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I. Arrays and Functions

1. Write a PHP program to display the current date and time and display a Good Morning / Good Afternoon / Good Evening message according to the current time.

```
<?php
date_default_timezone_set('Asia/Kolkata'); // Set timezone to New York

// Get the current hour
$hour = date("H");

// Display the current time
echo "Current Time: ". date("H:i:s") . "<br>";
echo "Current Date: ". date("Y.m:d") . "<br>";

// Display a greeting based on the time of day
if ($hour < 12) {
    echo "Good Morning!";
} elseif ($hour < 18) {
    echo "Good Afternoon!";
} else {
    echo "Good Evening!";
}
?>
```

PHP Date and Time

The PHP `date()` function formats a timestamp to a more readable date and time.

The required *format* parameter of the `date()` function specifies how to format the date (or time).

Here are some characters that are commonly used for dates:

- `d` - Represents the day of the month (01 to 31)

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- D- Represents the three letter of Day(Mon)
- m - Represents a month (01 to 12)
- M- Represents the Three letter of Month(Jan-Dec)
- Y - Represents a year (in four digits)
- y- Represents the year (in two digits)
- l (lowercase 'L') - Represents the day of the week

Get a Time

- H - 24-hour format of an hour (00 to 23)
- h - 12-hour format of an hour with leading zeros (01 to 12)
- i - Minutes with leading zeros (00 to 59)
- s - Seconds with leading zeros (00 to 59)
- a - Lowercase Ante meridiem and Post meridiem (am or pm)

2. Create an array named employee that stores 5 employee details with different keys and access the same using the key element.

```
<?php
// Create an associative array for employee details
$employee = array(
array(
    "id" => 101,
    "name" => "Rahul",
    "age" => 25,
    "department" => "HR",
    "salary" => 30000
),
array("id" => 102,
    "name" => "Rahul",
    "age" => 25,
    "department" => "HR",
    "salary" => 30000),
array("id" => 103,
```

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```
"name" => "Rahul",
"age" => 25,
"department" => "HR",
"salary" => 30000)
);

// Access and display array elements using keys
echo "Employee ID: " . $employee[0]["id"] . "<br>";
echo "Employee Name: " . $employee[1]["id"] . "<br>";
echo "Employee Age: " . $employee[2]["id"] . "<br>";
?>
```

3. Write a program in PHP to demonstrate the use of multidimensional arrays.

```
<?php
$emp = array(
    array(101, "Raj", 5000),
    array(102, "Meet", 4000),
    array(103, "Ajay", 6000) );
echo "<h3>Employee Bonus Details</h3>";

echo $emp[0][0] . " : Employee: " . $emp[0][1] . ", Bonus: " . $emp[0][2] .
"<br>";
echo $emp[1][0] . " : Employee: " . $emp[1][1] . ", Bonus: " . $emp[1][2] .
"<br>";
echo $emp[2][0] . " : Employee: " . $emp[2][1] . ", Bonus: " . $emp[2][2] .
"<br>";

$totalBonus = $emp[0][2] + $emp[1][2] + $emp[2][2];

echo "<br><b>Total Bonus: </b>" . $totalBonus;
?>
```

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3. Write a program in PHP to demonstrate the use of multidimensional arrays. With HTML

```
<html>
<head>
  <title>My PHP Page</title>
</head>
<body>
<?php
$semp = array(
  array(101, "Raj", 5000),
  array(102, "Meet", 4000),
  array(103, "Ajay", 6000)
);
echo "<h2 style='color:blue;'>Employee Bonus Details</h2>";

echo "<p><b>ID:</b> ".$semp[0][0]." | <b>Name:</b> ".$semp[0][1]." |
<b>Bonus:</b> ".$semp[0][2]."</p>";

echo "<p><b>ID:</b> ".$semp[1][0]." | <b>Name:</b> ".$semp[1][1]." |
<b>Bonus:</b> ".$semp[1][2]."</p>";

echo "<p><b>ID:</b> ".$semp[2][0]." | <b>Name:</b> ".$semp[2][1]." |
<b>Bonus:</b> ".$semp[2][2]."</p>";

$totalBonus = $semp[0][2] + $semp[1][2] + $semp[2][2];

echo "<hr>";
echo "<h3 style='color:green;'>Total Bonus: $totalBonus</h3>";
?>
</body>
</html>
```

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4 Create two functions in PHP, parameterized and non-parameterized, for implementing string concatenation operations.

1. Non-Parameterized Function (No Arguments)

