

1)

```
<!DOCTYPE html>

<html>

<head>

<title>Document</title>

</head>

<body>

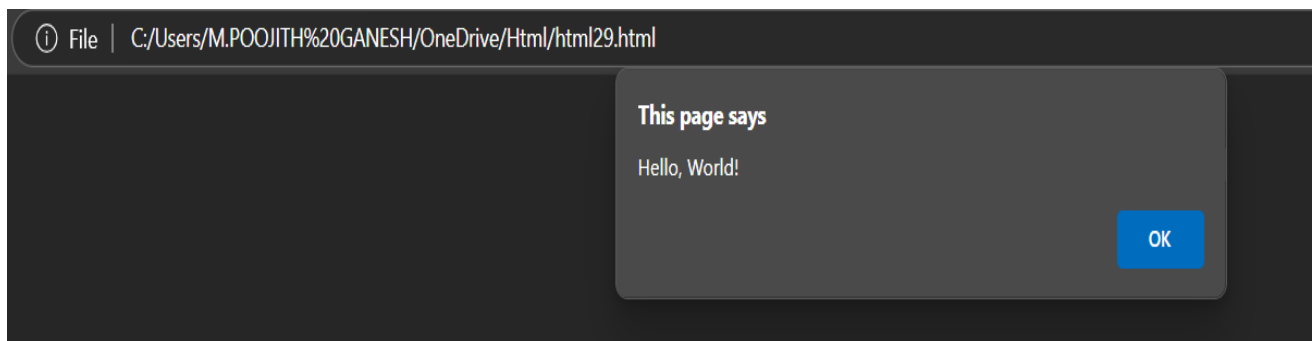
<h3>Question 1</h3>

<script> alert("Hello, World!")</script>

</body>

</html>
```

Output:



2a)

```
<!DOCTYPE html>

<html>

<head>

<title>DOM</title>

<script>

    function changetext(){

        document.getElementById("myParagraph").innerText="You Clicked The Button";

    }

}
```

```
</script>
</head>
<body>
  <p id="myParagraph">This is the original paragraph</p>
  <button onclick="changetext()">click me</button>
</body>
</html>
```

Output:

You Clicked The Button

click me

2b)

```
<!DOCTYPE html>
<html>
<head>
  <title>Username Form</title>
  <script>
    function validateForm(event) {
      var username = document.getElementById("username").value;
      if (username.trim() === "") {
        alert("Username is required!");
        event.preventDefault();
      }
    }
  </script>
</head>
```

```
<body>

  <form onsubmit="validateForm(event)">

    <label for="username">Username:</label>

    <input type="text" id="username" name="username" required>

    <br><br>

    <input type="submit" value="Submit">

  </form>

</body>

</html>
```

Output:

A screenshot of a web browser displaying a form. The form has a label "Username:" followed by a text input field. Below the input field is a "Submit" button. The form is styled with a simple, clean design, featuring a light gray border around the input field and button.

3a)

```
<!DOCTYPE html>

<html>

<head>

  <title>Current Date and Time</title>

  <script>

    window.onload = function() {

      var now = new Date();

      var dateTimeString = now.toString();

      document.getElementById("datetime").innerHTML = dateTimeString;

    }

  </script>
```

```
</head>

<body>

    <h2>Current Date and Time</h2>

    <div id="datetime"></div>

</body>

</html>
```

Output:

Current Date and Time

Sun May 04 2025 14:12:26 GMT+0530 (India Standard Time)

3b)

```
<!DOCTYPE html>

<html>

<head>

    <title>Digital Clock</title>

    <style>

        #clock {

            font-size: 2em;

            font-family: monospace;

            margin-top: 20px;

        }

    </style>

    <script>

        function updateClock() {

            var now = new Date();
```

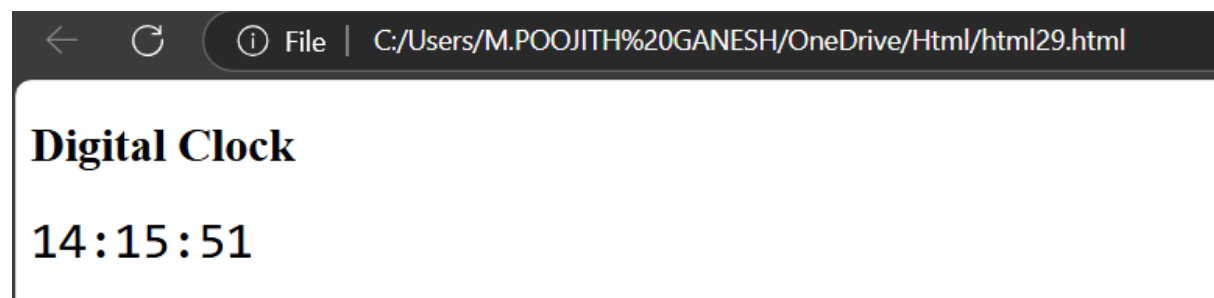
```

    var hours = now.getHours().toString().padStart(2, '0');
    var minutes = now.getMinutes().toString().padStart(2, '0');
    var seconds = now.getSeconds().toString().padStart(2, '0');
    var timeString = hours + ":" + minutes + ":" + seconds;
    document.getElementById("clock").innerHTML = timeString;
}

window.onload = function() {
    updateClock();
    setInterval(updateClock, 1000);
}
</script>
</head>
<body>
    <h2>Digital Clock</h2>
    <div id="clock"></div>
</body>
</html>

```

Output:



4)

```

<!DOCTYPE html>

<html>

<head>

```

```
<title>Email Validation Form</title>

<script>

function validateEmail(event) {

    var email = document.getElementById("email").value;

    var emailPattern = /^[a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-zA-Z]{2,}$/;

    if (!emailPattern.test(email)) {

        alert("Please enter a valid email address");

        event.preventDefault();

    }

}

</script>

</head>

<body>

<h2>Email Validation Form</h2>

<form onsubmit="validateEmail(event)">

<label for="email">Email:</label>

<input type="text" id="email" name="email">

<br><br>

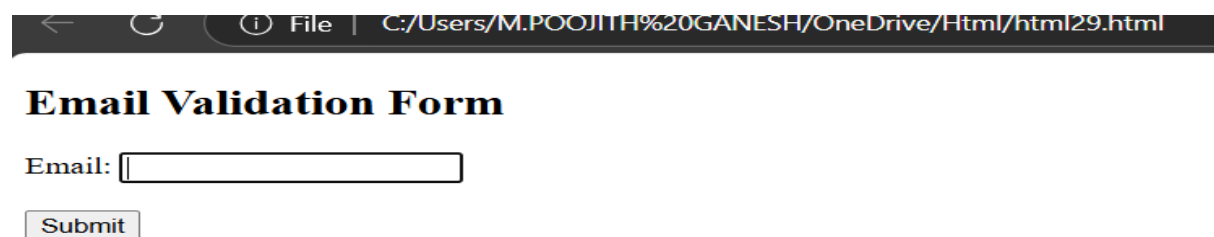
<input type="submit" value="Submit">

</form>

</body>

</html>
```

Output:



← ↻ ⓘ File | C:/Users/M.POOJITH%20GANESH/OneDrive/Html/html29.html

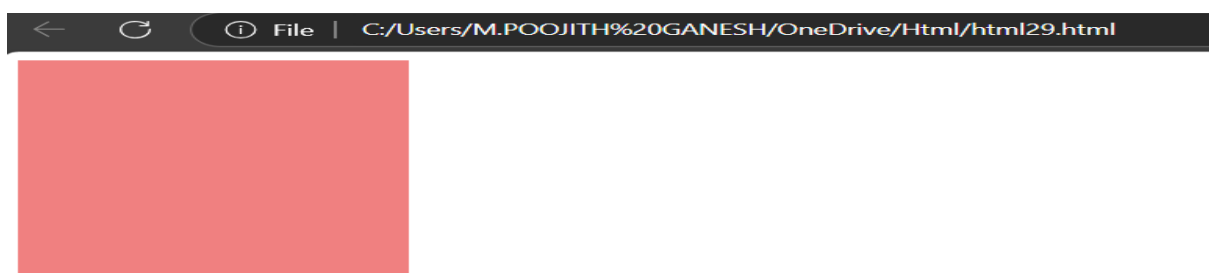
Email Validation Form

Email:

5a)

```
<!Doctype html>
<html>
<head>
<script>
function changeColor() {
var e = document.getElementById('hover');
e.style.backgroundColor = 'lightcoral';
}
function revertColor() {
var e = document.getElementById('hover');
e.style.backgroundColor = 'green';
}
</script>
</head>
<body>
<div id="hover"
onmouseover="changeColor()"
onmouseout="revertColor()"
style="background-color:green;height:200px;width:200px;">
</div>
</body>
</html>
```

Output:



5b)

```
<!DOCTYPE html>

<html>

<head>

<title>Image Resize on Click</title>

<style>

  #image {

    width: 300px;

    height: 200px;

    transition: width 0.5s, height 0.5s; /* Smooth transition for resizing */

  }

</style>

<script>

function resizeImage() {

  var img = document.getElementById("image");

  // Toggle between two sizes

  if (img.style.width === "600px") {

    img.style.width = "300px";

    img.style.height = "200px";

  } else {

    img.style.width = "600px";

    img.style.height = "400px";

  }

}

</script>

</head>

<body>

  <h2>Click the image to resize it</h2>
```

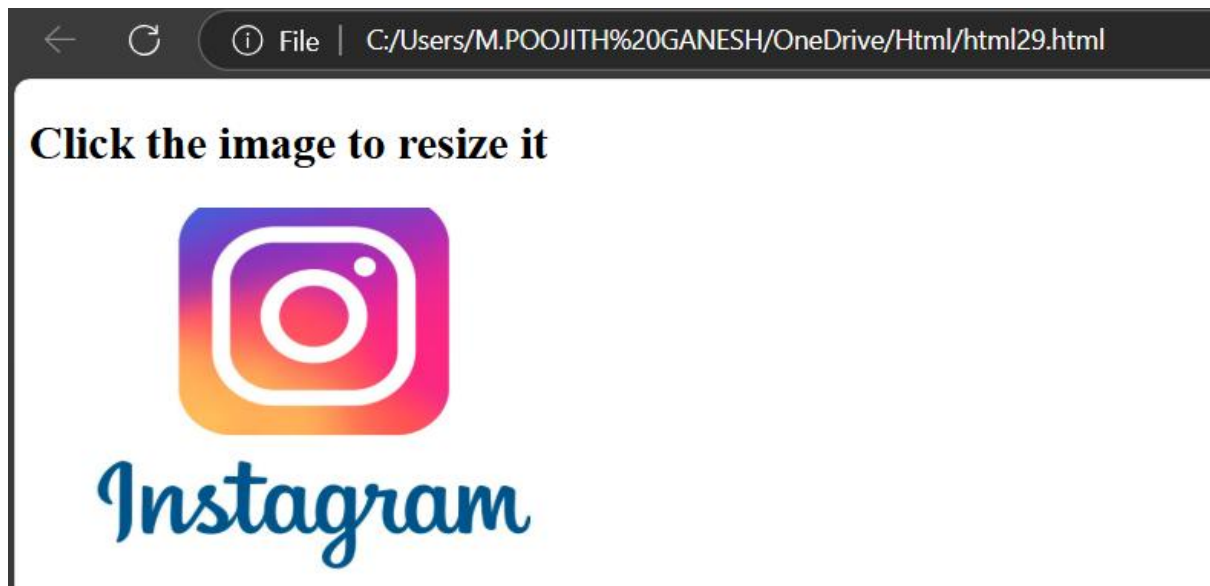


```


</body>

</html>
```

Output:



6)

```
<!DOCTYPE html>

<html lang="en">

<head>

<script type="text/javascript">

function divideNumbers(){

    try{

        var num1=15;

        var num2=5;

        if (num2===0){

            throw "Cannot divide by zero!";

        }

    }
```

```

        var result= num1/num2;

        alert("Result is: " + result);
    }
    catch(error){
        alert(error);
    }
}

</script>

<title>Dividing Numbers</title>

</head>

<body>

    <p>Click the following to attempt division:</p>

    <form>

        <input type="button" value="Divide Numbers" onclick="divideNumbers();">

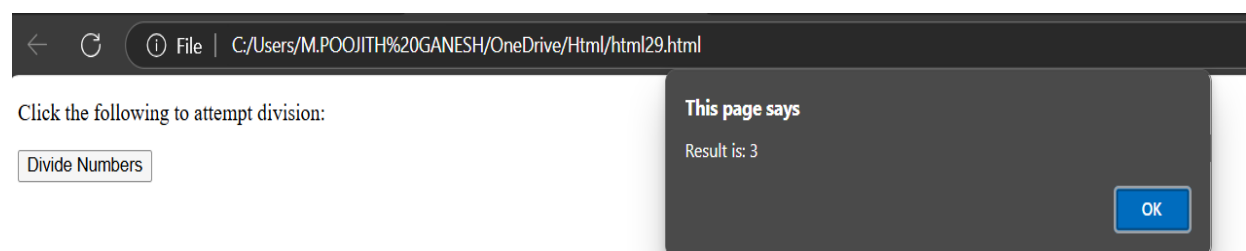
    </form>

</body>

</html>

```

Output:



7)

```

<!DOCTYPE html>

<html>

<head>

```

```
<title>Square Root Calculator</title>

<script type="text/javascript">

    function calculateSquareRoot() {

        var number = document.getElementById("number").value;

        var result = Math.sqrt(number);

        document.getElementById("result").innerHTML = "The square root is: " + result;

    }

</script>

</head>

<body>

<h2>Square Root Calculator</h2>

<p>Enter a number:</p>

<input type="number" id="number" />

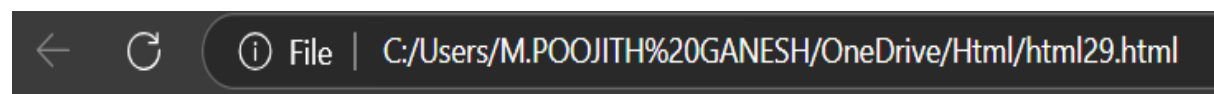
<input type="button" value="Calculate Square Root" onclick="calculateSquareRoot()" />

<p id="result"></p>

</body>

</html>
```

Output:



Square Root Calculator

Enter a number:

25	Calculate Square Root
----	-----------------------

The square root is: 5

