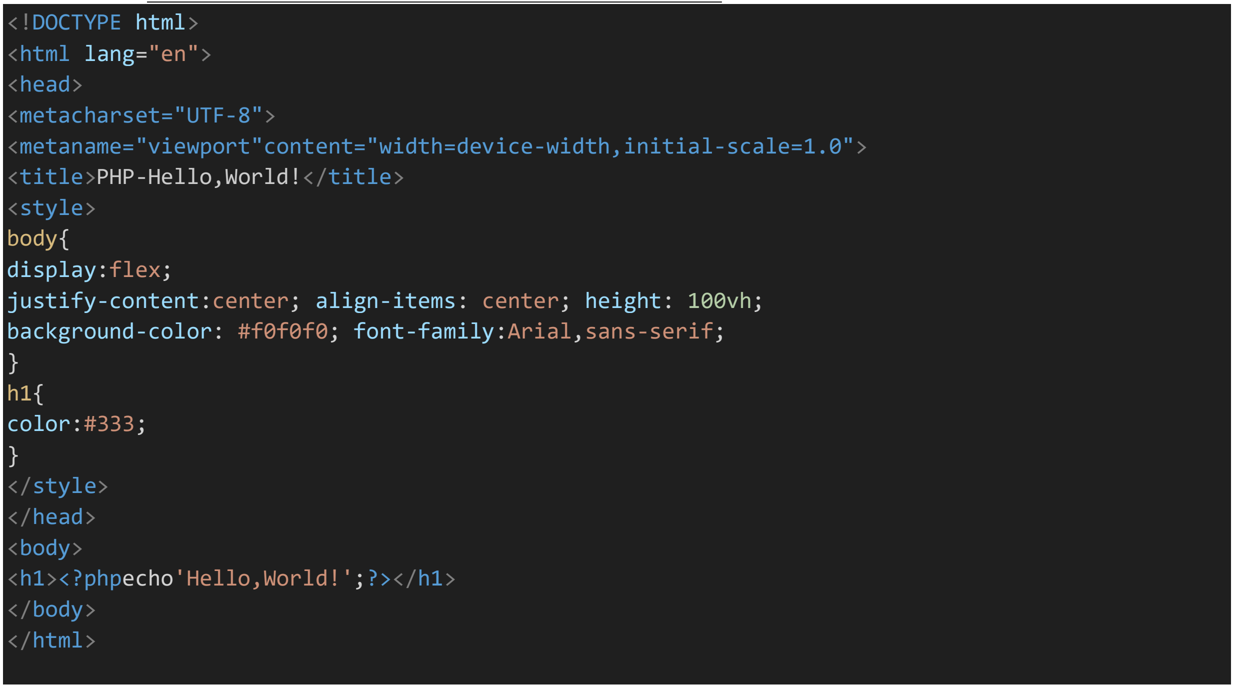
1. Open your web browser.

2. Type `http://localhost` or `http://127.0.0.1` in the address bar and hit Enter.
3. If XAMPP is installed correctly, the XAMPP dashboard will appear, confirming a successful setup.

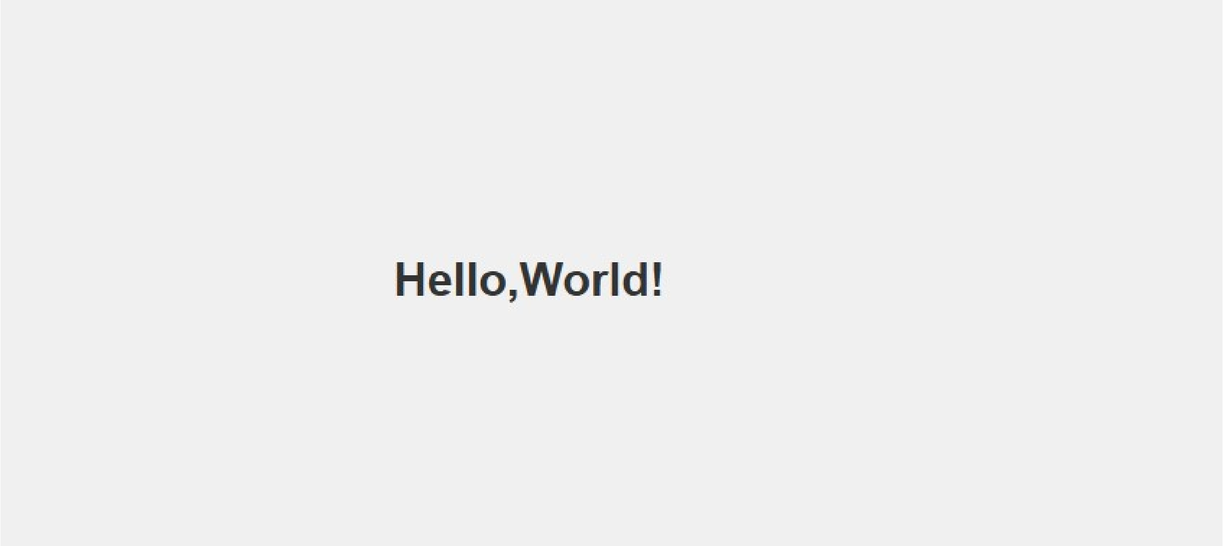
Optional: Configure Services to Start Automatically

1. If you want Apache and MySQL to start automatically when you launch XAMPP, check the "Svc" checkbox next to each service in the Control Panel.

QUESTION 2 => WAP TO PRINT HELLO MESSAGE

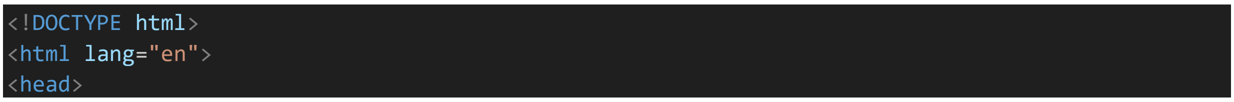


```
<!DOCTYPE html>
<html lang="en">
<head>
<metacharset="UTF-8">
<metaname="viewport"content="width=device-width,initial-scale=1.0">
<title>PHP-Hello,World!</title>
<style>
body{
display:flex;
justify-content:center; align-items: center; height: 100vh;
background-color: #f0f0f0; font-family:Arial,sans-serif;
}
h1{
color:#333;
}
</style>
</head>
<body>
<h1><?phpecho'Hello,World!';?></h1>
</body>
</html>
```

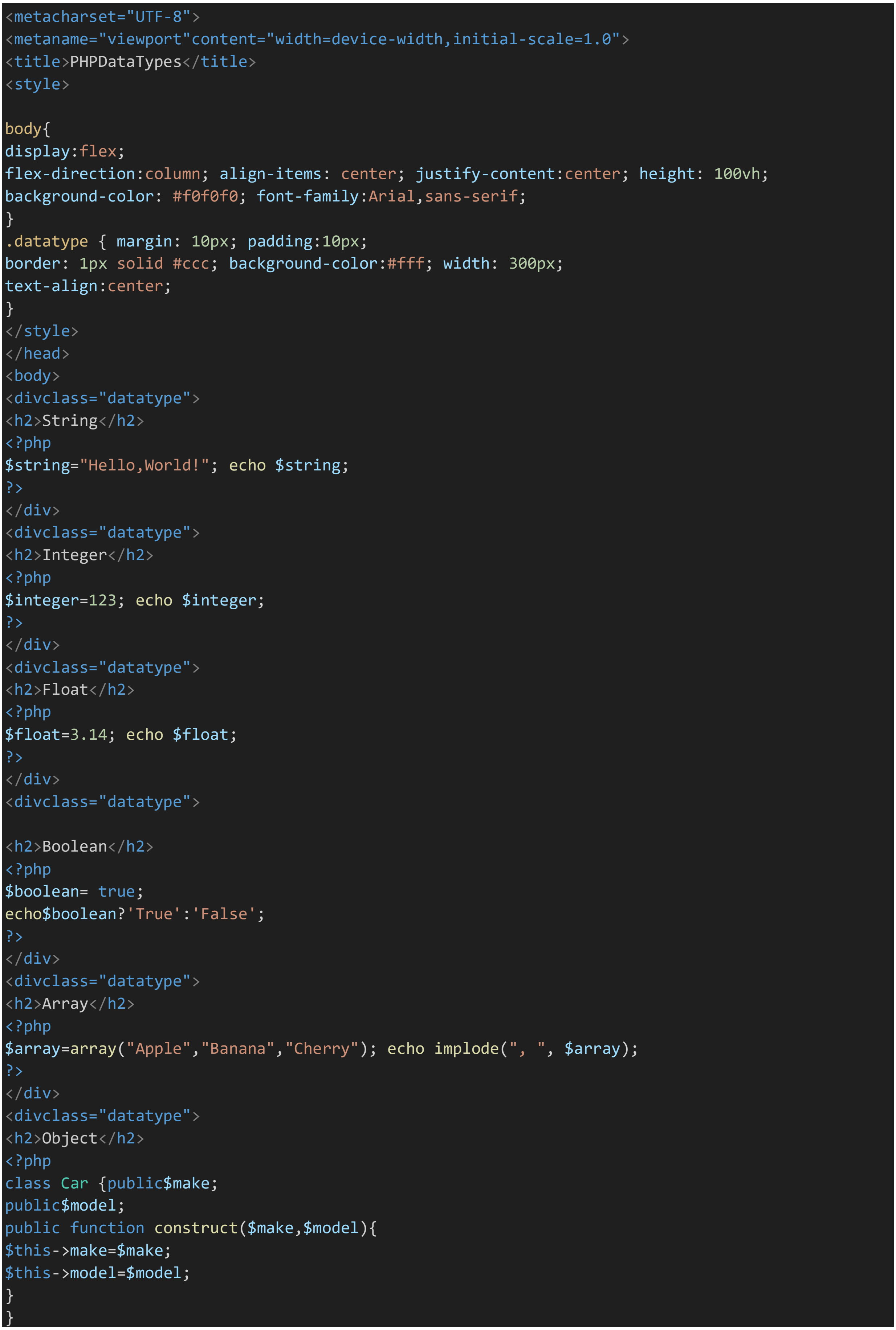


```
Hello,World!
```

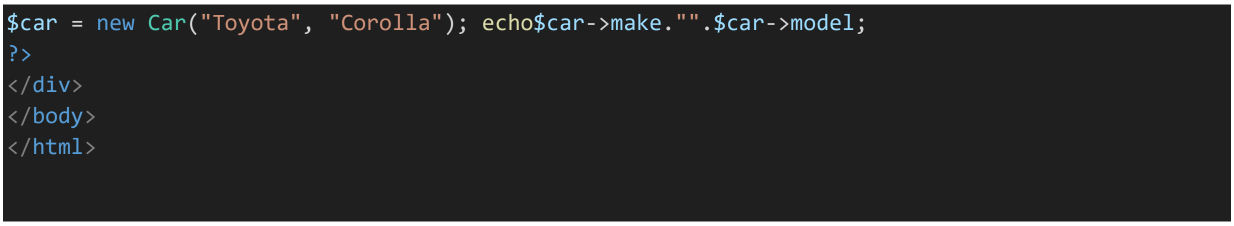
QUESTION 3 => WAP TO USE OF DATATYPES



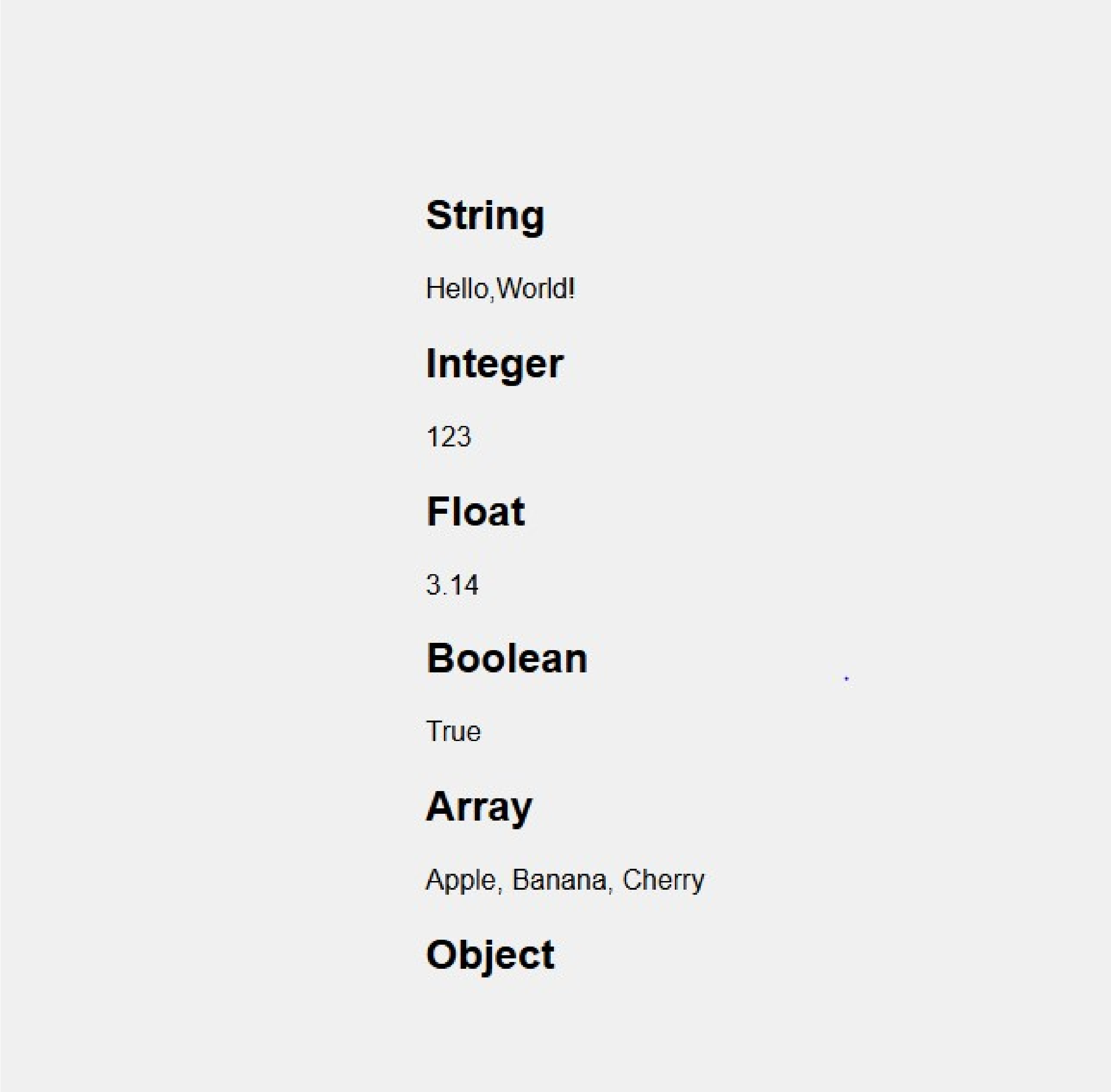
```
<!DOCTYPE html>
<html lang="en">
<head>
```



```
<metacharset="UTF-8">
<metaname="viewport"content="width=device-width,initial-scale=1.0">
<title>PHPDataTypes</title>
<style>

body{
display:flex;
flex-direction:column; align-items: center; justify-content:center; height: 100vh;
background-color: #f0f0f0; font-family:Arial,sans-serif;
}
.datatype { margin: 10px; padding:10px;
border: 1px solid #ccc; background-color:#fff; width: 300px;
text-align:center;
}
</style>
</head>
<body>
<divclass="datatype">
<h2>String</h2>
<?php
$string="Hello,World!"; echo $string;
?>
</div>
<divclass="datatype">
<h2>Integer</h2>
<?php
$integer=123; echo $integer;
?>
</div>
<divclass="datatype">
<h2>Float</h2>
<?php
$float=3.14; echo $float;
?>
</div>
<divclass="datatype">

<h2>Boolean</h2>
<?php
$boolean= true;
echo$boolean?'True':'False';
?>
</div>
<divclass="datatype">
<h2>Array</h2>
<?php
$array=array("Apple","Banana","Cherry"); echo implode(", ", $array);
?>
</div>
<divclass="datatype">
<h2>Object</h2>
<?php
class Car {public$make;
public$model;
public function construct($make,$model){
$this->make=$make;
$this->model=$model;
}
}
```

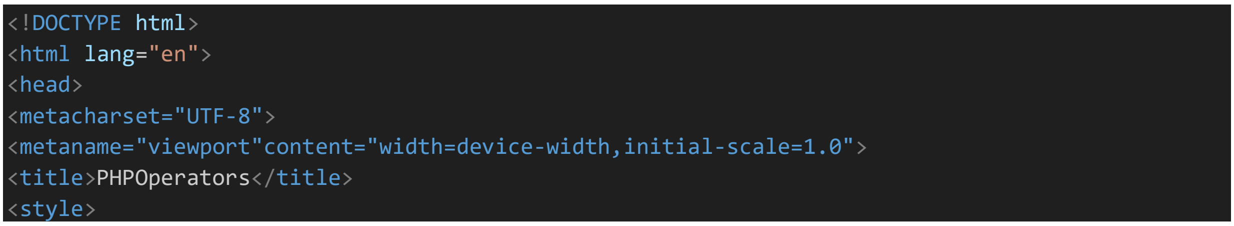


```
$car = new Car("Toyota", "Corolla"); echo$car->make."".$car->model;
?>
</div>
</body>
</html>
```

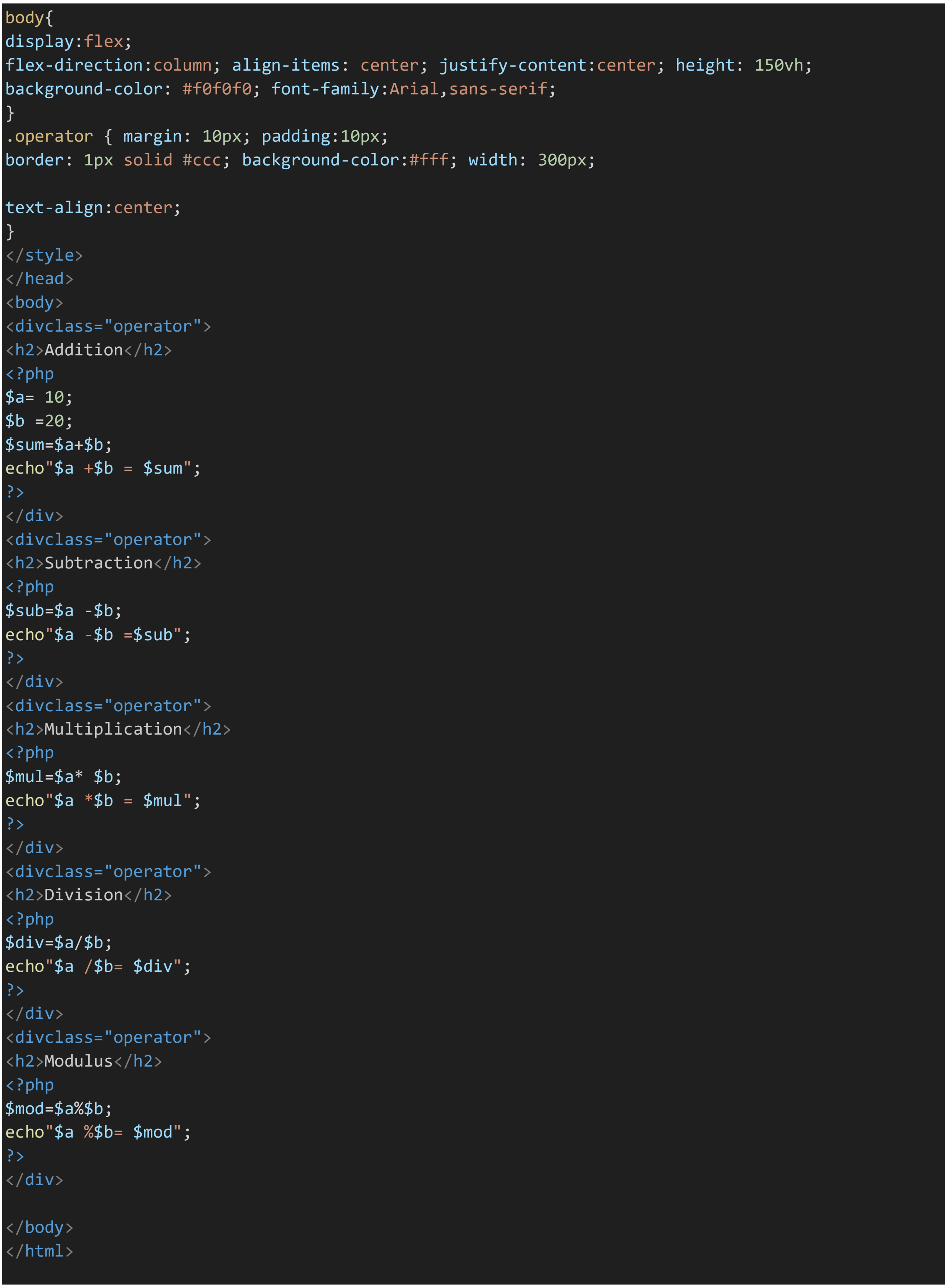


```
String

Hello,World!

Integer

123

Float

3.14

Boolean

True

Array

Apple, Banana, Cherry

Object
```

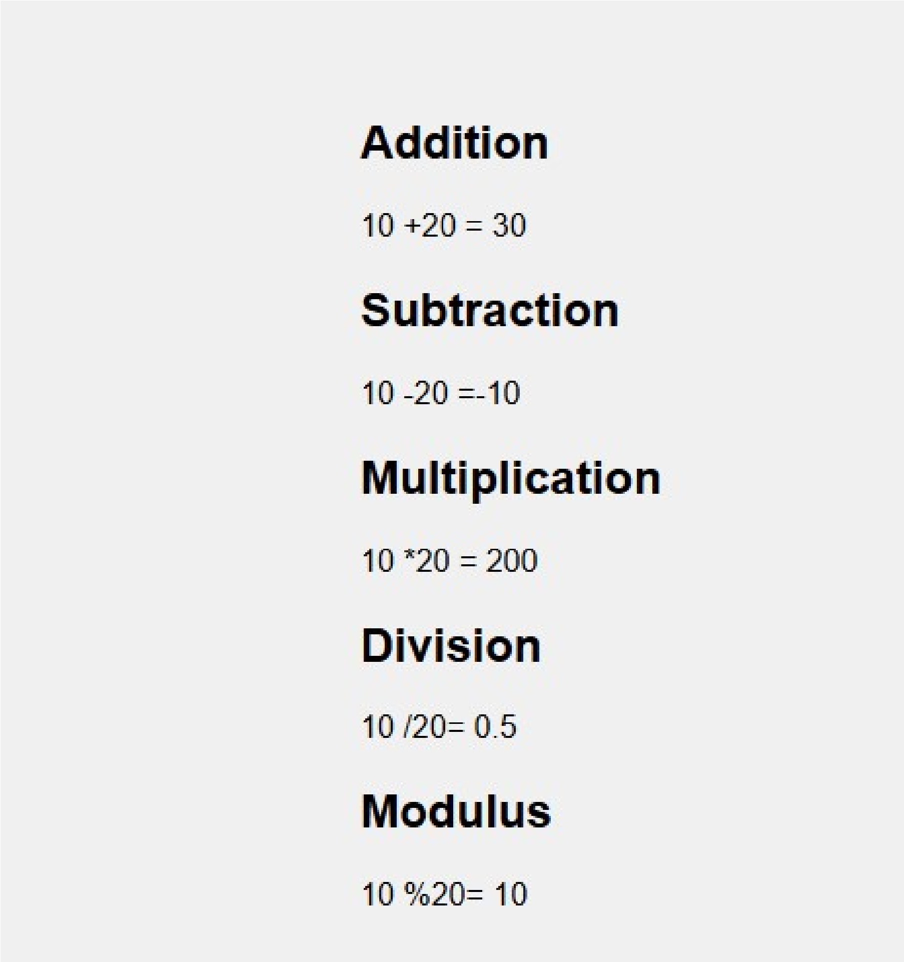
QUESTION 4 => WAP TO SHOW USE OF OPERATORS .



```
<!DOCTYPE html>
<html lang="en">
<head>
<metacharset="UTF-8">
<metaname="viewport"content="width=device-width,initial-scale=1.0">
<title>PHPOperators</title>
<style>
```



```
body{
display:flex;
flex-direction:column; align-items: center; justify-content:center; height: 150vh;
background-color: #f0f0f0; font-family:Arial,sans-serif;
}
.operator { margin: 10px; padding:10px;
border: 1px solid #ccc; background-color:#fff; width: 300px;

text-align:center;
}
</style>
</head>
<body>
<divclass="operator">
<h2>Addition</h2>
<?php
$a= 10;
$b =20;
$sum=$a+$b;
echo"$a +$b = $sum";
?>
</div>
<divclass="operator">
<h2>Subtraction</h2>
<?php
$sub=$a -$b;
echo"$a -$b =$sub";
?>
</div>
<divclass="operator">
<h2>Multiplication</h2>
<?php
$mul=$a* $b;
echo"$a *$b = $mul";
?>
</div>
<divclass="operator">
<h2>Division</h2>
<?php
$div=$a/$b;
echo"$a /$b= $div";
?>
</div>
<divclass="operator">
<h2>Modulus</h2>
<?php
$mod=$a%$b;
echo"$a %$b= $mod";
?>
</div>

</body>
</html>
```



Addition

10 +20 = 30

Subtraction

10 -20 =-10

Multiplication

10 *20 = 200

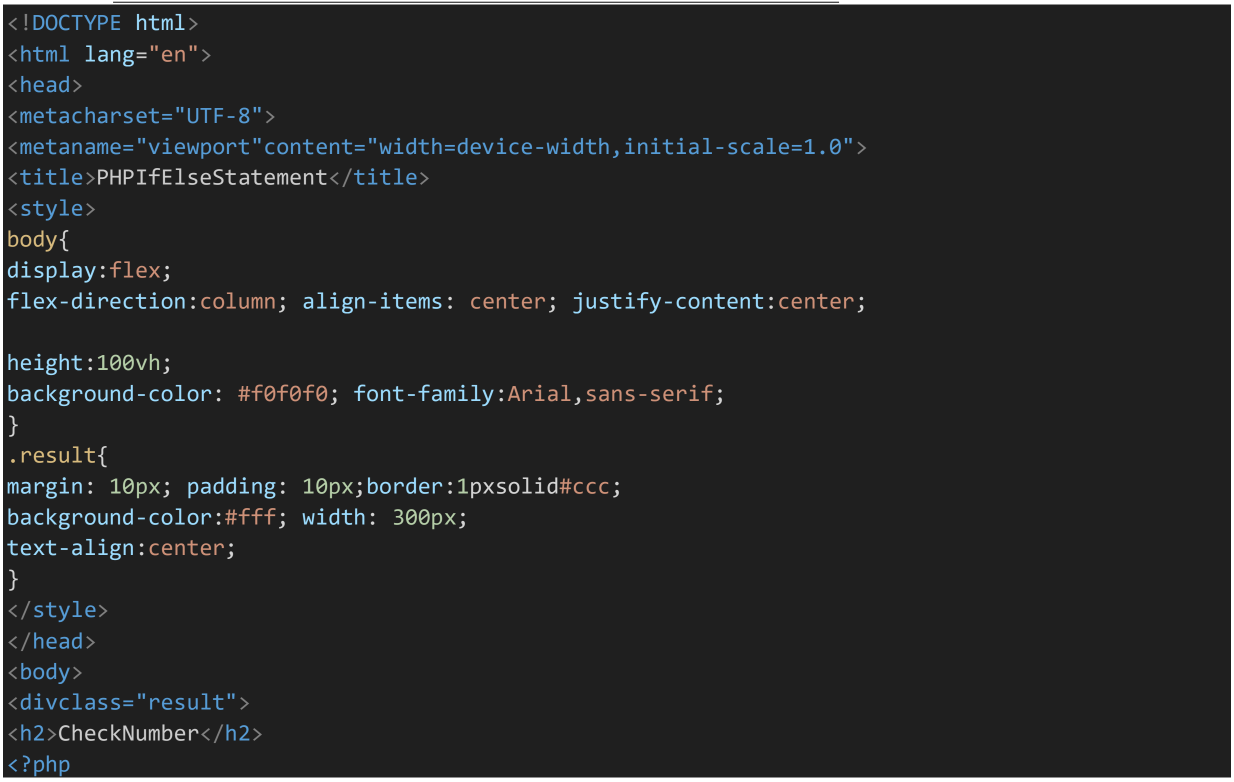
Division

10 /20= 0.5

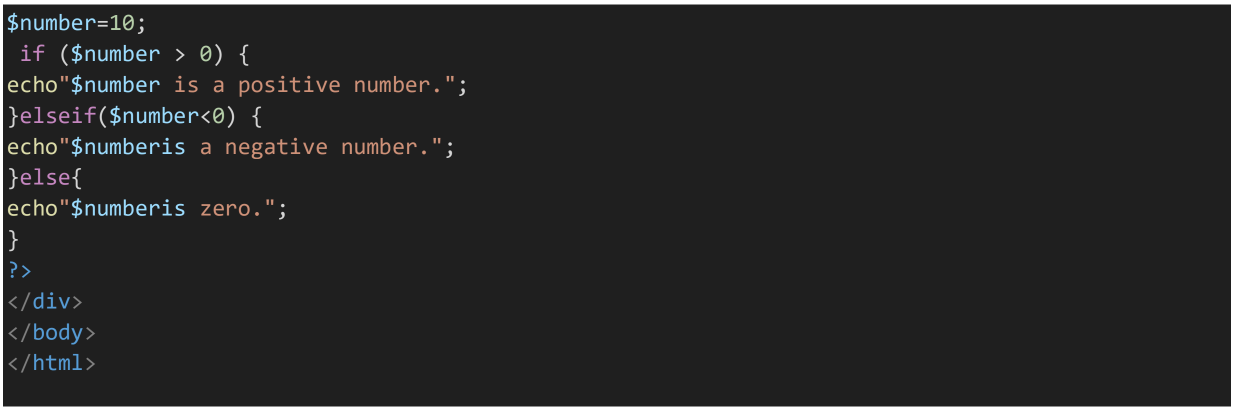
Modulus

10 %20= 10

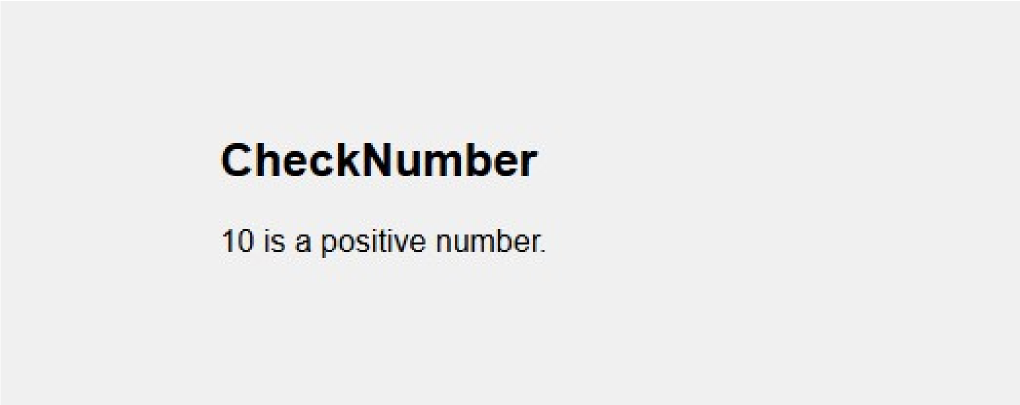
QUESTION 5 => WAP TO SHOW USE OF IF ELSE STATEMENT.



```
<!DOCTYPE html>
<html lang="en">
<head>
<metacharset="UTF-8">
<metaname="viewport"content="width=device-width,initial-scale=1.0">
<title>PHPIfElseStatement</title>
<style>
body{
display:flex;
flex-direction:column; align-items: center; justify-content:center;

height:100vh;
background-color: #f0f0f0; font-family:Arial,sans-serif;
}
.result{
margin: 10px; padding: 10px;border:1pxsolid#ccc;
background-color:#fff; width: 300px;
text-align:center;
}
</style>
</head>
<body>
<divclass="result">
<h2>CheckNumber</h2>
<?php
```



