Course Name: Web development using PHP

Practical Exercises

Course Code	23MCACC108
Course Title	Core Practical 2 : Web development using PHP
Course Credit and Hours	2 Credits - 4 hrs/wk
Facilitator	Dr.Ripal Ranpara

CO No.	CO Statement	Bloom's Taxonomy Level (K1 to K6)
CO1	Demonstrate knowledge of PHP syntax, control structures, and built-in functions	K1, K2
CO2	Design and implement PHP programs using object-oriented programming principles	K3, K4
CO3	Use MySQL to create and manage databases and tables, and perform basic CRUD operations	K2, K3
CO4	Implement JavaScript to create dynamic, interactive web applications	K3, K4, K5
CO5	Implement best practices for web development, including security and performance optimization	K3, K4, K5

Task 1

- **Script_1:** Write a PHP script to display "Hello, World!" using the echo statement.
- **Script_2:** Create variables $name and $age, and use the echo statement to display a message like "My name is [Name] and I am [Age] years old."
- **Script_3:** Calculate and display the sum of two variables $num1 and $num2 using the echo statement.
- **Script_4:** Use the echo statement to display the result of concatenating two strings, "Hello" and "PHP".
- **Script_5:** Declare a constant named PI with a value of 3.14159. Use the echo statement to display the constant's value.
- **Script_6:** Create a variable $num with an integer value. Use the echo statement to display whether the number is even or odd.
- **Script_7:** Write a PHP script to swap the values of two variables $x and $y using a temporary variable. Display the swapped values using the echo statement.
- **Script_8:** Use the echo statement to display the length of a given string stored in the variable $text.
- **Script_9:** Create variables for the day, month, and year of your birthdate. Display your birthdate in the format "DD/MM/YYYY" using the echo statement.

Task 2

- **Script_10:** Write a PHP script to calculate the area of a rectangle given its length and width.
- **Script_11:** Create a PHP script that checks whether a given number is even or odd and displays the result.
- **Script_12:** Write a PHP script to concatenate two strings and display the combined result.
- **Script_13:** Develop a PHP script that converts temperature from Celsius to Fahrenheit using the formula (C × 9/5) + 32.
- **Script_14:** Create a PHP script that calculates the sum of all numbers from 1 to 100 and displays the result.
- **Script_15:** Write a PHP script to find the largest of three numbers entered by the user.

- **Script_16:** Develop a PHP script that takes a sentence as input and counts the number of vowels in it.
- **Script_17:** Create a PHP script to check if a given year is a leap year and display the result.
- **Script_18:** Write a PHP script that generates a random number between 1 and 10 and lets the user guess it.
- **Script_19:** Develop a PHP script that takes a positive integer as input and checks whether it is a prime number.
- **Script_20** Script to find the factorial of a given number and display the result.
- **Script_21** Script to check if a given number is a palindrome or not and display the result.
- **Script_22** Script to calculate the area of a circle based on the given radius and display the result.
- **Script_23** Script to determine the largest among three numbers and display the result.
- **Script_24** Script to calculate the square root of a given number and display the result.
- **Script_25** Script to swap 2 nos without using 3rd variable using arithmetic operators.

Task 3

- **Script_26** Write a PHP script that generates a random number between a specified range using the rand() function and displays it.
- **Script_27** Create a PHP script to calculate and display the length of an array using the count() function.
- **Script_28** Develop a PHP script that sorts an array of integers in ascending order using the sort() function.
- **Script_29** Write a PHP script to reverse the elements of an array using the array_reverse() function.
- **Script_30** Create a PHP script that removes duplicate values from an array using the array_unique() function.
- **Script_31** Develop a PHP script that searches for a specific element in an array using the array_search() function and displays the index if found.
- **Script_32** Write a PHP script to merge two arrays using the array_merge() function and display the combined result.
- **Script_33** Create a PHP script to check if a specific key exists in an associative array using the array_key_exists() function.
- **Script_34** Develop a PHP script to check if a specific value exists in an array using the in_array() function.
- **Script_35** Write a PHP script to shuffle the elements of an array using the shuffle() function.
- **Script_36** Create a PHP script that calculates and displays the sum of all elements in an array using the array_sum() function.
- **Script_37** Develop a PHP script that uses the array_push() function to add elements to an array and the array_pop() function to remove elements from the end.
- **Script_38** Write a PHP script to use the array_shift() function to remove an element from the beginning of an array and the array_unshift() function to add elements at the beginning.
- **Script_39** Create a PHP script that extracts a portion of an array using the array_slice() function and displays the result.
- **Script_40** Develop a PHP script to remove and replace elements from an array using the array_splice() function.
- **Script_41** Write a PHP script that finds the intersection of two arrays using the array_intersect() function.

