Practical 01

Write a PHP program to demonstrate the use of Decision makingcontrol structures using-

a. If statement
b. If-else statement
c. Switch statement

```
<?php
// Example of If statement
$number = 10;
if ($number > 0) {
echo "The number is positive.<br>";
}

// Example of If-Else statement
$age = 18;
if ($age >= 18) {
echo "You are an adult.<br>";
} else {
echo "You are not an adult.<br>";
}

// Example of Switch statement
$day = "Monday";
switch ($day) {
case "Monday":
echo "Today is Monday.<br>";
break;
case "Tuesday":
echo "Today is Tuesday.<br>";
break;
case "Wednesday":
echo "Today is Wednesday.<br>";
break;
case "Thursday":
echo "Today is Thursday.<br>";
break;
case "Friday":
echo "Today is Friday.<br>";
break;
case "Saturday":
echo "Today is Saturday.<br>";
break;
case "Sunday":
echo "Today is Sunday.<br>";
break;
default:
echo "Invalid day.<br>";
break;
}
?>
```

Output-

The number is positive.
You are an adult.
Today is Monday.

Practical 02

Write a PHP program to demonstrate the use of Looping structures using-

a) While statement

b) Do-while statement

c) For statement

d) Foreach statement

a) While statement

```
<?php
$i = 1;
while ($i <= 5) {
   echo "While loop iteration $i<br>";
   $i++;
}
?>
```

Output:-

While loop iteration 1
While loop iteration 2
While loop iteration 3
While loop iteration 4
While loop iteration 5

b) Do-while statement

```
<?php
$j = 1;
do {
   echo "Do-while loop iteration $j<br>";
   $j++;
} while ($j <= 5);
?>
```

Output:-

Do-while loop iteration 1
Do-while loop iteration 2
Do-while loop iteration 3
Do-while loop iteration 4
Do-while loop iteration 5

c) For statement

```
<?php
for ($k = 1; $k <= 5; $k++) {
   echo "For loop iteration $k<br>";
}
?>
```

Output:-

For loop iteration 1
For loop iteration 2
For loop iteration 3
For loop iteration 4
For loop iteration 5

d) Foreach statement

```
<?php
$array = ["A", "B", "C", "D", "E"];
foreach ($array as $index => $value) {
   echo "Foreach loop iteration $index with value $value<br>";
}
?>
```

Output:-

Foreach loop iteration 0 with value A
Foreach loop iteration 1 with value B
Foreach loop iteration 2 with value C
Foreach loop iteration 3 with value D
Foreach loop iteration 4 with value E

Practical 03

Write a PHP program for creating and manipulating-
a) Indexed array

b) Associative array

c) Multidimensional array

a) Indexed array

```
<?php
// Creating an indexed array
$fruits = array("Apple", "Banana", "Orange", "Grapes");

// Adding an element to the array
$fruits[] = "Mango";

// Accessing elements
echo "First fruit: " . $fruits[0] . "<br>";
echo "All fruits:<br>";
foreach ($fruits as $fruit) {
    echo $fruit . "<br>";
}
?>
```

Output:-
First fruit: Apple
All fruits:
Apple
Banana
Orange
Grapes
Mango

b) Associative array

```
<?php
// Creating an associative array
$age = array("John" => 25, "Jane" => 30, "Sam" => 22);

// Adding an element to the array
$age["Tom"] = 27;

// Accessing elements
echo "Jane's age: " . $age["Jane"] . "<br>";
echo "All ages:<br>";
foreach ($age as $name => $age_value) {
    echo $name . " is " . $age_value . " years old.<br>";
}
?>
```

Output:-
Jane's age: 30
All ages:
John is 25 years old.
Jane is 30 years old.
Sam is 22 years old.
Tom is 27 years old.
John's Math score: 85

c) Multidimensional array

```
<?php
// Creating a multidimensional array
$students = array(
    "John" => array("Math" => 85, "Science" => 90),
    "Jane" => array("Math" => 78, "Science" => 85),
    "Sam" => array("Math" => 82, "Science" => 88)
);

// Adding an element to the array
$students["Tom"] = array("Math" => 80, "Science" => 87);

// Accessing elements
echo "John's Math score: " . $students["John"]["Math"] . "<br>";
echo "All students' scores:<br>";
foreach ($students as $name => $subjects) {
    echo $name . "'s scores:<br>";
    foreach ($subjects as $subject => $score) {
        echo $subject . ": " . $score . "<br>";
    }
}
?>
```

Output:-

All students' scores:
John's scores:
Math: 85
Science: 90
Jane's scores:
Math: 78
Science: 85
Sam's scores:
Math: 82
Science: 88
Tom's scores:
Math: 80
Science: 87

Practical 04

A. Write a PHP program to-
- **Calculate length of string.**
- **Count the number of words in string without using string functions.**

B. Write a simple PHP program to demonstrate use of various built-instring functions.

A. Write a PHP program to-
- Calculate length of string.
- Count the number of words in string without using string functions.

```
<?php
// Calculate length of string
function calculateStringLength($str) {
    $length = 0;
    while (isset($str[$length])) {
        $length++;
    }
    return $length;
}

$string = "Hello World";
echo "Length of the string: " . calculateStringLength($string) . "<br>";

// Count the number of words in string without using string functions
function countWords($str) {
    $words = 0;
    $inWord = false;

    for ($i = 0; $i < calculateStringLength($str); $i++) {
        if ($str[$i] != ' ' && !$inWord) {
            $words++;
            $inWord = true;
        } elseif ($str[$i] == ' ') {
            $inWord = false;
        }
    }
    return $words;
}

echo "Number of words in the string: " . countWords($string);
?>
```

Output:-

Length of the string: 11
Number of words in the string: 2

B. Write a simple PHP program to demonstrate use of various built-instring functions.

```
<?php
$string = "Hello World! Welcome to PHP string functions.";

// Calculate length of string
echo "Length of the string: " . strlen($string) . "<br>";

// Count the number of words in the string
echo "Number of words in the string: " . str_word_count($string) . "<br>";

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

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

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

// Find the position of a word in the string
$word = "Welcome";
echo "Position of '$word' in the string: " . strpos($string, $word) . "<br>";
?>
```

Output:-

Length of the string: 45
Number of words in the string: 7
Uppercase string: HELLO WORLD! WELCOME TO PHP STRING FUNCTIONS.
Lowercase string: hello world! welcome to php string functions.
Reversed string: .snoitcnuf gnirts PHP ot emocleW !dlroW olleH
Position of 'Welcome' in the string: 13

Practical 05

Write a simple PHP program to demonstrate use of simple functionand parameterized function.

```
<?php
// Simple function to print a greeting
function greet() {
    echo "Hello, welcome to the world of PHP!<br>";
}

// Call the simple function
greet();
?>
```

Output:-

Hello, welcome to the world of PHP!

Practical 06

Write a PHP program to
a) Inherit members of super class in subclass.
b) Create constructor to initialize object of class by using objectoriented concepts.

a) Inherit members of super class in subclass.

```
<?php
// Superclass
class Animal {
    public $name;

    public function __construct($name) {
        $this->name = $name;
    }

    public function sound() {
        return "Some generic animal sound";
    }
}

// Subclass
class Dog extends Animal {
    public $breed;

    public function __construct($name, $breed) {
        parent::__construct($name);  // Call the parent constructor
        $this->breed = $breed;
    }

    public function sound() {
        return "Bark";
    }

    public function display() {
        echo "This is a {$this->breed} named {$this->name} and it makes the sound: " . $this-
>sound();
    }
}

// Create an instance of Dog
$myDog = new Dog("Buddy", "Golden Retriever");
$myDog->display();
?>
```

Output:-
This is a Golden Retriever named Buddy and it makes the sound: Bark

Practical 07

Write a simple PHP program on Introspection and Serialization.

Introspection

Introspection in PHP allows you to examine classes, interfaces, properties, and methods at runtime. Here's a simple example:

```
<?php
class MyClass {
   public $property1;
   private $property2;

   public function __construct($prop1, $prop2) {
      $this->property1 = $prop1;
      $this->property2 = $prop2;
   }

   public function myMethod() {
      return "Hello, World!";
   }
}

$obj = new MyClass("value1", "value2");

// Using introspection to get class information
echo "Class name: " . get_class($obj) . "<br>";
echo "Methods: " . implode(', ', get_class_methods($obj)) . "<br>";

$reflect = new ReflectionClass($obj);
echo "Properties: ";
foreach ($reflect->getProperties() as $property) {
   echo $property->getName() . " ";
}
echo "<br>";
?>
```

Output:-

Class name: MyClass
Methods: __construct, myMethod
Properties: property1 property2

Serialization.

```
<?php
class User {
   public $name;
   public $email;

   public function __construct($name, $email) {
      $this->name = $name;
      $this->email = $email;
   }

   public function display() {
      echo "Name: {$this->name}, Email: {$this->email}<br>";
   }
}

$user = new User("John Doe", "john@example.com");

// Serialize the object
$serializedUser = serialize($user);
echo "Serialized User: " . $serializedUser . "<br>";

// Unserialize the object
$unserializedUser = unserialize($serializedUser);
$unserializedUser->display();
?>
```

Output:-

Serialized User: O:4:"User":2:{s:4:"name";s:8:"John Doe";s:5:"email";s:16:"john@example.com";}
Name: John Doe, Email: john@example.com

Practical 08

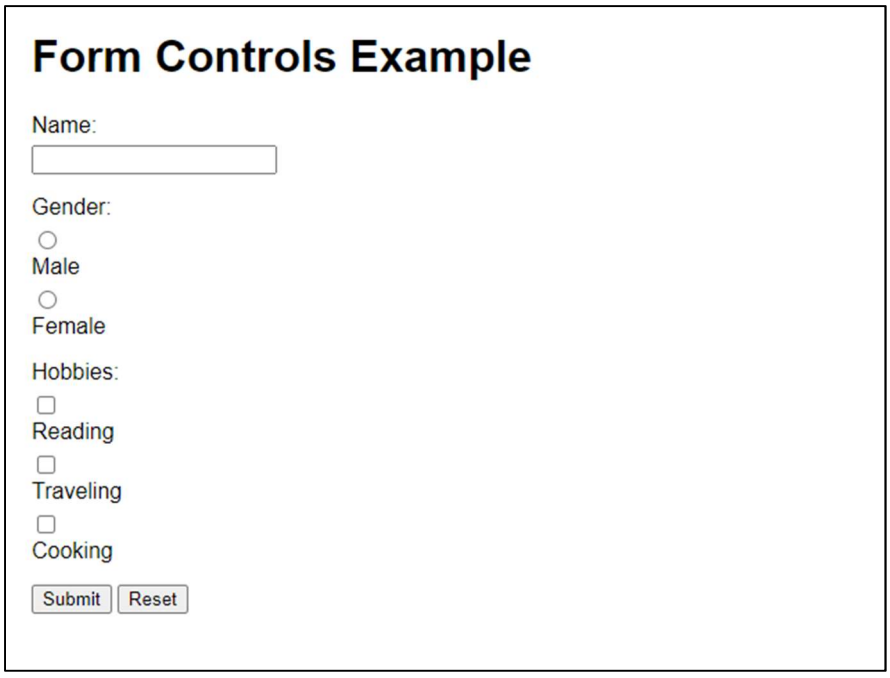
Design a web page using following form controls:

a. Text box, b. Radio button, c. Check box, d. Buttons

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Form Controls Example</title>
   <style>
      body {
         font-family: Arial, sans-serif;
         margin: 20px;
      }
      .form-group {
         margin-bottom: 15px;
      }
      label {
         display: block;
         margin-bottom: 5px;
      }
   </style>
</head>
<body>
   <h1>Form Controls Example</h1>
   <form action="submit_form.php" method="POST">
      <!-- Text Box -->
      <div class="form-group">
         <label for="name">Name:</label>
         <input type="text" id="name" name="name">
      </div>

      <!-- Radio Buttons -->
      <div class="form-group">
         <label>Gender:</label>
         <input type="radio" id="male" name="gender" value="male">
         <label for="male">Male</label>
         <input type="radio" id="female" name="gender" value="female">
         <label for="female">Female</label>
      </div>
```

```
    <!-- Check Boxes -->
    <div class="form-group">
      <label>Hobbies:</label>
      <input type="checkbox" id="reading" name="hobbies" value="reading">
      <label for="reading">Reading</label>
      <input type="checkbox" id="traveling" name="hobbies" value="traveling">
      <label for="traveling">Traveling</label>
      <input type="checkbox" id="cooking" name="hobbies" value="cooking">
      <label for="cooking">Cooking</label>
    </div>