```
<?php
function concatenateStrings()
{
    $string1 = "Hello, ";
    $string2 = "World!";
    $result = $string1 . $string2; // Concatenation operation
    return $result;
}

// Call the function
echo concatenateStrings(); // Outputs: Hello, World!
?>
```

2. Parameterized Function (With Arguments)

```
<?php
function concatenateStringsWithArgs($str1, $str2)
{
    $result = $str1 . $str2; // Concatenation operation
    return $result;
}

// Call the function with parameters
echo concatenateStringsWithArgs("Hello, ", "PHP!"); // Outputs: Hello, PHP!
?>
```

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5. Write a program in PHP to sort the array of given 5 numbers in ascending and descending order.

Using the built-in function of the array

```
<?php
// Define an array of 5 numbers
$numbers = [45, 12, 78, 34, 23];

echo "Original Array: <br>";
print_r($numbers);

// Sort in Ascending Order
sort($numbers); // sort() arranges values in ascending order
echo "<br><br>Array in Ascending Order: <br>";
print_r($numbers);

// Sort in Descending Order
rsort($numbers); // rsort() arranges values in descending order
echo "<br><br>Array in Descending Order: <br>";
print_r($numbers);
?>
```

Using the Manual Process

```
<?php
//Write a program to sort an array in ascending and descending order.
// Array of 5 numbers
$numbers = [45, 12, 89, 23, 67];
$count = count($numbers);

// Ascending Order
for ($i = 0; $i < $count; $i++) {
    for ($j = $i + 1; $j < $count; $j++) {
        if ($numbers[$i] > $numbers[$j]) {
            // swap
            $temp = $numbers[$i];
            $numbers[$i] = $numbers[$j];
        }
    }
}
```

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```
        $numbers[$j] = $temp;
    }
}
}
echo "Ascending Order:<br>";
foreach ($numbers as $value) {
    echo $value. " ";
}
echo "<br><br>";

// Descending Order
for ($i = 0; $i < $count; $i++) {
    for ($j = $i + 1; $j < $count; $j++) {
        if ($numbers[$i] < $numbers[$j]) {
            // swap
            $temp = $numbers[$i];
            $numbers[$i] = $numbers[$j];
            $numbers[$j] = $temp;
        }
    }
}
}
echo "Descending Order:<br>" ;
foreach ($numbers as $value) {
    echo $value. " ";
}
?>
```

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6. Write a program to count the total number of times a specific value appears in an array.

```
<?php
// Define an array of numbers
$numbers = [10, 20, 30, 10, 40, 10, 50];

// Define the value to search for
$searchValue = 10;

// Count occurrences using a loop
$count = 0;
foreach ($numbers as $num)
{
    if ($num == $searchValue)
    {
        $count++;
    }
}
echo "The value $searchValue appears $count times in the array.<br>";

// Alternative: Using built-in array_count_values()

$frequency = array_count_values($numbers);
echo "Using array_count_values(): The value $searchValue appears " .
$frequency[$searchValue] . " times.";
?>
```

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7. Write a PHP Program to perform the following operation on an array, where values in the array are entered by the user:

- a. Print the values of an array.**
- b. Reverse an array.**
- c. Merge two arrays a in sorted manner.**
- d. Add values of all elements of an array.**

```
<html>
<head>
  <title>Array Operations</title>
</head>
<body>
<form method="post">
  Enter array values (comma separated):
  <input type="text" name="array1"><br><br>

  Enter second array values (comma separated):
  <input type="text" name="array2"><br><br>

  <input type="submit" name="submit" value="Submit">
</form>

<?php
if (isset($_POST['submit']))
{

  // Convert input string to array
  $array1 = explode(",", $_POST['array1']);
  $array2 = explode(",", $_POST['array2']);

  // $array1 = $_POST['array1'];
  // $array2 = $_POST['array2'];

  // a) Print array
```

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```
echo "<h3>Array Elements:</h3>";
print_r($array1);

// b) Reverse array
echo "<h3>Reversed Array:</h3>";
print_r(array_reverse($array1));

// c) Merge and sort arrays
$merged = array_merge($array1, $array2);
sort($merged);
echo "<h3>Merged and Sorted Array:</h3>";
print_r($merged);