- **Script_42** Create a PHP script that finds the difference between two arrays using the array_diff() function.
- **Script_43** Develop a PHP script to extract the keys from an associative array using the array_keys() function.
- **Script_44** Write a PHP script to extract the values from an associative array using the array_values() function.
- **Script_45** Create a PHP script that flips the keys and values of an associative array using the array_flip() function.
- **Script_46** Develop a PHP script to fill an array with a specific value using the array_fill() function.
- **Script_47** Write a PHP script that applies a user-defined function to all elements of an array using the array_map() function.
- **Script_48** Create a PHP script that uses the array_reduce() function to apply a callback function to the elements of an array and return a single value.
- **Script_49** Develop a PHP script to split an array into chunks of a specified size using the array_chunk() function.
- **Script_50** Write a PHP script to filter the elements of an array based on a specified condition using the array_filter() function.
- **Script_51** Create a PHP script that adds elements to an associative array using the array_push() function.
- **Script_52** Develop a PHP script to merge two associative arrays using the array_merge() function and display the combined result.
- **Script_53** Write a PHP script that removes duplicate values from an associative array using the array_unique() function.
- **Script_54** Create a PHP script that extracts a specific column from a multidimensional array using the array_column() function.
- **Script_55** Develop a PHP script that uses the array_key_first() and array_key_last() functions to retrieve the first and last keys of an array.

Task 4

- **Script_56** Write a PHP script that reads the content of a text file named "data.txt" and displays its contents.
- **Script_57** Create a PHP script that writes the string "Hello, world!" to a text file named "output.txt".
- **Script_58** Develop a PHP script that appends the string "This is a new line." to an existing text file named "notes.txt".
- **Script_59** Write a PHP script that copies the content of one text file ("source.txt") to another file ("destination.txt").
- **Script_60** Create a PHP script that deletes a specific file named "obsolete.txt" from the server's file system.
- **Script_61** Develop a PHP script that renames a file from "oldname.txt" to "newname.txt" using the rename() function.
- **Script_62** Write a PHP script that calculates and displays the size (in bytes) of a file named "document.pdf" using the filesize() function.
- **Script_63** Create an HTML form that allows users to upload an image file to the server. Write a PHP script to handle the uploaded file and move it to a designated folder.
- **Script_64** Develop a PHP script that counts and displays the number of lines in a text file named "report.txt" using the file() function.

- **Script_65** Write a PHP script that reads a text file named "poem.txt" line by line and displays each line with line numbers.

BASIC EXERCISE

```markdown
*
**
***
****
```

```markdown
   *
  ***
 *****
*******
 *****
  ***
   *
```

```yaml
1
01
101
0101
```

```markdown
*****
*   *
* *
**
```

```yaml
1
22
333
4444
```

1. Write a PHP program using the echo statement to display the text "Hello, PHP!" on the screen.
2. Create a PHP program that uses concatenation to display the following message:

i. My name is John, and I am a PHP developer.

3. Develop a PHP program that assigns the value "42" to a variable named $answer and then echoes the value along with the text " is the answer to everything."
4. Write a PHP program that assigns your first name to the variable $firstName and your last name to the variable $lastName. Use concatenation to display a greeting message like "Hello, John Doe!".
5. Create a PHP program that assigns a number to the variable $num and a string to the variable $text. Use concatenation to display a message like "The number is: 42, and the text is: Hello!".
6. Develop a PHP program that assigns an initial value to the variable $x, then reassigns it to a new value, and finally echoes the value.
7. Create a PHP program that assigns three words to variables ($word1, $word2, and $word3) and uses concatenation to display them as a sentence: "This is a sentence."
8. Develop a PHP program that assigns a name to the variable $name and uses it to display a dynamic greeting message like "Hello, John!".
9. Write a PHP program that assigns a string to the variable $text and uses the strlen() function to display its length along with the original string.
10. Write a PHP program that assigns a name to the variable $name and an age to the variable $age. Use concatenation to display a message like "Hello, John! You are 25 years old."
11. Create a PHP program that assigns a number to the variable $num1 and a string to the variable $str. Use concatenation to display a message like "The value of num1 is 42 and str is Hello."

12. Develop a PHP program that uses echo to display an unordered list (<ul>) with three list items (<li>) containing different colors.
13. Write a PHP program that uses concatenation to display an HTML anchor (<a>) element with the text "Click here" and a link to "https://www.example.com".
14. Create a PHP program that uses echo to display the following text with proper formatting: