ATSS's

Institute of Industrial & Computer Management & Research, Nigdi

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IT23: Advanced Internet Technologies

Submitted By:

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1. Write a Program to design form using HTML5 elements, attributes and semantics.

Code :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
```

```html
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Question-1</title>
</head>
<body>
    <h2>Registration Form</h2>
    <form>
        <label>Name</label><br>
        <input type="text" placeholder="Enter Name
Here"><br>
        <label>Contact</label><br>
        <input type="tel" placeholder="Mobile Number"><br>
        <label>Gender:</label>
        <input type="radio" name="g">Male
        <input type="radio" name="g">Female<input
type="radio" name="g">Other <br>
        <label>Address</label><br>
        <textarea></textarea> <br>
        <input type="button" value="Submit">
    </form>
</body>
</html>
```

Output:

Registration Form

Name

Enter Name Here

Contact

Mobile Number

Gender: ○ Male ○ Female ○ Other

Address

Submit

2. WAP to change font size of a text as per the 'range' control value, ranging from 8 to 40.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Question-2</title>
</head>
<body>
    <form>
        <label for="points">Points (between 8 and
40):</label> <br>
```
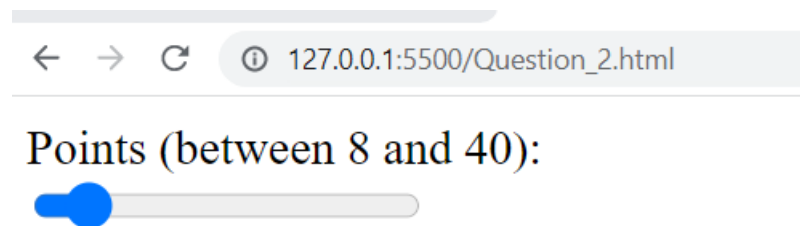
```html
        <input type="range" id="points" name="points"
min="8" max="40">
    </form>
</body>
</html>
```

Output:

Points (between 8 and 40):

3. Write a program to embed audio and video elements use controls.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Question-3</title>
</head>
<body>
    <audio controls loop muted autoplay >
        <source src="kabirsingh.mp3" type="audio/mp3">
    </audio> <br>
    <video width="320" height="240" controls>
        <source src="mov_bbb.mp4" type="video/mp4">
```
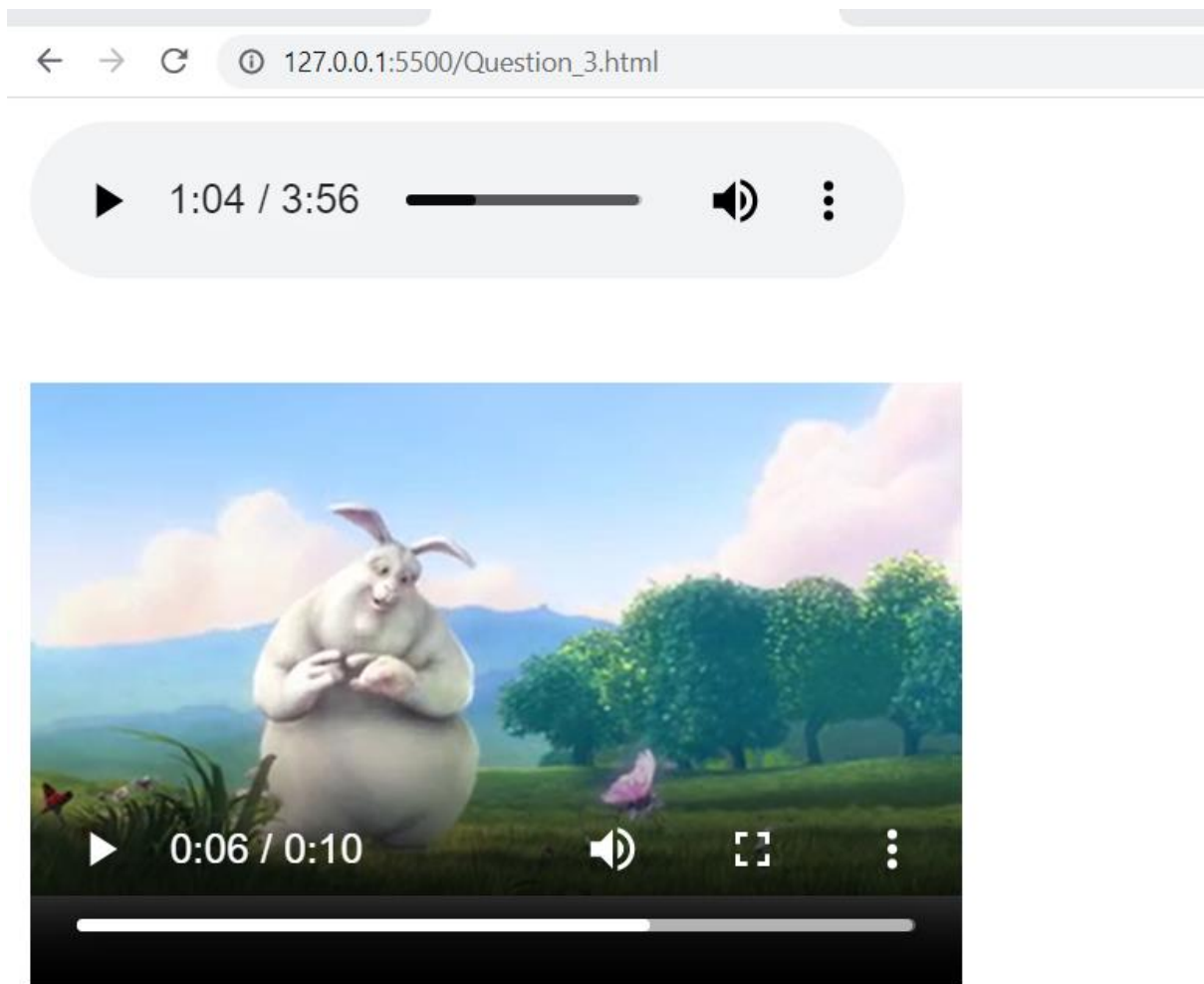
```
        </video>

</body>
</html>
```

Output:

4. WAP to draw a circle considering mouse click position as a centre.(Radius can be considered as 50)

   Code:

```html
<!DOCTYPE html>
<html>
<head>
  <style>
    #myCanvas {
      border: 1px solid black;
    }
  </style>
  <title>Question-4</title>
</head>
<body>
  <canvas id="myCanvas" width="500" height="500"></canvas>

  <script>
    var canvas = document.getElementById("myCanvas");
    var ctx = canvas.getContext("2d");

    canvas.addEventListener("click", function(event) {
      var rect = canvas.getBoundingClientRect();
      var mouseX = event.clientX - rect.left;
      var mouseY = event.clientY - rect.top;

      ctx.clearRect(0, 0, canvas.width, canvas.height);
      ctx.beginPath();
      ctx.arc(mouseX, mouseY, 50, 0, 2 * Math.PI);
      ctx.stroke();
    });
  </script>
</body>
</html>
```
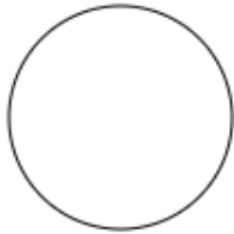
Output:

5. WAP to draw triangle using SVG and canvas-path.

Code :

```
<!DOCTYPE html>
<html>
<head>
  <style>
    #myCanvas {
      border: 1px solid black;
    }
  </style>
  <title>Question-5</title>
</head>
<body>