// d) Sum of array elements
$sum = array_sum($array1);
echo "<h3>Sum of First Array Elements: $sum</h3>";
}
?>
</body>
</html>
```

8 Write a PHP program to perform the following string operations:

- a. Print your name.**
- b. Print the size of a string.**
- c. Pass a string as an argument.**
- d. Concatenate two strings.**
- e. Convert case of string**
- f. Find one string from another.**

```
<?php
// a) Print your name
```

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```
$name = "Yash";  
echo "a) My Name: ". $name. "<br>";  
  
// b) Print the size (length) of a string  
echo "b) Length of name: ". strlen($name) . "<br>";  
  
// c) Pass string as an argument  
function showString($str) {  
    echo "c) String passed as argument: ". $str. "<br>";  
}  
showString($name);  
  
// d) Concatenate two strings  
$str1 = "Hello ";  
$str2 = "PHP";  
$concat = $str1 . $str2;  
echo "d) Concatenated String: ". $concat. "<br>";  
  
// e) Convert case of string  
echo "e) Uppercase: ". strtoupper($name) . "<br>";  
echo "e) Lowercase: ". strtolower($name) . "<br>";  
  
// f) Find one string from another  
$text = "I am learning PHP programming";  
  
if (strpos($text, "PHP") !== false)  
{  
    echo "f) 'PHP' found in the string";  
}  
else  
{  
    echo "f) 'PHP' not found in the string";  
}  
?>
```

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II. Working with Forms, Cookies, and Sessions

9. Create a web page that has user profile details with validations on submission of the form, it should display the user information.

```
<!DOCTYPE html>
<html>
<head>
  <title>User Profile Form</title>
  <style>
    .error { color: red; font-size: 14px; }
  </style>
</head>
<body>

<?php
// Initialize error variables
$nameError = $emailError = $ageError = $genderError = "";
$name = $email = $age = $gender = "";

if (isset($_POST['submit']))
{
  $name = trim($_POST['name']);
  $email = trim($_POST['email']);
  $age = trim($_POST['age']);
  $gender = isset($_POST['gender']) ? $_POST['gender'] : "";

  // Validations
  if (empty($name))
  {
    $nameError = "Name is required.";
  }
  if (empty($email) || !filter_var($email, FILTER_VALIDATE_EMAIL))
  {
    $emailError = "Valid email is required.";
  }
  if (empty($age) || !is_numeric($age))
```

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```
{
    $ageError = "Age must be a number.";
}
if (empty($gender))
{
    $genderError = "Gender is required.";
}

if (empty($nameError) && empty($emailError) && empty($ageError) &&
empty($genderError))
{
    echo "<h3>User Information:</h3>";
    echo "Name: " . htmlspecialchars($name) . "<br>";
    echo "Email: " . htmlspecialchars($email) . "<br>";
    echo "Age: " . htmlspecialchars($age) . "<br>";
    echo "Gender: " . htmlspecialchars($gender) . "<br>";
}
}
?>

<h2>User Profile Form</h2>

<form method="post">

Name: <input type="text" name="name" value="<?php echo
htmlspecialchars($name); ?>">
    <span class="error"><?php echo $nameError; ?></span><br><br>

Email: <input type="text" name="email" value="<?php echo
htmlspecialchars($email); ?>">
    <span class="error"><?php echo $emailError; ?></span><br><br>

Age: <input type="text" name="age" value="<?php echo htmlspecialchars($age);
```

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```
?>">
  <span class="error"><?php echo $ageError; ?></span><br><br>
Gender: <input type="radio" name="gender" value="Male" <?php
if($gender=="Male") echo "checked"; ?>>
Male<input type="radio" name="gender" value="Female" <?php
if($gender=="Female") echo "checked"; ?>> Female
<span class="error"><?php echo $genderError; ?></span><br><br>
<input type="submit" name="submit" value="Submit">
</form>
</body>
</html>
```

10 . Create an application that displays the info about a particular institute, which enables the user to see the faculty list according to the department.

Connect PHP with MYSQL (Table Creation)

```
CREATE DATABASE project_php;
USE project_php;

-- Departments table
CREATE TABLE departments (
  dept_id INT AUTO_INCREMENT PRIMARY KEY,
  dept_name VARCHAR(100) NOT NULL
);

-- Faculty table
CREATE TABLE faculty (
  faculty_id INT AUTO_INCREMENT PRIMARY KEY,
  name VARCHAR(100) NOT NULL,
  designation VARCHAR(100) NOT NULL,
  dept_id INT,
  FOREIGN KEY (dept_id) REFERENCES departments(dept_id)
);
```

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```
INSERT INTO departments (dept_name) VALUES
('Computer Science'),
('Mathematics'),
('Physics'),
('Commerce');
```

```
INSERT INTO faculty (name, designation, dept_id) VALUES
('Dr A. Sharma', 'Professor', 1),
('Ms. R. Patel', 'Assistant Professor', 1),
('Dr. K. Mehta', 'Professor', 2),
('Mr. S. Iyer', 'Lecturer', 3),
('Dr. P. Desai', 'Associate Professor', 4);
```

Index.php

```
<?php include('db_connect.php'); ?>

<html>
<head>
  <title>Institute Info</title>
</head>
<body>
  <h1>Welcome to Our Institute</h1>
  <h2>Select Department to View Faculty</h2>

  <form method="GET" action="faculty.php">
    <select name="dept_id">
      <?php
        $result = $conn->query("SELECT * FROM departments");
        while($row = $result->fetch_assoc()) {
          echo "<option
value='".$row['dept_id']."'>".$row['dept_name']."</option>";
        }
      ?>
    </select>
```

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```
        <input type="submit" value="View Faculty">
    </form>
</body>
</html>
```

db_connect.php

```
<?php
$host = "localhost";
$user = "root";
$password = "";
$db = "php_project";
$conn = mysqli_connect("localhost:3307", "root", "", "php_project");

// $conn = mysqli_connect($host, $user, $password, $db);

if (!$conn)
{
    die("Connection failed: " . mysqli_connect_error());
}
else
{
    echo "done";
}
?>
```

Faculty.php

```
<?php include('db_connect.php'); ?>

<html>
<head>
    <title>Faculty List</title>
</head>
<body>
    <h1>Faculty Members</h1>
```

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```
<?php
if(isset($_GET['dept_id']))
{
    $dept_id = intval($_GET['dept_id']);

    $dept_result = $conn->query("SELECT dept_name FROM departments
WHERE dept_id=$dept_id");

    $dept = $dept_result->fetch_assoc();
    echo "<h2>Department: ".$dept['dept_name']."</h2>";

    $result = $conn->query("SELECT * FROM faculty WHERE
dept_id=$dept_id");
    if($result->num_rows > 0)
    {
        echo "<ul>";
        while($row = $result->fetch_assoc())
        {
            echo "<li>".$row['name']." - ".$row['designation']."</li>";
        }
        echo "</ul>";
    } else {
        echo "No faculty found in this department.";
    }
}
?>
</body>
</html>
```

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11. Create an application to create a cookie, access a cookie, and destroy the cookie

Example 1

set_cookies.php

```
<html>
<body>
<?php
setcookie("user", "Yash", time() + 5);
if (isset($_COOKIE["user"]))
{
    echo "Cookie is set!".$_COOKIE["user"];
} else {
    echo "Cookie is not set yet.";
}
?>
<p><a href="check_cookies.php">Go to Access Cookie Page</a></p>
<p><a href="delete_cookies.php">Go to Delete Cookie Page</a></p>

</body>
</html>
```

Check_cookies.php

```
<?php
// Access the cookie value
if (isset($_COOKIE["user"])) {
    echo "User cookie value: " . $_COOKIE["user"];
} else {
    echo "No cookie found.";
}
?>
<p><a href="set_cookies.php">Go to Set Cookie Page</a></p>
<p><a href="delete_cookies.php">Go to delete Cookie Page</a></p>
```

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Delete_cookies.php

```
<?php
// Delete the cookie by setting its expiration time in the past
setcookie("user", "", time() - 3600);

// Verify deletion
if (isset($_COOKIE["user"]))
{
    echo "Cookie still exists: " . $_COOKIE["user"];
} else
{
    echo "Cookie 'user' has been deleted.";
}
?>
<p><a href="set_cookies.php">Go to Set Cookie Page</a></p>
<p><a href="check_cookies.php">Go to Access Cookie Page</a></p>
```

Example 2

