# Practical - 2

1. **Study the following functions & write a description for each: echo(), print(), phpinfo(), define(), var_dump(), date(), Time().**

   a. **echo():**
   Outputs one or more strings. It doesn't have a return value and can take multiple parameters separated by commas.
   Ex : echo "Hello, world!";

   b. **print():**
   Outputs a string. It is similar to echo but it always returns 1, so it can be used in expressions.
   Ex : print("Hello, world!");

   c. **phpinfo():**
   Outputs information about the PHP configuration, such as the version, extensions, and server information.
   Ex : phpinfo();

   d. **define():**
   Defines a named constant with a specified name and value. Once defined, the value of the constant cannot be changed during the script's execution.
   Ex : define("PI", 3.14);

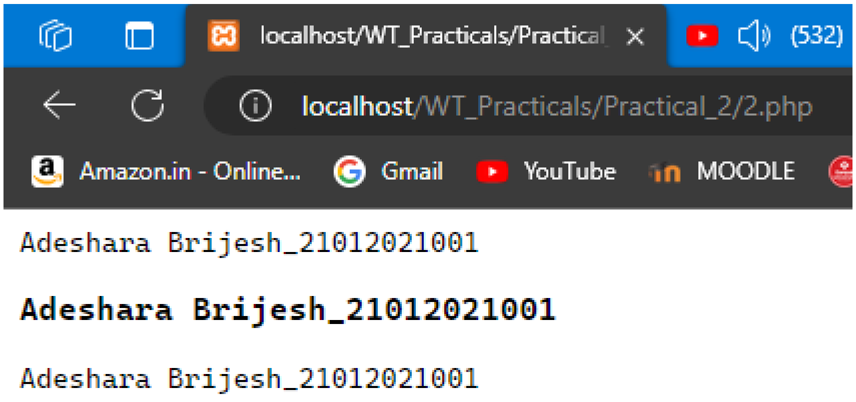
   e. **var_dump():**
   Displays structured information about one or more variables, including its type and value. It's often used for debugging purposes.
   Ex : var_dump($variable);

   f. **date():**
   Formats a local time or date based on the format specified. It can be used to display the current date and time or manipulate dates and times.
   Ex : echo date("Y-m-d H:i:s");

   g. **Time():**
   Returns the current Unix timestamp, representing the number of seconds that have passed since January 1, 1970, 00:00:00 UTC. It's often used for timestamping events or measuring time intervals.
   Ex : $timestamp = time();

2. **Demonstrate different ways to write a PHP code. 1. Without any HTML markups 2. Embedding HTML markups in PHP code.**

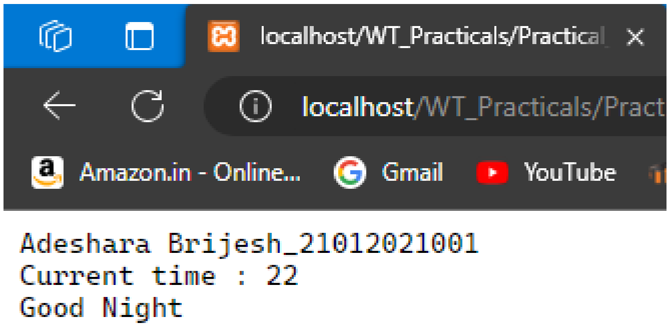
```
<!-- 1 -->
<?php
echo "Adeshara Brijesh_21012021001";
?>
<!-- 2 -->
<?php
echo "<h3>Adeshara Brijesh_21012021001</h3>";
?>
<!-- 3 -->
<html>
   <body>
      <?php
      echo "Adeshara Brijesh_21012021001";
      ?>
   </body>
</html>
```


localhost/WT_Practicals/Practical
(532)
localhost/WT_Practicals/Practical_2/2.php
Amazon.in - Online...
Gmail
YouTube
MOODLE

```
Adeshara Brijesh_21012021001

Adeshara Brijesh_21012021001

Adeshara Brijesh_21012021001
```

3. **Embedding PHP code in HTML 3. Write a program that displays a different message based on time of day. [Note: For example page should display “Good Morning” if it is accessed in the morning.]**

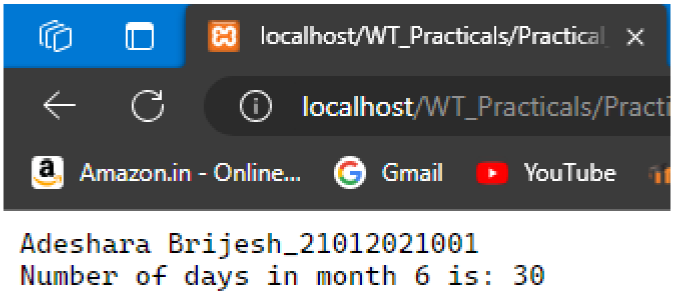
```
<?php
echo "Adeshara Brijesh_21012021001". "<br>";
// Get the current hour
date_default_timezone_set('Asia/Kolkata');
$h = date('G', time());
// Define messages based on the time of day
if ($h >= 5 && $h < 12) {
    echo "Current time : ". $h . "<br>"." Good Morning";
} elseif ($h >= 12 && $h < 17) {
    echo "Current time : ". $h . "<br>"." Good Afternoon";
} elseif ($h >= 17 && $h < 21) {
    echo "Current time : ". $h . "<br>"." Good Evening";
} else {
    echo "Current time : ". $h . "<br>"." Good Night";
}
?>
```


localhost/WT_Practicals/Practical
localhost/WT_Practicals/Pract
Amazon.in - Online...
Gmail
YouTube

```
Adeshara Brijesh_21012021001
Current time : 22
Good Night
```

4. **Write a PHP function daysInMonth() that takes a month (between 1 and 12) as a parameter and returns the number of days in that month in a non-leap year. [For example daysInMonth(6) should return 30, because June has 30 days.].**

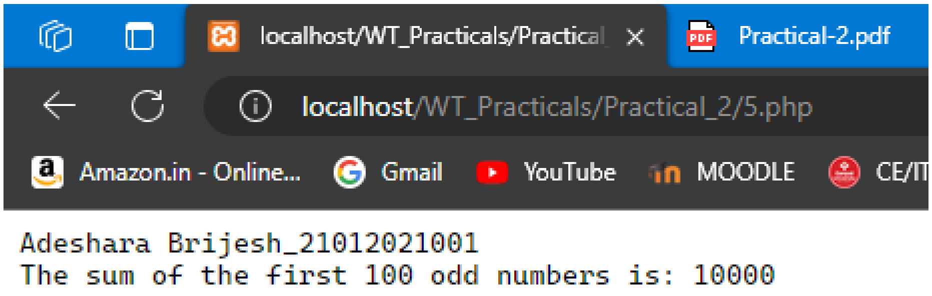
```
<?php
echo "Adeshara Brijesh_21012021001". "<br>";
function daysInMonth($month) {
    // Ensure the month parameter is between 1 and 12
    if ($month < 1 || $month > 12) {
        return "Invalid month. Please provide a month between 1 and 12.";
    }

    // Define an array with the number of days in each month
    $daysInMonth = [
        1 => 31, // January
        2 => 28, // February
        3 => 31, // March
        4 => 30, // April
        5 => 31, // May
        6 => 30, // June
        7 => 31, // July
        8 => 31, // August
        9 => 30, // September
        10 => 31, // October
        11 => 30, // November
        12 => 31  // December
    ];

    // Return the number of days for the given month
    return $daysInMonth[$month];
}

// Example usage:
$month = 6; // June
echo "Number of days in month $month is: " . daysInMonth($month);
?>
```


localhost/WT_Practicals/Practical
localhost/WT_Practicals/Practi
Amazon.in - Online...
Gmail
YouTube

```
Adeshara Brijesh_21012021001
Number of days in month 6 is: 30
```

**5. Write a PHP program to make the sum of first 100 odd numbers.**

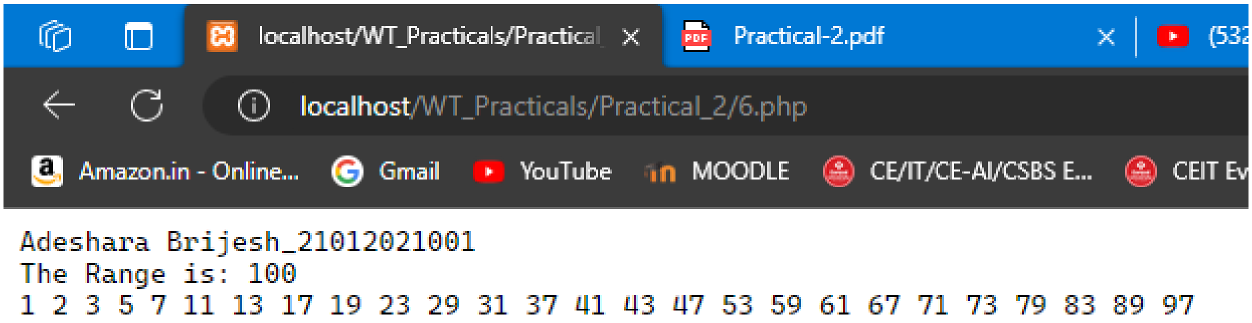
```
<?php
echo "Adeshara Brijesh_21012021001". "<br>";
// Initialize variables
$sum = 0;
$count = 0;
$number = 1;

// Loop until we count 100 odd numbers
while ($count < 100) {
    // Check if the number is odd
    if ($number % 2 != 0) {
        // Add the odd number to the sum
        $sum += $number;
        // Increment the count of odd numbers
        $count++;
    }
    // Move to the next number
    $number++;
}
// Output the sum of the first 100 odd numbers
echo "The sum of the first 100 odd numbers is: $sum";
?>
```