  <canvas id="myCanvas" width="500" height="500"></canvas>
```
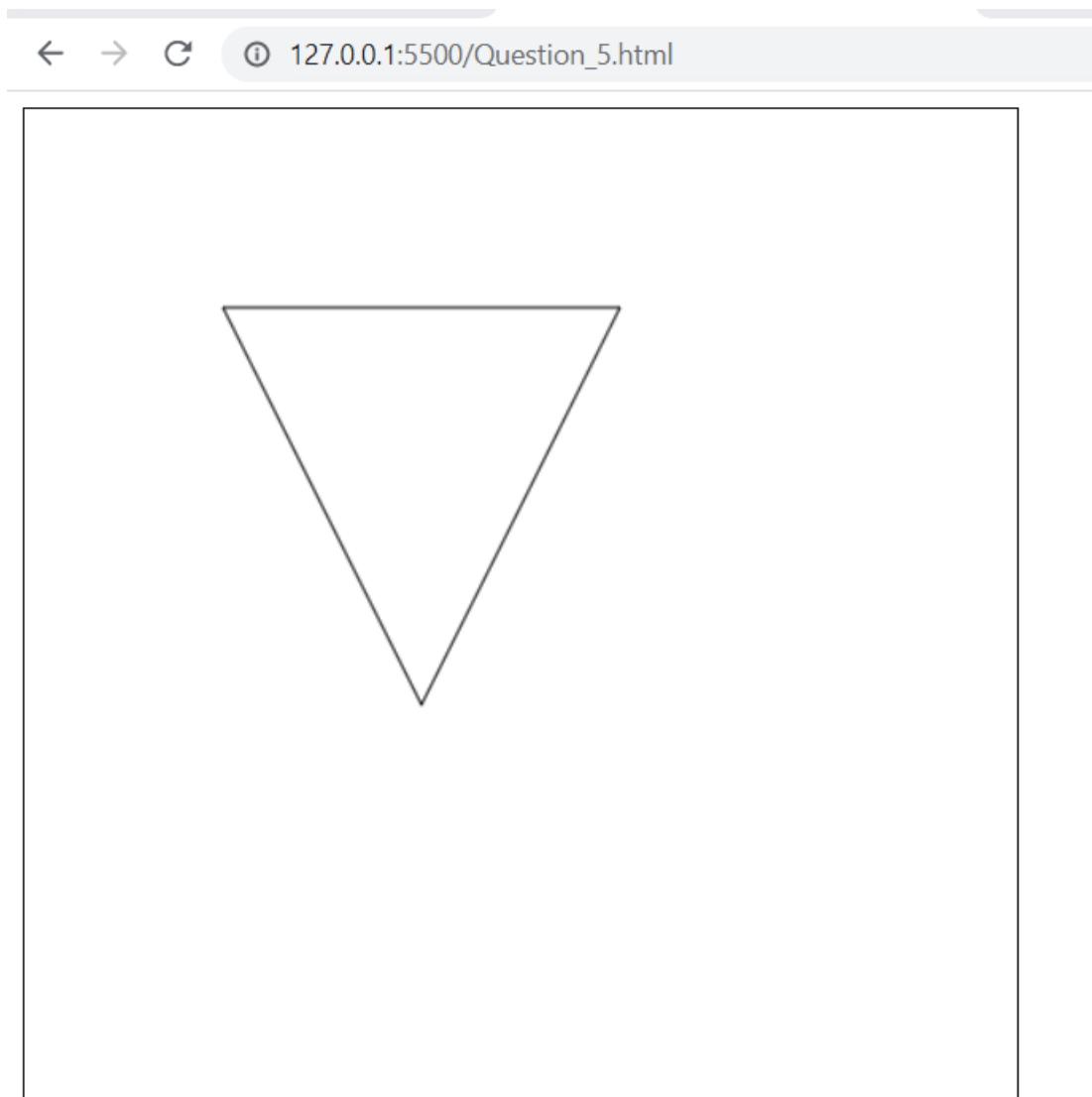
```
  <script>
    var canvas = document.getElementById("myCanvas");
    var ctx = canvas.getContext("2d");

    ctx.beginPath();
    ctx.moveTo(100, 100);
    ctx.lineTo(300, 100);
    ctx.lineTo(200, 300);
    ctx.closePath();
    ctx.stroke();
  </script>
</body>
</html>
```

Output:

6. Write a program to draw the rectangle shape using SVG and apply animation effect.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```html
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Question-6</title>
</head>
<body>
    <svg width="500" height="500">
        <rect id="myRect" x="50" y="50" width="200"
height="100" fill="blue">
            <animate attributeName="width" from="200" to="400"
dur="2s" repeatCount="indefinite" />
            <animate attributeName="height" from="100"
to="200" dur="2s" repeatCount="indefinite" />
            <animate attributeName="fill" values="blue; red;
green; yellow" dur="4s" repeatCount="indefinite" />
        </rect>
    </svg>

</body>
</html>
```
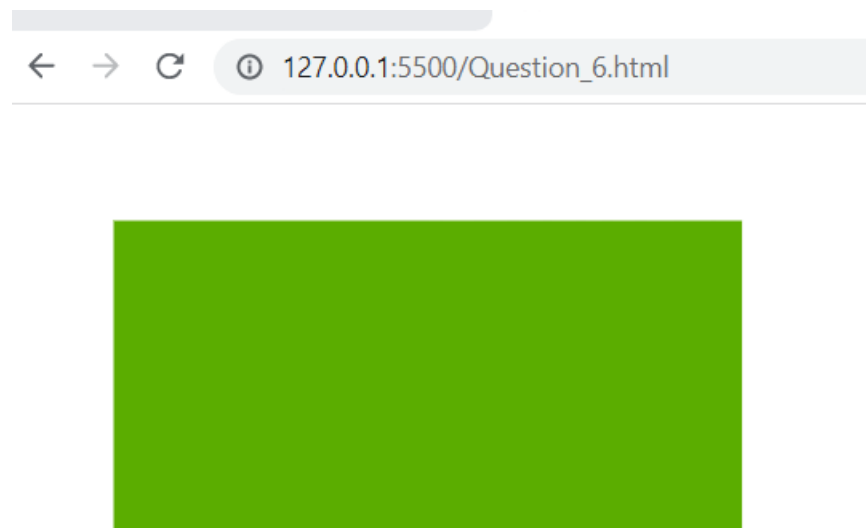
Output:

7.WAP to add 3 'range' control for colors red, green, blue. Change the background color as the valuesof range. Start the values from 0 to maximum 256.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <style>
    #colorInputs {
      margin-bottom: 20px;
    }

    #colorPreview {
      width: 200px;
      height: 200px;
      border: 1px solid black;
      margin-bottom: 20px;
    }
  </style>
  <title>Question-7</title>
</head>
<body>
  <div id="colorInputs">
    Red: <input type="range" id="redRange" min="0" max="256" value="0"><br>
    Green: <input type="range" id="greenRange" min="0" max="256" value="0"><br>
    Blue: <input type="range" id="blueRange" min="0" max="256" value="0">
  </div>

  <div id="colorPreview"></div>

  <script>
    var redRange = document.getElementById("redRange");
    var greenRange = document.getElementById("greenRange");
    var blueRange = document.getElementById("blueRange");
```

```
      var colorPreview =
document.getElementById("colorPreview");

    function updateColor() {
      var redValue = redRange.value;
      var greenValue = greenRange.value;
      var blueValue = blueRange.value;
      var color = "rgb(" + redValue + "," + greenValue + ","
+ blueValue + ")";
      colorPreview.style.backgroundColor = color;
    }

    redRange.addEventListener("input", updateColor);
    greenRange.addEventListener("input", updateColor);
    blueRange.addEventListener("input", updateColor);
  </script>
</body>
</html>
```

Output:

8. Apply pseudo selectors to set the background color for visited and unvisited links to 'lightblue', and the background color for the hover and active link states to 'green'.

Code:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Question-8</title>
  <style>
    /* Styling for unvisited links */
    a:link {
      background-color: lightblue;
    }

    /* Styling for visited links */
    a:visited {
      background-color: lightblue;
    }

    /* Styling for hover state of links */
    a:hover {
      background-color: green;
    }

    /* Styling for active state of links */
    a:active {
      background-color: green;
    }
  </style>
</head>
<body>
  <a href="#">Unvisited Link</a><br>
  <a href="#">Visited Link</a><br>
  <a href="#">Hover Link</a><br>
  <a href="#">Active Link</a>
</body>
</html>
```
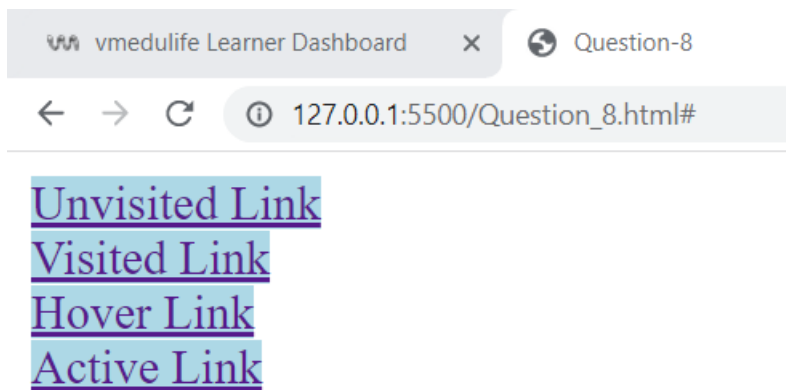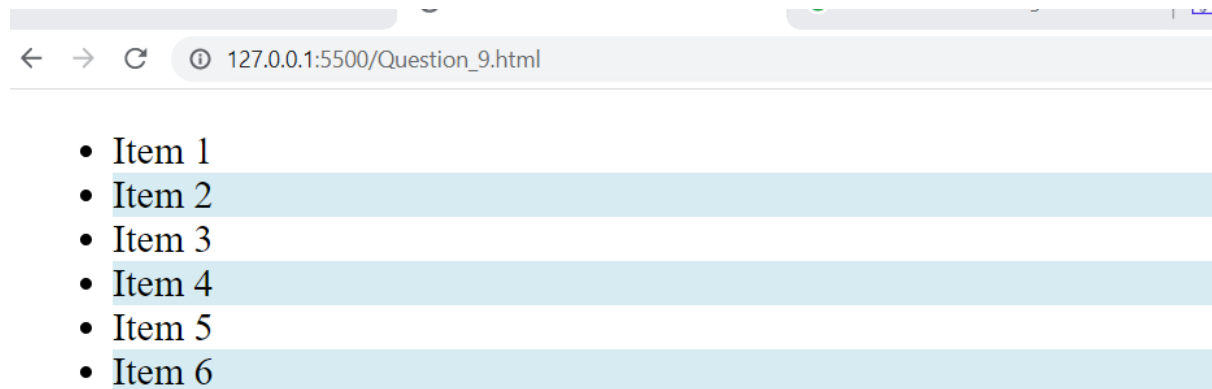
Output:

9. Add a CSS rule and appropriate html to style every other line of the unordered list with a light bluebackground color. Specify the background color using the rgba method.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <style>
    ul li:nth-child(even) {
      background-color: rgba(173, 216, 230, 0.5);
    }
  </style>
  <title>Question-9</title>
</head>
<body>
  <ul>
    <li>Item 1</li>
    <li>Item 2</li>
    <li>Item 3</li>
    <li>Item 4</li>
    <li>Item 5</li>
    <li>Item 6</li>
  </ul>
</body>
```

```
</html>
```

Output:

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5
- Item 6

10. Using the image of the playing card, use transformations and animations to make the playing card spin around endlessly.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <style>
    @keyframes spin {
      0% {
        transform: rotate(0deg);
      }
      100% {
        transform: rotate(360deg);
      }
    }

    .card {
      width: 200px;
      height: 300px;
```
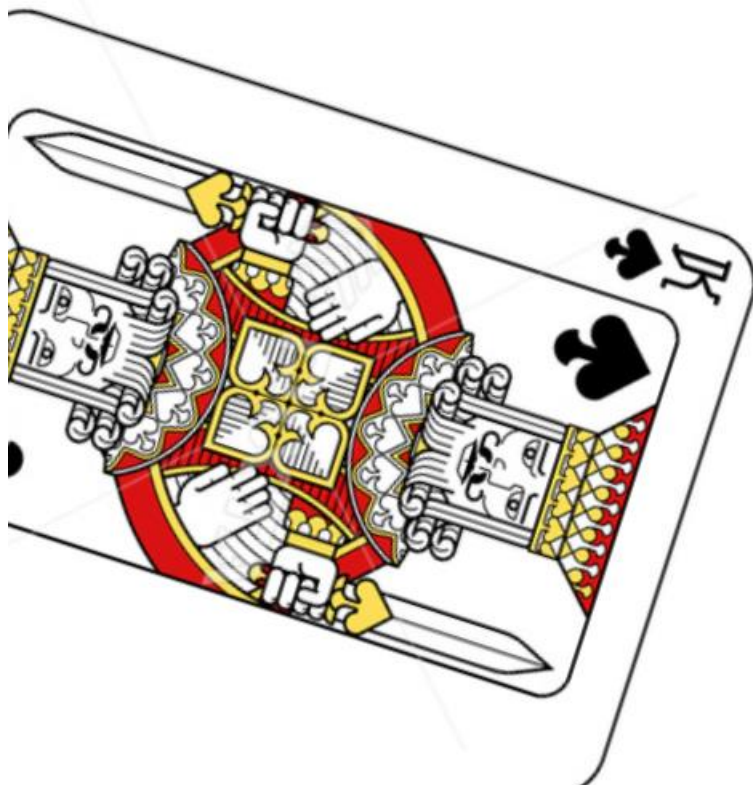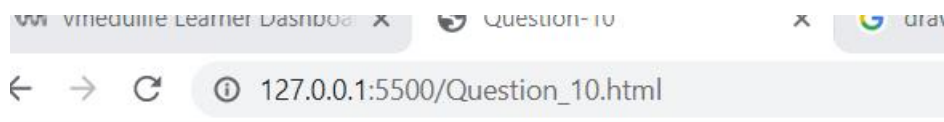
```
        background-image: url("./king.jpg");
        background-size: cover;
        animation: spin 5s infinite linear;
    }
  </style>
  <title>Question-10</title>
</head>
<body>
  <div class="card"></div>
</body>
</html>
```