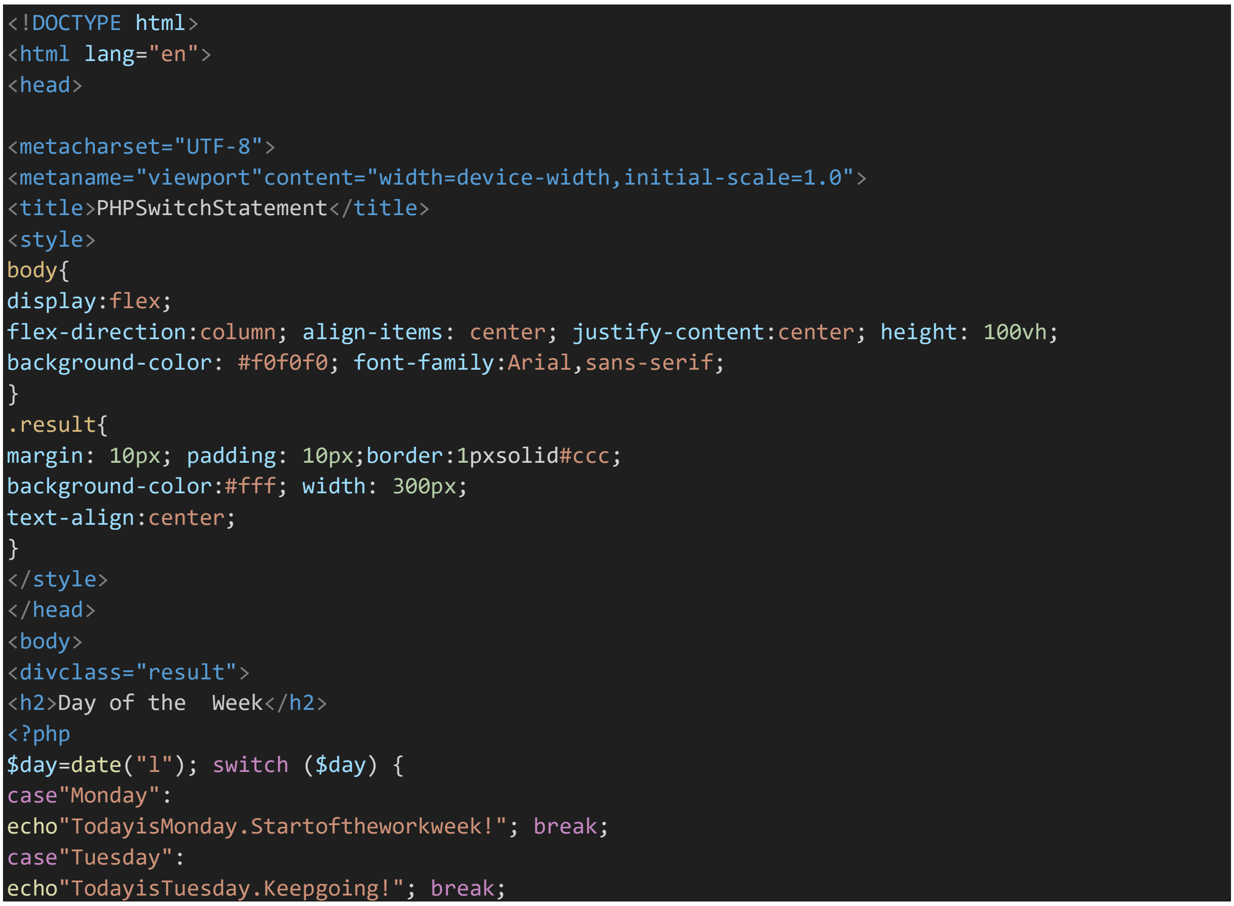
```
$number=10;
 if ($number > 0) {
echo"$number is a positive number.";
}elseif($number<0) {
echo"$numberis a negative number.";
}else{
echo"$numberis zero.";
}
?>
</div>
</body>
</html>
```



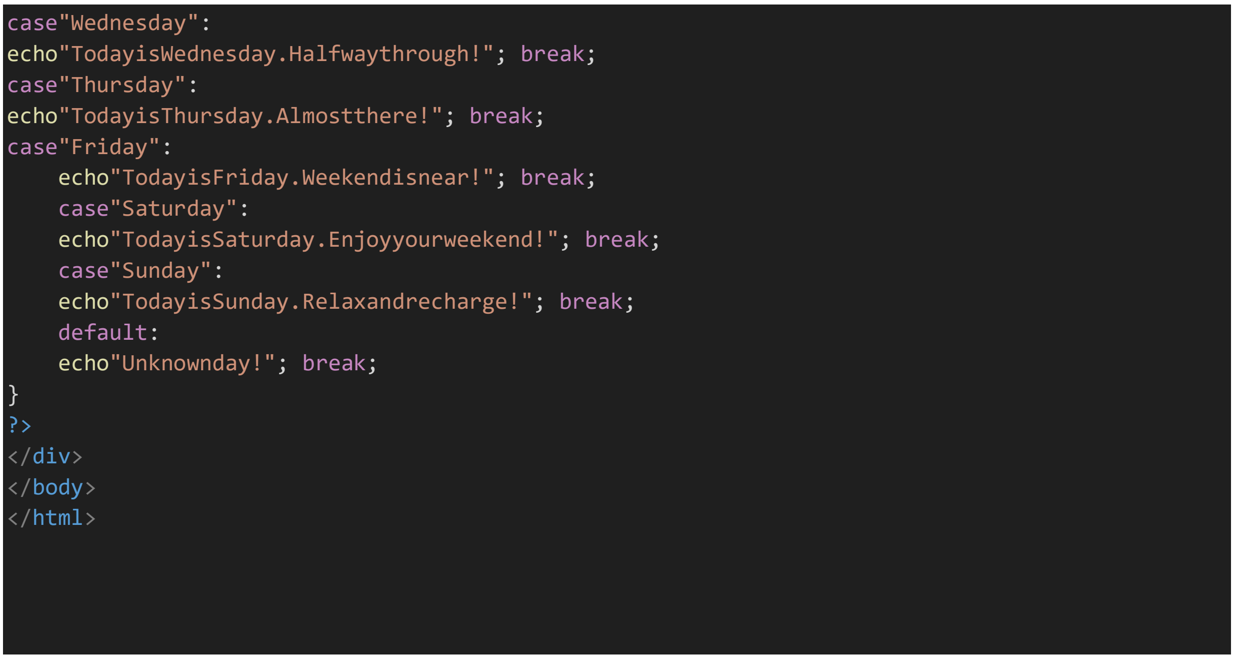
CheckNumber

10 is a positive number.

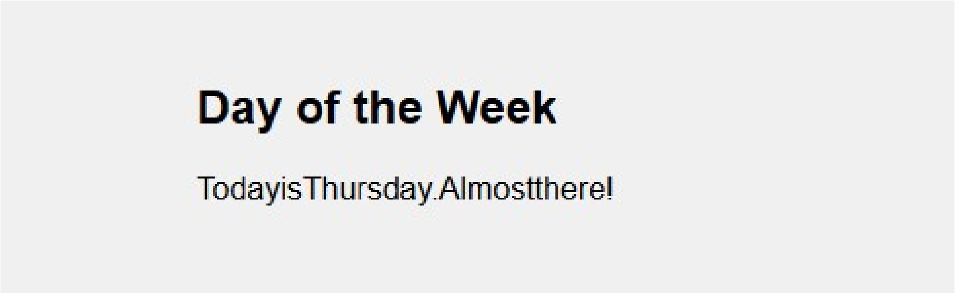
QUESTION 6 => WAP TO SHOW USE OF SWITCH STATEMENT .



```
<!DOCTYPE html>
<html lang="en">
<head>

<metacharset="UTF-8">
<metaname="viewport"content="width=device-width,initial-scale=1.0">
<title>PHPSwitchStatement</title>
<style>
body{
display:flex;
flex-direction:column; align-items: center; justify-content:center; height: 100vh;
background-color: #f0f0f0; font-family:Arial,sans-serif;
}
.result{
margin: 10px; padding: 10px;border:1pxsolid#ccc;
background-color:#fff; width: 300px;
text-align:center;
}
</style>
</head>
<body>
<divclass="result">
<h2>Day of the  Week</h2>
<?php
$day=date("l"); switch ($day) {
case"Monday":
echo"TodayisMonday.Startoftheworkweek!"; break;
case"Tuesday":
echo"TodayisTuesday.Keepgoing!"; break;
```



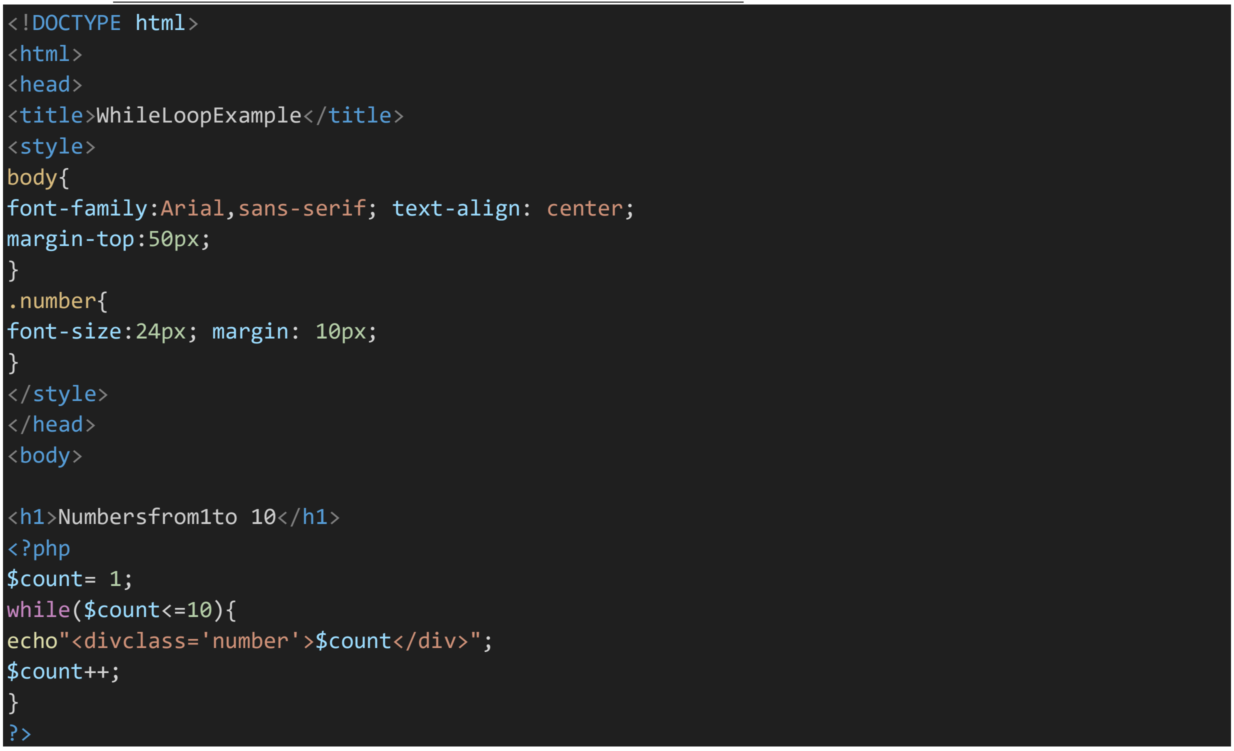
```
case"Wednesday":
echo"TodayisWednesday.Halfwaythrough!"; break;
case"Thursday":
echo"TodayisThursday.Almostthere!"; break;
case"Friday":
    echo"TodayisFriday.Weekendisnear!"; break;
    case"Saturday":
    echo"TodayisSaturday.Enjoyyourweekend!"; break;
    case"Sunday":
    echo"TodayisSunday.Relaxandrecharge!"; break;
    default:
    echo"Unknownday!"; break;
}
?>
</div>
</body>
</html>
```



Day of the Week

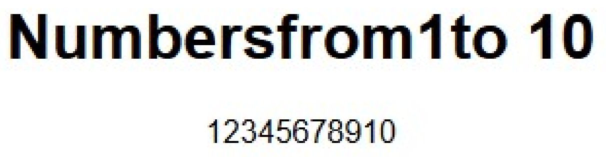
TodayisThursday.Almostthere!

QUESTION 7 => WAP TO SHOW USE OF WHILE LOOP.



```
<!DOCTYPE html>
<html>
<head>
<title>WhileLoopExample</title>
<style>
body{
font-family:Arial,sans-serif; text-align: center;
margin-top:50px;
}
.number{
font-size:24px; margin: 10px;
}
</style>
</head>
<body>

<h1>Numbersfrom1to 10</h1>
<?php
$count= 1;
while($count<=10){
echo"<divclass='number'>$count</div>";
$count++;
}
?>
```

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

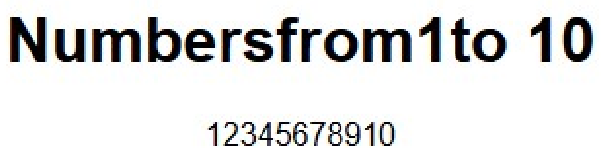


Numbersfrom1to 10

12345678910

QUESTION 8 => WAP TO SHOW USE OF DO WHILE LOOP.

```
<!DOCTYPE html>
<html>
<head>
<title>DoWhileLoopExample</title>
<style>
body{
font-family:Arial,sans-serif; text-align: center;
margin-top:50px;
}
.number{
font-size:24px; margin: 10px;
}
</style>

</head>
<body>
<h1>Numbersfrom1to 10</h1>
<?php
$count=1; do {
echo"<divclass='number'>$count</div>";
$count++;
}while($count<=10);
?>
</body>
</html>
```

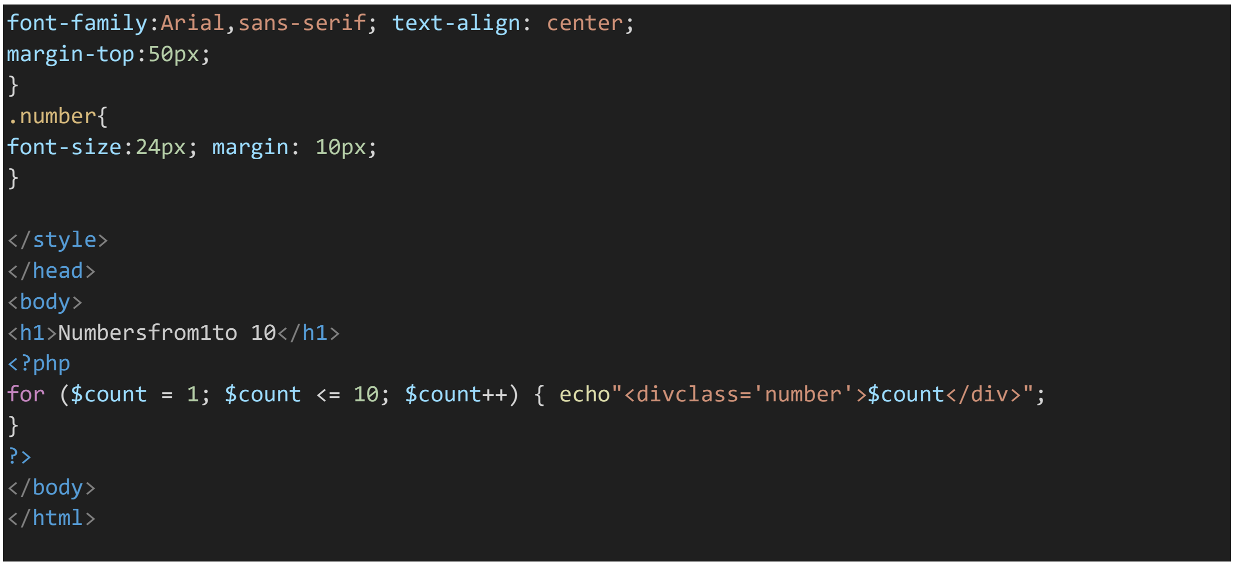


Numbersfrom1to 10

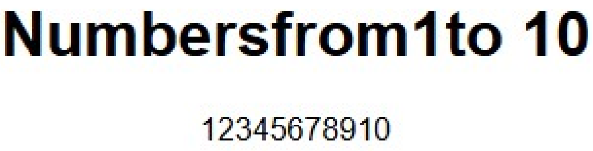
12345678910

QUESTION 9 => WAP TO SHOW USE OF FOR LOOP.

```
<!DOCTYPE html>
<html>
<head>
<title>ForLoopExample</title>
<style>
body{
```

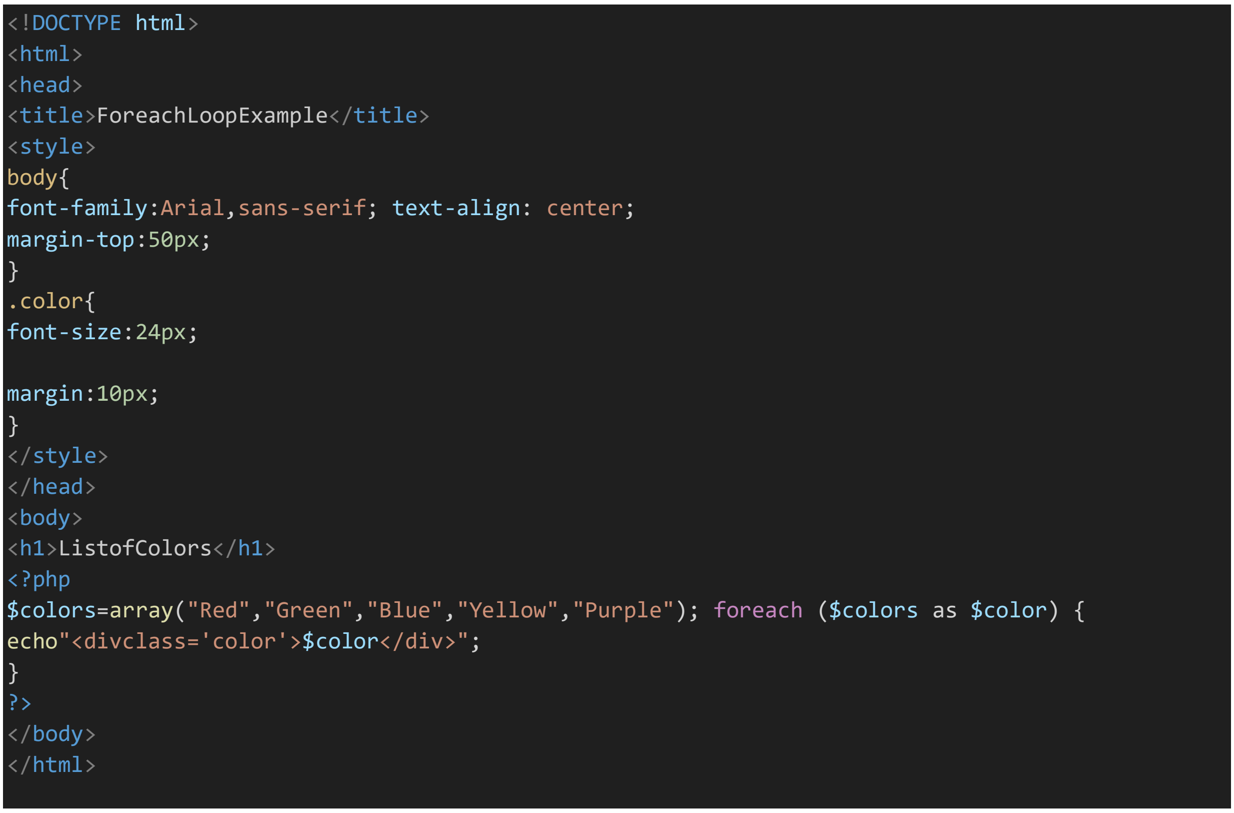


```
font-family:Arial,sans-serif; text-align: center;
margin-top:50px;
}
.number{
font-size:24px; margin: 10px;
}

</style>
</head>
<body>
<h1>Numbersfrom1to 10</h1>
<?php
for ($count = 1; $count <= 10; $count++) { echo"<divclass='number'>$count</div>";
}
?>
</body>
</html>
```

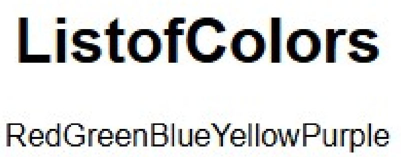


```
Numbersfrom1to 10

12345678910
```

QUESTION 10 => WAP IN TO SHOW USE OF FOR EACH LOOP .



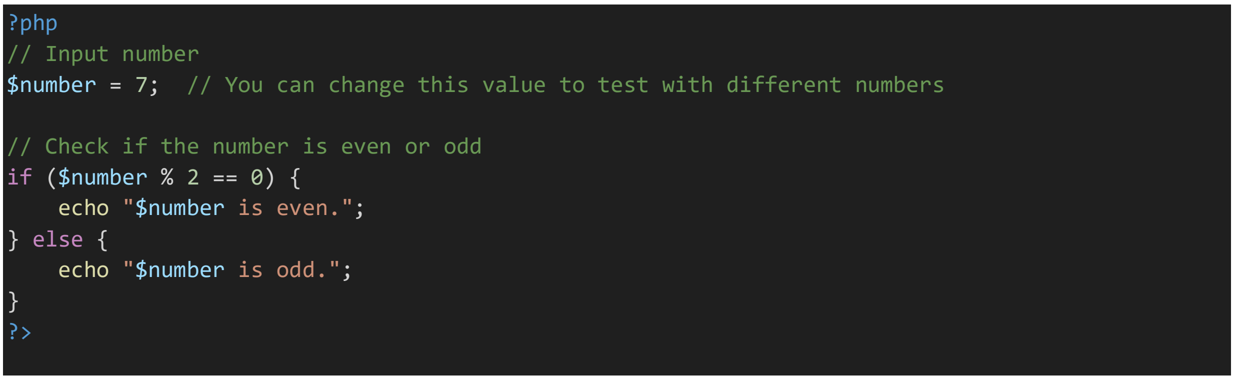
```
<!DOCTYPE html>
<html>
<head>
<title>ForeachLoopExample</title>
<style>
body{
font-family:Arial,sans-serif; text-align: center;
margin-top:50px;
}
.color{
font-size:24px;

margin:10px;
}
</style>
</head>
<body>
<h1>ListofColors</h1>
<?php
$colors=array("Red","Green","Blue","Yellow","Purple"); foreach ($colors as $color) {
echo"<divclass='color'>$color</div>";
}
?>
</body>
</html>
```



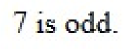
ListofColors

RedGreenBlueYellowPurple

QUESTION 11 => WAP TO CHECK EVEN OR ODD NUMBER .

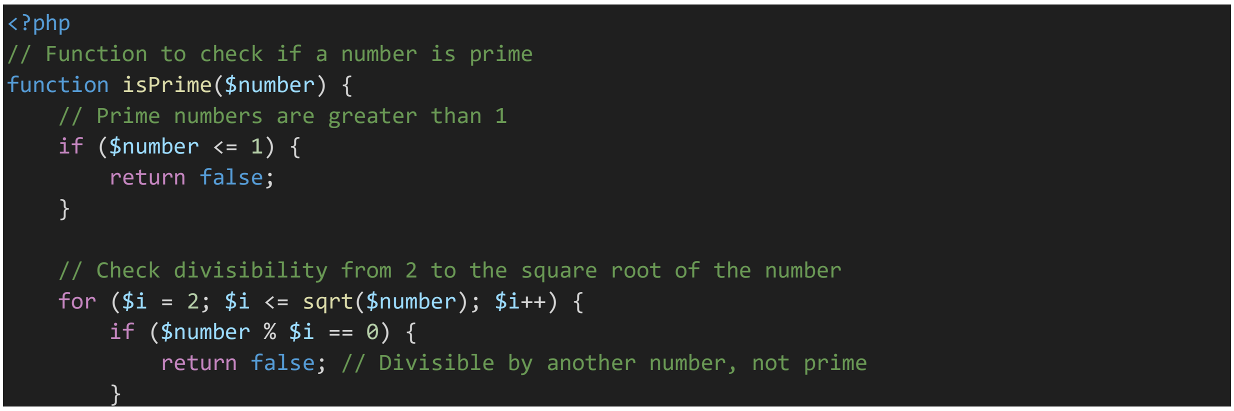


```php
?php
// Input number
$number = 7;  // You can change this value to test with different numbers

// Check if the number is even or odd
if ($number % 2 == 0) {
    echo "$number is even.";
} else {
    echo "$number is odd.";
}
?>
```

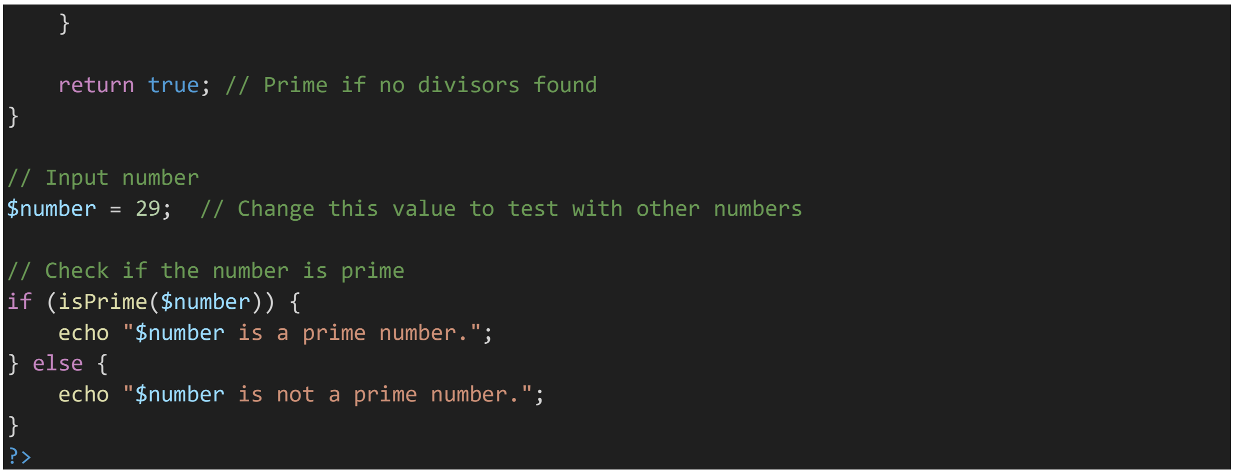


```
7 is odd.
```

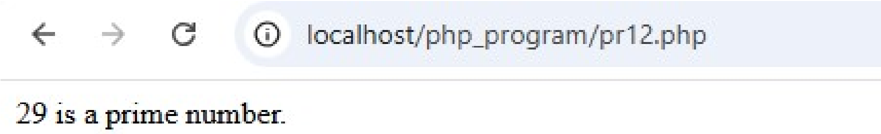
QUESTION 12 => WAP TO CHECK PRIME NUMBER OR NOT.



```php
<?php
// Function to check if a number is prime
function isPrime($number) {
    // Prime numbers are greater than 1
    if ($number <= 1) {
        return false;
    }

    // Check divisibility from 2 to the square root of the number
    for ($i = 2; $i <= sqrt($number); $i++) {
        if ($number % $i == 0) {
            return false; // Divisible by another number, not prime
        }
```

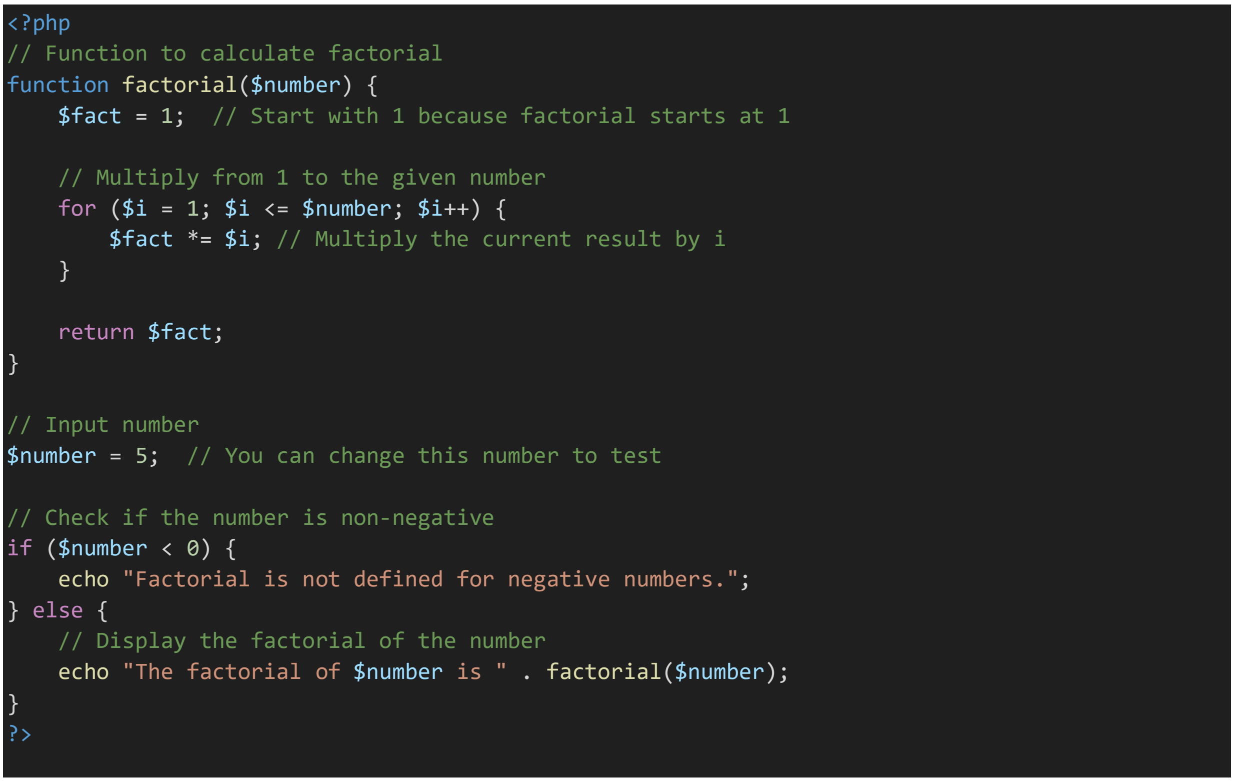


```php
    }

    return true; // Prime if no divisors found
}

// Input number
$number = 29;  // Change this value to test with other numbers

// Check if the number is prime
if (isPrime($number)) {
    echo "$number is a prime number.";
} else {
    echo "$number is not a prime number.";
}
?>
```

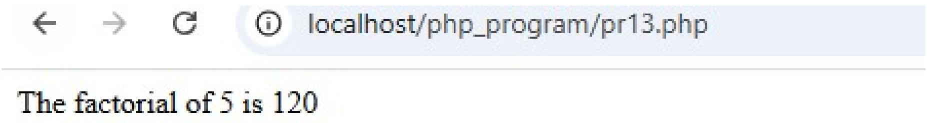


```
29 is a prime number.
```

QUESTION 13 => WAP TO FIND FACTORIAL OF A NUMBER .

