

## Assignment No : 5

### Code :

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Shape Area Calculator</title>
<style>
  body {
    font-family: Arial, sans-serif;
    background-color: #f0f0f0;
    margin: 0;
    padding: 0;
  }
  .container {
    max-width: 600px;
    margin: 50px auto;
    padding: 20px;
    background-color: #fff;
    border-radius: 8px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
  }
  h1 {
    text-align: center;
    color: #333;
  }
  form {
    text-align: center;
  }
  input[type="radio"] {
    margin: 0 10px;
  }
  input[type="submit"] {
    margin-top: 20px;
    padding: 10px 20px;
    background-color: #007bff;
    color: #fff;
    border: none;
    cursor: pointer;
    border-radius: 5px;
  }
  input[type="submit"]:hover {
    background-color: #0056b3;
  }
  .output {
    text-align: center;
    margin-top: 20px;
  }
  .output p {
    font-size: 18px;
    color: #333;
  }
</style>
</head>
<body>
<div class="container">
  <h1>Shape Area Calculator</h1>
  <form method="get">
```

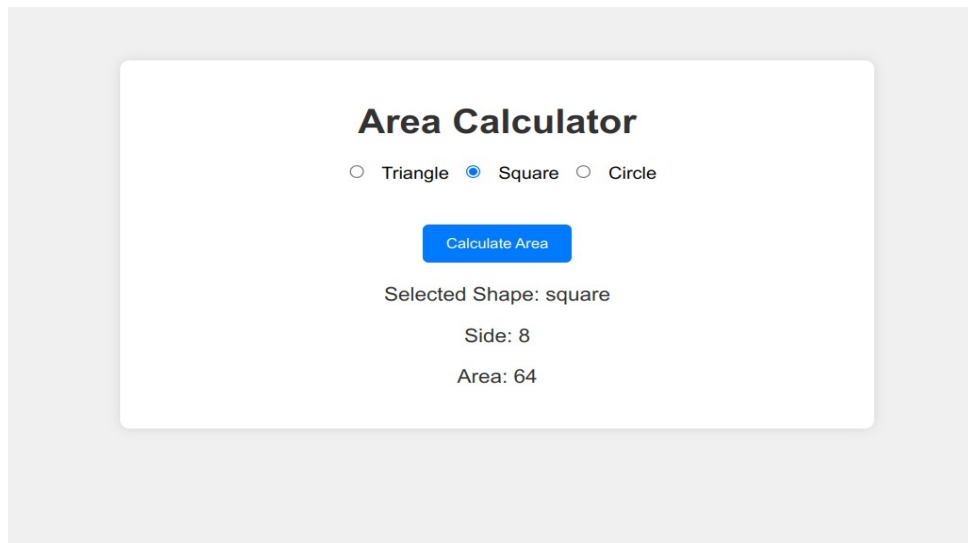
```

<input type="radio" name="shape" value="triangle" required> Triangle
<input type="radio" name="shape" value="square"> Square
<input type="radio" name="shape" value="circle"> Circle
<br><br>
<input type="submit" value="Calculate Area">
</form>
<div class="output">
<?php
class Shape {
    public function calculateArea() {
        return 0;
    }
}
class Triangle extends Shape {
    private $base;
    private $height;
    public function __construct($base, $height) {
        $this->base = $base;
        $this->height = $height;
    }
    public function calculateArea() {
        return 0.5 * $this->base * $this->height;
    }
    public function getParameters() {
        return "Base: $this->base, Height: $this->height";
    }
}
class Square extends Shape {
    private $side;
    public function __construct($side) {
        $this->side = $side;
    }
    public function calculateArea() {
        return $this->side * $this->side;
    }
    public function getParameters() {
        return "Side: $this->side";
    }
}
class Circle extends Shape {
    private $radius;
    public function __construct($radius) {
        $this->radius = $radius;
    }
    public function calculateArea() {
        return M_PI * $this->radius * $this->radius;
    }
    public function getParameters() {
        return "Radius: $this->radius";
    }
}
if (isset($_GET["shape"])) {
    $selectedShape = $_GET["shape"];
    switch ($selectedShape) {
        case "triangle":
            $shape = new Triangle(10, 5);
            break;
        case "square":
            $shape = new Square(8);
            break;
        case "circle":
            $shape = new Circle(4);
            break;
    }
}

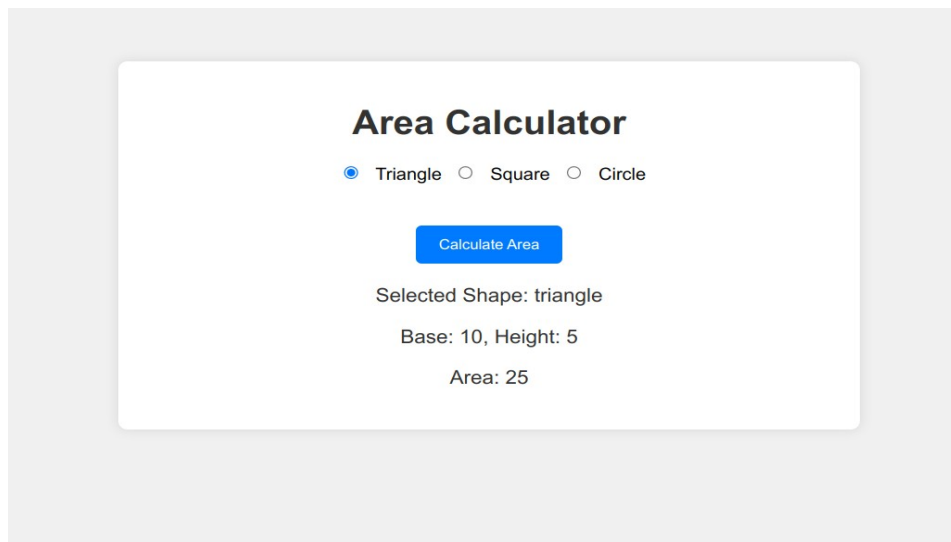
```

```
        default:
            $shape = new Shape();
            break;
    }
    echo "<p>Selected Shape: $selectedShape</p>";
    echo "<p>" . $shape->getParameters() . "</p>";
    echo "<p>Area: " . $shape->calculateArea() . "</p>";
}
?>
</div>
</div>
</body>
</html>
```

**Output :**



The screenshot shows a web application titled "Area Calculator". It features three radio buttons for selecting a shape: "Triangle", "Square", and "Circle". The "Square" option is selected, indicated by a blue dot. Below the radio buttons is a blue button labeled "Calculate Area". Underneath the button, the text "Selected Shape: square" is displayed. Below that, the text "Side: 8" is shown, followed by "Area: 64".



The screenshot shows the same "Area Calculator" web application, but with the "Triangle" option selected, indicated by a blue dot. The "Calculate Area" button is still present. Below the button, the text "Selected Shape: triangle" is displayed. Below that, the text "Base: 10, Height: 5" is shown, followed by "Area: 25".

## Area Calculator

☐ Triangle ☐ Square ☒ Circle

Calculate Area

Selected Shape: circle

Radius: 4

Area: 50.265482457437