Output:

11. Consider the heart shape as an image and apply Animation on hover effect where image will increasethe size and revert back to original size with shadow effect.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <title>Question-11</title>
  <style>
    .heart {
      width: 100px;
        height:60px;
      background-image: url("./heart2.jpg");
     background-size:contain;
      transition: transform 0.3s, box-shadow 0.3s;
    }

    .heart:hover {
      transform: scale(1.2);
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
    }
  </style>
</head>
<body>
  <div class="heart"></div>
</body>
</html>
```

Output:

12. Apply transition and transformation to perform following task:

i.   On hover of an image, it should rotate in 360 degrees.
ii.   ii. On hover of a div, text should increase the size and
      removing cursor from div, size of the textshould be restored.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <style>
    .rotate-image {
      width: 100px;
      height: 100px;
      transition: transform 0.3s;
    }

    .rotate-image:hover {
      transform: rotate(360deg);
    }

    .enlarge-text {
      display: inline-block;
```

```
      transition: font-size 0.3s;
      cursor: pointer;
    }

    .enlarge-text:hover {
      font-size: 1.2em;
      cursor: default;
    }
  </style>
  <title>Question-12</title>
</head>
<body>
  <img class="rotate-image" src="./heart.jpg" alt="Image">

  <div class="enlarge-text">
    <p>---Nitin Bhopale---</p>
  </div>
</body>
</html>
```

Output:

---Nitin Bhopale---

13. Write a PHP script to generate simple random password of 10 characters from a given string. Assume astring contains characters from A-Z, a-z, 0- 9.

Code:

```php
<?php
function generateRandomPassword($length) {
    $characters =
'ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456
789';
    $password = '';

    $charLength = strlen($characters);
    for ($i = 0; $i < $length; $i++) {
        $randomIndex = mt_rand(0, $charLength - 1);
        $password .= $characters[$randomIndex];
    }

    return $password;
```
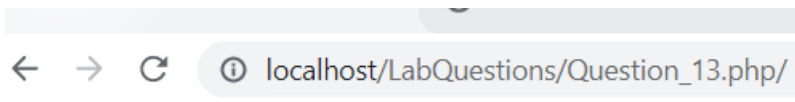
```php
}

$randomPassword = generateRandomPassword(10);
echo "Random Password: " . $randomPassword;
?>
```

Output:

Random Password: uRjxsSpXtQ

14. Write a PHP script to print Fibonacci Series using both ways: loops, recursive function.

Code:

```php
<?php

function fibonacciLoop($nl) {
    $fib = [];
    $fib[0] = 0;
    $fib[1] = 1;

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

    return $fib;
}

$nl = 10; // Number of Fibonacci numbers to generate

$fibonacciSeries = fibonacciLoop($nl);
```
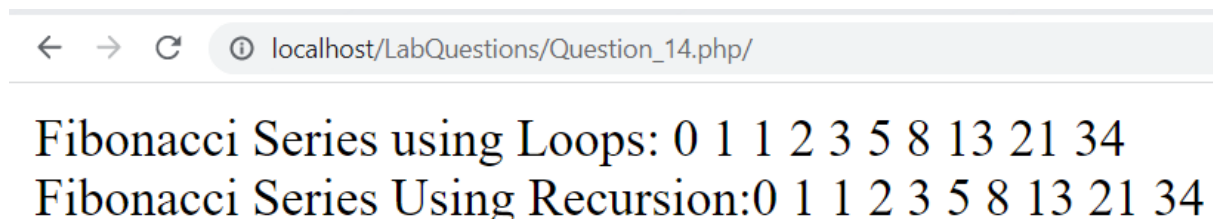
```php
echo "Fibonacci Series using Loops: ";
foreach ($fibonacciSeries as $number) {
    echo $number . " ";

}
echo "<br>";
echo "Fibonacci Series Using Recursion:";
function fiboncacciRecursive($a,$b,$nr)
{
    if($nr==0)
    {
        return;
    }
    $c=$a+$b;
    echo $c." ";
    $nr=$nr-1;
    fiboncacciRecursive($b,$c,$nr);
}
$nr = 10; //Number of Fibonacci numbers to generate
$a=0;
$b=1;
echo $a." ".$b." ";
$nr=$nr-2;
fiboncacciRecursive($a,$b,$nr);

?>
```

Output:

Fibonacci Series using Loops: 0 1 1 2 3 5 8 13 21 34
Fibonacci Series Using Recursion:0 1 1 2 3 5 8 13 21 34