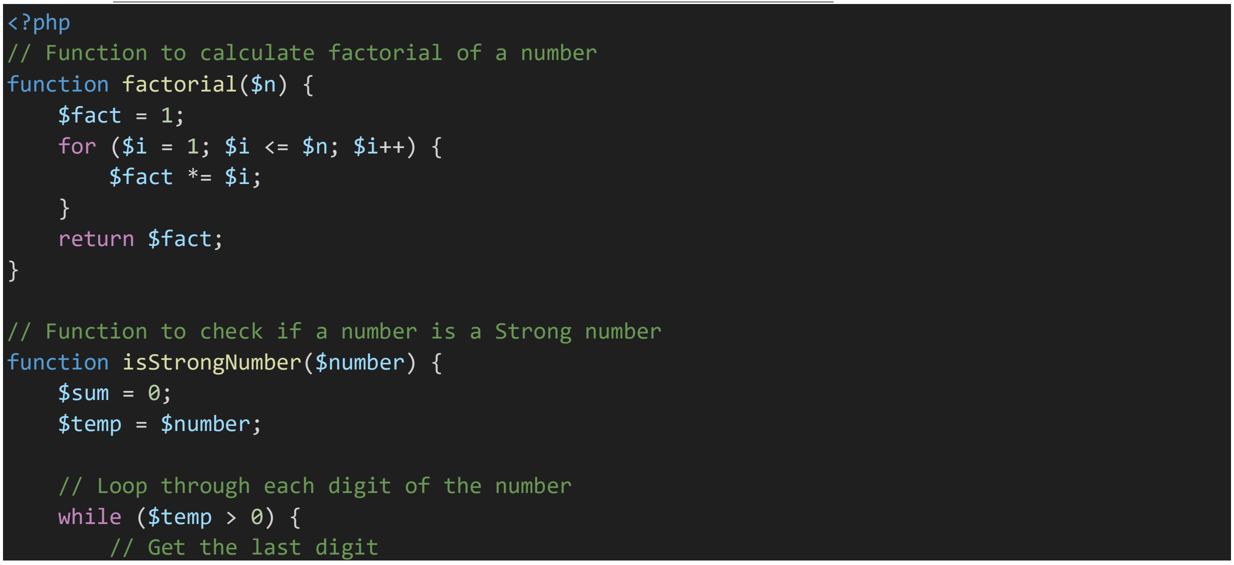


```php
<?php
// Function to calculate factorial
function factorial($number) {
    $fact = 1;  // Start with 1 because factorial starts at 1

    // Multiply from 1 to the given number
    for ($i = 1; $i <= $number; $i++) {
        $fact *= $i; // Multiply the current result by i
    }

    return $fact;
}

// Input number
$number = 5;  // You can change this number to test

// Check if the number is non-negative
if ($number < 0) {
    echo "Factorial is not defined for negative numbers.";
} else {
    // Display the factorial of the number
    echo "The factorial of $number is " . factorial($number);
}
?>
```

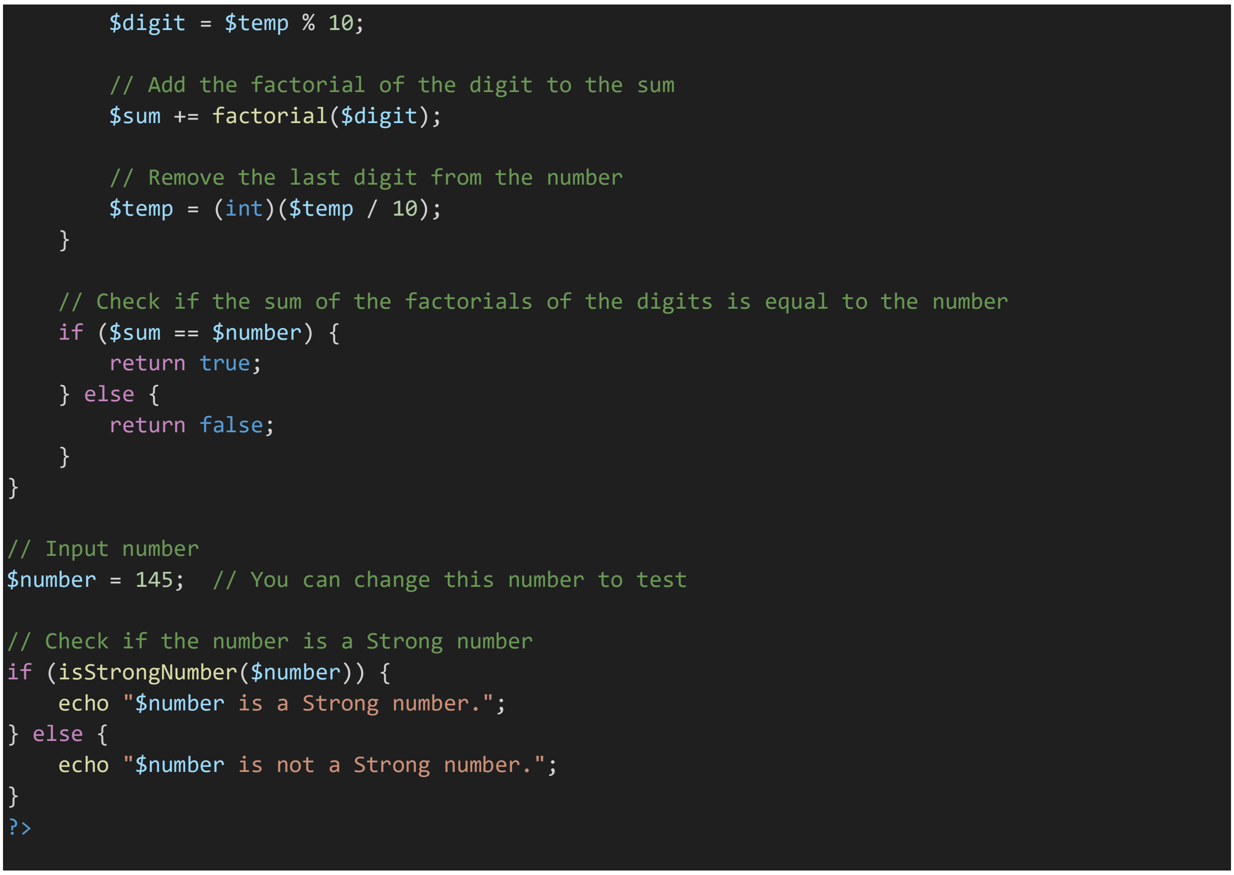


```
The factorial of 5 is 120
```

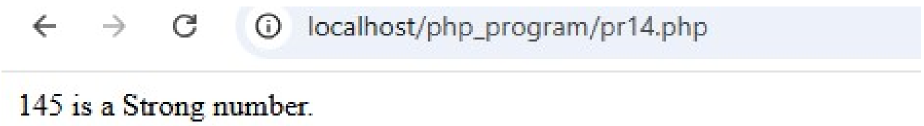
QUESTION 14 => WAP TO CHECK STRONG NUMBER OR NOT.



```php
<?php
// Function to calculate factorial of a number
function factorial($n) {
    $fact = 1;
    for ($i = 1; $i <= $n; $i++) {
        $fact *= $i;
    }
    return $fact;
}

// Function to check if a number is a Strong number
function isStrongNumber($number) {
    $sum = 0;
    $temp = $number;

    // Loop through each digit of the number
    while ($temp > 0) {
        // Get the last digit
```



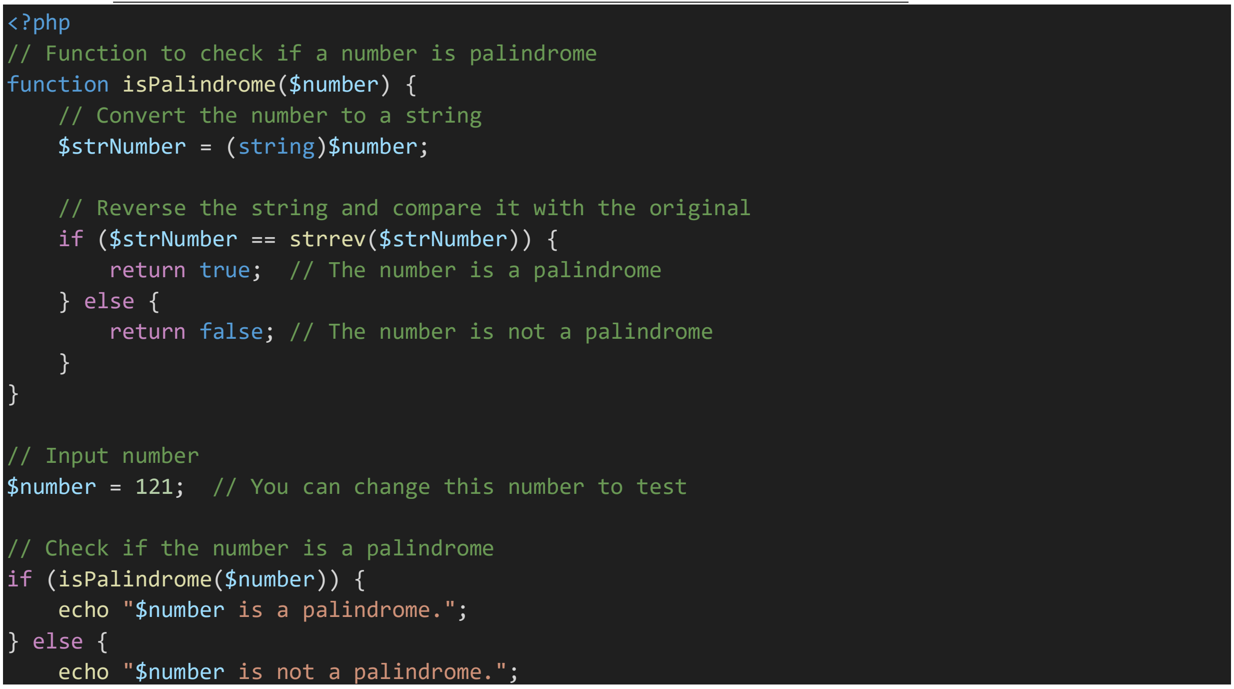
```
        $digit = $temp % 10;

        // Add the factorial of the digit to the sum
        $sum += factorial($digit);

        // Remove the last digit from the number
        $temp = (int)($temp / 10);
    }

    // Check if the sum of the factorials of the digits is equal to the number
    if ($sum == $number) {
        return true;
    } else {
        return false;
    }
}

// Input number
$number = 145;  // You can change this number to test

// Check if the number is a Strong number
if (isStrongNumber($number)) {
    echo "$number is a Strong number.";
} else {
    echo "$number is not a Strong number.";
}
?>
```



localhost/php_program/pr14.php

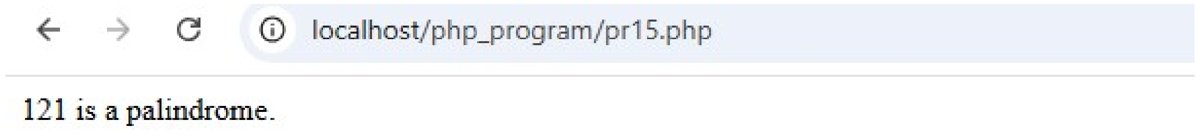
```
145 is a Strong number.
```

QUESTION 15 => WAP TO CHECK PALLINDROME NUMBER OR NOT.



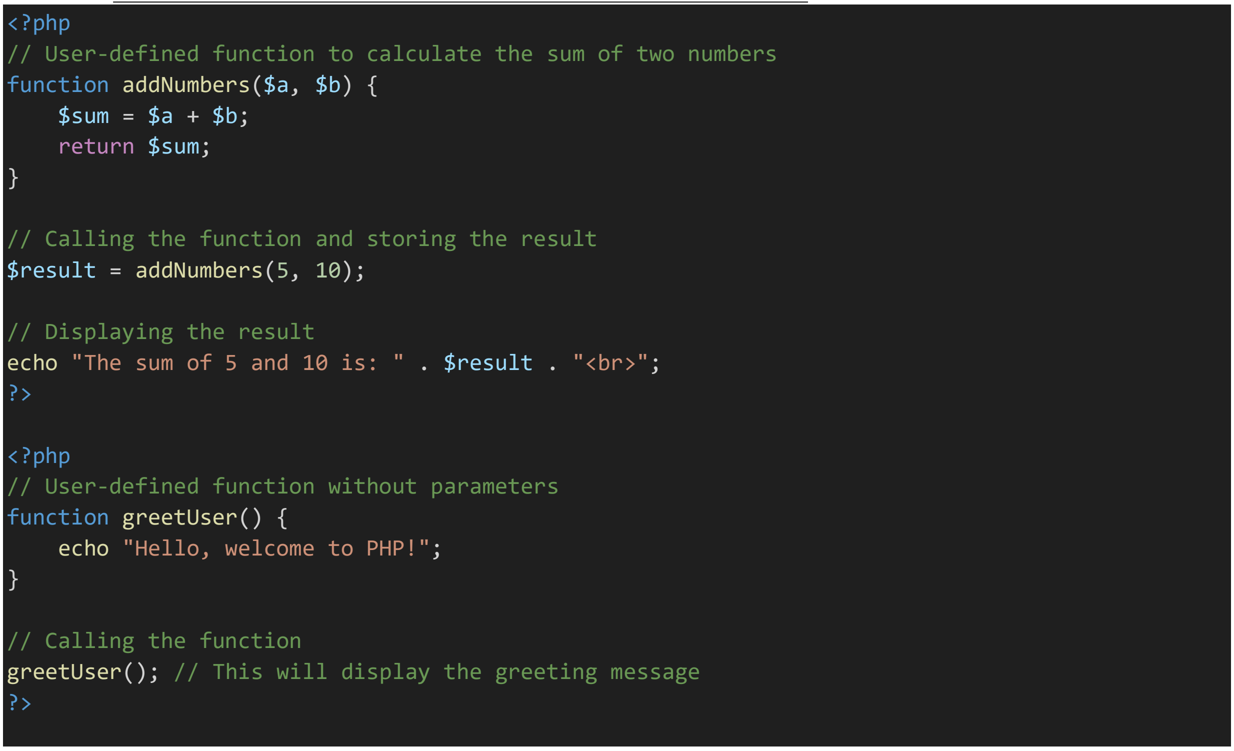
```
<?php
// Function to check if a number is palindrome
function isPalindrome($number) {
    // Convert the number to a string
    $strNumber = (string)$number;

    // Reverse the string and compare it with the original
    if ($strNumber == strrev($strNumber)) {
        return true;  // The number is a palindrome
    } else {
        return false; // The number is not a palindrome
    }
}

// Input number
$number = 121;  // You can change this number to test

// Check if the number is a palindrome
if (isPalindrome($number)) {
    echo "$number is a palindrome.";
} else {
    echo "$number is not a palindrome.";
```

```
}
?>
```

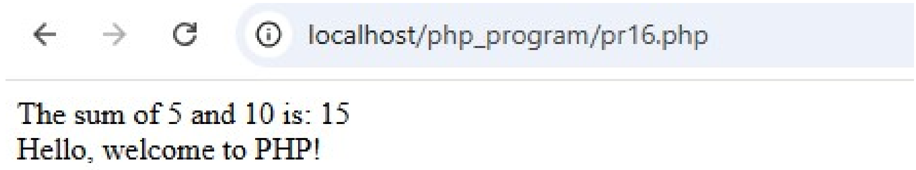


```
121 is a palindrome.
```

QUESTION 16=> WAP TO SHOW USER DEFINED FUNCTION.

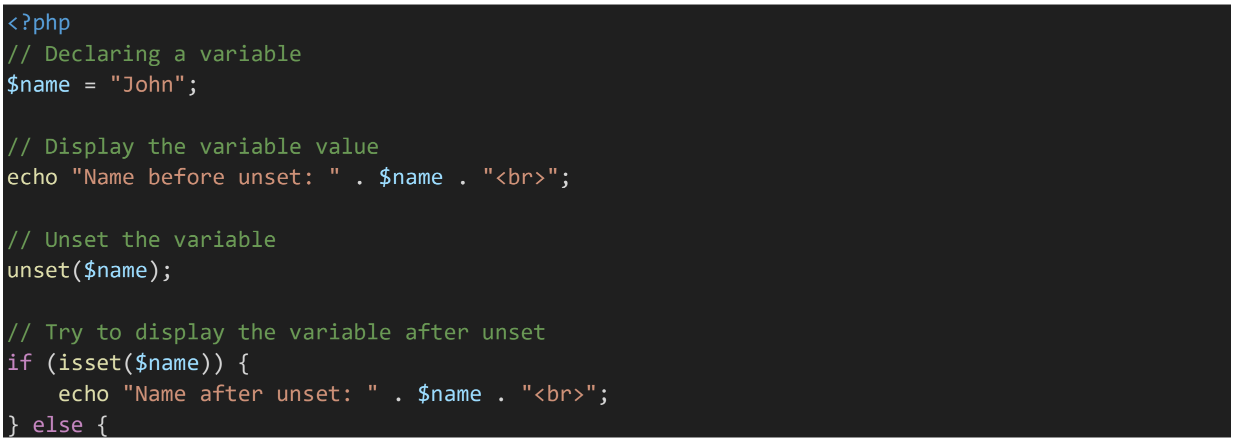


```php
<?php
// User-defined function to calculate the sum of two numbers
function addNumbers($a, $b) {
    $sum = $a + $b;
    return $sum;
}

// Calling the function and storing the result
$result = addNumbers(5, 10);

// Displaying the result
echo "The sum of 5 and 10 is: " . $result . "<br>";
?>

<?php
// User-defined function without parameters
function greetUser() {
    echo "Hello, welcome to PHP!";
}

// Calling the function
greetUser(); // This will display the greeting message
?>
```

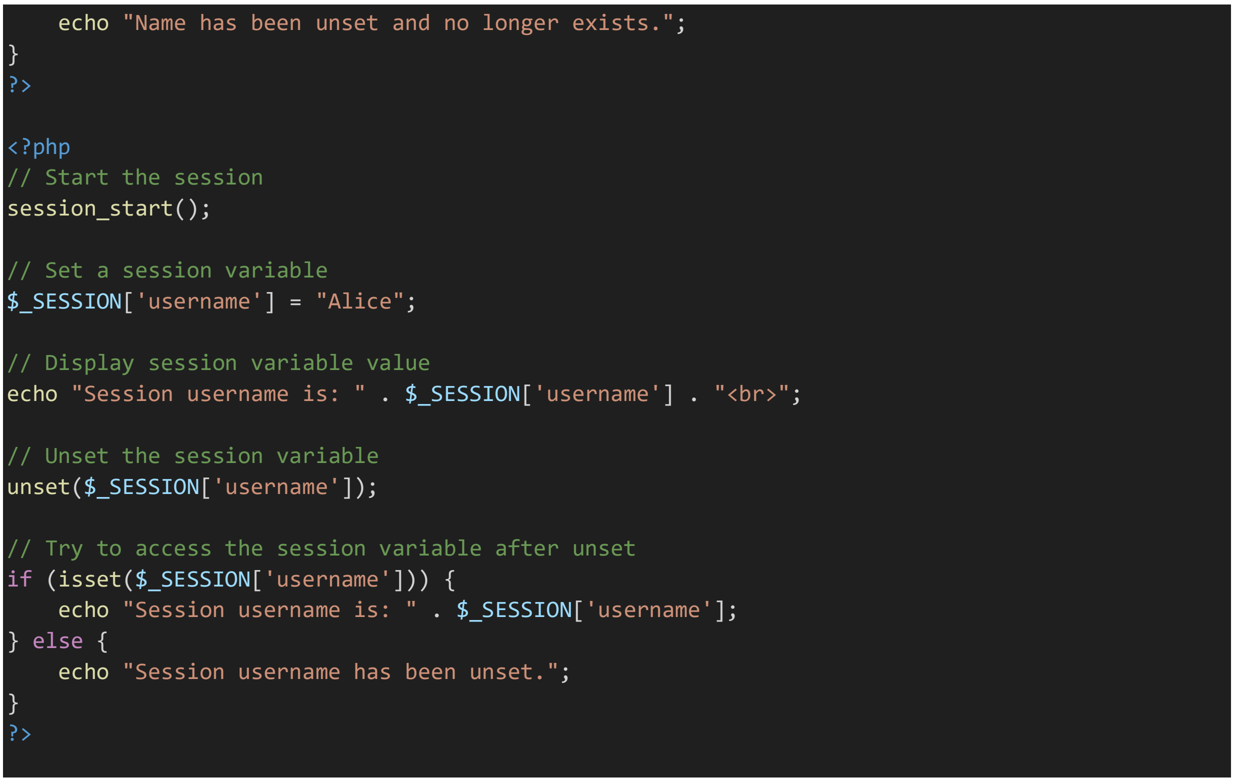


```
The sum of 5 and 10 is: 15
Hello, welcome to PHP!
```

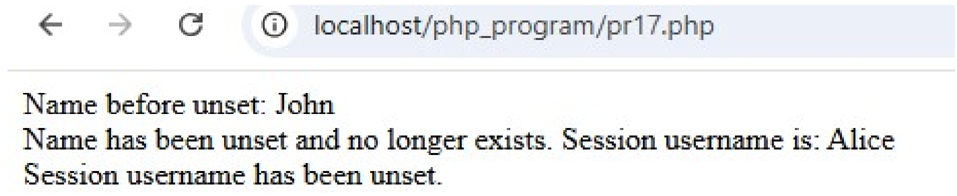
QUESTION 17 => WAP TO SHOW SET() FUNCTION AND UNSET() FUNCTION



```php
<?php
// Declaring a variable
$name = "John";

// Display the variable value
echo "Name before unset: " . $name . "<br>";

// Unset the variable
unset($name);

// Try to display the variable after unset
if (isset($name)) {
    echo "Name after unset: " . $name . "<br>";
} else {
```

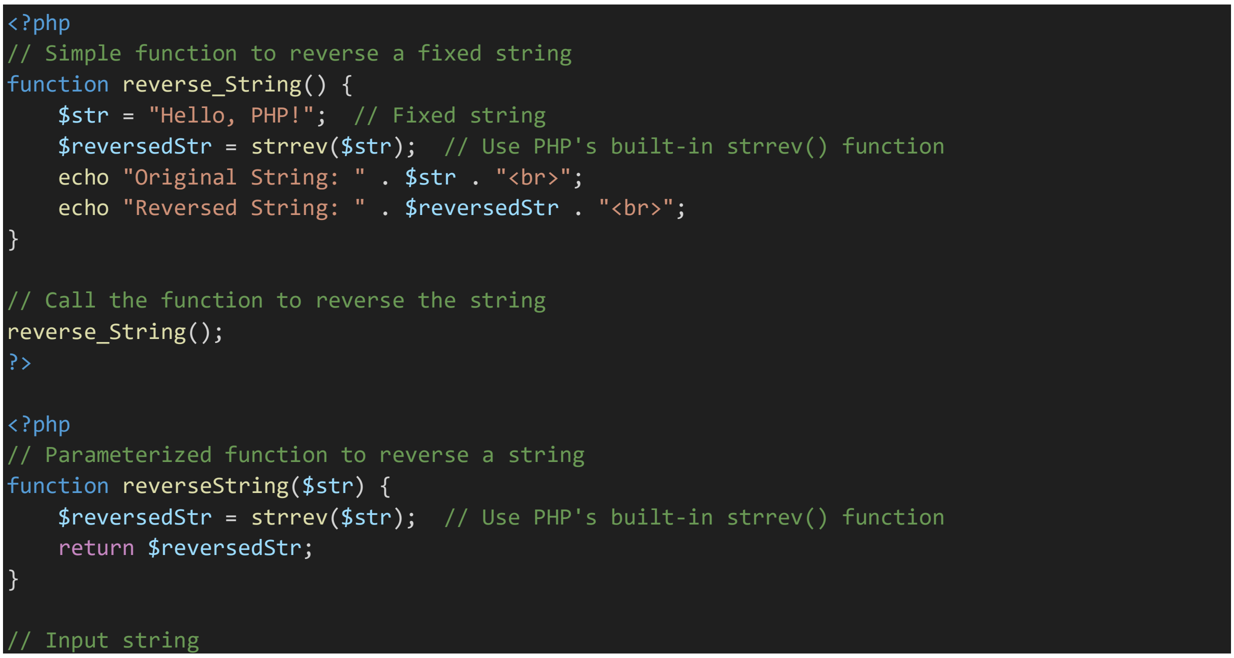


```
    echo "Name has been unset and no longer exists.";
}
?>

<?php
// Start the session
session_start();

// Set a session variable
$_SESSION['username'] = "Alice";

// Display session variable value
echo "Session username is: " . $_SESSION['username'] . "<br>";

// Unset the session variable
unset($_SESSION['username']);

// Try to access the session variable after unset
if (isset($_SESSION['username'])) {
    echo "Session username is: " . $_SESSION['username'];
} else {
    echo "Session username has been unset.";
}
?>
```

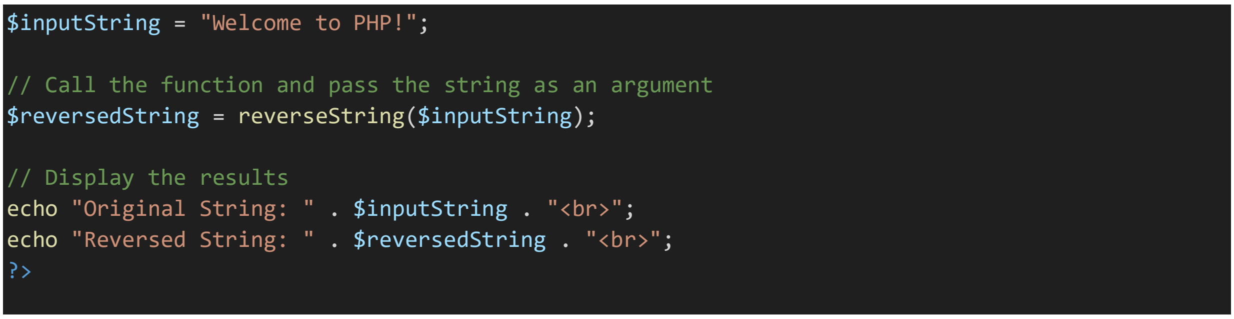


```
Name before unset: John
Name has been unset and no longer exists. Session username is: Alice
Session username has been unset.
```

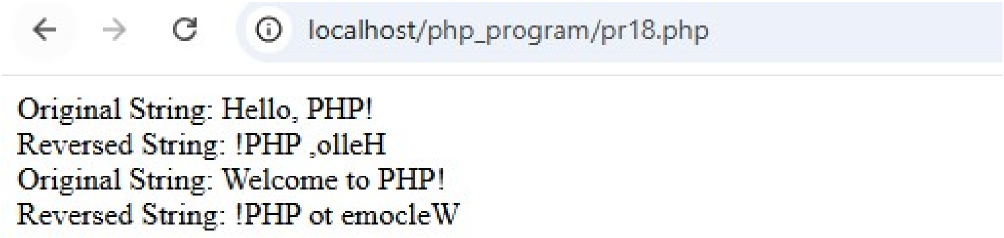
QUESTION 18 => WAP TO REVERSE STRING USING SIMPLE FUNCTION AND USING PARAMETRIZED FUNCTION.



```
<?php
// Simple function to reverse a fixed string
function reverse_String() {
    $str = "Hello, PHP!";  // Fixed string
    $reversedStr = strrev($str);  // Use PHP's built-in strrev() function
    echo "Original String: " . $str . "<br>";
    echo "Reversed String: " . $reversedStr . "<br>";
}

// Call the function to reverse the string
reverse_String();
?>

<?php
// Parameterized function to reverse a string
function reverseString($str) {
    $reversedStr = strrev($str);  // Use PHP's built-in strrev() function
    return $reversedStr;
}

// Input string
```

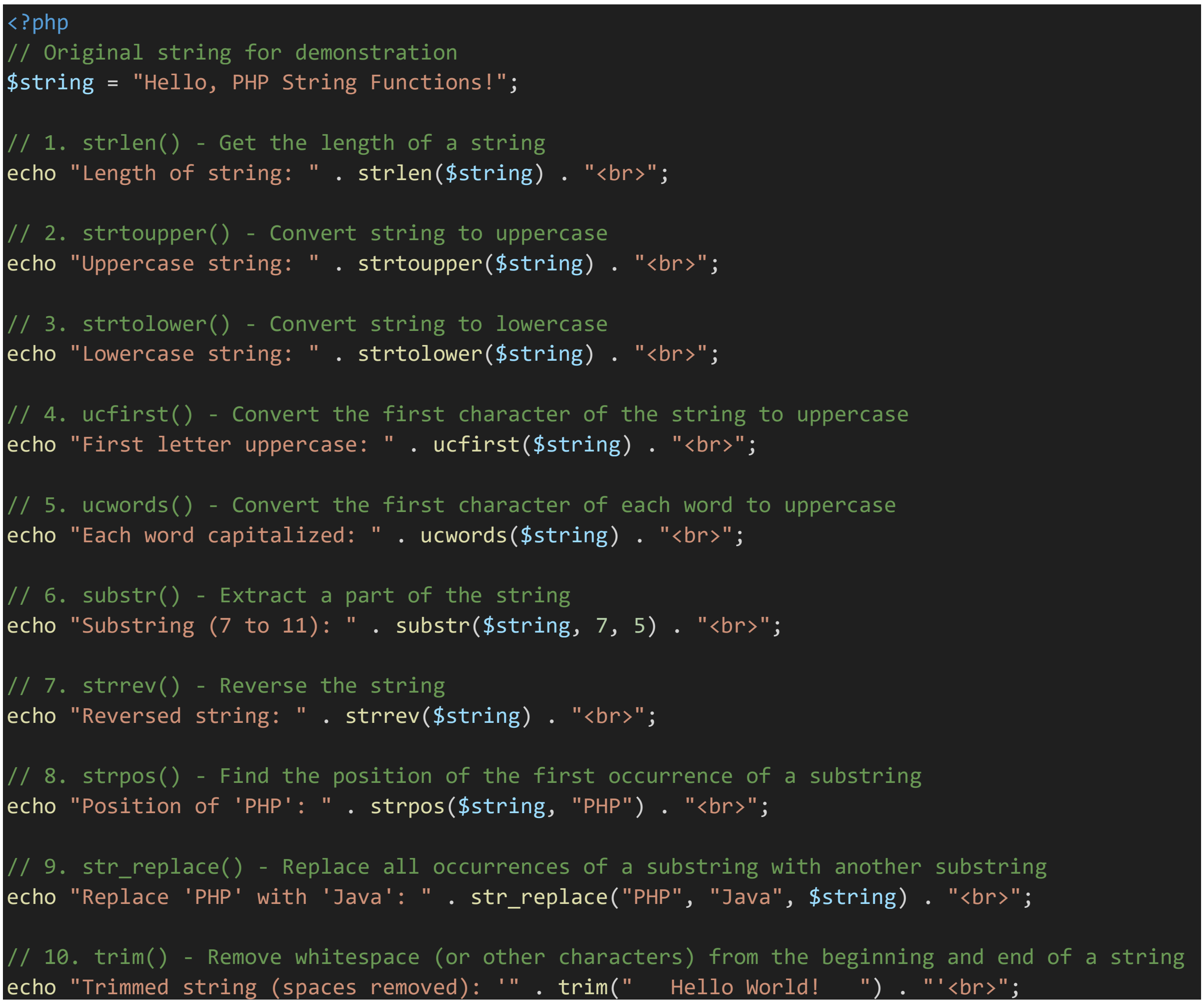


```php
$inputString = "Welcome to PHP!";

// Call the function and pass the string as an argument
$reversedString = reverseString($inputString);

// Display the results
echo "Original String: " . $inputString . "<br>";
echo "Reversed String: " . $reversedString . "<br>";
?>
```



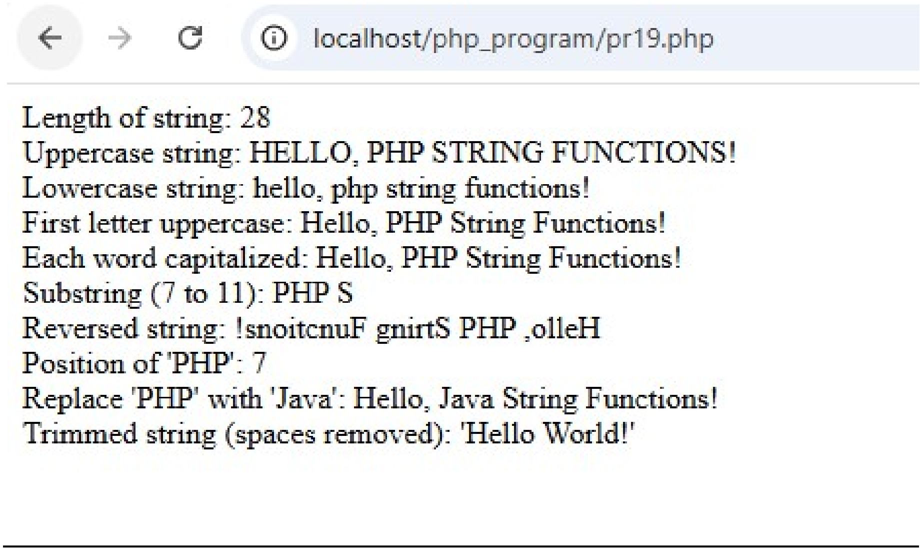
```
Original String: Hello, PHP!
Reversed String: !PHP ,olleH
Original String: Welcome to PHP!
Reversed String: !PHP ot emocleW
```

QUESTION 19 => WAP TO SHOW USE OF STRING FUNCTIONS.



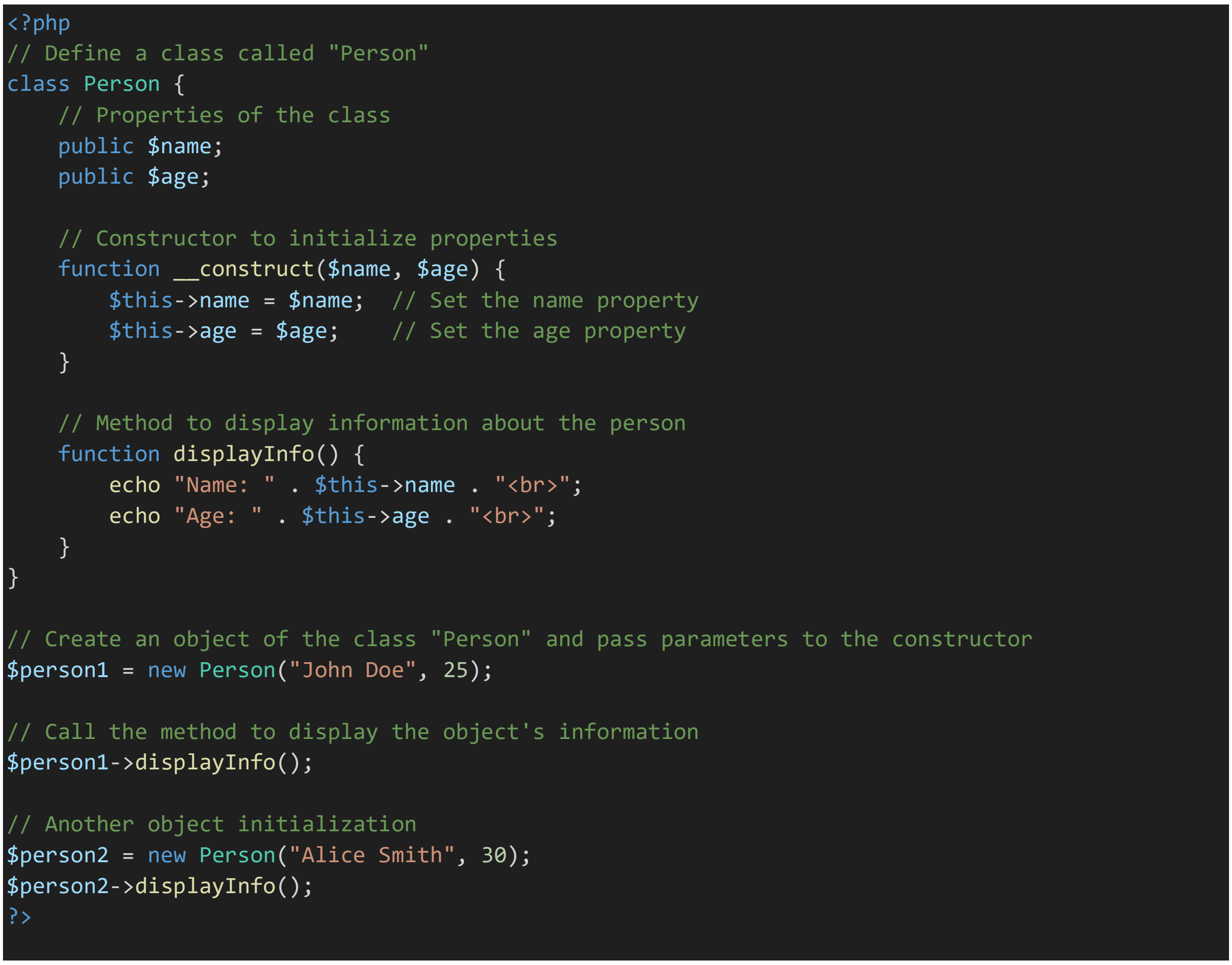
```php
<?php
// Original string for demonstration
$string = "Hello, PHP String Functions!";

// 1. strlen() - Get the length of a string
echo "Length of string: " . strlen($string) . "<br>";

// 2. strtoupper() - Convert string to uppercase
echo "Uppercase string: " . strtoupper($string) . "<br>";

// 3. strtolower() - Convert string to lowercase
echo "Lowercase string: " . strtolower($string) . "<br>";

// 4. ucfirst() - Convert the first character of the string to uppercase
echo "First letter uppercase: " . ucfirst($string) . "<br>";

// 5. ucwords() - Convert the first character of each word to uppercase
echo "Each word capitalized: " . ucwords($string) . "<br>";

// 6. substr() - Extract a part of the string
echo "Substring (7 to 11): " . substr($string, 7, 5) . "<br>";

// 7. strrev() - Reverse the string
echo "Reversed string: " . strrev($string) . "<br>";

// 8. strpos() - Find the position of the first occurrence of a substring
echo "Position of 'PHP': " . strpos($string, "PHP") . "<br>";

// 9. str_replace() - Replace all occurrences of a substring with another substring
echo "Replace 'PHP' with 'Java': " . str_replace("PHP", "Java", $string) . "<br>";

// 10. trim() - Remove whitespace (or other characters) from the beginning and end of a string
echo "Trimmed string (spaces removed): '" . trim("   Hello World!   ") . "'<br>";
```

```
?>
```

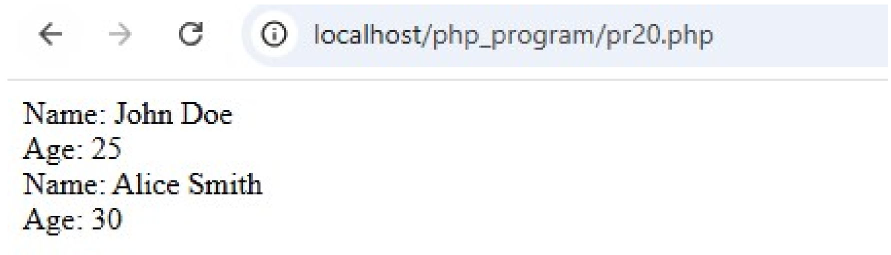


```
Length of string: 28
Uppercase string: HELLO, PHP STRING FUNCTIONS!
Lowercase string: hello, php string functions!
First letter uppercase: Hello, PHP String Functions!
Each word capitalized: Hello, PHP String Functions!
Substring (7 to 11): PHP S
Reversed string: !snoitcnuF gnirtS PHP ,olleH
Position of 'PHP': 7
Replace 'PHP' with 'Java': Hello, Java String Functions!
Trimmed string (spaces removed): 'Hello World!'
```

QUESTION 20=> WAP TO CREATE CONSTRUCT OR AND INITALIZE A OBJECT OF CLASS BY USING OBJECT ORIENTED FUNCTION .



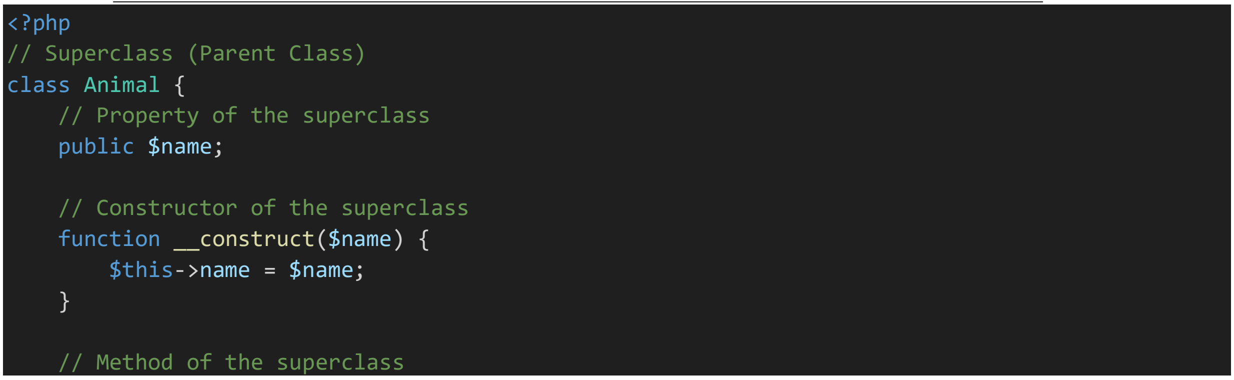
```php
<?php
// Define a class called "Person"
class Person {
    // Properties of the class
    public $name;
    public $age;

    // Constructor to initialize properties
    function __construct($name, $age) {
        $this->name = $name;  // Set the name property
        $this->age = $age;    // Set the age property
    }

    // Method to display information about the person
    function displayInfo() {
        echo "Name: " . $this->name . "<br>";
        echo "Age: " . $this->age . "<br>";
    }
}

// Create an object of the class "Person" and pass parameters to the constructor
$person1 = new Person("John Doe", 25);

// Call the method to display the object's information
$person1->displayInfo();

// Another object initialization
$person2 = new Person("Alice Smith", 30);
$person2->displayInfo();
?>
```



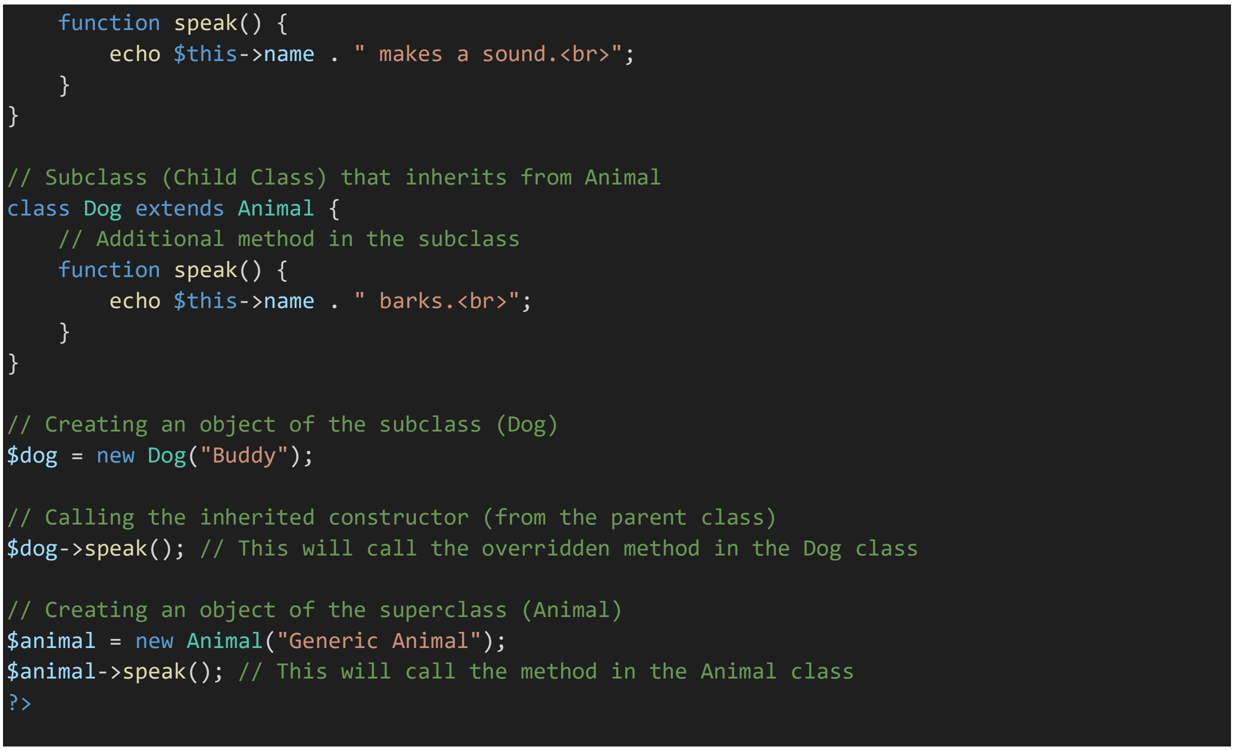
localhost/php_program/pr20.php

```
Name: John Doe
Age: 25
Name: Alice Smith
Age: 30
```

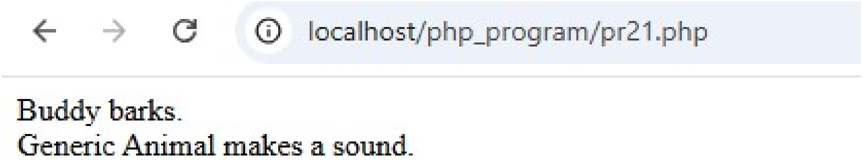
QUESTION 21 => WAP TO INHERIT MEMBERS OF A SUPER CLASS IN SUBCLASS.



```php
<?php
// Superclass (Parent Class)
class Animal {
    // Property of the superclass
    public $name;

    // Constructor of the superclass
    function __construct($name) {
        $this->name = $name;
    }

    // Method of the superclass
```

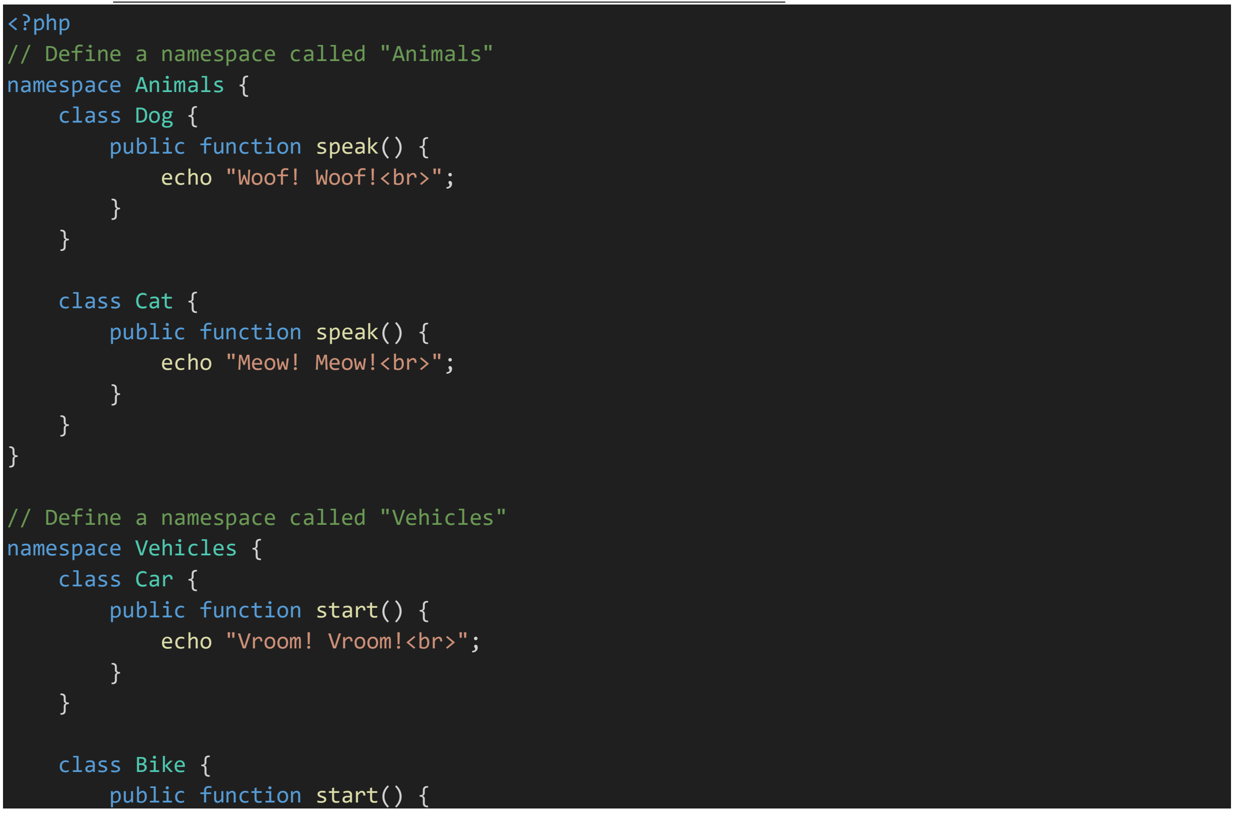


```
    function speak() {
        echo $this->name . " makes a sound.<br>";
    }
}

// Subclass (Child Class) that inherits from Animal
class Dog extends Animal {
    // Additional method in the subclass
    function speak() {
        echo $this->name . " barks.<br>";
    }
}

// Creating an object of the subclass (Dog)
$dog = new Dog("Buddy");

// Calling the inherited constructor (from the parent class)
$dog->speak(); // This will call the overridden method in the Dog class

// Creating an object of the superclass (Animal)
$animal = new Animal("Generic Animal");
$animal->speak(); // This will call the method in the Animal class
?>
```

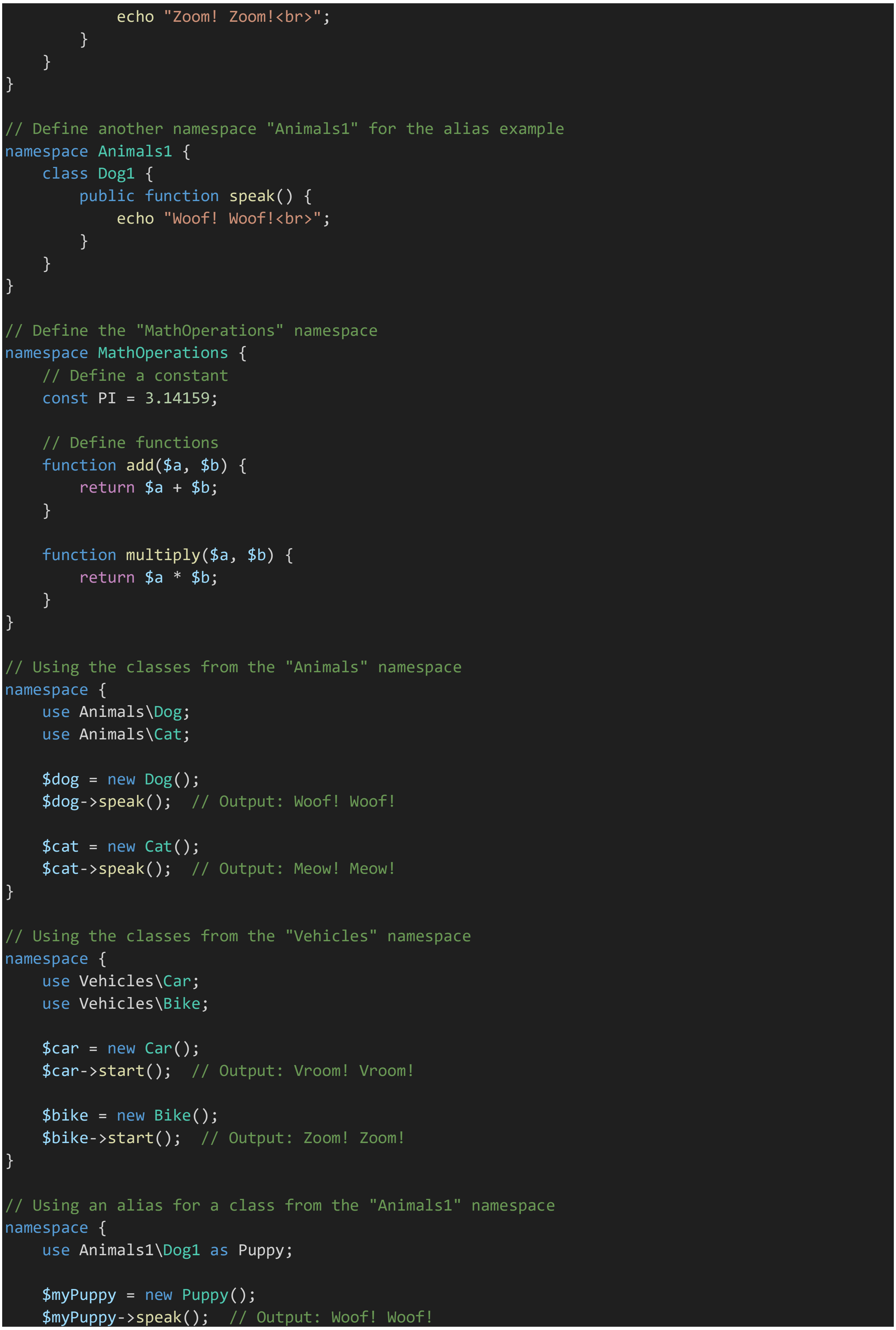


```
Buddy barks.
Generic Animal makes a sound.
```

QUESTION 22 => WAP TO SHOW USES OF NAMESPACES.

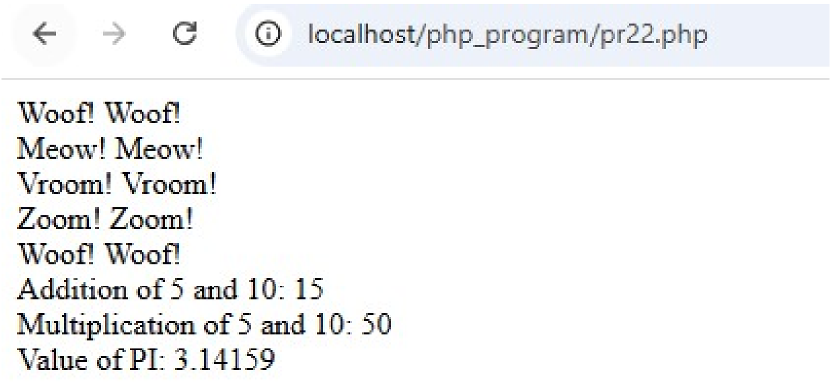


```
<?php
// Define a namespace called "Animals"
namespace Animals {
    class Dog {
        public function speak() {
            echo "Woof! Woof!<br>";
        }
    }

    class Cat {
        public function speak() {
            echo "Meow! Meow!<br>";
        }
    }
}

// Define a namespace called "Vehicles"
namespace Vehicles {
    class Car {
        public function start() {
            echo "Vroom! Vroom!<br>";
        }
    }

    class Bike {
        public function start() {
```



```php
            echo "Zoom! Zoom!<br>";
        }
    }
}

// Define another namespace "Animals1" for the alias example
namespace Animals1 {
    class Dog1 {
        public function speak() {
            echo "Woof! Woof!<br>";
        }
    }
}

// Define the "MathOperations" namespace
namespace MathOperations {
    // Define a constant
    const PI = 3.14159;

    // Define functions
    function add($a, $b) {
        return $a + $b;
    }

    function multiply($a, $b) {
        return $a * $b;
    }
}

// Using the classes from the "Animals" namespace
namespace {
    use Animals\Dog;
    use Animals\Cat;

    $dog = new Dog();
    $dog->speak();  // Output: Woof! Woof!

    $cat = new Cat();
    $cat->speak();  // Output: Meow! Meow!
}

// Using the classes from the "Vehicles" namespace
namespace {
    use Vehicles\Car;
    use Vehicles\Bike;

    $car = new Car();
    $car->start();  // Output: Vroom! Vroom!

    $bike = new Bike();
    $bike->start();  // Output: Zoom! Zoom!
}

// Using an alias for a class from the "Animals1" namespace
namespace {
    use Animals1\Dog1 as Puppy;

    $myPuppy = new Puppy();
    $myPuppy->speak();  // Output: Woof! Woof!
```

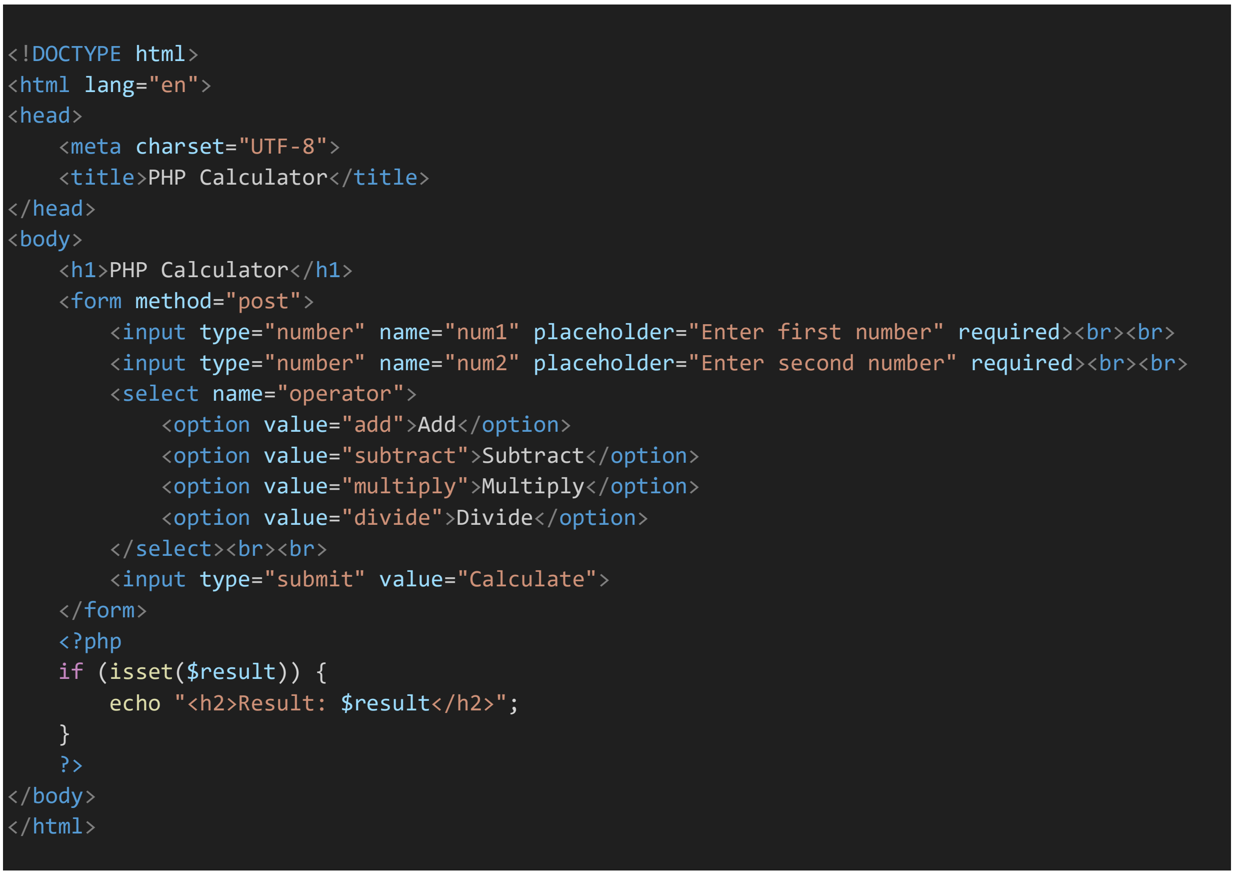
```
}

// Using functions and constants from the "MathOperations" namespace
namespace {
    // Fully qualify the function name from the MathOperations namespace
    echo "Addition of 5 and 10: " . \MathOperations\add(5, 10) . "<br>";  // Output: 15
    echo "Multiplication of 5 and 10: " . \MathOperations\multiply(5, 10) . "<br>";  // 
Output: 50

    // Directly use the constant by referencing its full namespace
    echo "Value of PI: " . \MathOperations\PI . "<br>";  // Output: 3.14159
}
?>
```



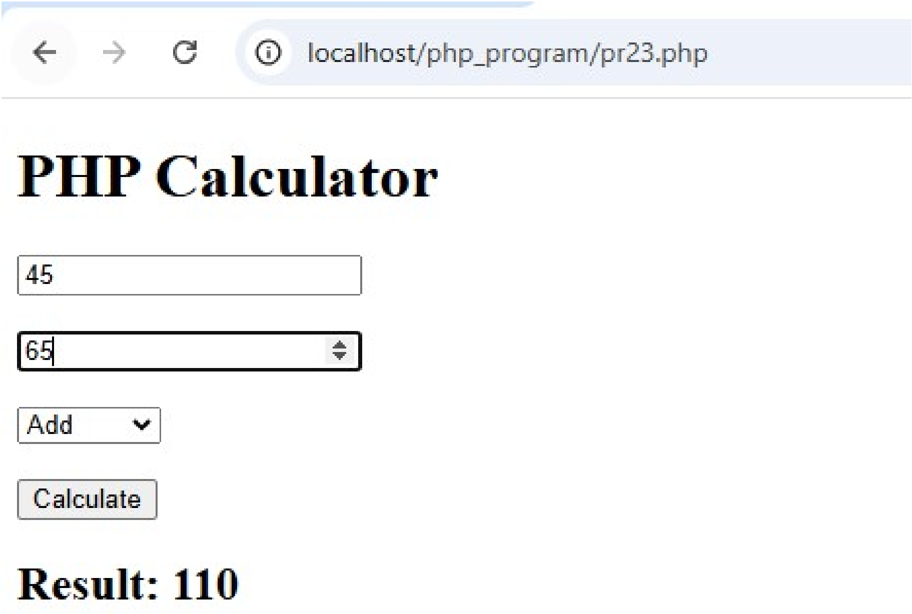
```
Woof! Woof!
Meow! Meow!
Vroom! Vroom!
Zoom! Zoom!
Woof! Woof!
Addition of 5 and 10: 15
Multiplication of 5 and 10: 50
Value of PI: 3.14159
```

QUESTION 23 => WAP TO IMPLEMENT CALCULATOR.

```
<?php
// Function to perform calculation
function calculate($num1, $num2, $operator) {
    switch($operator) {
        case 'add':
            return $num1 + $num2;
        case 'subtract':
            return $num1 - $num2;
        case 'multiply':
            return $num1 * $num2;
        case 'divide':
            if ($num2 == 0) {
                return "Error! Division by zero.";
            } else {
                return $num1 / $num2;
            }
        default:
            return "Invalid operator!";
    }
}

// Take user input
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $num1 = $_POST['num1'];
    $num2 = $_POST['num2'];
    $operator = $_POST['operator'];
    $result = calculate($num1, $num2, $operator);
}
?>
```



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>PHP Calculator</title>
</head>
<body>
    <h1>PHP Calculator</h1>
    <form method="post">
        <input type="number" name="num1" placeholder="Enter first number" required><br><br>
        <input type="number" name="num2" placeholder="Enter second number" required><br><br>
        <select name="operator">
            <option value="add">Add</option>
            <option value="subtract">Subtract</option>
            <option value="multiply">Multiply</option>
            <option value="divide">Divide</option>
        </select><br><br>
        <input type="submit" value="Calculate">
    </form>
    <?php
    if (isset($result)) {
        echo "<h2>Result: $result</h2>";
    }
    ?>
</body>
</html>
```



PHP Calculator

45

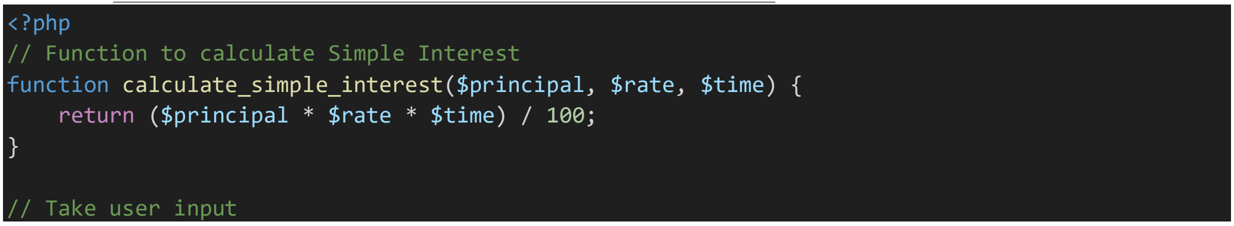
65

Add

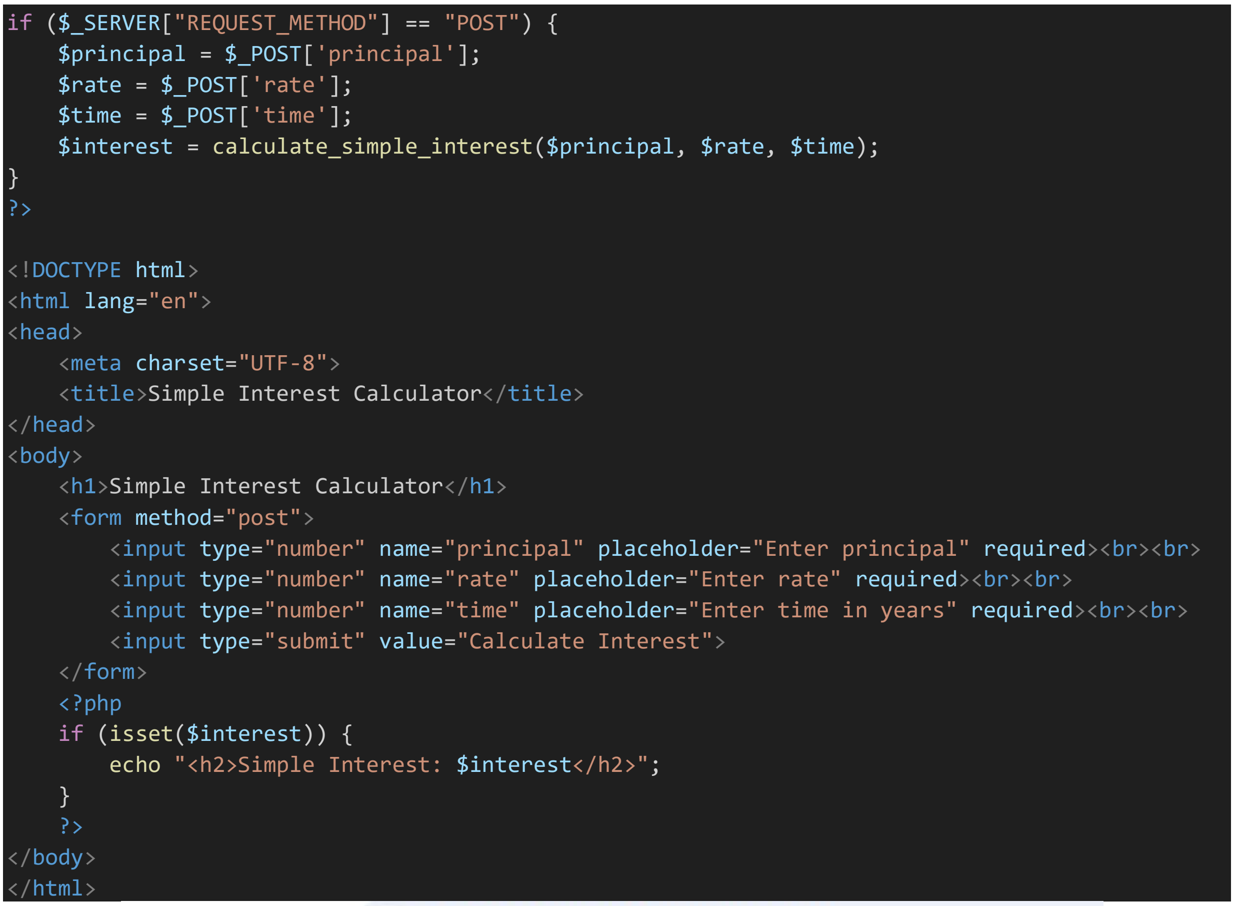
Calculate

Result: 110

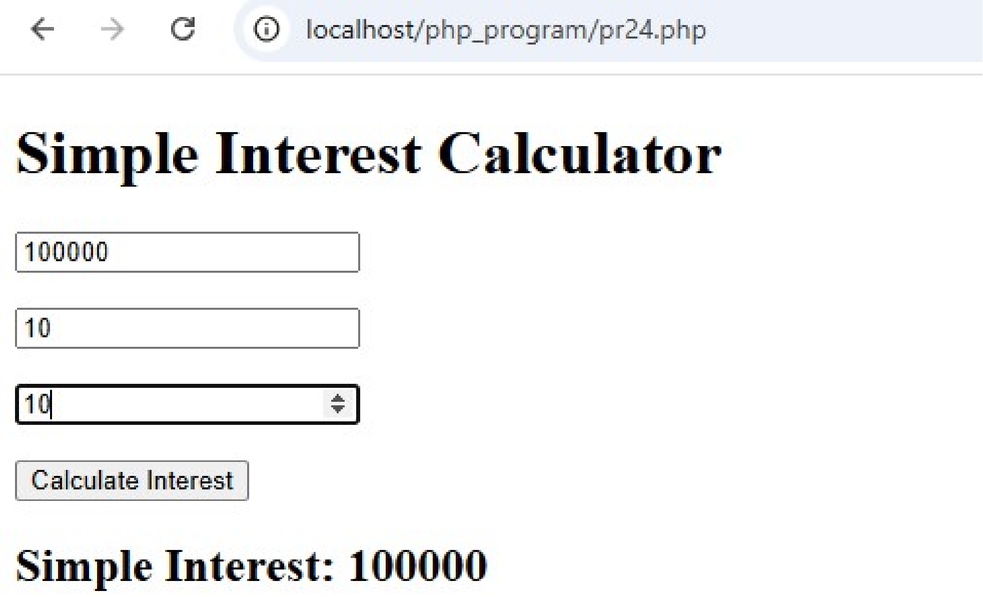
QUESTION 24 => WAP TO CALCULATE SIMPLE INTEREST.