    <!-- Buttons -->
    <div class="form-group">
      <button type="submit">Submit</button>
      <button type="reset">Reset</button>
    </div>
  </form>
</body>
</html>
```

Output:-



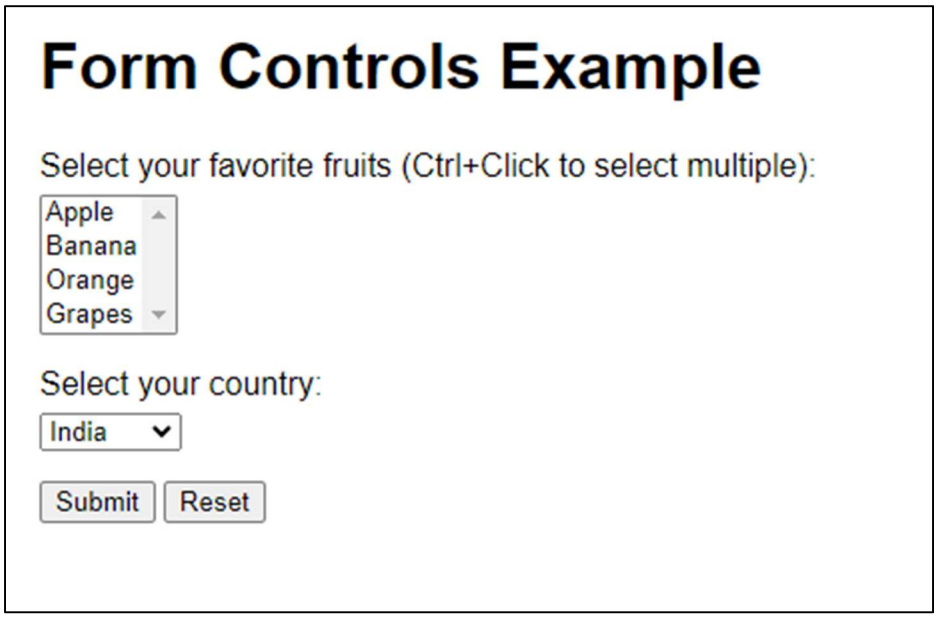
Practical 09

Design a web page using following form controls:
a. List box, b. Combo box, c.Hidden field box

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Form Controls Example</title>
   <style>
      body {
         font-family: Arial, sans-serif;
         margin: 20px;
      }
      .form-group {
         margin-bottom: 15px;
      }
      label {
         display: block;
         margin-bottom: 5px;
      }
   </style>
</head>
<body>
   <h1>Form Controls Example</h1>
   <form action="submit_form.php" method="POST">
      <!-- List Box -->
      <div class="form-group">
         <label for="fruits">Select your favorite fruits (Ctrl+Click to select multiple):</label>
         <select id="fruits" name="fruits[]" multiple size="4">
            <option value="apple">Apple</option>
            <option value="banana">Banana</option>
            <option value="orange">Orange</option>
            <option value="grapes">Grapes</option>
         </select>
      </div>

      <!-- Combo Box (Drop-down Menu) -->
      <div class="form-group">
         <label for="country">Select your country:</label>
         <select id="country" name="country">
            <option value="india">India</option>
            <option value="usa">USA</option>
            <option value="uk">UK</option>
            <option value="canada">Canada</option>
```

```
        </select>
    </div>

    <!-- Hidden Field -->
    <input type="hidden" name="hidden_value" value="secret_info">

    <!-- Buttons -->
    <div class="form-group">
        <button type="submit">Submit</button>
        <button type="reset">Reset</button>
    </div>
  </form>
</body>
</html>
```

Output:-



Practical 10

Write simple PHP program to -

a. Set cookies and read it.

b. Demonstrate session management

a. Set cookies and read it.

```
<?php
// Set a cookie
setcookie("user", "John Doe", time() + (86400 * 30), "/"); // 86400 = 1 day
echo "Cookie 'user' is set!<br>";
echo "Value is: John Doe<br>";
?>
```

Output:-

Cookie 'user' is set!
Value is: John Doe

```
<?php
// Check if the cookie is set
if (isset($_COOKIE["user"])) {
    echo "Cookie 'user' is set!<br>";
    echo "Value is: " . $_COOKIE["user"] . "<br>";
} else {
    echo "Cookie 'user' is not set!";
}
?>
```

Output:-

Cookie 'user' is set!
Value is: John Doe

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

// Set session variables
```

```
$_SESSION["username"] = "JaneDoe";
$_SESSION["email"] = "jane@example.com";

echo "Session variables are set.<br>";
?>
```

Output:-

Session variables are set.