```
<?php
// Handle actions based on button clicks
if (isset($_GET['action']))
{
    $action = $_GET['action'];

    if ($action == "create")
    {
        // Create a cookie named "user."
        setcookie("user", "Sanjana", time() + 5, ""); //
        $message = "Cookie 'user' created with value 'Sanjana.'";
    }
    elseif ($action == "access")
    {
        if (isset($_COOKIE["user"])) {
            $message = "Cookie value: " . $_COOKIE["user"];
        } else {
```

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```
        $message = "No cookie found.";
    }
} elseif ($action == "destroy")
{
    // Destroy the cookie
    setcookie("user", "", time() - 3600, "/");
    $message = "Cookie 'user' destroyed.";
}
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Cookie Demo</title>
</head>
<body>
    <h2>PHP Cookie Application</h2>
    <!-- Buttons to trigger actions -->
    <a href="?action=create">Create Cookie</a> |
    <a href="?action=access">Access Cookie</a> |
    <a href="?action=destroy">Destroy Cookie</a>
    <hr>
    <!-- Show message -->
    <?php if (isset($message)) echo "<p><b>$message</b></p>"; ?>
</body>
</html>
```

Example 3

```
<?php
// CREATE COOKIE
if(isset($_POST['create']))
{
    $username = $_POST['username'];
    setcookie("user", $username, time() + 30); // 30 seconds expiry
    echo "Cookie Created successfully!<br>";
}
```

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```
}  
  
// DELETE COOKIE  
if(isset($_POST['delete'])) {  
    setcookie("user", "", time() - 3600);  
    echo "Cookie Deleted successfully!<br>";  
}  
?  
<!DOCTYPE html>  
<html>  
<head>  
    <title>Cookie Application</title>  
</head>  
<body>  
<h2>Cookie Application</h2>  
<!-- Form to Create Cookie -->  
<form method="post">  
    Enter Username:  
    <input type="text" name="username" required>  
    <button type="submit" name="create">Create Cookie</button>  
</form>  
  
<br>  
  
<!-- Button to Read Cookie -->  
<form method="post">  
    <button type="submit" name="read">Read Cookie</button>  
</form>  
  
<br>  
  
<!-- Button to Delete Cookie -->  
<form method="post">  
    <button type="submit" name="delete">Delete Cookie</button>  
</form>
```

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```
<br>

<?php
// READ COOKIE
if(isset($_POST['read']))
{
    if(isset($_COOKIE["user"]))
    {
        echo "Stored Username: " . $_COOKIE["user"];
    } else {
        echo "Cookie not found or expired!";
    }
}
?>
</body>
</html>
```

12. Set a session after the user's login, and maintain the user's data with the session. Destroy the session and its data after a period of time.

login.php

```
<?php
session_start();

if(isset($_POST['login']))
{
    $_SESSION['username'] = $_POST['username'];
    $_SESSION['last_activity'] = time(); // store login time

    echo "Login Successful! <br>";
    echo "<a href='home.php'>Go to Home Page</a>";
}
?>
<form method="post">
    Username: <input type="text" name="username" required>
    <input type="submit" name="login" value="Login">
```

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```
</form>
```

home.php

```
<?php
session_start();
$timeout = 5; // 10 seconds timeout (you can change)
if(isset($_SESSION['username']))
{
    // Check session timeout
    if(time() - $_SESSION['last_activity'] > $timeout)
    {
        session_unset();
        session_destroy();
        echo "Session expired! Please login again.";
        exit();
    }

    $_SESSION['last_activity'] = time(); // update activity time

    echo "Welcome " . $_SESSION['username'];
    echo "<br><a href='logout.php'>Logout</a>";
}
else
{
    echo "Please login first.";
}
?>
```

logout.php

```
<?php
session_start();
session_unset(); // remove all session variables
session_destroy(); // destroy session
echo "You have been logged out.";
?>
```

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13. Build an authentication application that restricts unauthorized users from loading the page. And redirect the page with an appropriate message.

login.php

```
<?php
session_start();

if(isset($_GET['message']))
{
    echo $_GET['message'] . "<br><br>";
}
if(isset($_POST['login']))
{
    $username = $_POST['username'];
    $password = $_POST['password'];

    if($username == "admin" && $password == "1234")
    {
        $_SESSION['username'] = $username;
        header("Location: dashboard.php");
        exit();
    }
    else
    {
        echo "Invalid Username or Password!";
    }
}
?>
<form method="post">
    Username: <input type="text" name="username" required><br><br>
    Password: <input type="password" name="password" required><br><br>
    <input type="submit" name="login" value="Login">
</form>
```

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dashboard.php