```
<?php
// Function to calculate Simple Interest
function calculate_simple_interest($principal, $rate, $time) {
    return ($principal * $rate * $time) / 100;
}

// Take user input
```



```
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $principal = $_POST['principal'];
    $rate = $_POST['rate'];
    $time = $_POST['time'];
    $interest = calculate_simple_interest($principal, $rate, $time);
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Simple Interest Calculator</title>
</head>
<body>
    <h1>Simple Interest Calculator</h1>
    <form method="post">
        <input type="number" name="principal" placeholder="Enter principal" required><br><br>
        <input type="number" name="rate" placeholder="Enter rate" required><br><br>
        <input type="number" name="time" placeholder="Enter time in years" required><br><br>
        <input type="submit" value="Calculate Interest">
    </form>
    <?php
    if (isset($interest)) {
        echo "<h2>Simple Interest: $interest</h2>";
    }
    ?>
</body>
</html>
```



localhost/php_program/pr24.php

Simple Interest Calculator

100000

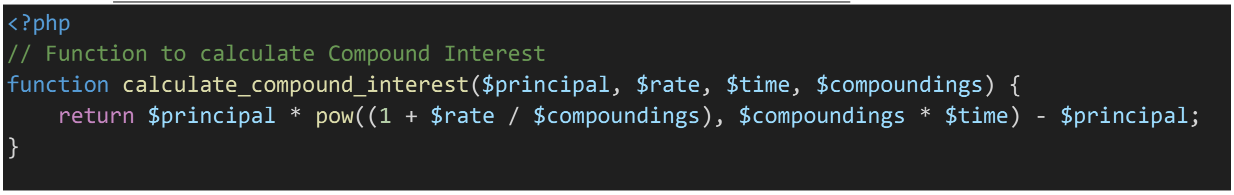
10

10

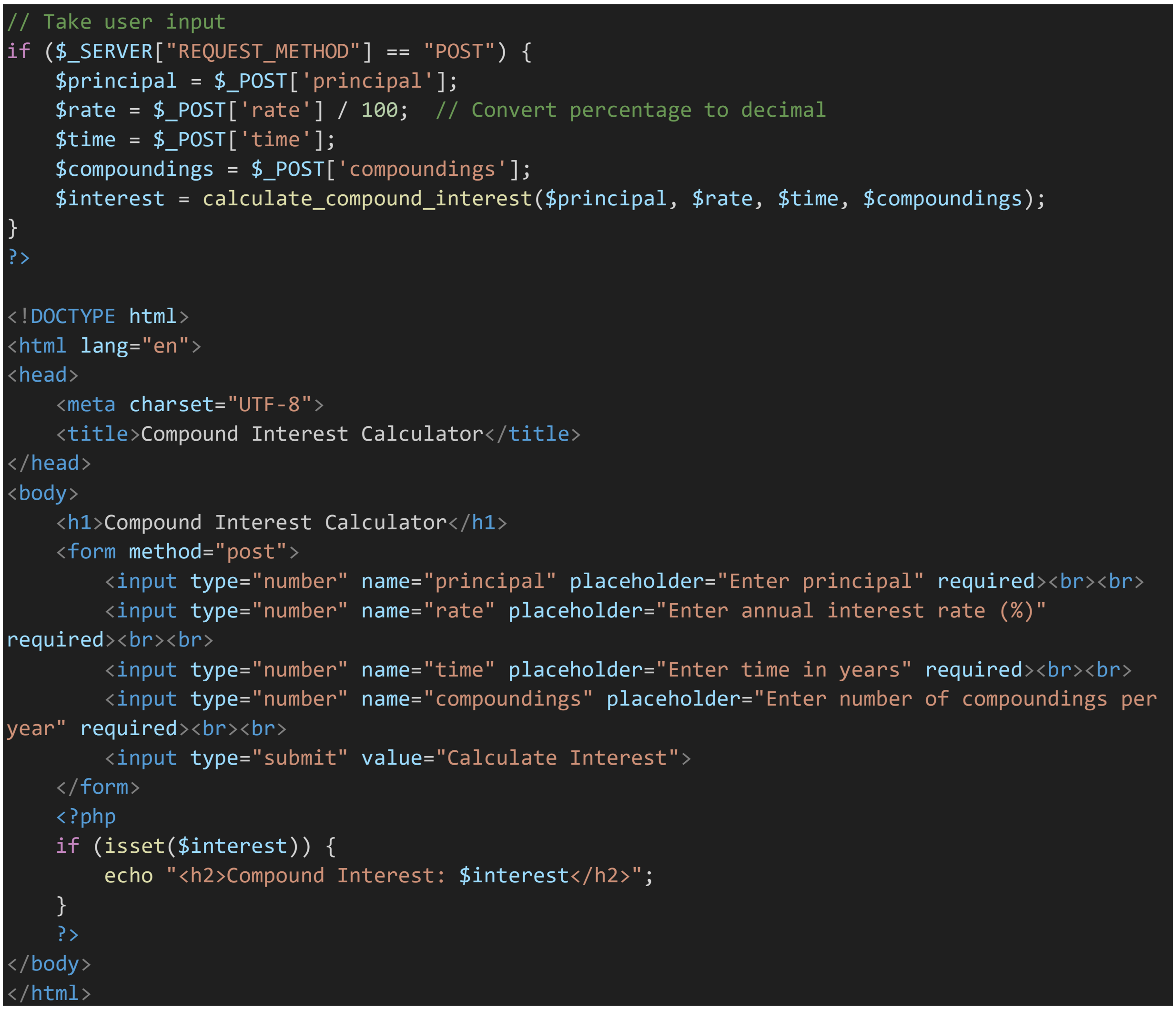
Calculate Interest

Simple Interest: 100000

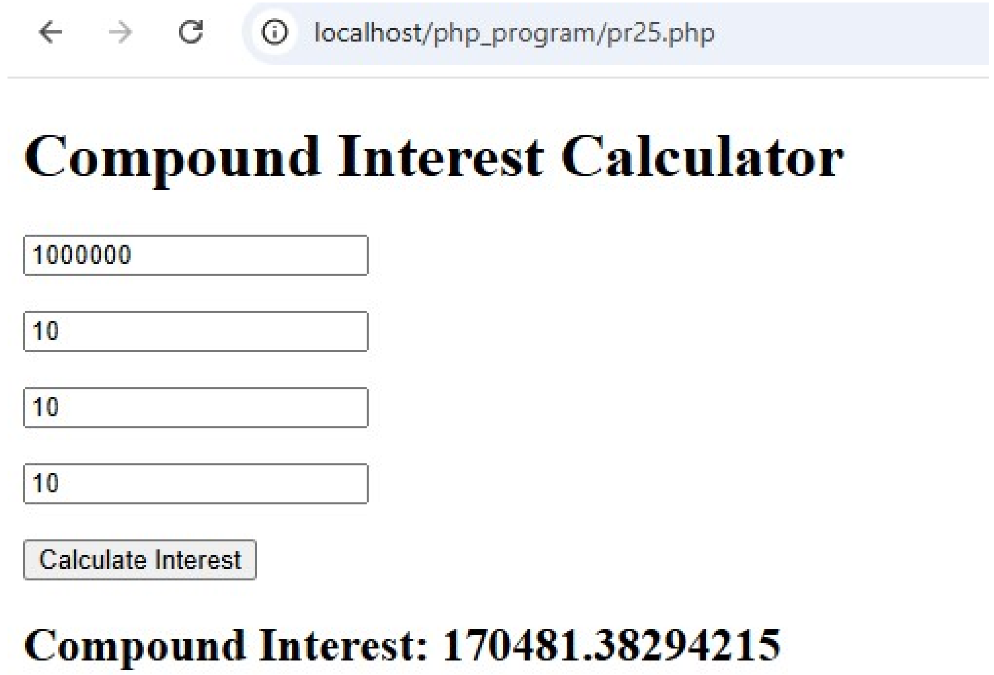
QUESTION 25 => WAP TO CALCULATE COMPOUND INTEREST.



```
<?php
// Function to calculate Compound Interest
function calculate_compound_interest($principal, $rate, $time, $compoundings) {
    return $principal * pow((1 + $rate / $compoundings), $compoundings * $time) - $principal;
}
```



```
// Take user input
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $principal = $_POST['principal'];
    $rate = $_POST['rate'] / 100;  // Convert percentage to decimal
    $time = $_POST['time'];
    $compoundings = $_POST['compoundings'];
    $interest = calculate_compound_interest($principal, $rate, $time, $compoundings);
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Compound Interest Calculator</title>
</head>
<body>
    <h1>Compound Interest Calculator</h1>
    <form method="post">
        <input type="number" name="principal" placeholder="Enter principal" required><br><br>
        <input type="number" name="rate" placeholder="Enter annual interest rate (%)"
required><br><br>
        <input type="number" name="time" placeholder="Enter time in years" required><br><br>
        <input type="number" name="compoundings" placeholder="Enter number of compoundings per
year" required><br><br>
        <input type="submit" value="Calculate Interest">
    </form>
    <?php
    if (isset($interest)) {
        echo "<h2>Compound Interest: $interest</h2>";
    }
    ?>
</body>
</html>
```



Compound Interest Calculator

1000000

10

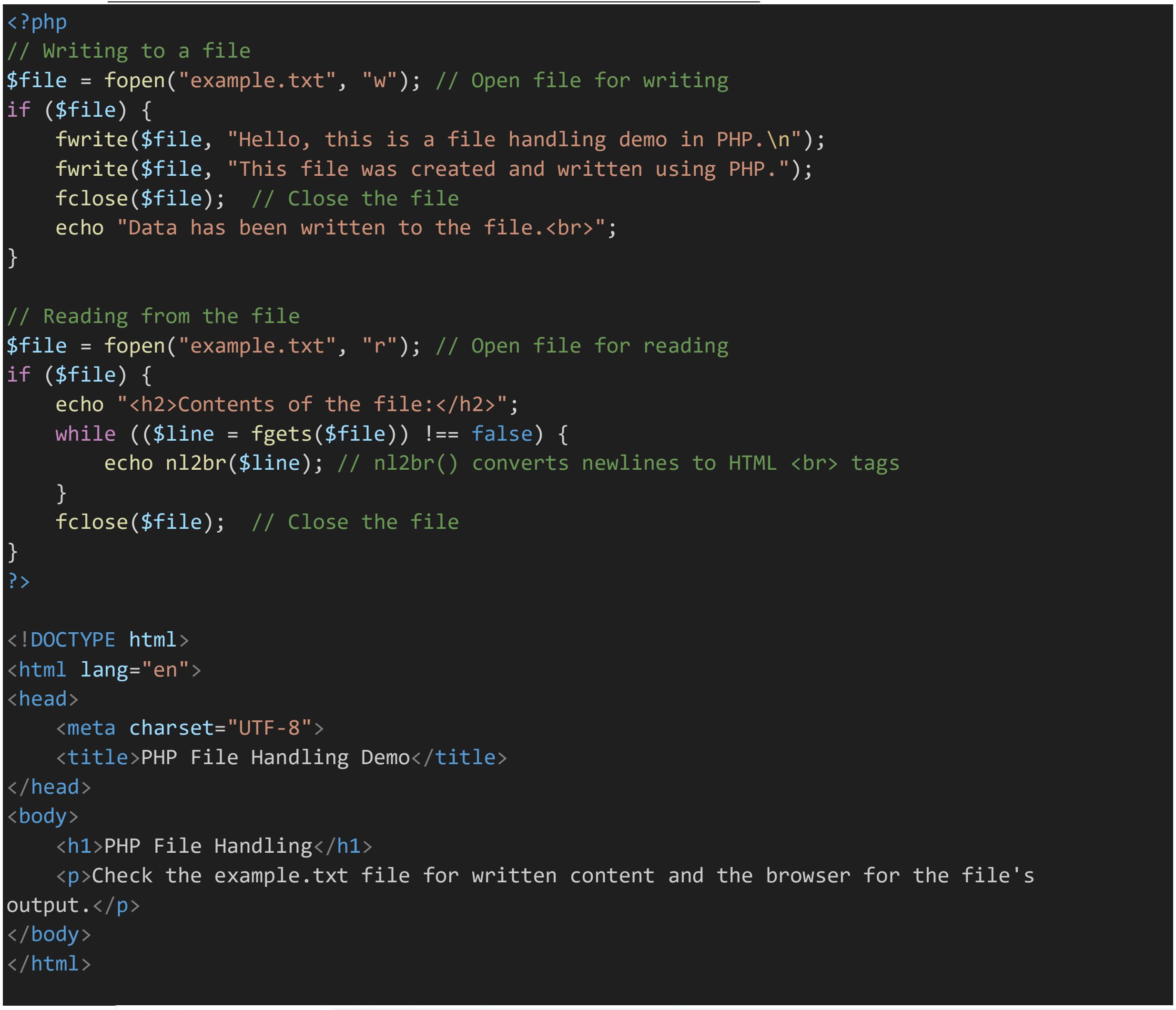
10

10

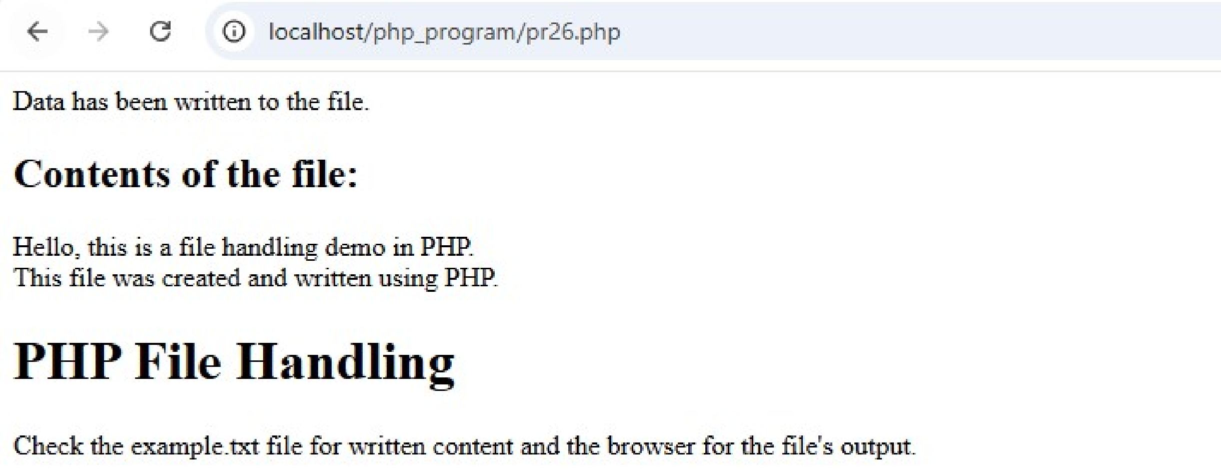
Calculate Interest

Compound Interest: 170481.38294215

QUESTION 26 => WAP TO SHOW USES OF FILE HANDLING.



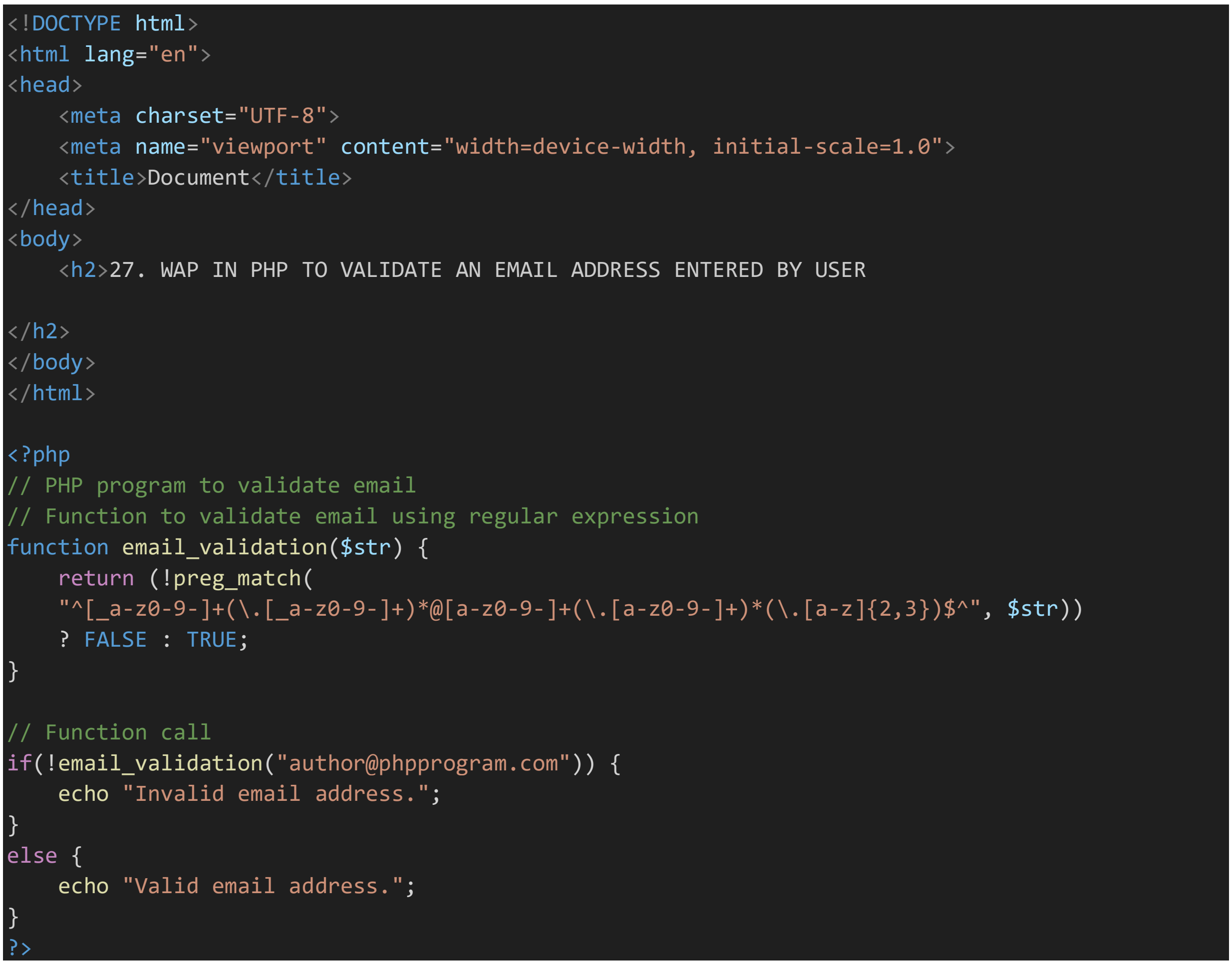
```php
<?php
// Writing to a file
$file = fopen("example.txt", "w"); // Open file for writing
if ($file) {
    fwrite($file, "Hello, this is a file handling demo in PHP.\n");
    fwrite($file, "This file was created and written using PHP.");
    fclose($file);  // Close the file
    echo "Data has been written to the file.<br>";
}

// Reading from the file
$file = fopen("example.txt", "r"); // Open file for reading
if ($file) {
    echo "<h2>Contents of the file:</h2>";
    while (($line = fgets($file)) !== false) {
        echo nl2br($line); // nl2br() converts newlines to HTML <br> tags
    }
    fclose($file);  // Close the file
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>PHP File Handling Demo</title>
</head>
<body>
    <h1>PHP File Handling</h1>
    <p>Check the example.txt file for written content and the browser for the file's
output.</p>
</body>
</html>
```



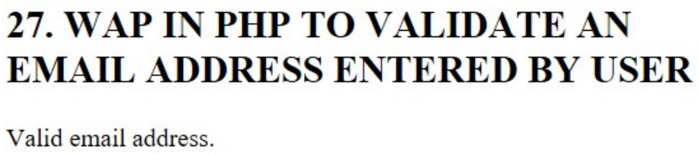
localhost/php_program/pr26.php

```
Data has been written to the file.

Contents of the file:

Hello, this is a file handling demo in PHP.
This file was created and written using PHP.

PHP File Handling

Check the example.txt file for written content and the browser for the file's output.
```

QUESTION 27 => WAP TO VALIDATE EMAIL ADDRESS



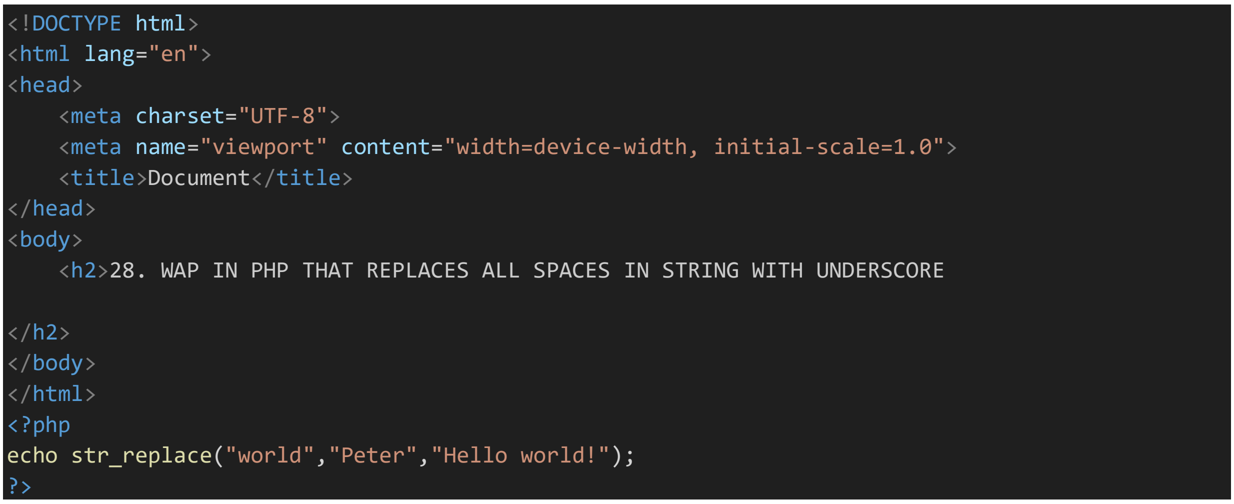
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h2>27. WAP IN PHP TO VALIDATE AN EMAIL ADDRESS ENTERED BY USER

</h2>
</body>
</html>

<?php
// PHP program to validate email
// Function to validate email using regular expression
function email_validation($str) {
    return (!preg_match(
    "^[_a-z0-9-]+(\.[_a-z0-9-]+)*@[a-z0-9-]+(\.[a-z0-9-]+)*(\.[a-z]{2,3})$^", $str))
    ? FALSE : TRUE;
}

// Function call
if(!email_validation("author@phpprogram.com")) {
    echo "Invalid email address.";
}
else {
    echo "Valid email address.";
}
?>
```



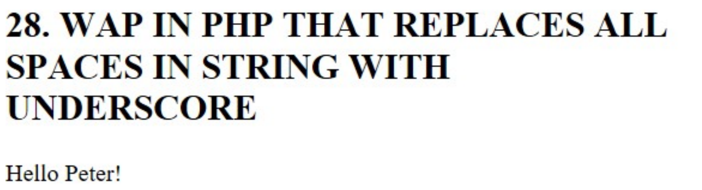
27. WAP IN PHP TO VALIDATE AN EMAIL ADDRESS ENTERED BY USER

Valid email address.

<u>QUESTION 28 => WAP IN PHP THAT REPLACES ALL SPACES IN STRING WITH UNDERSCORE</u>



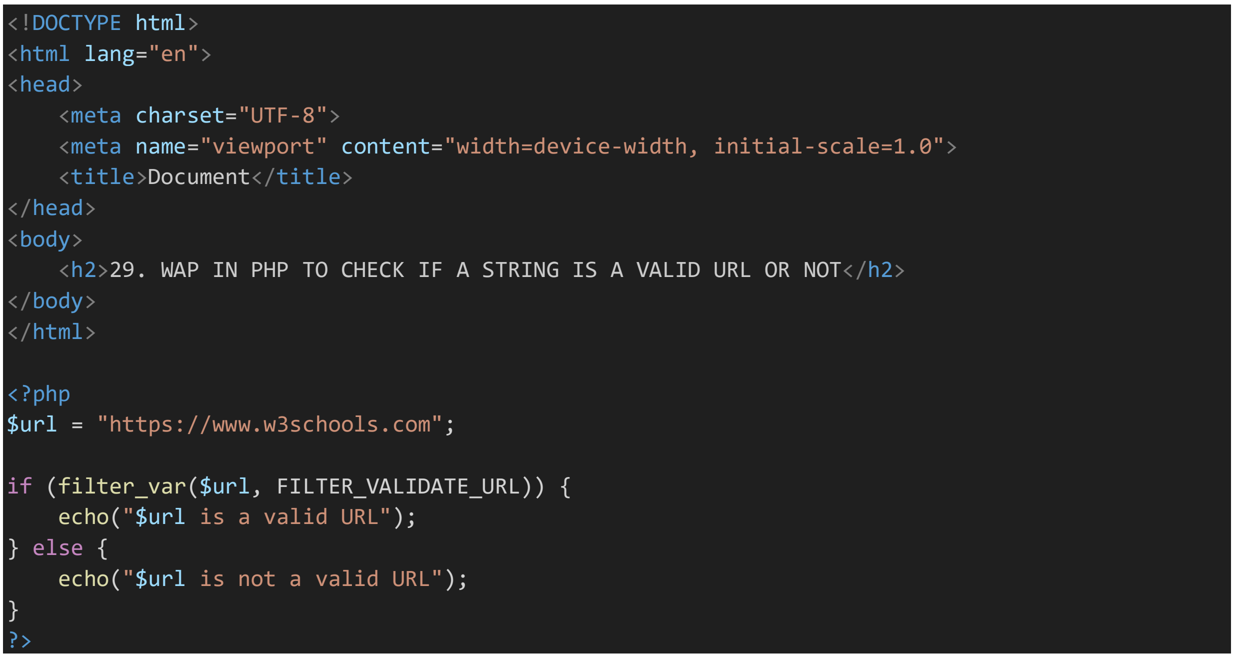
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h2>28. WAP IN PHP THAT REPLACES ALL SPACES IN STRING WITH UNDERSCORE

</h2>
</body>
</html>
<?php
echo str_replace("world","Peter","Hello world!");
?>
```



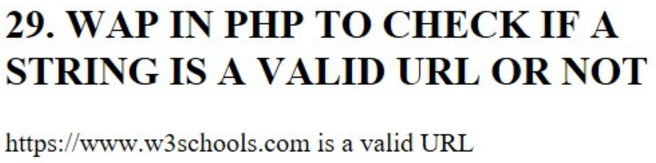
28. WAP IN PHP THAT REPLACES ALL SPACES IN STRING WITH UNDERSCORE

Hello Peter!

QUESTION 29=>WAP IN PHP TO CHECK IF A STRING IS A VALID URL OR NOT



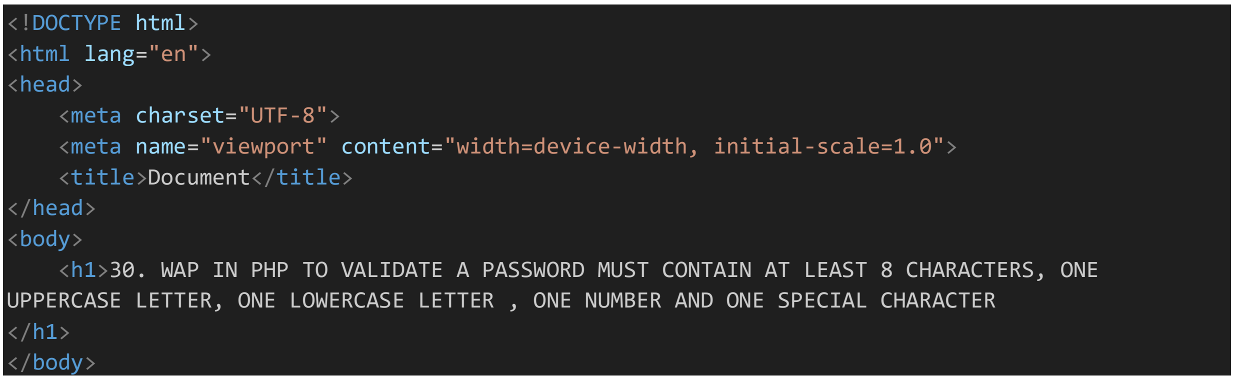
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h2>29. WAP IN PHP TO CHECK IF A STRING IS A VALID URL OR NOT</h2>
</body>
</html>

<?php
$url = "https://www.w3schools.com";

if (filter_var($url, FILTER_VALIDATE_URL)) {
    echo("$url is a valid URL");
} else {
    echo("$url is not a valid URL");
}
?>
```



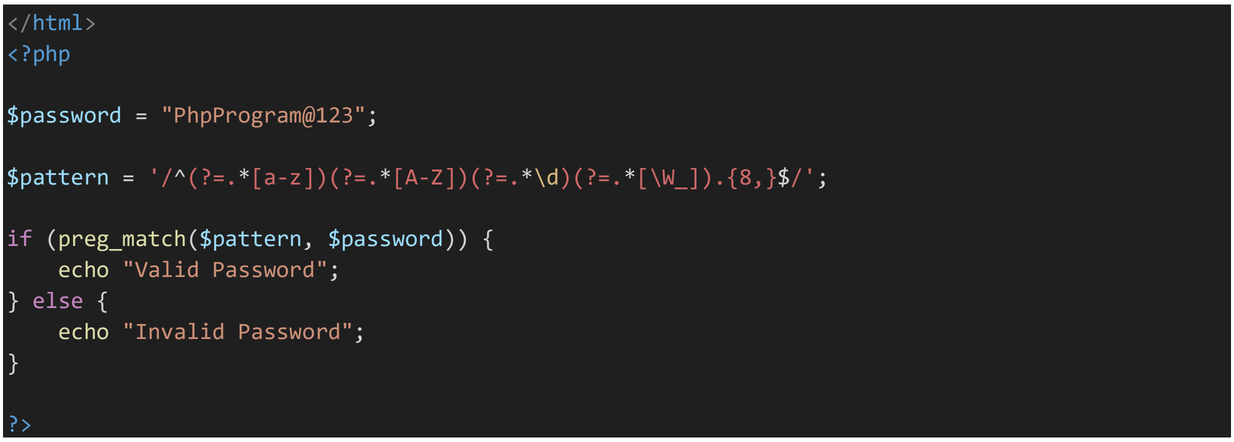
29. WAP IN PHP TO CHECK IF A STRING IS A VALID URL OR NOT

https://www.w3schools.com is a valid URL

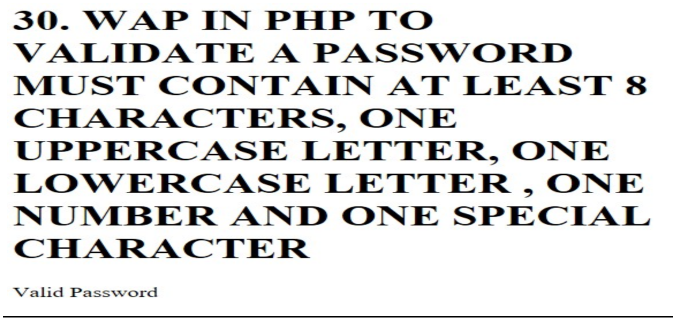
QUESTION 30 => WAP IN PHP TO VALIDATE A PASSWORD MUST CONTAIN AT LEAST 8 CHARACTERS, ONE UPPERCASE LETTER, ONE LOWERCASE LETTER , ONE NUMBER AND ONE SPECIAL CHARACTER



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h1>30. WAP IN PHP TO VALIDATE A PASSWORD MUST CONTAIN AT LEAST 8 CHARACTERS, ONE
UPPERCASE LETTER, ONE LOWERCASE LETTER , ONE NUMBER AND ONE SPECIAL CHARACTER
</h1>
</body>
```



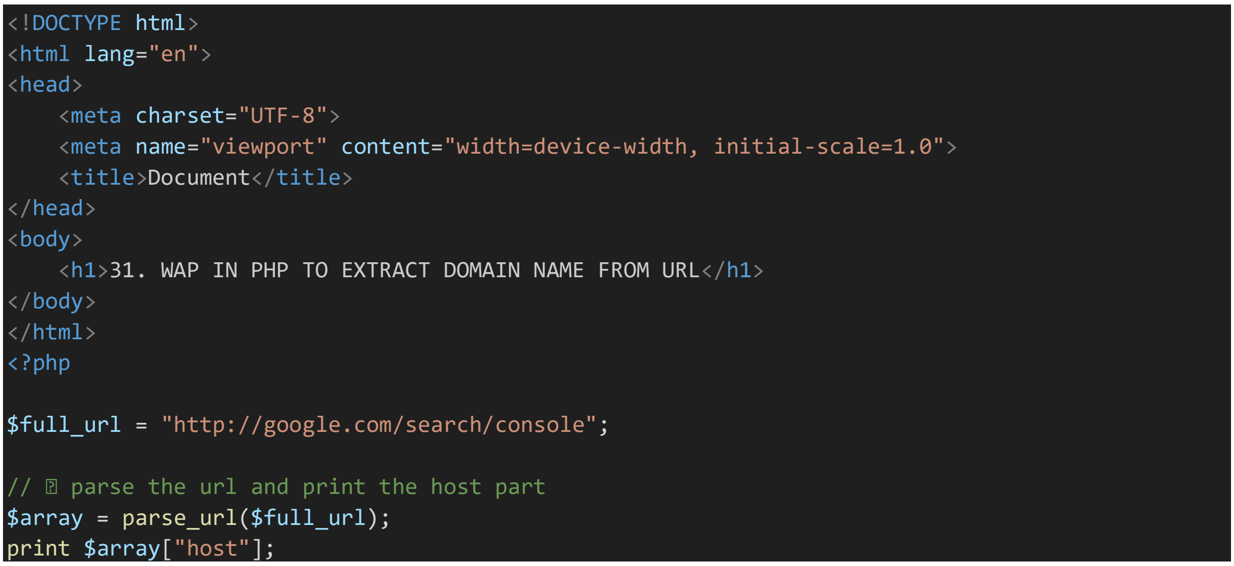
```
</html>
<?php