localhost/WT_Practicals/Practical
Practical-2.pdf
localhost/WT_Practicals/Practical_2/5.php
Amazon.in - Online...
Gmail
YouTube
MOODLE
CE/IT

```
Adeshara Brijesh_21012021001
The sum of the first 100 odd numbers is: 10000
```

## 6. Write a PHP program to list out Prime numbers in given range.

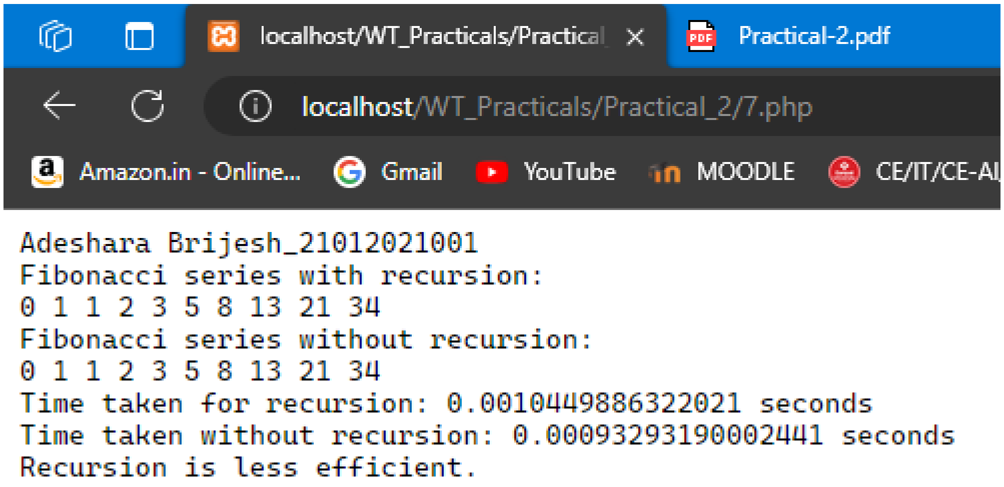
```
<?php
   echo "Adeshara Brijesh_21012021001". "<br>";
   $range=100;
   echo "The Range is: ".$range."<br>";
   for($i=1; $i<=$range; $i++){
      $flag=true;
      for($j=2; $j<$i; $j++ ){
         if($i % $j == 0){
            $flag=false;
         }
      }
      if($flag){
         echo $i."<br>";
      }
   }
?>
```



```
Adeshara Brijesh_21012021001
The Range is: 100
1 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
```

7. **Write a PHP program to print fibonacci series with and without using recursion and check which method is efficient. [Note: microtime() function is an inbuilt function in PHP which is used to return the current Unix timestamp with microseconds.]**

```
<?php
echo "Adeshara Brijesh_21012021001". "<br>";
// Fibonacci series with recursion
function fibonacciWithRecursion($n) {
    if ($n <= 1) {
        return $n;
    } else {
        return fibonacciWithRecursion($n - 1) + fibonacciWithRecursion($n - 2);
    }
}

// Fibonacci series without recursion
function fibonacciWithoutRecursion($n) {
    $fib = array();
    $fib[0] = 0;
    $fib[1] = 1;

    for ($i = 2; $i <= $n; $i++) {
        $fib[$i] = $fib[$i - 1] + $fib[$i - 2];
    }

    return $fib[$n];
}

// Measure time for Fibonacci with recursion
$startRecursion = microtime(true);
$n = 10; // Change n to test with different values
echo "Fibonacci series with recursion:<br>";
for ($i = 0; $i < $n; $i++) {
    echo fibonacciWithRecursion($i) . " ";
}
echo "<br>";
$endRecursion = microtime(true);
$timeRecursion = $endRecursion - $startRecursion;

// Measure time for Fibonacci without recursion
$startWithoutRecursion = microtime(true);
echo "Fibonacci series without recursion:<br>";
for ($i = 0; $i < $n; $i++) {
    echo fibonacciWithoutRecursion($i) . " ";
}
echo "<br>";
$endWithoutRecursion = microtime(true);
$timeWithoutRecursion = $endWithoutRecursion - $startWithoutRecursion;

// Output time taken for both methods
echo "Time taken for recursion: " . $timeRecursion . " seconds<br>";
echo "Time taken without recursion: " . $timeWithoutRecursion . " seconds<br>";

// Check which method is more efficient
if ($timeRecursion < $timeWithoutRecursion) {
   echo "Recursion is more efficient.<br>";
} else {
   echo "Recursion is less efficient.<br>";
}
?>
```