```
<?php
session_start();

// Check if user is logged in
if(!isset($_SESSION['username']))
{
    header("Location: login.php?message=Please login first!");
    exit();
}
echo "Welcome " . $_SESSION['username'];
echo "<br><a href='logout.php'>Logout</a>";
?>
```

logout.php

```
<?php
session_start();
session_destroy();
header("Location: login.php?message=Logged out successfully!");
exit();
?>
```

III. Working with Database and Pagination

14. Develop an application that stores students' info with the following fields: rno, name, city, gender, and percentage. Provide the following facilities:

a. Search by city b. Search by Gender c. Display max and min percentage.

config.php

```
<?php
$conn = mysqli_connect("localhost:3307", "root", "", "college");
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
?>
```

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index.php

```
<!--
create table students (rno int(11) primary key,
name varchar(20),
city varchar(20),gender varchar(20), Percentage float);
);
-->
<?php
include("config.php");
?>
<html>
<head>
    <title>Student Information System</title>
</head>
<body bgcolor="pink">
<h2>Add Student</h2>

<form method="post">
    Rno: <input type="number" name="rno" required><br><br>
    Name: <input type="text" name="name" required><br><br>
    City: <input type="text" name="city" required><br><br>
    Gender:
    <select name="gender">
        <option value="Male">Male</option>
        <option value="Female">Female</option>
    </select><br><br>
    Percentage: <input type="number" step="0.01" name="percentage"
required><br><br>

    <input type="submit" name="save" value="Save">
</form>

<hr>

<h2>Search by City</h2>
<form method="get">
```

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```
City: <input type="text" name="search_city">
<input type="submit" value="Search">
</form>

<h2>Search by Gender</h2>
<form method="get">
  Gender:
  <select name="search_gender">
    <option value="">--Select--</option>
    <option value="Male">Male</option>
    <option value="Female">Female</option>
  </select>
  <input type="submit" value="Search">
</form>

<h2>Max and Min Percentage</h2>
<form method="post">
  <input type="submit" name="maxmin" value="Show Max & Min">
</form>

<hr>

<?php

// INSERT DATA
if(isset($_POST['save']))
{
  $rno = $_POST['rno'];
  $name = $_POST['name'];
  $city = $_POST['city'];
  $gender = $_POST['gender'];
  $percentage = $_POST['percentage'];

  $sql = "INSERT INTO students VALUES
('$rno','$name','$city','$gender','$percentage)";
```

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```
if(mysqli_query($conn, $sql))
{
    echo "Student Added Successfully!";
} else {
    echo "Error: " . mysqli_error($conn);
}
}
// SEARCH BY CITY
if(isset($_GET['search_city']) && $_GET['search_city'] != "")
{
    $city = $_GET['search_city'];
    $result = mysqli_query($conn, "SELECT * FROM students WHERE
city='$city'");

    echo "<h3>Students from $city</h3>";
    while($row = mysqli_fetch_assoc($result)) {
        echo "Rno: ".$row['rno']." | Name: ".$row['name']." | Percentage:
".$row['percentage']."%<br>";
    }
}

// SEARCH BY GENDER
if(isset($_GET['search_gender']) && $_GET['search_gender'] != "")
{
    $gender = $_GET['search_gender'];
    $result = mysqli_query($conn, "SELECT * FROM students WHERE
gender='$gender'");

    echo "<h3>$gender Students</h3>";
    while($row = mysqli_fetch_assoc($result))
    {
        echo "Rno: ".$row['rno']." | Name: ".$row['name']." |Percentage :
".$row['percentage']."%<br>";
    }
}
// MAX AND MIN PERCENTAGE
```

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```
if(isset($_POST['maxmin']))
{
    $result = mysqli_query($conn, "SELECT MAX(percentage) AS maxp,
MIN(percentage) AS minp FROM students");
    $row = mysqli_fetch_assoc($result);

    echo "<h3>Maximum Percentage: ".$row['maxp']."</h3>";
    echo "<h3>Minimum Percentage: ".$row['minp']."</h3>";
}
?>
</body>
</html>
```