$password = "PhpProgram@123";

$pattern = '/^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?=.*[\W_]).{8,}$/';

if (preg_match($pattern, $password)) {
    echo "Valid Password";
} else {
    echo "Invalid Password";
}

?>
```



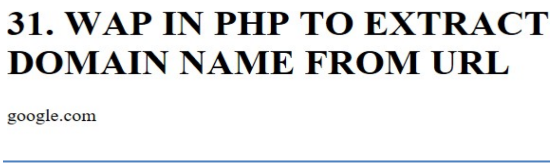
30. WAP IN PHP TO VALIDATE A PASSWORD MUST CONTAIN AT LEAST 8 CHARACTERS, ONE UPPERCASE LETTER, ONE LOWERCASE LETTER , ONE NUMBER AND ONE SPECIAL CHARACTER

Valid Password

QUESTION 31 => WAP IN PHP TO EXTRACT DOMAIN NAME FROM URL



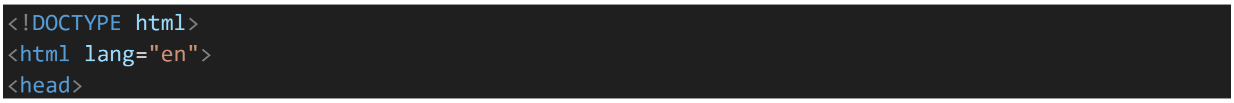
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h1>31. WAP IN PHP TO EXTRACT DOMAIN NAME FROM URL</h1>
</body>
</html>
<?php

$full_url = "http://google.com/search/console";

// □ parse the url and print the host part
$array = parse_url($full_url);
print $array["host"];
```



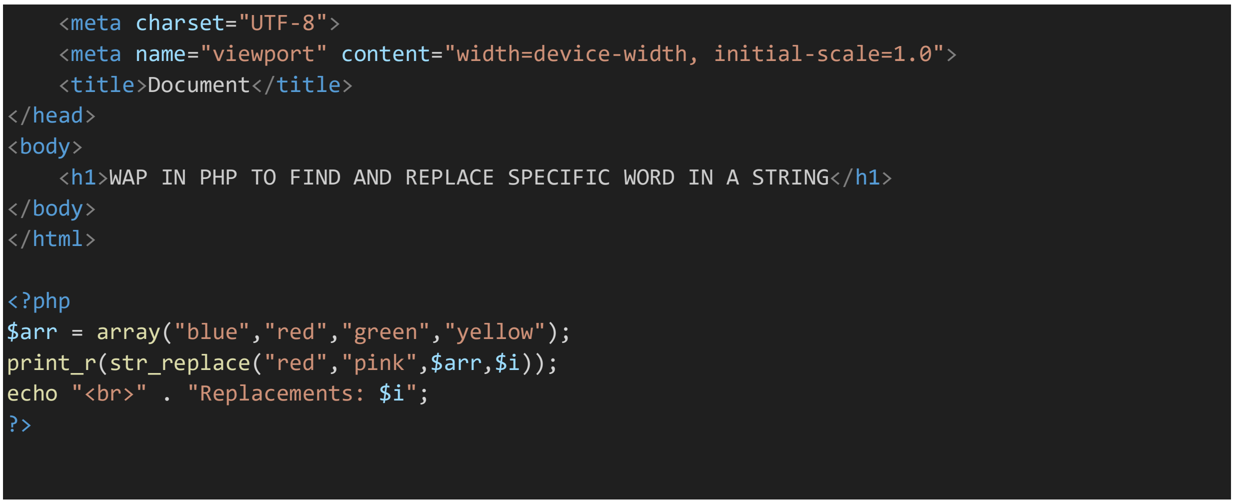
31. WAP IN PHP TO EXTRACT DOMAIN NAME FROM URL

google.com

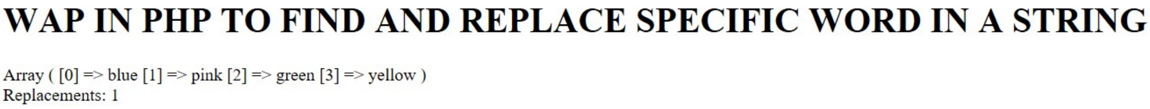
QUESTION 32 => WAP IN PHP TO FIND AND REPLACE SPECIFIC WORD IN A STRING



```
<!DOCTYPE html>
<html lang="en">
<head>
```



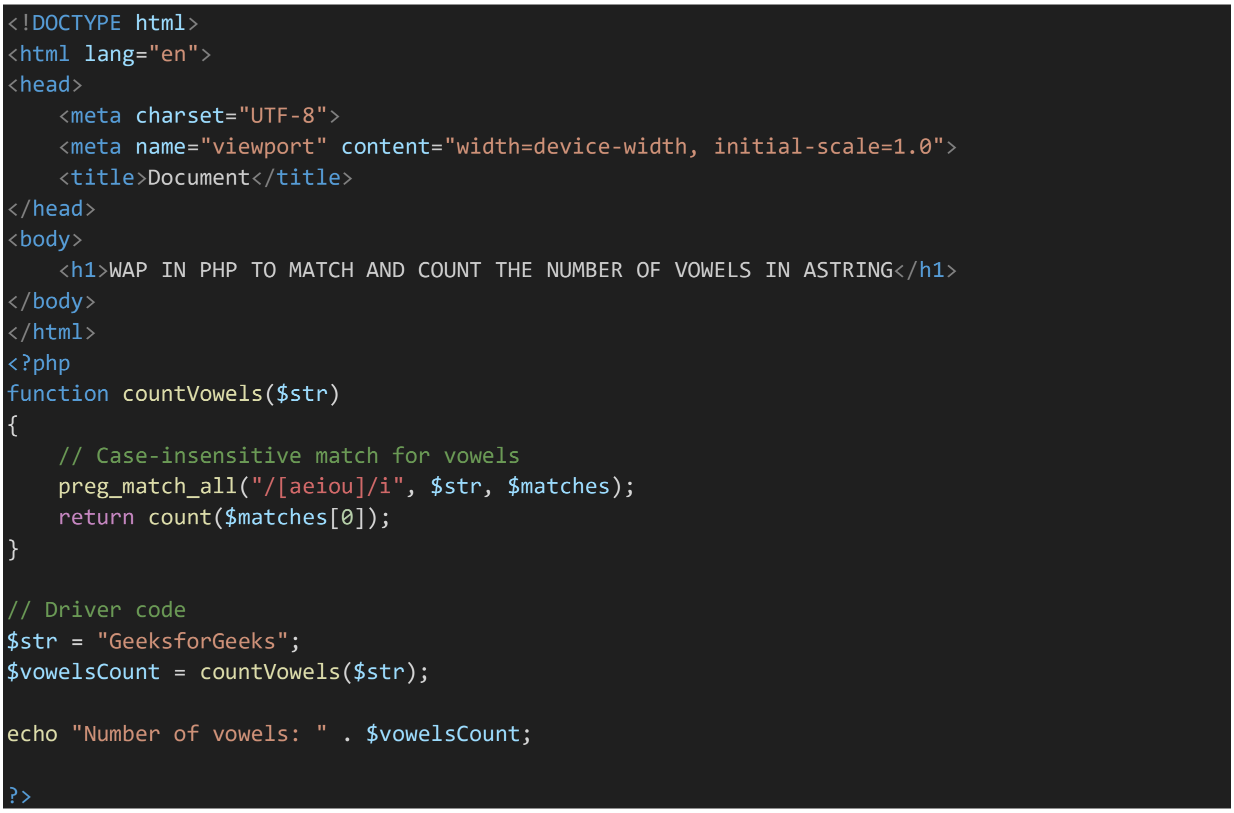
```
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h1>WAP IN PHP TO FIND AND REPLACE SPECIFIC WORD IN A STRING</h1>
</body>
</html>

<?php
$arr = array("blue","red","green","yellow");
print_r(str_replace("red","pink",$arr,$i));
echo "<br>" . "Replacements: $i";
?>
```



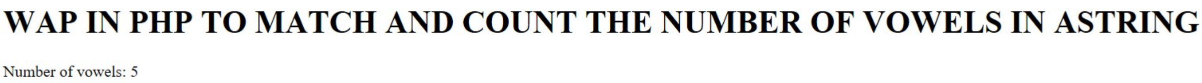
WAP IN PHP TO FIND AND REPLACE SPECIFIC WORD IN A STRING

```
Array ( [0] => blue [1] => pink [2] => green [3] => yellow )
Replacements: 1
```

QUESTION 33 => WAP IN PHP TO MATCH AND COUNT THE NUMBER OF VOWELS IN ASTRING



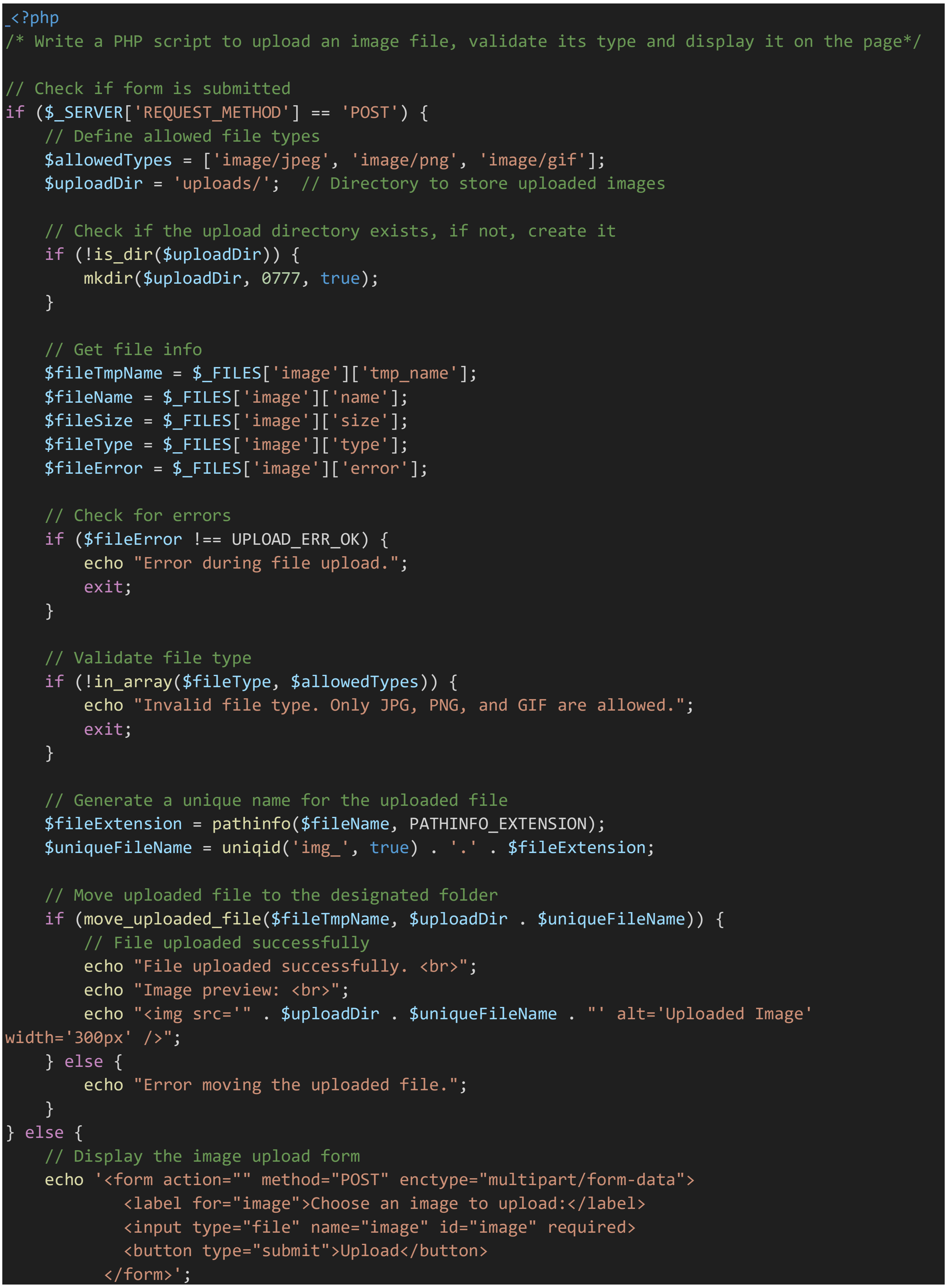
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h1>WAP IN PHP TO MATCH AND COUNT THE NUMBER OF VOWELS IN ASTRING</h1>
</body>
</html>
<?php
function countVowels($str)
{
    // Case-insensitive match for vowels
    preg_match_all("/[aeiou]/i", $str, $matches);
    return count($matches[0]);
}

// Driver code
$str = "GeeksforGeeks";
$vowelsCount = countVowels($str);

echo "Number of vowels: " . $vowelsCount;

?>
```



WAP IN PHP TO MATCH AND COUNT THE NUMBER OF VOWELS IN ASTRING

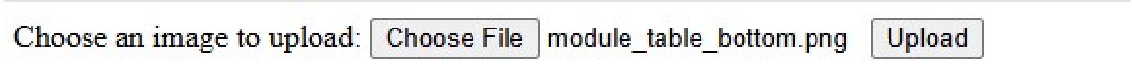
```
Number of vowels: 5
```

QUESTION 34 => WRITE A PHP SCRIPT TO UPLOAD AN IMAGE FILE, VALIDATE ITS TYPE AND DISPLAY IT ON THE PAGE



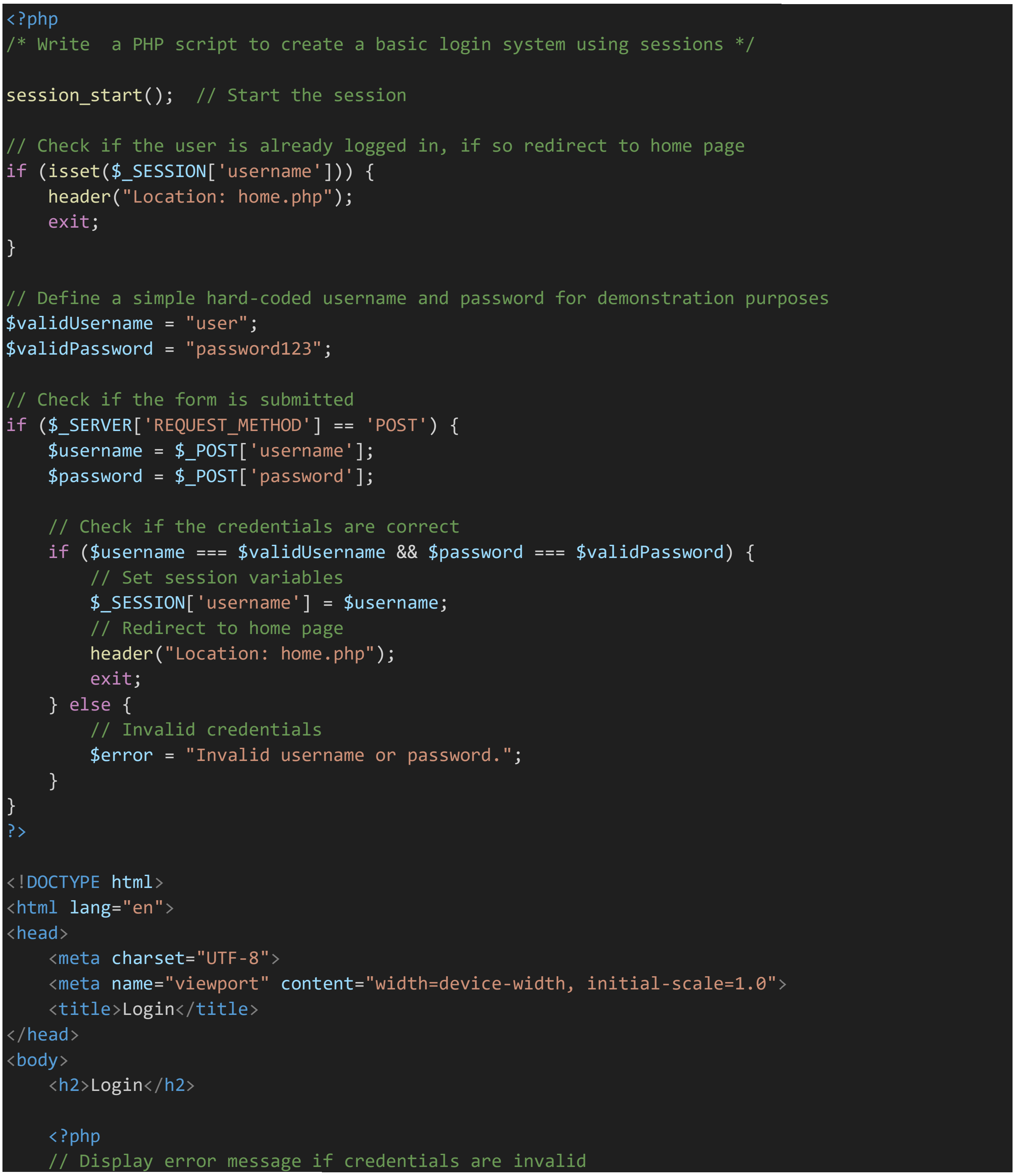
```php
<?php
/* Write a PHP script to upload an image file, validate its type and display it on the page*/

// Check if form is submitted
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Define allowed file types
    $allowedTypes = ['image/jpeg', 'image/png', 'image/gif'];
    $uploadDir = 'uploads/';  // Directory to store uploaded images

    // Check if the upload directory exists, if not, create it
    if (!is_dir($uploadDir)) {
        mkdir($uploadDir, 0777, true);
    }

    // Get file info
    $fileTmpName = $_FILES['image']['tmp_name'];
    $fileName = $_FILES['image']['name'];
    $fileSize = $_FILES['image']['size'];
    $fileType = $_FILES['image']['type'];
    $fileError = $_FILES['image']['error'];

    // Check for errors
    if ($fileError !== UPLOAD_ERR_OK) {
        echo "Error during file upload.";
        exit;
    }

    // Validate file type
    if (!in_array($fileType, $allowedTypes)) {
        echo "Invalid file type. Only JPG, PNG, and GIF are allowed.";
        exit;
    }

    // Generate a unique name for the uploaded file
    $fileExtension = pathinfo($fileName, PATHINFO_EXTENSION);
    $uniqueFileName = uniqid('img_', true) . '.' . $fileExtension;

    // Move uploaded file to the designated folder
    if (move_uploaded_file($fileTmpName, $uploadDir . $uniqueFileName)) {
        // File uploaded successfully
        echo "File uploaded successfully. <br>";
        echo "Image preview: <br>";
        echo "<img src='" . $uploadDir . $uniqueFileName . "' alt='Uploaded Image'
width='300px' />";
    } else {
        echo "Error moving the uploaded file.";
    }
} else {
    // Display the image upload form
    echo '<form action="" method="POST" enctype="multipart/form-data">
            <label for="image">Choose an image to upload:</label>
            <input type="file" name="image" id="image" required>
            <button type="submit">Upload</button>
          </form>';
```

```
}
?>
```

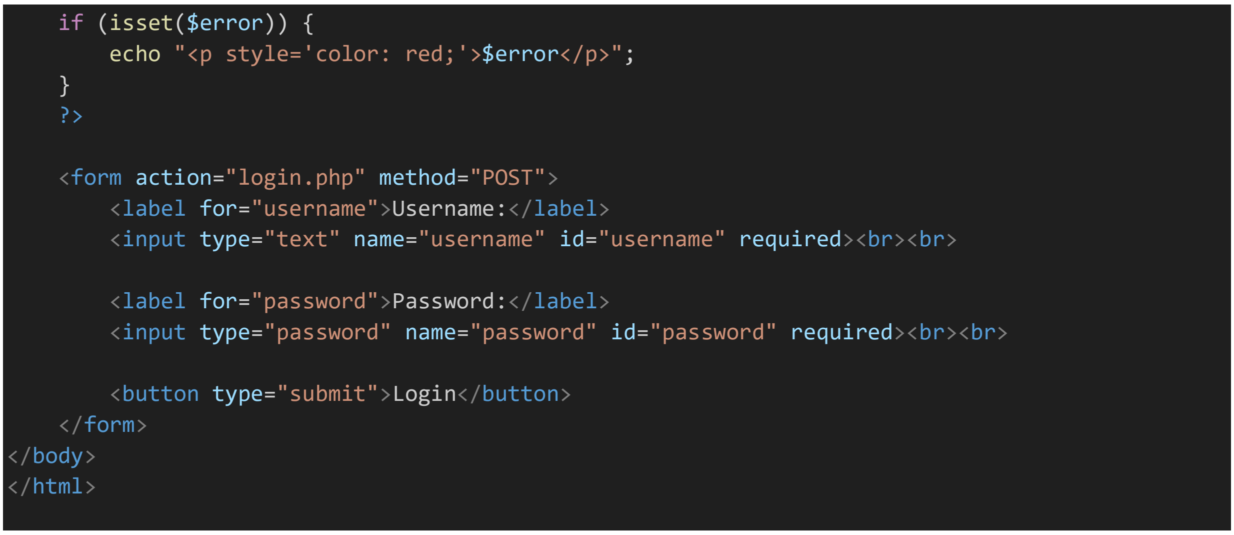


Choose an image to upload: Choose File module_table_bottom.png Upload

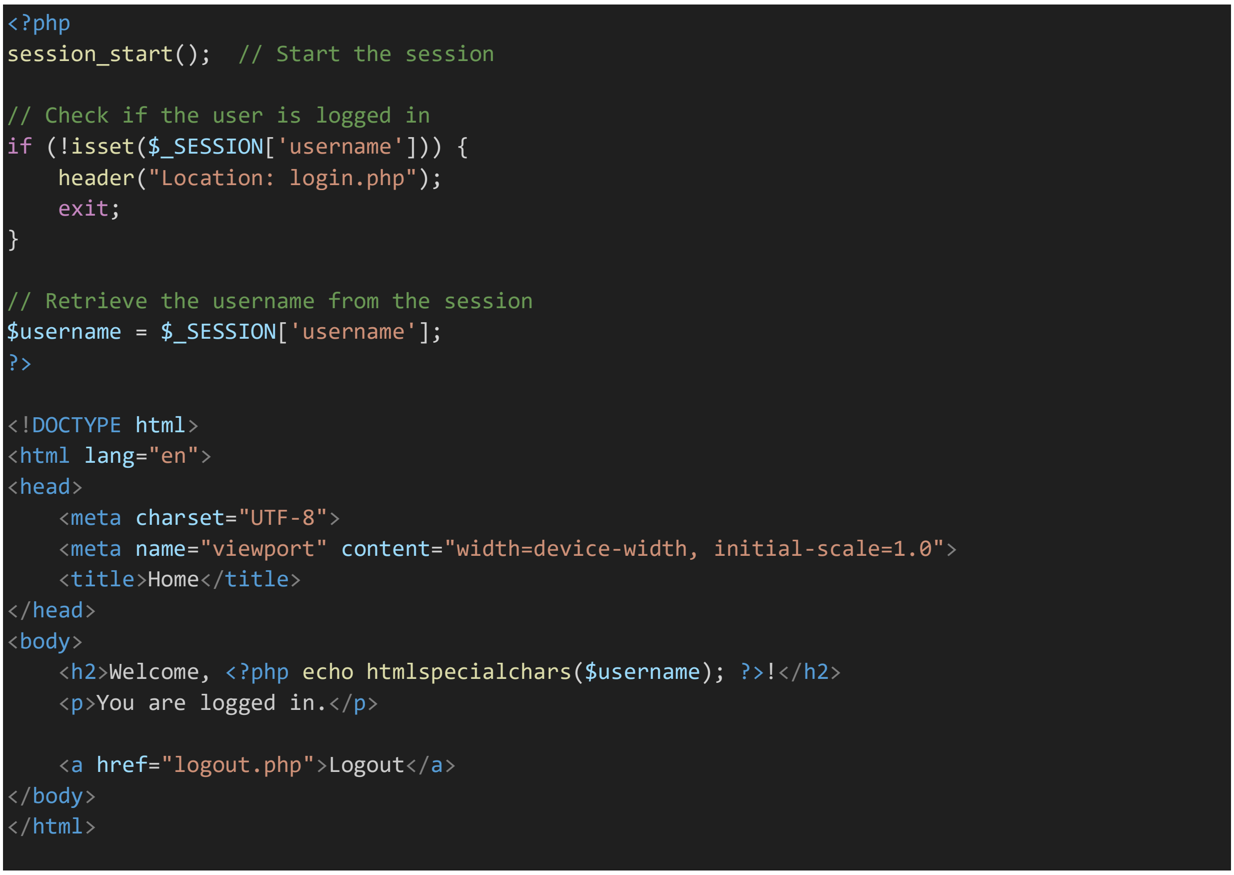
QUESTION 35 => WRITE A PHP SCRIPT TO CREATE A BASIC LOGIN SYSTEM USING SESSIONS



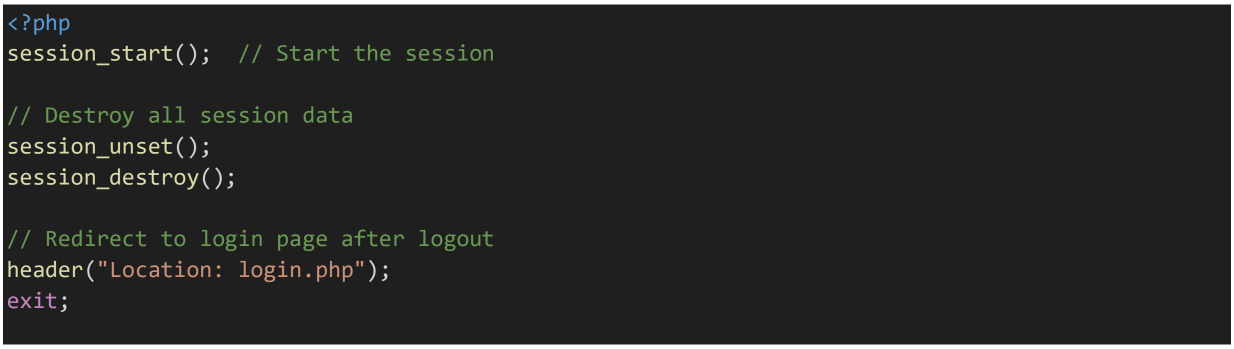
```
<?php
/* Write  a PHP script to create a basic login system using sessions */

session_start();  // Start the session

// Check if the user is already logged in, if so redirect to home page
if (isset($_SESSION['username'])) {
    header("Location: home.php");
    exit;
}

// Define a simple hard-coded username and password for demonstration purposes
$validUsername = "user";
$validPassword = "password123";

// Check if the form is submitted
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    $username = $_POST['username'];
    $password = $_POST['password'];

    // Check if the credentials are correct
    if ($username === $validUsername && $password === $validPassword) {
        // Set session variables
        $_SESSION['username'] = $username;
        // Redirect to home page
        header("Location: home.php");
        exit;
    } else {
        // Invalid credentials
        $error = "Invalid username or password.";
    }
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login</title>
</head>
<body>
    <h2>Login</h2>

    <?php
    // Display error message if credentials are invalid
```



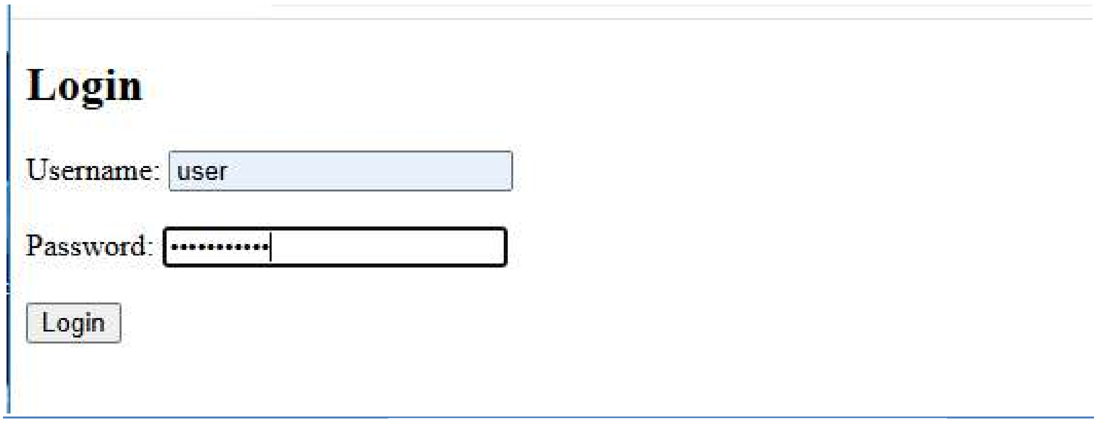
```
    if (isset($error)) {
        echo "<p style='color: red;'>$error</p>";
    }
    ?>

    <form action="login.php" method="POST">
        <label for="username">Username:</label>
        <input type="text" name="username" id="username" required><br><br>

        <label for="password">Password:</label>
        <input type="password" name="password" id="password" required><br><br>

        <button type="submit">Login</button>
    </form>
</body>
</html>
```



```
<?php
session_start();  // Start the session

// Check if the user is logged in
if (!isset($_SESSION['username'])) {
    header("Location: login.php");
    exit;
}

// Retrieve the username from the session
$username = $_SESSION['username'];
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Home</title>
</head>
<body>
    <h2>Welcome, <?php echo htmlspecialchars($username); ?>!</h2>
    <p>You are logged in.</p>

    <a href="logout.php">Logout</a>
</body>
</html>
```



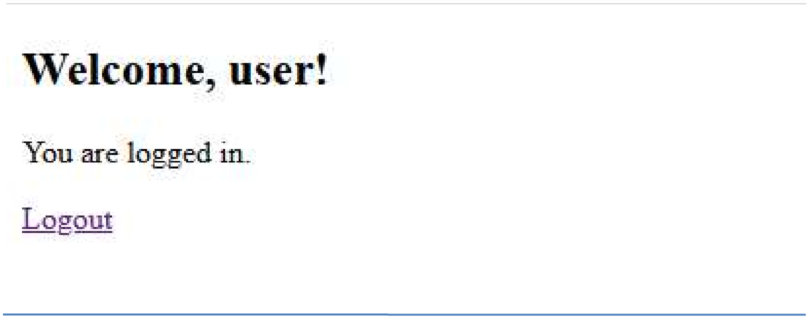
```
<?php
session_start();  // Start the session

// Destroy all session data
session_unset();
session_destroy();