localhost/WT_Practicals/Practical
Practical-2.pdf
localhost/WT_Practicals/Practical_2/7.php
Amazon.in - Online...
Gmail
YouTube
MOODLE
CE/IT/CE-AI

```
Adeshara Brijesh_21012021001
Fibonacci series with recursion:
0 1 1 2 3 5 8 13 21 34
Fibonacci series without recursion:
0 1 1 2 3 5 8 13 21 34
Time taken for recursion: 0.0010449886322021 seconds
Time taken without recursion: 0.00093293190002441 seconds
Recursion is less efficient.
```

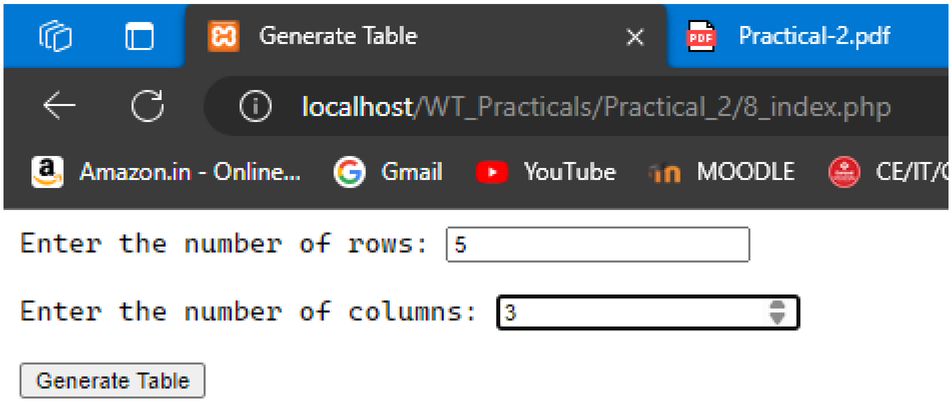
8. **Write a PHP program to enter the numbers of rows and columns and in the next page generate the table with given rows and cols.**
**Index.php**

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Generate Table</title>
</head>
<body>
   <form action="8_table.php" method="post">
```

```
        <label for="rows">Enter the number of rows:</label>
        <input type="number" id="rows" name="rows" required><br><br>

        <label for="cols">Enter the number of columns:</label>
        <input type="number" id="cols" name="cols" required><br><br>