15. Develop an application to add the movie name currently running with the following operations:

a. To see all your favorite movies b. To view the top 5 and 10 movies

config.php

```
<?php
$conn = mysqli_connect("localhost:3307","root","","moviedb");

if(!$conn)
{
    die("Connection Failed: ".mysqli_connect_error());
}
else {

    echo "done";
}
?>
```

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index.php

```
<!--use moviedb;
CREATE TABLE movies (
  id INT AUTO_INCREMENT PRIMARY KEY,
  movie_name VARCHAR(100),
  rating INT,
  is_favorite VARCHAR(50)
)-->
<?php
include("config.php");
?>
<html>
<head>
  <title>Movie Application</title>
</head>
<body>
<h2>Add Running Movie</h2>

<form method="post">
Movie Name: <input type="text" name="movie_name" required><br><br>
Rating (1-10): <input type="number" step="0.1" name="rating"
required><br><br>

Favorite:
  <select name="favorite">
    <option value="Yes">Yes</option>
    <option value="No">No</option>
  </select><br><br>

  <input type="submit" name="add" value="Add Movie">
</form>

<hr>

<h3>View All Favorite Movies</h3>
<form method="post">
```

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```
<input type="submit" name="fav" value="Show Favorites">
</form>

<h3>View Top 5 Movies</h3>
<form method="post">
  <input type="submit" name="top5" value="Show Top 5">
</form>
<h3>View Top 10 Movies</h3>
<form method="post">
  <input type="submit" name="top10" value="Show Top 10">
</form>
<hr>
<?php
// ADD MOVIE
if(isset($_POST['add'])){
  $name = $_POST['movie_name'];
  $rating = $_POST['rating'];
  $favorite = $_POST['favorite'];

  $sql = "INSERT INTO movies (movie_name, rating, is_favorite)
        VALUES ('$name','$rating','$favorite)";

  if(mysqli_query($conn,$sql)){
    echo "Movie Added Successfully!";
  } else {
    echo "Error: ".mysqli_error($conn);
  }
}
// VIEW FAVORITE MOVIES
if(isset($_POST['fav'])){
  $result = mysqli_query($conn,"SELECT * FROM movies WHERE
is_favorite='Yes'");

  echo "<h3>Favorite Movies</h3>";
  while($row = mysqli_fetch_assoc($result)){
    echo $row['movie_name']." - Rating: ".$row['rating']."<br>";
  }
}
```

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```
}
}
// TOP 5 MOVIES
if(isset($_POST['top5'])) {
    $result = mysqli_query($conn, "SELECT * FROM movies ORDER BY rating
DESC LIMIT 5");

    echo "<h3>Top 5 Movies</h3>";
    while($row = mysqli_fetch_assoc($result)) {
        echo $row['movie_name'] . " - Rating: " . $row['rating'] . "<br>";
    }
}
// TOP 10 MOVIES
if(isset($_POST['top10'])) {
    $result = mysqli_query($conn, "SELECT * FROM movies ORDER BY rating
DESC LIMIT 10");

    echo "<h3>Top 10 Movies</h3>";
    while($row = mysqli_fetch_assoc($result)) {
        echo $row['movie_name'] . " - Rating: " . $row['rating'] . "<br>";
    }
}
?>
</body>
</html>
```

16. Create an application that keeps track of how many times a visitor has loaded the page.

```
<?php
// Check if cookie exists
if(isset($_COOKIE['visit_count']))
{
    $count = $_COOKIE['visit_count'] + 1;
} else {
    $count = 1;
}
```

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```
}  
// Set cookie for 1 day (86400 seconds)  
setcookie('visit_count', $count, time() + 10);  
  
// Display count  
echo "<h2>Page Visit Counter</h2>";  
echo "You have visited this page <b>$count</b> times."  
?>
```

17. Write a program to do the paginating function to allow the user to go to the first page / last page, like a. <Prev [1][2]...[10]Next>

```
create table students(id int(11) primary key AUTO_INCREMENT,  
                    name varchar(20),  
                    email varchar(50),  
                    dob date,  
                    course varchar(100),  
                    created_at timestamp );  
  
<?php  
$conn = mysqli_connect("localhost:3307","root","","pagination");  
  