// Redirect to login page after logout
header("Location: login.php");
exit;
```



Login

Username: user

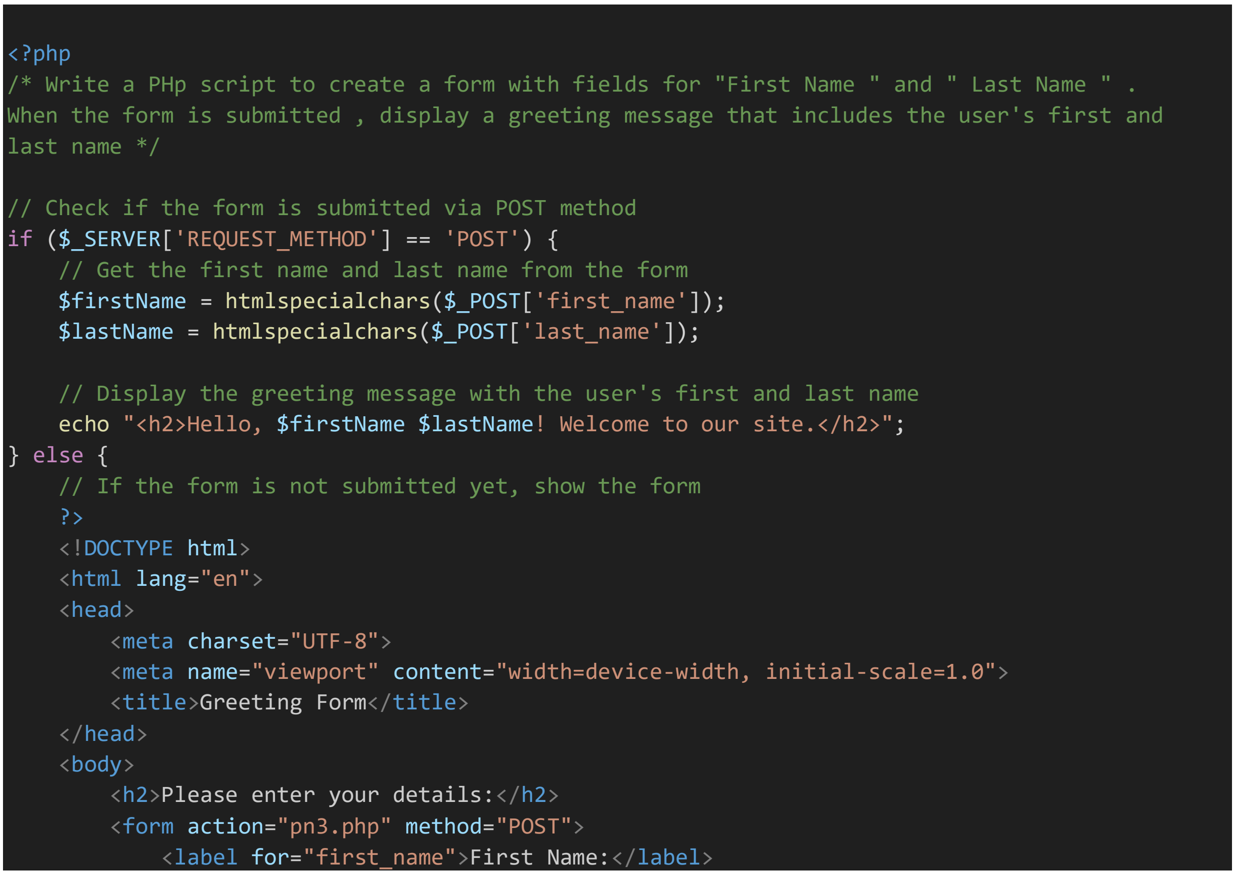
Password: ••••••••••••



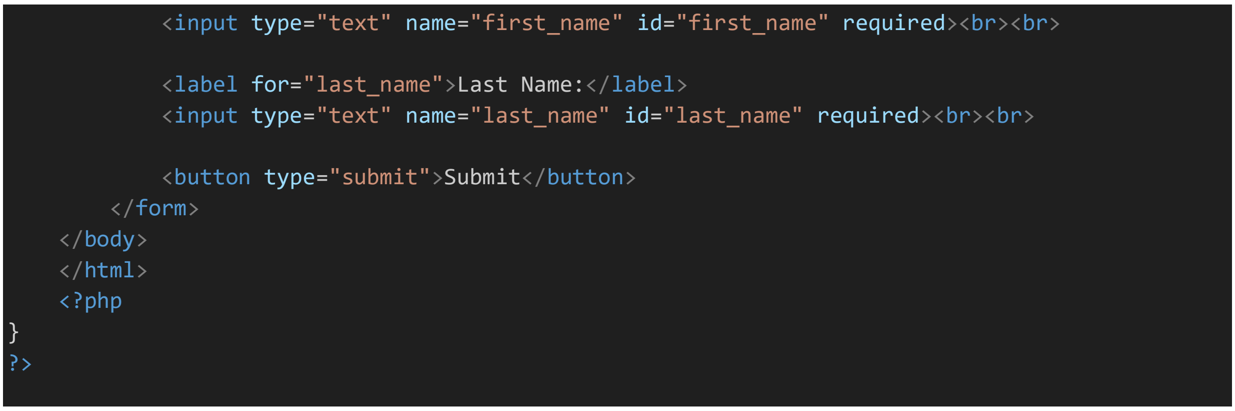
Welcome, user!

You are logged in.

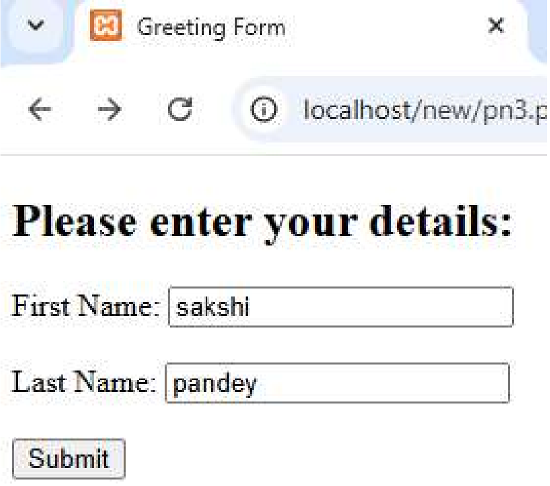
QUESTION 36 => WRITE A PHP SCRIPT TO CRAETE A FROM WITH FILEDS FOR “FIRST NAME “ AND “LAST NAME” . WHEN FORM IS SUBMITTED, DISPLAY A GTREETING MESSAGE THAT INCLUDES USER’S FIRST AND LAST NAME



```
<?php
/* Write a PHp script to create a form with fields for "First Name " and " Last Name " .
When the form is submitted , display a greeting message that includes the user's first and
last name */

// Check if the form is submitted via POST method
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Get the first name and last name from the form
    $firstName = htmlspecialchars($_POST['first_name']);
    $lastName = htmlspecialchars($_POST['last_name']);

    // Display the greeting message with the user's first and last name
    echo "<h2>Hello, $firstName $lastName! Welcome to our site.</h2>";
} else {
    // If the form is not submitted yet, show the form
    ?>
    <!DOCTYPE html>
    <html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Greeting Form</title>
    </head>
    <body>
        <h2>Please enter your details:</h2>
        <form action="pn3.php" method="POST">
            <label for="first_name">First Name:</label>
```



```
            <input type="text" name="first_name" id="first_name" required><br><br>

            <label for="last_name">Last Name:</label>
            <input type="text" name="last_name" id="last_name" required><br><br>

            <button type="submit">Submit</button>
        </form>
    </body>
    </html>
    <?php
}
?>
```

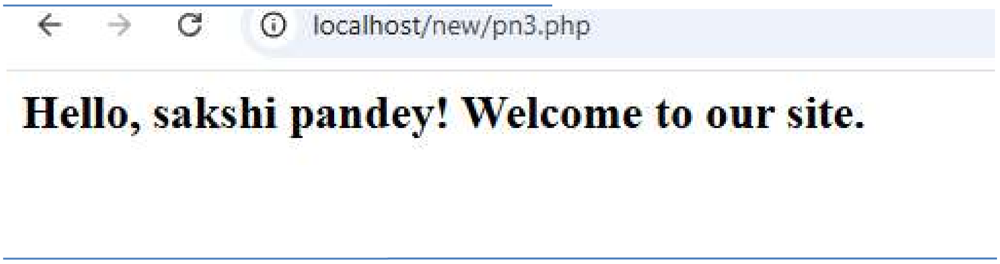


Please enter your details:

First Name: sakshi

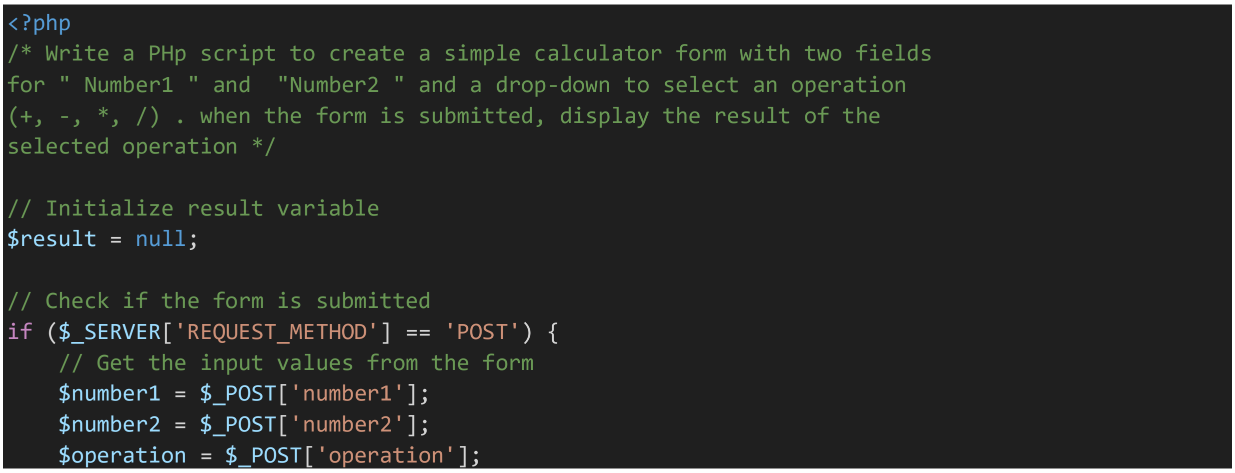
Last Name: pandey

Submit

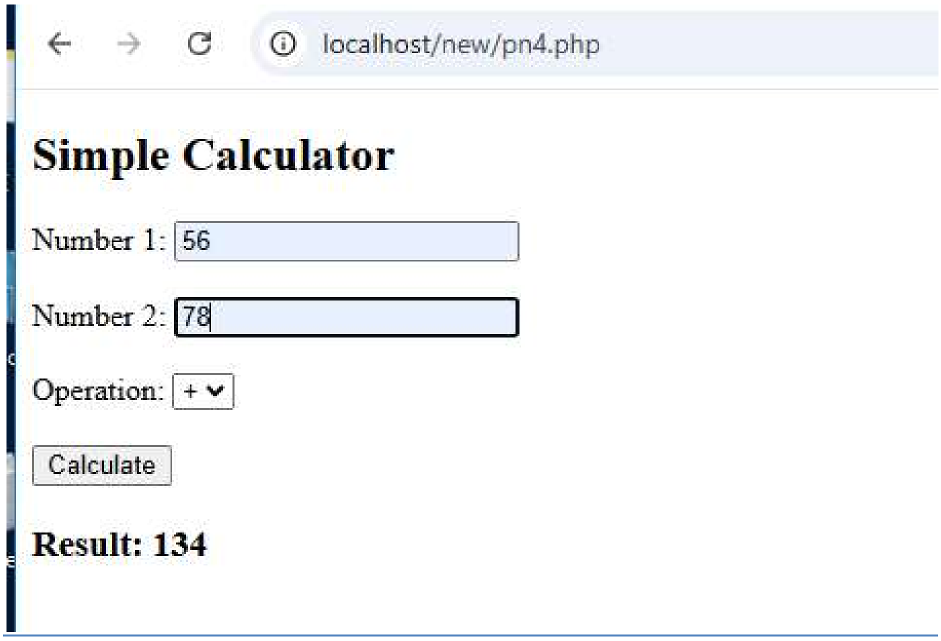


Hello, sakshi pandey! Welcome to our site.

QUESTION 37 => WRITE A PHP SCRIPT TO CREATE A SIMPLE CACULATOR WITH FORM AND DISPLAY THE RESULT



```
<?php
/* Write a PHp script to create a simple calculator form with two fields
for " Number1 " and  "Number2 " and a drop-down to select an operation
(+, -, *, /) . when the form is submitted, display the result of the
selected operation */

// Initialize result variable
$result = null;

// Check if the form is submitted
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Get the input values from the form
    $number1 = $_POST['number1'];
    $number2 = $_POST['number2'];
    $operation = $_POST['operation'];
    // Validate that inputs are numeric
    if (is_numeric($number1) && is_numeric($number2)) {
        // Perform the selected operation
        switch ($operation) {
            case '+':
                $result = $number1 + $number2;
                break;
            case '-':
                $result = $number1 - $number2;
                break;
            case '*':
                $result = $number1 * $number2;
                break;
            case '/':
                if ($number2 != 0) {
                    $result = $number1 / $number2;
                } else {
                    $result = "Error: Division by zero.";
                }
                break;
            default:
                $result = "Invalid operation.";
                break;
        }
    } else {
        $result = "Please enter valid numbers.";
    }
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Simple Calculator</title>
</head>
<body>
    <h2>Simple Calculator</h2>
    <form action="pn4.php" method="POST">
        <label for="number1">Number 1:</label>
        <input type="text" name="number1" id="number1" required><br><br>

        <label for="number2">Number 2:</label>
        <input type="text" name="number2" id="number2" required><br><br>

        <label for="operation">Operation:</label>
        <select name="operation" id="operation" required>
            <option value="+">+</option>
            <option value="-">-</option>
            <option value="*">*</option>
            <option value="/">/</option>
        </select><br><br>

        <button type="submit">Calculate</button>
    </form>

    <?php
    // Display the result after form submission
    if ($result !== null) {
        echo "<h3>Result: $result</h3>";
    }
    ?>
</body>
</html>
```



localhost/new/pn4.php

Simple Calculator

Number 1: 56

Number 2: 78

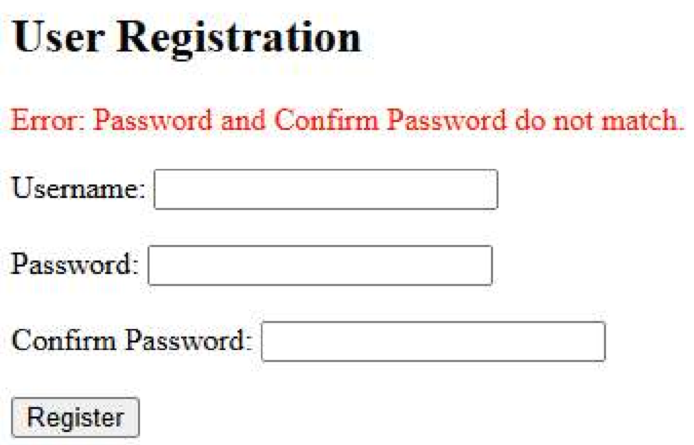
Operation: +

Result: 134

QUESTION 38 => WRITE A PHP SCRIPT TO CREATE A USER REGISTRATION

```
<?php
/* Write  a PHp script to create a user registration form with fields for
" Username ", "Password ", " Confirm Password ".
When the form is submitted , check that the password and confirm password match.
If they match , display a success message, otherwise display an error  */


// Initialize the result message
$message = "";

// Check if the form is submitted
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Get the form values
    $username = $_POST['username'];
    $password = $_POST['password'];
    $confirmPassword = $_POST['confirm_password'];

    // Check if password and confirm password match
    if ($password === $confirmPassword) {
        // Passwords match, display success message
        $message = "Registration successful! Welcome, $username.";
    } else {
        // Passwords don't match, display error message
        $message = "Error: Password and Confirm Password do not match.";
    }
}
```

```
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>User Registration</title>
</head>
<body>
    <h2>User Registration</h2>

    <!-- Display message after form submission -->
    <?php
    if ($message !== "") {
        echo "<p style='color: " . (strpos($message, "Error") === false ? "green" : "red") .
";'>$message</p>";
    }
    ?>

    <!-- Registration Form -->
    <form action="pn5.php" method="POST">
        <label for="username">Username:</label>
        <input type="text" name="username" id="username" required><br><br>

        <label for="password">Password:</label>
        <input type="password" name="password" id="password" required><br><br>

        <label for="confirm_password">Confirm Password:</label>
        <input type="password" name="confirm_password" id="confirm_password" required><br><br>

        <button type="submit">Register</button>
    </form>
</body>
</html>
```



User Registration

Error: Password and Confirm Password do not match.

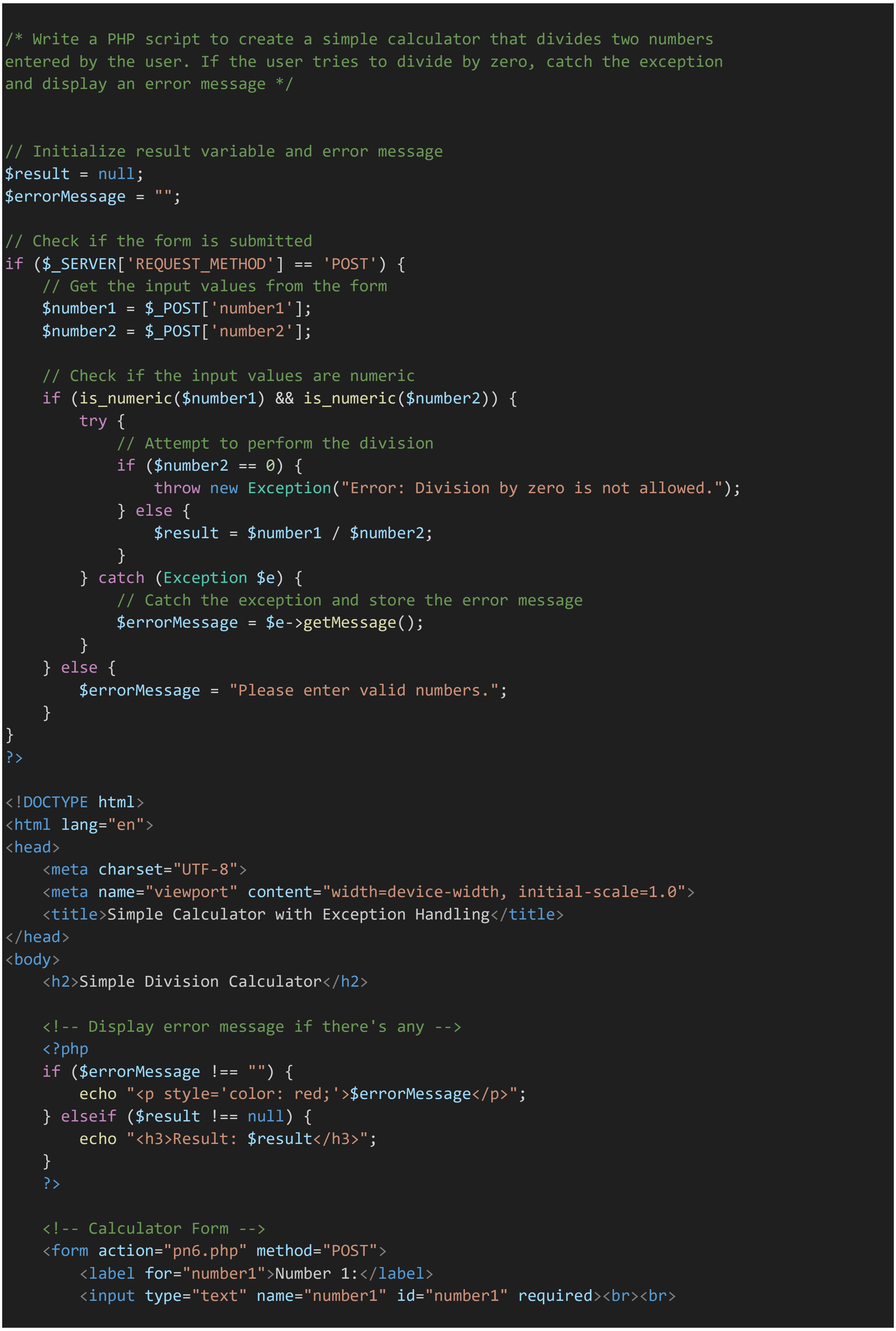
Username:

Password:

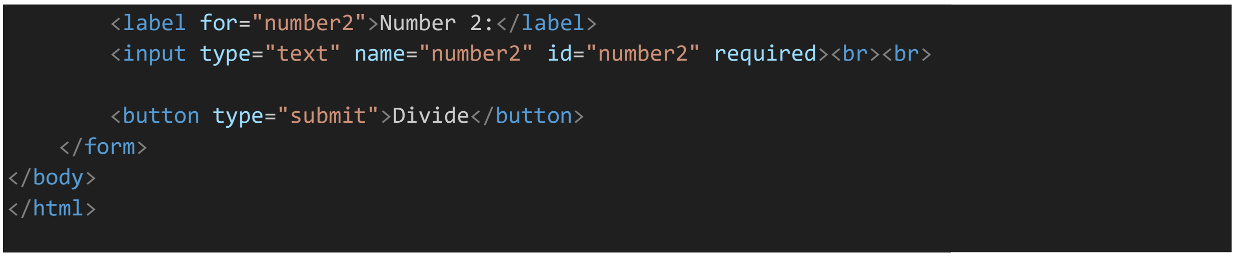
Confirm Password:

<u>QUESTION 39 => WRITE A PHP SCRIPT TO HANDLE DIVIDE BY ZERO EXCEPTION</u>

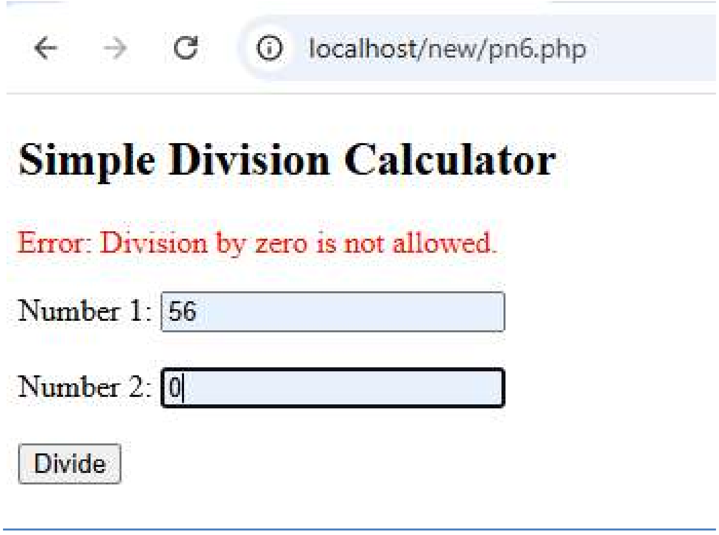
```
<?php
```



```
/* Write a PHP script to create a simple calculator that divides two numbers
entered by the user. If the user tries to divide by zero, catch the exception
and display an error message */


// Initialize result variable and error message
$result = null;
$errorMessage = "";

// Check if the form is submitted
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Get the input values from the form
    $number1 = $_POST['number1'];
    $number2 = $_POST['number2'];

    // Check if the input values are numeric
    if (is_numeric($number1) && is_numeric($number2)) {
        try {
            // Attempt to perform the division
            if ($number2 == 0) {
                throw new Exception("Error: Division by zero is not allowed.");
            } else {
                $result = $number1 / $number2;
            }
        } catch (Exception $e) {
            // Catch the exception and store the error message
            $errorMessage = $e->getMessage();
        }
    } else {
        $errorMessage = "Please enter valid numbers.";
    }
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Simple Calculator with Exception Handling</title>
</head>
<body>
    <h2>Simple Division Calculator</h2>

    <!-- Display error message if there's any -->
    <?php
    if ($errorMessage !== "") {
        echo "<p style='color: red;'>$errorMessage</p>";
    } elseif ($result !== null) {
        echo "<h3>Result: $result</h3>";
    }
    ?>

    <!-- Calculator Form -->
    <form action="pn6.php" method="POST">
        <label for="number1">Number 1:</label>
        <input type="text" name="number1" id="number1" required><br><br>
```



```
        <label for="number2">Number 2:</label>
        <input type="text" name="number2" id="number2" required><br><br>

        <button type="submit">Divide</button>
    </form>
</body>
</html>
```



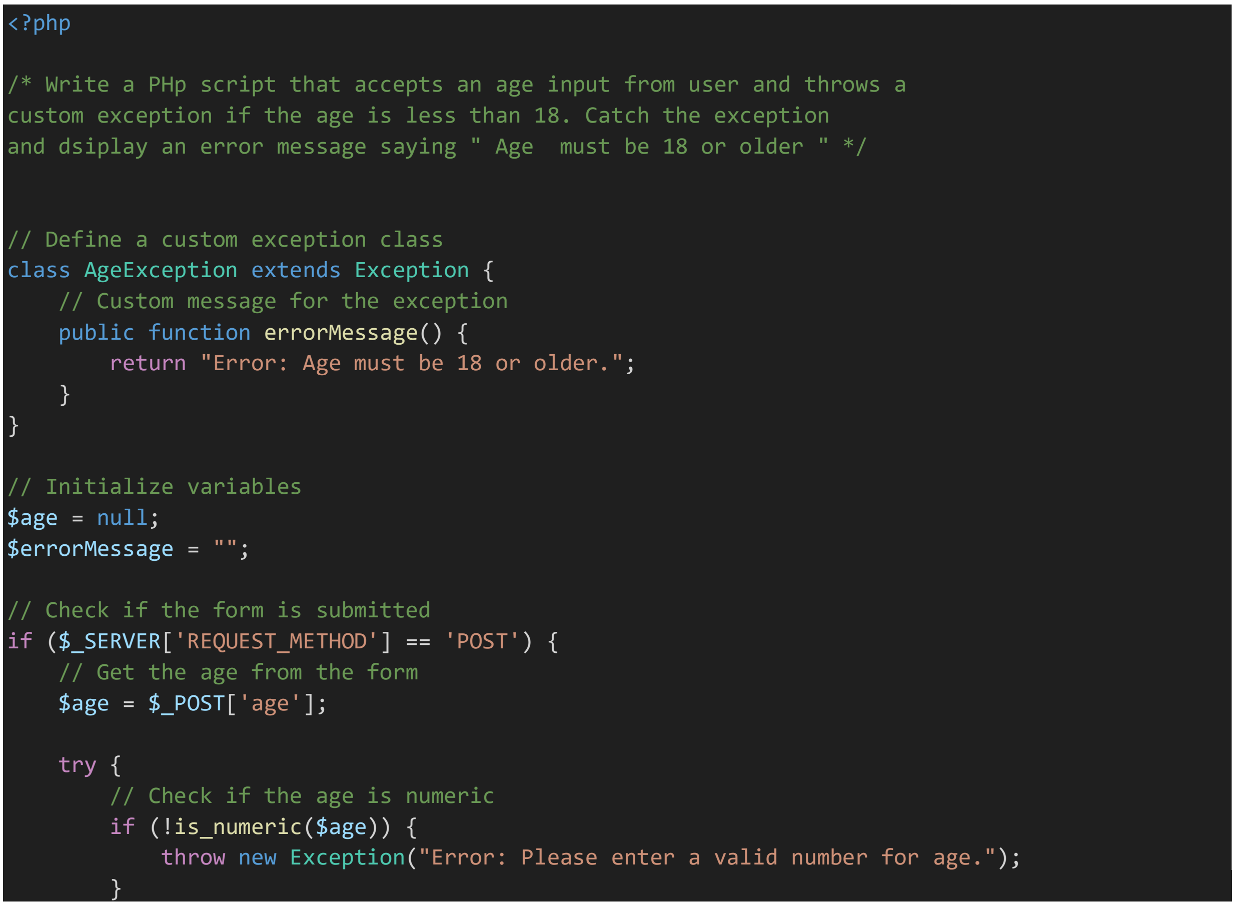
Simple Division Calculator

Error: Division by zero is not allowed.

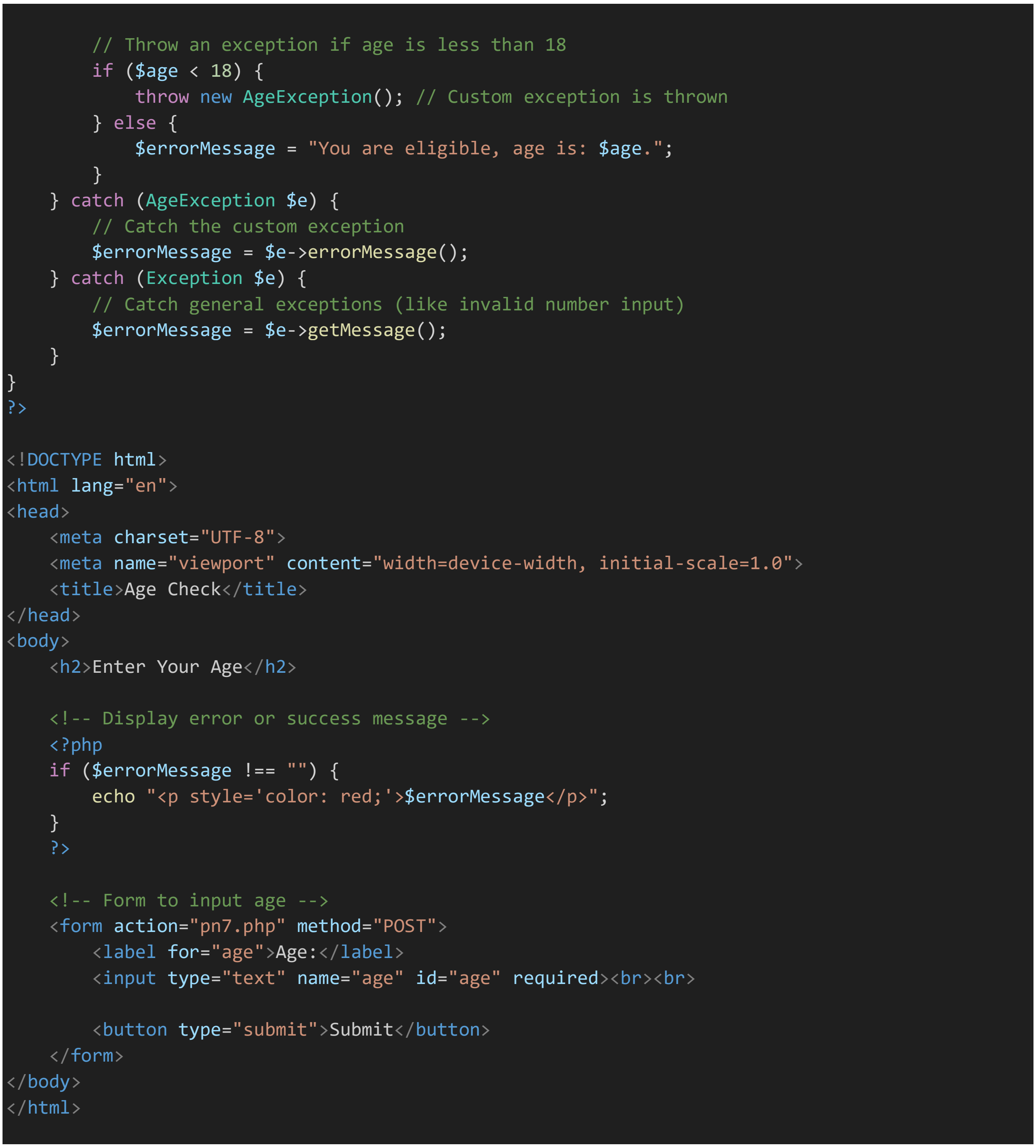
Number 1: 56

Number 2: 0

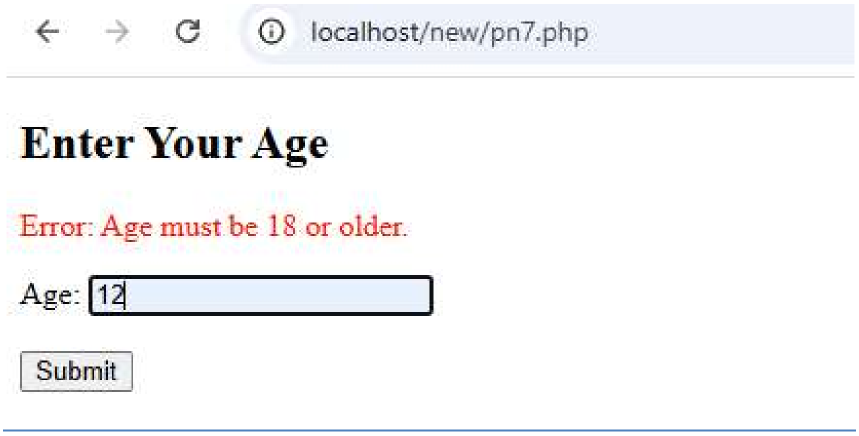
QUESTION 40 => WRITE A PHP SCRIPT FOR CUSTOM EXCEPTION HANDLING



```
<?php

/* Write a PHp script that accepts an age input from user and throws a
custom exception if the age is less than 18. Catch the exception
and dsiplay an error message saying " Age  must be 18 or older " */


// Define a custom exception class
class AgeException extends Exception {
    // Custom message for the exception
    public function errorMessage() {
        return "Error: Age must be 18 or older.";
    }
}

// Initialize variables
$age = null;
$errorMessage = "";

// Check if the form is submitted
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Get the age from the form
    $age = $_POST['age'];

    try {
        // Check if the age is numeric
        if (!is_numeric($age)) {
            throw new Exception("Error: Please enter a valid number for age.");
        }
```



```
        // Throw an exception if age is less than 18
        if ($age < 18) {
            throw new AgeException(); // Custom exception is thrown
        } else {
            $errorMessage = "You are eligible, age is: $age.";
        }
    } catch (AgeException $e) {
        // Catch the custom exception
        $errorMessage = $e->errorMessage();
    } catch (Exception $e) {
        // Catch general exceptions (like invalid number input)
        $errorMessage = $e->getMessage();
    }
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Age Check</title>
</head>
<body>
    <h2>Enter Your Age</h2>

    <!-- Display error or success message -->
    <?php
    if ($errorMessage !== "") {
        echo "<p style='color: red;'>$errorMessage</p>";
    }
    ?>

    <!-- Form to input age -->
    <form action="pn7.php" method="POST">
        <label for="age">Age:</label>
        <input type="text" name="age" id="age" required><br><br>