        <input type="submit" value="Generate Table">
    </form>
</body>
</html>
```

**Table.php**

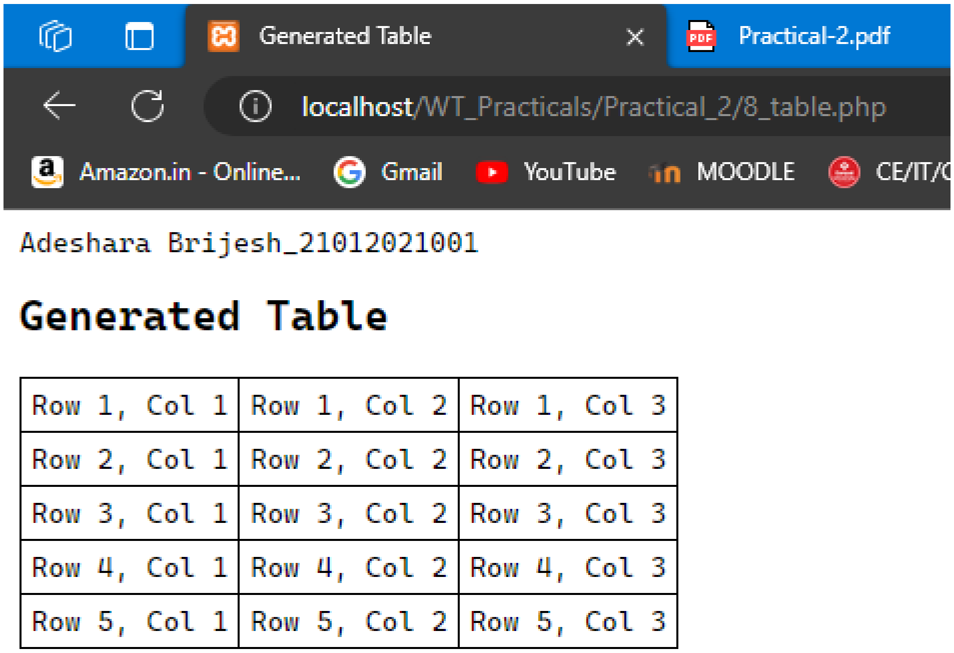
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Generated Table</title>
    <style>
        table {
            border-collapse: collapse;
        }

        table, th, td {
            border: 1px solid black;
            padding: 5px;
        }
    </style>
</head>
<body>
    <?php
    // Retrieve the number of rows and columns from the form
    $rows = isset($_POST['rows']) ? (int)$_POST['rows'] : 0;
    $cols = isset($_POST['cols']) ? (int)$_POST['cols'] : 0;

    if ($rows > 0 && $cols > 0) {
        echo "Adeshara Brijesh_21012021001". "<br>";
        echo "<h2>Generated Table</h2>";
        echo "<table>";

        // Generate the table with the specified number of rows and columns
        for ($i = 1; $i <= $rows; $i++) {
            echo "<tr>";
            for ($j = 1; $j <= $cols; $j++) {
                echo "<td>Row $i, Col $j</td>";
            }
            echo "</tr>";
        }

        echo "</table>";
    } else {
        echo "<h2>Error: Invalid number of rows or columns.</h2>";
    }
    ?>
</body>
</html>
```



Enter the number of rows: 5

Enter the number of columns: 3

Generate Table



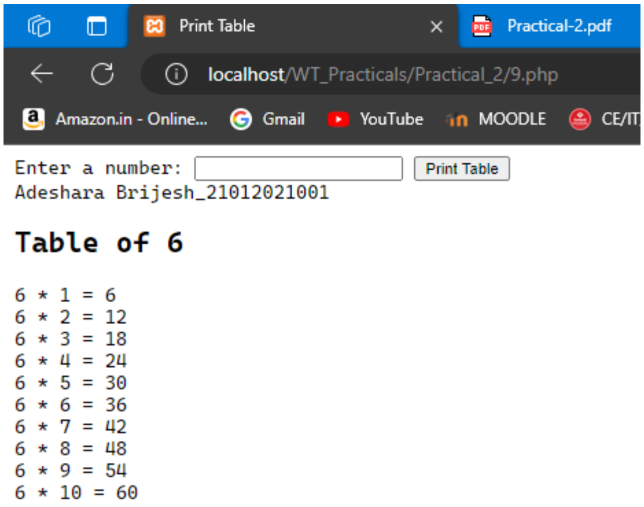
Adeshara Brijesh_21012021001

## Generated Table

| | | |
|---|---|---|
| Row 1, Col 1 | Row 1, Col 2 | Row 1, Col 3 |
| Row 2, Col 1 | Row 2, Col 2 | Row 2, Col 3 |
| Row 3, Col 1 | Row 3, Col 2 | Row 3, Col 3 |
| Row 4, Col 1 | Row 4, Col 2 | Row 4, Col 3 |
| Row 5, Col 1 | Row 5, Col 2 | Row 5, Col 3 |

**9. Write a PHP program to print table of a number.**
**[For example: 9 * 1 = 9 9 * 2 = 18 ….]**

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Print Table</title>
</head>
<body>
   <form action="" method="post">
      <label for="number">Enter a number:</label>
      <input type="number" id="number" name="number" required>
      <input type="submit" value="Print Table">
   </form>
   <?php
   echo "Adeshara Brijesh_21012021001". "<br>";
   if ($_SERVER["REQUEST_METHOD"] == "POST") {
      $number = isset($_POST['number']) ? (int)$_POST['number'] : 0;
      if ($number > 0) {
         echo "<h2>Table of $number</h2>";
         for ($i = 1; $i <= 10; $i++) {
            $result = $number * $i;
            echo "$number * $i = $result<br>";
         }
      } else { echo "<p>Please enter a valid number.</p>"; }
   }
   ?>
</body>
</html>
```



```
Enter a number:
Adeshara Brijesh_21012021001

Table of 6

6 * 1 = 6
6 * 2 = 12
6 * 3 = 18
6 * 4 = 24
6 * 5 = 30
6 * 6 = 36
6 * 7 = 42
6 * 8 = 48
6 * 9 = 54
6 * 10 = 60
```