// Number of records per page  
$limit = 5;  
// Get current page number  
if(isset($_GET['page']))  
{  
    $page = $_GET['page'];  
}else  
{  
    $page = 1;  
}  
// Calculate starting record  
$start = ($page - 1) * $limit;  
// Fetch records  
$result = mysqli_query($conn,"SELECT * FROM students LIMIT $start,  
$limit");
```

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```
echo "<h2>Student List</h2>";

while($row = mysqli_fetch_assoc($result)){
    echo $row['id']." - ".$row['name']." - ".$row['email']."<br>";
}

// Count total records
$total_result = mysqli_query($conn,"SELECT COUNT(id) as total FROM
students");
$total_row = mysqli_fetch_assoc($total_result);
$total_records = $total_row['total'];

$total_pages = ceil($total_records / $limit);

echo "<br><br>";

// FIRST PAGE LINK
if($page > 1){
    echo "<a href='?page=1'>First</a> ";
}

// PREVIOUS LINK
if($page > 1){
    $prev = $page - 1;
    echo "<a href='?page=$prev'>Prev</a> ";
}

// PAGE NUMBER LINKS
for($i=1; $i<=$total_pages; $i++){
    if($i == $page){
        echo " <b>[$i]</b> ";
    }else{
        echo " <a href='?page=$i'>[$i]</a> ";
    }
}
}
```

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```
// NEXT LINK
if($page < $total_pages){
    $next = $page + 1;
    echo "<a href='?page=$next'>Next</a> ";
}

// LAST PAGE LINK
if($page < $total_pages){
    echo "<a href='?page=$total_pages'>Last</a>";
}

?>
```

18. Create a form containing input fields (Product_id, Product_name, Product_price, QOH) and Submit button. When the user clicks on the submit button an PHP script should be executed inserts the record, update and delete in the product table.

```
—Table creation—
Create table product(product_id int(6),product_name varchar(20),product_price
int(6),qoh int(10));

<?php
$conn = mysqli_connect("localhost:3307","root","","php_project");

if(!$conn){
    die("Connection failed");
}
/* INSERT */
if(isset($_POST['insert']))
{
    $id = $_POST['product_id'];
    $name = $_POST['product_name'];
    $price = $_POST['product_price'];
    $qoh = $_POST['qoh'];
```

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```
mysqli_query($conn,"INSERT INTO product
VALUES('$id','$name','$price','$qoh)");
    echo "Record Inserted Successfully<br>";
}

/* UPDATE */
if(isset($_POST['update'])){
    $id = $_POST['product_id'];
    $name = $_POST['product_name'];
    $price = $_POST['product_price'];
    $qoh = $_POST['qoh'];

    mysqli_query($conn,"UPDATE product
        SET product_name='$name',
            product_price='$price',
            qoh='$qoh'
        WHERE product_id='$id'");
    echo "Record Updated Successfully<br>";
}

/* DELETE */
if(isset($_POST['delete'])){
    $id = $_POST['product_id'];

    mysqli_query($conn,"DELETE FROM product WHERE product_id='$id'");
    echo "Record Deleted Successfully<br>";
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Product Form</title>
</head>
<body style="background-color:#E6E6FA;">

<h2>Product Form</h2>
```

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```
<form method="post">
  Product ID: <input type="text" name="product_id"><br><br>
  Product Name: <input type="text" name="product_name"><br><br>
  Product Price: <input type="text" name="product_price"><br><br>
  QOH: <input type="text" name="qoh"><br><br>

  <input type="submit" name="insert" value="Insert">
  <input type="submit" name="update" value="Update">
  <input type="submit" name="delete" value="Delete">
</form>
<hr>
<?php
$result = mysqli_query($conn,"SELECT * FROM product");
echo "<h3>Product List</h3>";

echo "<table style='border:3px solid black; border-collapse:collapse;
background-color: #DDA0DD;'>";

echo "<tr>
<th style='border:2px solid black;'>Product ID</th>
<th style='border:2px solid black;'>Product Name</th>
<th style='border:2px solid black;'>Product Price</th>
<th style='border:2px solid black;'>QOH</th>
</tr>";
while($row = mysqli_fetch_assoc($result)){
  echo "<tr>";
  echo "<td style='border:2px solid black;'>".$row['product_id'].</td>";
  echo "<td style='border:2px solid black;'>".$row['product_name'].</td>";
  echo "<td style='border:2px solid black;'>".$row['product_price'].</td>";
  echo "<td style='border:2px solid black;'>".$row['qoh'].</td>";
  echo "</tr>";
}
echo "</table>";
?>
</body>
</html>
```

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