        <button type="submit">Submit</button>
    </form>
</body>
</html>
```

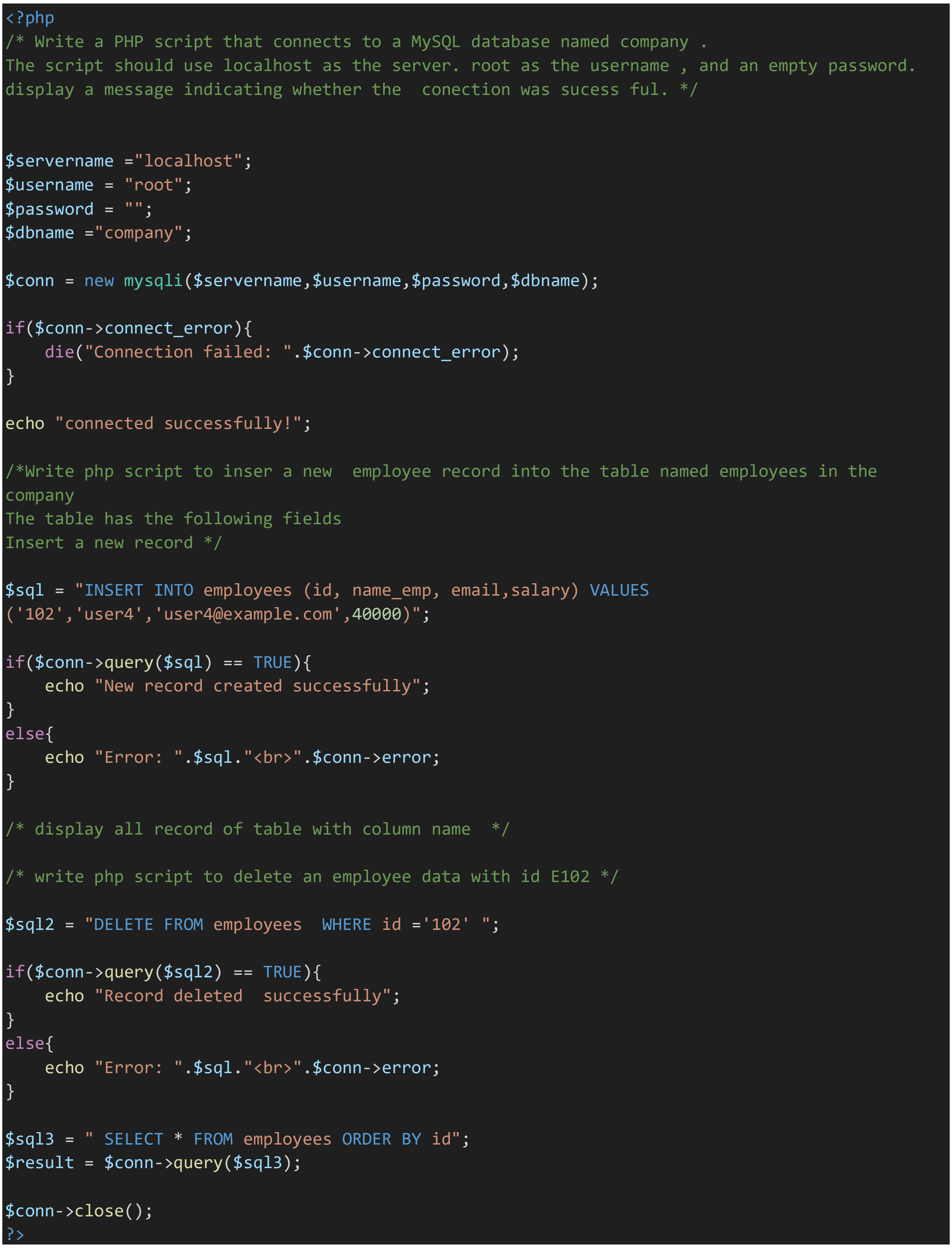


Enter Your Age

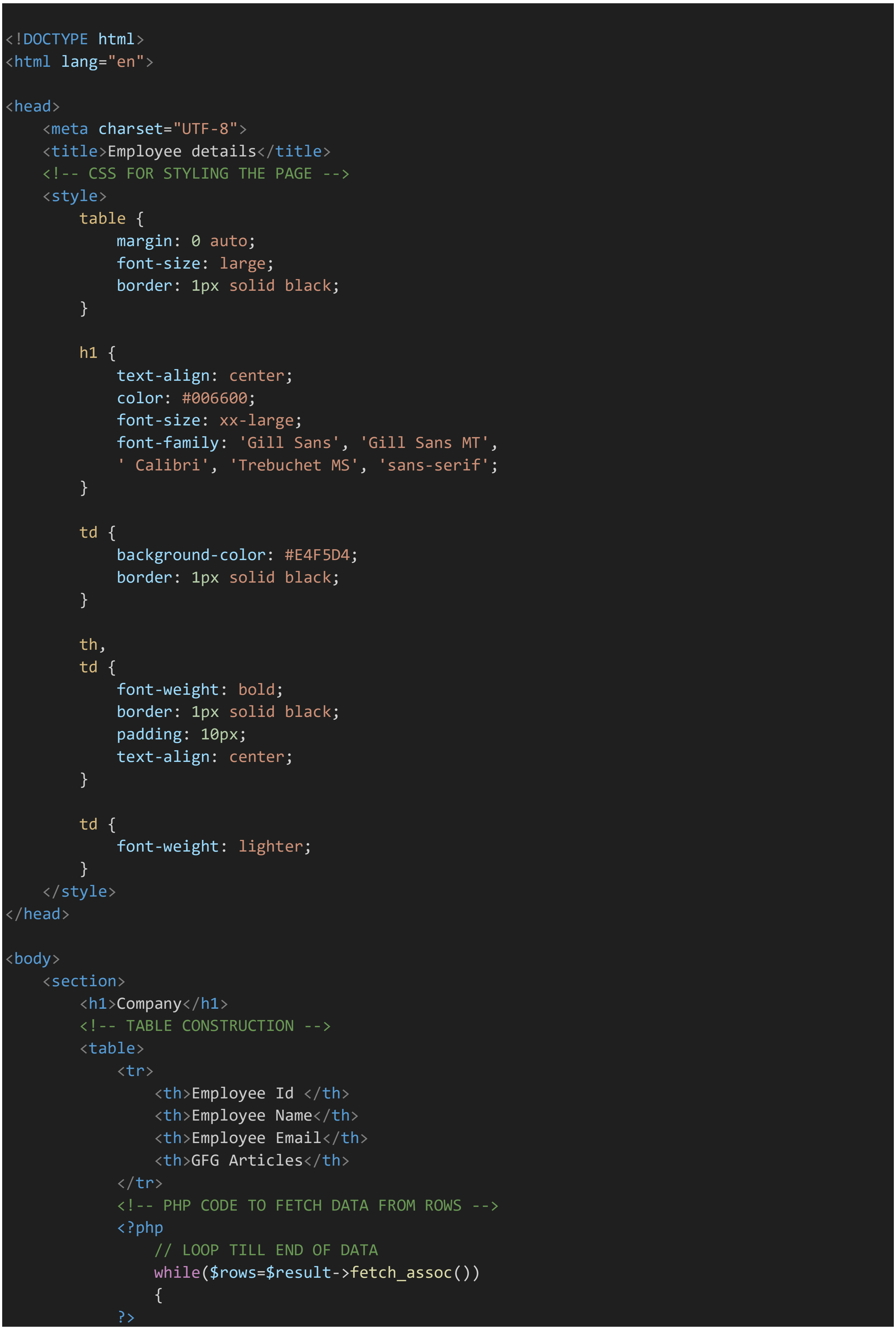
Error: Age must be 18 or older.

Age: 12

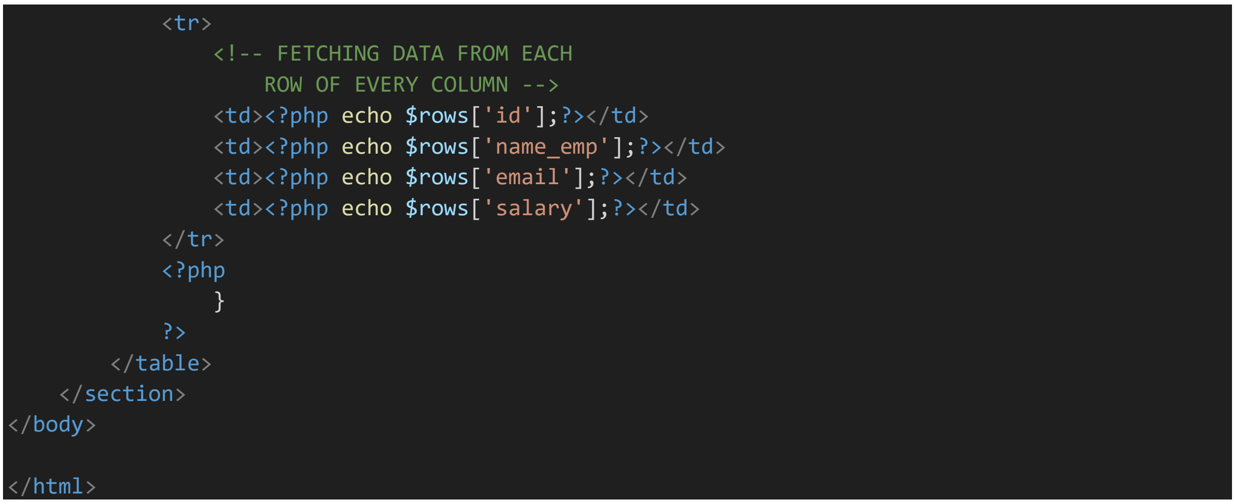
QUESTION 41 => WRITE A PHP SCRIPT TO CONNECT TO MYSQL DATABASE
QUESTION 42 => CREATE DATABSE COMPANY AND TABLE EMPLOYEE
QUESTION 43 => PERFORM INSERTION AND DELETION OPERTATION



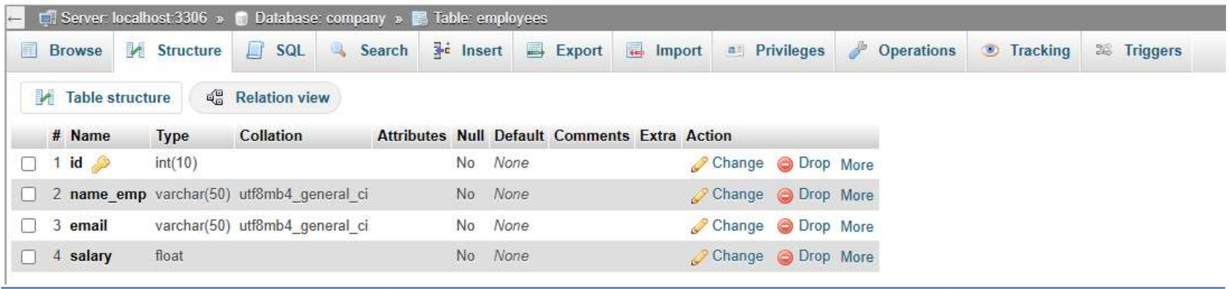
```
<?php
/* Write a PHP script that connects to a MySQL database named company .
The script should use localhost as the server. root as the username , and an empty password.
display a message indicating whether the  conection was sucess ful. */


$servername ="localhost";
$username = "root";
$password = "";
$dbname ="company";

$conn = new mysqli($servername,$username,$password,$dbname);

if($conn->connect_error){
    die("Connection failed: ".$conn->connect_error);
}

echo "connected successfully!";

/*Write php script to inser a new  employee record into the table named employees in the
company
The table has the following fields
Insert a new record */

$sql = "INSERT INTO employees (id, name_emp, email,salary) VALUES
('102','user4','user4@example.com',40000)";

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

/* display all record of table with column name  */

/* write php script to delete an employee data with id E102 */

$sql2 = "DELETE FROM employees  WHERE id ='102' ";

if($conn->query($sql2) == TRUE){
    echo "Record deleted  successfully";
}
else{
    echo "Error: ".$sql."<br>".$conn->error;
}

$sql3 = " SELECT * FROM employees ORDER BY id";
$result = $conn->query($sql3);

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



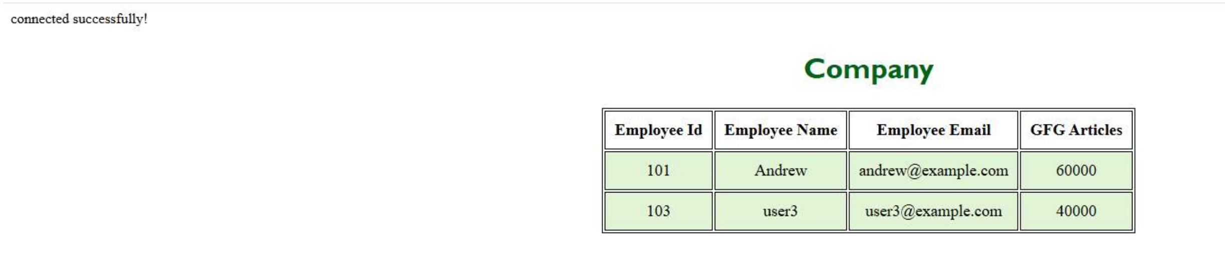
```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <title>Employee details</title>
    <!-- CSS FOR STYLING THE PAGE -->
    <style>
        table {
            margin: 0 auto;
            font-size: large;
            border: 1px solid black;
        }

        h1 {
            text-align: center;
            color: #006600;
            font-size: xx-large;
            font-family: 'Gill Sans', 'Gill Sans MT',
            ' Calibri', 'Trebuchet MS', 'sans-serif';
        }

        td {
            background-color: #E4F5D4;
            border: 1px solid black;
        }

        th,
        td {
            font-weight: bold;
            border: 1px solid black;
            padding: 10px;
            text-align: center;
        }

        td {
            font-weight: lighter;
        }
    </style>
</head>

<body>
    <section>
        <h1>Company</h1>
        <!-- TABLE CONSTRUCTION -->
        <table>
            <tr>
                <th>Employee Id </th>
                <th>Employee Name</th>
                <th>Employee Email</th>
                <th>GFG Articles</th>
            </tr>
            <!-- PHP CODE TO FETCH DATA FROM ROWS -->
            <?php
                // LOOP TILL END OF DATA
                while($rows=$result->fetch_assoc())
                {
            ?>
```



```
      <tr>
        <!-- FETCHING DATA FROM EACH
          ROW OF EVERY COLUMN -->
        <td><?php echo $rows['id'];?></td>
        <td><?php echo $rows['name_emp'];?></td>
        <td><?php echo $rows['email'];?></td>
        <td><?php echo $rows['salary'];?></td>
      </tr>
      <?php
        }
      ?>
    </table>
  </section>
</body>

</html>
```



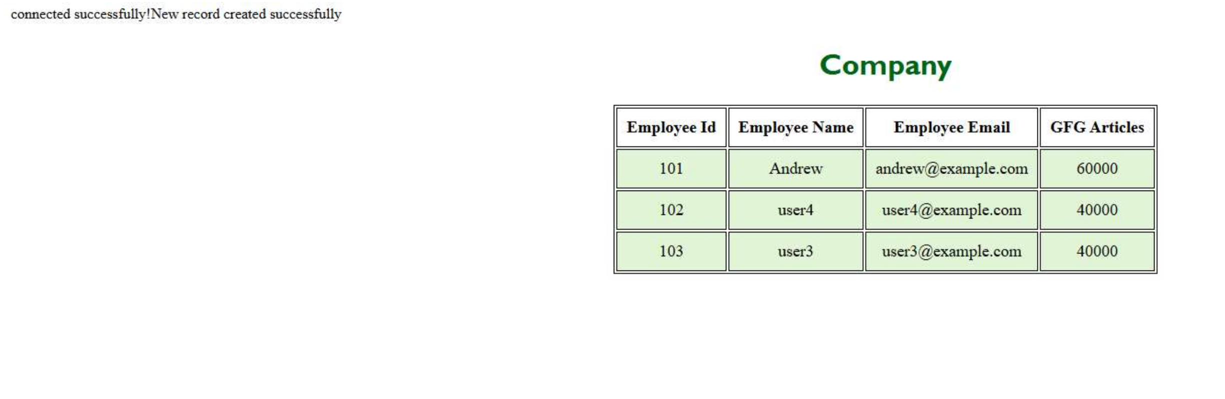
	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
□	1	id 🔑	int(10)			No	*None*			Change Drop More
□	2	name_emp	varchar(50)	utf8mb4_general_ci		No	*None*			Change Drop More
□	3	email	varchar(50)	utf8mb4_general_ci		No	*None*			Change Drop More
□	4	salary	float			No	*None*			Change Drop More



connected successfully!

Company

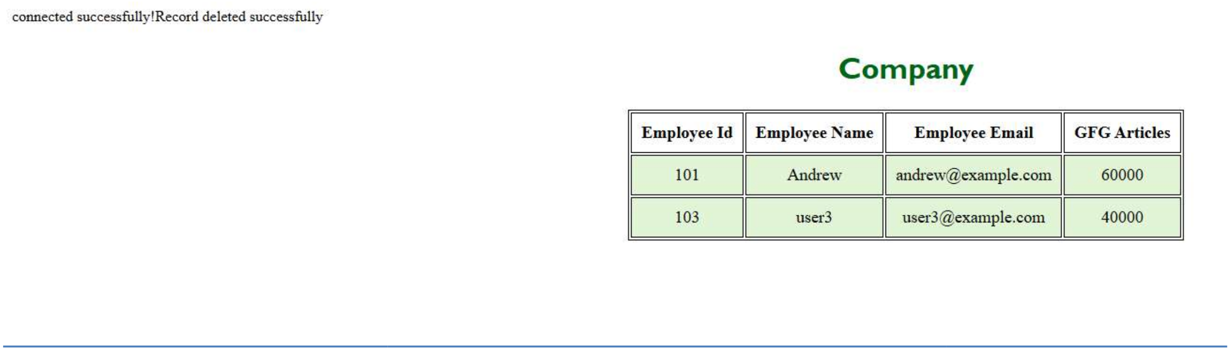
Employee Id	Employee Name	Employee Email	GFG Articles
101	Andrew	andrew@example.com	60000
103	user3	user3@example.com	40000



connected successfully!New record created successfully

Company

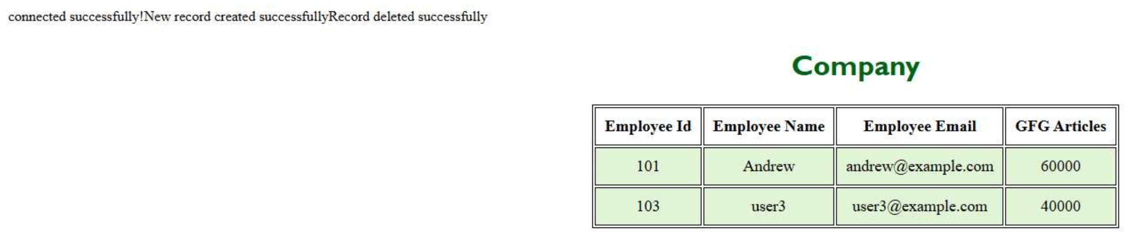
Employee Id	Employee Name	Employee Email	GFG Articles
101	Andrew	andrew@example.com	60000
102	user4	user4@example.com	40000
103	user3	user3@example.com	40000



connected successfully!Record deleted successfully

Company

Employee Id	Employee Name	Employee Email	GFG Articles
101	Andrew	andrew@example.com	60000
103	user3	user3@example.com	40000



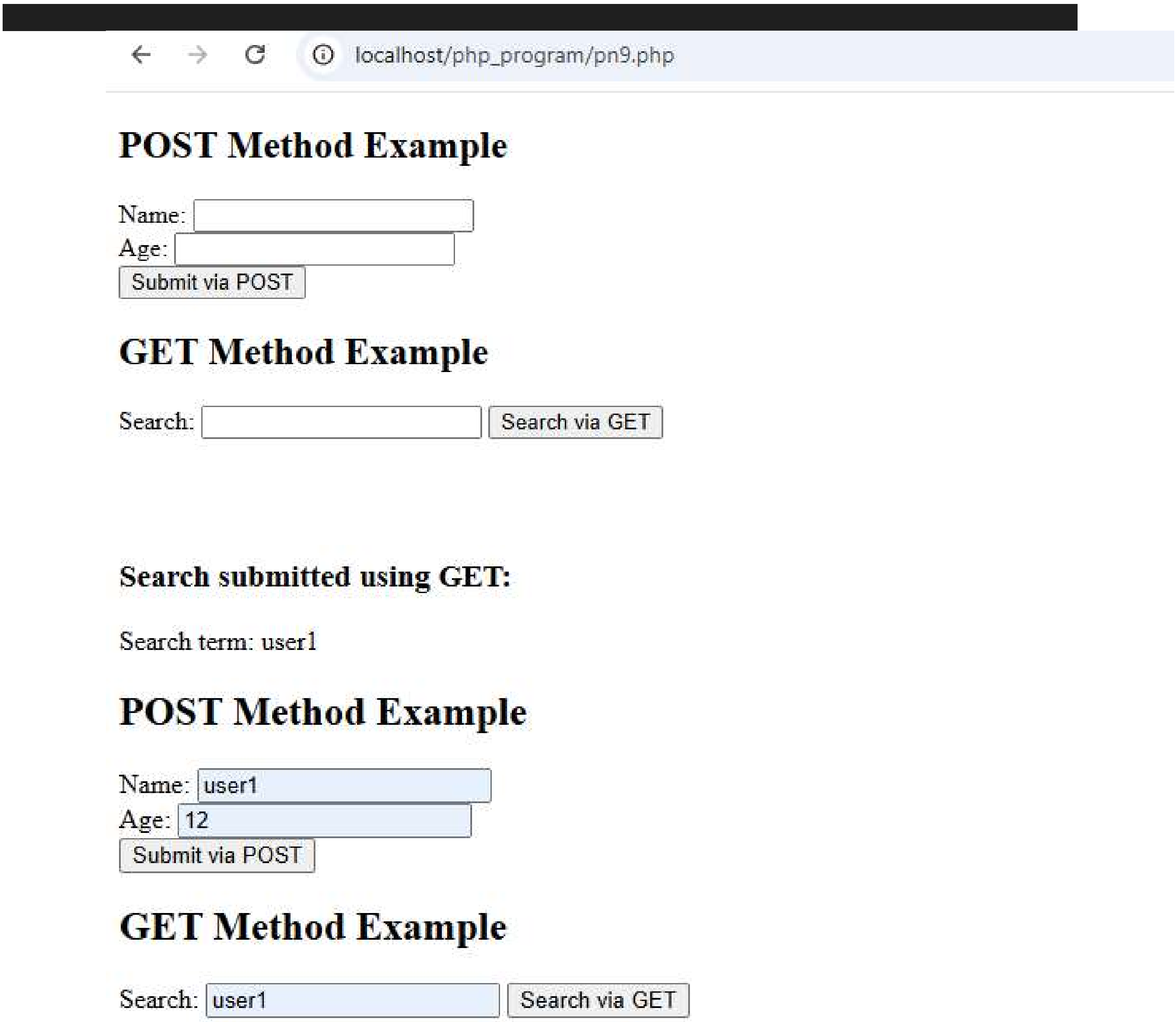
connected successfully!New record created successfullyRecord deleted successfully

Company

Employee Id	Employee Name	Employee Email	GFG Articles
101	Andrew	andrew@example.com	60000
103	user3	user3@example.com	40000

QUESTION 44 => WRITE A PHP SCRIPT TO DEMONSTRATE POST AND GET METHOD

```
<?php
/* Explain the difference between  the POST and GET methods in PHP and write a PHP script to
demonstrate the use of both methods */

// Check if the form was submitted using POST
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Collect POST data
    $name = $_POST['name'];
    $age = $_POST['age'];
    echo "<h3>Form submitted using POST:</h3>";
    echo "Name: $name<br>";
    echo "Age: $age<br>";
}

// Check if the form was submitted using GET
if ($_SERVER["REQUEST_METHOD"] == "GET" && isset($_GET['search'])) {
    // Collect GET data
    $search = $_GET['search'];
    echo "<h3>Search submitted using GET:</h3>";
    echo "Search term: $search<br>";
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>POST and GET Example</title>
</head>
<body>
    <h2>POST Method Example</h2>
    <form method="POST" action="">
        Name: <input type="text" name="name"><br>
        Age: <input type="text" name="age"><br>
        <input type="submit" value="Submit via POST">
    </form>

    <h2>GET Method Example</h2>
    <form method="GET" action="">
        Search: <input type="text" name="search">
        <input type="submit" value="Search via GET">
    </form>
</body>
</html>
```



POST Method Example

Name:

Age:

GET Method Example

Search:

Search submitted using GET:

Search term: user1

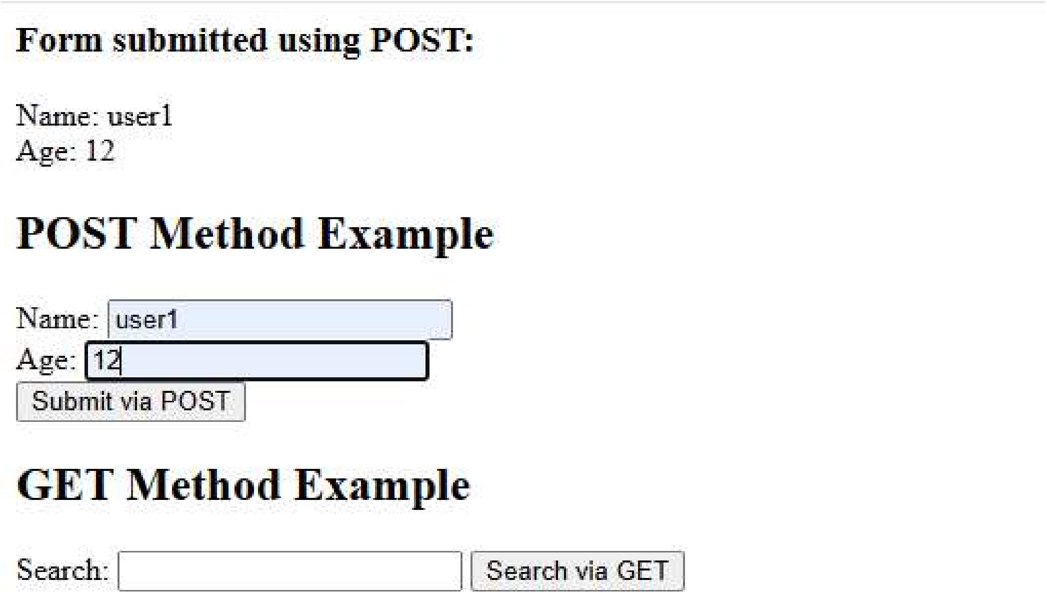
POST Method Example

Name: user1

Age: 12

GET Method Example

Search: user1



Form submitted using POST:

Name: user1
Age: 12

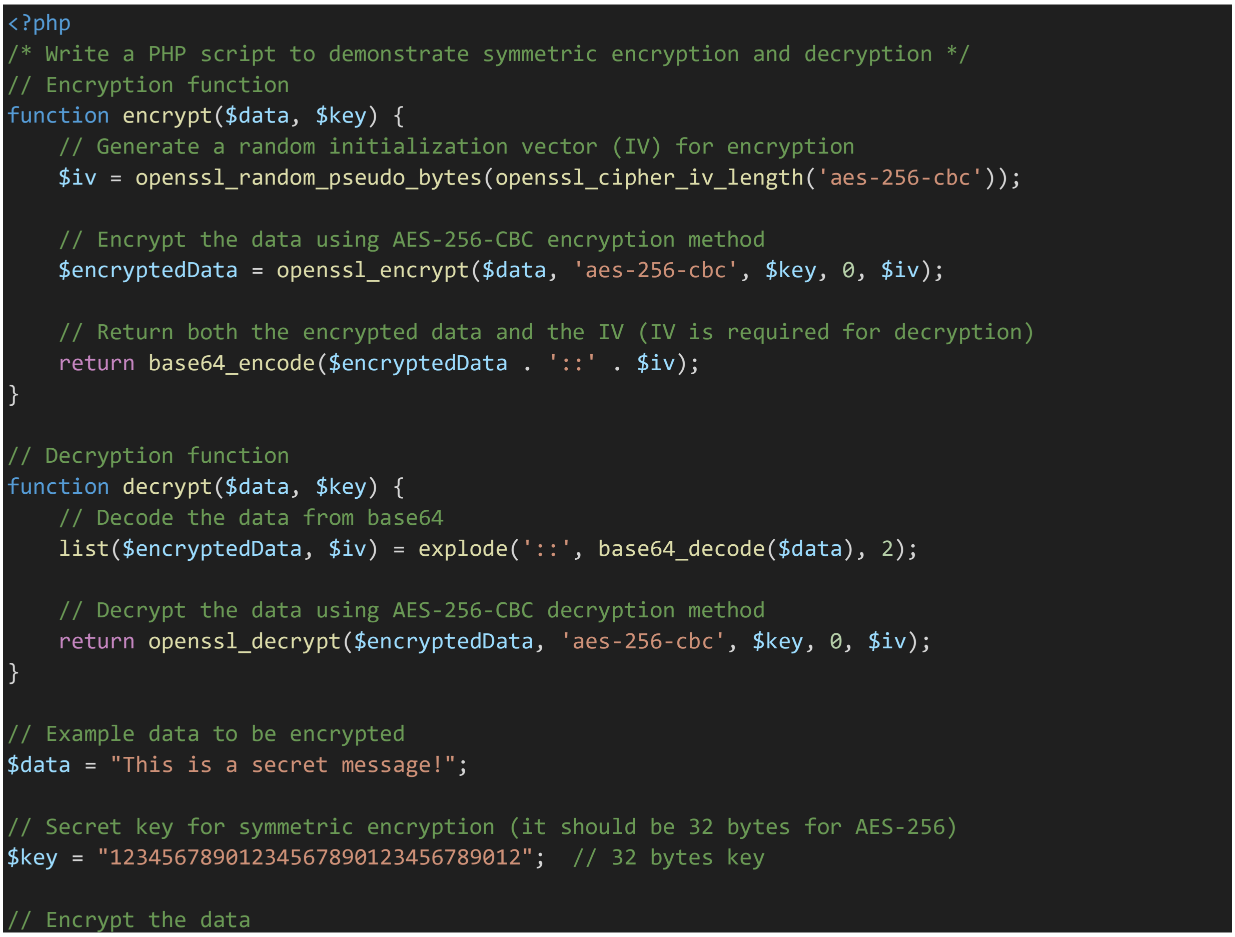
POST Method Example

Name: user1
Age: 12

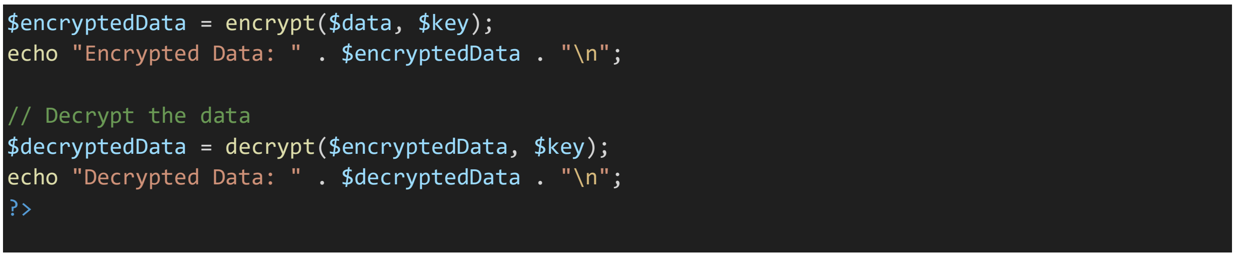
GET Method Example

Search:

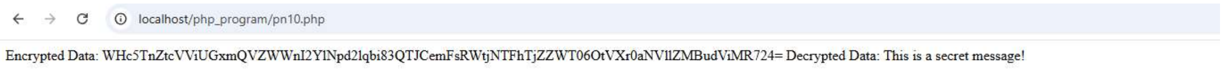
QUESTION 45 => WRITE PHP SCRIPT TO DEMONSTRATE SYMMETRIC ENCRYPTION AND DECRYPTION



```php
<?php
/* Write a PHP script to demonstrate symmetric encryption and decryption */
// Encryption function
function encrypt($data, $key) {
    // Generate a random initialization vector (IV) for encryption
    $iv = openssl_random_pseudo_bytes(openssl_cipher_iv_length('aes-256-cbc'));

    // Encrypt the data using AES-256-CBC encryption method
    $encryptedData = openssl_encrypt($data, 'aes-256-cbc', $key, 0, $iv);

    // Return both the encrypted data and the IV (IV is required for decryption)
    return base64_encode($encryptedData . '::' . $iv);
}

// Decryption function
function decrypt($data, $key) {
    // Decode the data from base64
    list($encryptedData, $iv) = explode('::', base64_decode($data), 2);

    // Decrypt the data using AES-256-CBC decryption method
    return openssl_decrypt($encryptedData, 'aes-256-cbc', $key, 0, $iv);
}

// Example data to be encrypted
$data = "This is a secret message!";

// Secret key for symmetric encryption (it should be 32 bytes for AES-256)
$key = "12345678901234567890123456789012";  // 32 bytes key

// Encrypt the data
```



```php
$encryptedData = encrypt($data, $key);
echo "Encrypted Data: " . $encryptedData . "\n";

// Decrypt the data
$decryptedData = decrypt($encryptedData, $key);
echo "Decrypted Data: " . $decryptedData . "\n";
?>
```



```
Encrypted Data: WHc5TnZtcVViUGxmQVZWWnI2YlNpd2lqbi83QTJCemFsRWtjNTFhTjZZWT06OtVXr0aNVlIZMBudViMR724= Decrypted Data: This is a secret message!
```