Web Application Development

Assignment – 5 (JS)

Event, Event Handling, DOM manipulation, Form Validation, RegExp

1. **Write JavaScript in a heading tag. Change the text color when cursor is on the top of the text and change back to black once the mouse is moved out. Use inline JS to perform the operation.**
   CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Assignment - 5 (Q-1)</title>
</head>
<body>
   <h1 onmouseover="this.style.color = 'red'" onmouseout="this.style.color =
'black'">JavaScript</h1>
</body>
</html>
```

   OUTPUT:

2. **Use heading tag and display some text in the HTML page. On mouse hover the text must be changed. When mouse is moved out from the text should go back to original text. Use internal JS and two separate function to perform the operation.**
   CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Assignment - 5 (Q-2)</title>
</head>
<body>
   <h1 id="text" onmouseover="func1()" onmouseout="func2()">I Am Learning HTML, CSS,
JS.</h1>

   <script>
```

```
        function func1(){
            document.querySelector("#text").innerHTML="JS Is Difficult For Beginner Student."
        }
        function func2(){
            document.querySelector("#text").innerHTML="I Am Learning HTML, CSS, JS."
        }
    </script>
 </body
 </html>
```

OUTPUT:

I Am Learning HTML, CSS, JS.

JS Is Difficult For Beginner Student.

3. **Create a circle of 100px and a button displaying "On". Once click on the button the circle color must change to yellow and the button text must change to "Off". If click again the background of the circle should become white again and button text must change to "On".**
   CODE:

```html
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Assignment - 5 (Q-3)</title>
</head>
<body>
    <div style="text-align: center;">
        <div id="circle" class="circle"
            style="height: 100px; width: 100px; border: 1px solid black; border-radius: 50%; margin:
auto; margin-top: 100px; margin-bottom: 10px;">
        </div>
        <button id="btn" onclick="func()">On</button>
    </div>
    <script>
        function func() {
            if ((document.querySelector("#btn").innerHTML) == "On") {
                document.querySelector("#circle").style.background = "yellow";
                document.querySelector("#btn").innerHTML = "Off"
            }
            else {
                document.querySelector("#circle").style.background = "white";
                document.querySelector("#btn").innerHTML = "On"
```

```
            }
          }
      </script>
  </body>
</html>
```
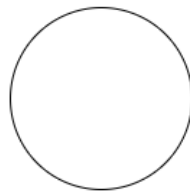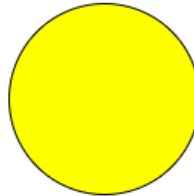
OUTPUT:

4. **Create a div with fixed height and width. Create three button with three different color names. Once any button is clicked show a confirmation message and if "Ok" is clicked the background color of the div must be changed to that specific color.**

CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Assignment - 5 (Q- 4)</title>
    <style>
        .container {
            height: 300px;
            width: 500px;
            border: 1px solid black;
            margin: auto;
            margin-top: 100px;
            border-radius: 15px;
        }
        button{
            height: 30px;
            width: 70px;
            margin: 10px;
        }
    </style>
</head>
<body>
    <div id="container" class="container">
    </div>
    <div style="margin-top: 20px; text-align: center;">
        <button id="red" onclick="func1()">RED</button>
```

```
            <button id="green" onclick="func2()">GREEN</button>
            <button id="blue" onclick="func3()">BLUE</button>
        </div>
        <script>
            function func1() {
                let btnClick = confirm("Do You Really Want To Change The Color?")
                if(btnClick){
                    document.querySelector("#container").style.background="red";
                }
            }
            function func2() {
                let btnClick = confirm("Do You Really Want To Change The Color?")
                document.querySelector("#container").style.background="green";
            }
            function func3() {
                let btnClick = confirm("Do You Really Want To Change The Color?")
                document.querySelector("#container").style.background="blue";
            }
        </script>
    </body>
</html>
```

OUTPUT:

5. Write a paragraph on the html page and take button to show and hide the paragraph.

CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
```

```
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Assignment - 5 (Q-5)</title>
    </head>
    <body>
        <div class="container">
            <p id="text">Lorem ipsum dolor sit amet consectetur, adipisicing elit. Accusamus, earum
distinctio nulla culpa
                vitae reprehenderit, numquam velit consequatur eos dolore sint sed incidunt fuga ullam rem
error omnis
                quibusdam officia labore? Similique delectus, soluta quidem quibusdam numquam maiores
animi expedita autem
                saepe labore perspiciatis porro sed. Nisi rem harum amet, temporibus, totam eligendi dicta
ducimus, ipsum
                odit ad blanditiis assumenda. Reprehenderit ullam commodi molestias distinctio quibusdam
officia illo eius
                fugit!</p>
            <button id="btn" onclick="func()">Hide</button>
        </div>
        <script>
            function func(){
                if (document.querySelector("#btn").innerHTML == "Hide"){
                    document.querySelector("#text").style.display="none";
                    document.querySelector("#btn").innerHTML ="Show";
                }
                else{
                    document.querySelector("#text").style.display="";
                    document.querySelector("#btn").innerHTML ="Hide";
                }
            }
        </script>
    </body>
</html>
```

OUTPUT:

Lorem ipsum dolor sit amet consectetur, adipisicing elit. Accusamus, earum distinctio nulla culpa vitae reprehenderit, numquam velit consequatur eos dolore sint sed incidunt fuga ull
Similique delectus, soluta quidem quibusdam numquam maiores animi expedita autem saepe labore perspiciatis porro sed. Nisi rem harum amet, temporibus, totam eligendi dicta duci
Reprehenderit ullam commodi molestias distinctio quibusdam officia illo eius fugit!

Hide

Show

6. **Design the following shopping cart counter using input box and buttons. + will increment the value by 1 and – will reduce the value by 1. If the value goes beyond 10 the count value should be displayed in red color. The count should never go below 1.**
   CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
```

```
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Assignment - 5 (Q-6)</title>
        <style>
           .counter {
              display: flex;
              align-items: center;
              justify-content: center;
              margin-top: 20px;
           }
           .counter button {
              width: 50px;
              height: 43px;
              font-size: 24px;
              font-weight: bold;
              cursor: pointer;
              font-weight: bold;
           }
           button{
              border: 1px solid black;
           }
           .counter input {
              width: 100px;
              height: 40px;
              text-align: center;
              font-size: 24px;
              border: 1px solid black;
           }
           .red {
              color: red;
           }
           h2{
              text-align: center;
              padding-top: 200px;
           }
        </style>
     </head>
     <body>
     <h2>Shopping Cart Counter</h2>
     <div class="counter">
        <button id="decrement" onclick="decrement()">-</button>
        <input type="text" id="count" value="1" readonly>
        <button id="increment" onclick="increment()">+</button>
     </div>
     <script>
        let count = 1;
        const countInput = document.getElementById('count');

        function increment() {
           count++;
           updateCount();
```

```
      }
   function decrement() {
      if (count > 1) {
         count--;
      }
      updateCount();
   }
   function updateCount() {
      countInput.value = count;
      if (count > 10) {
         countInput.classList.add('red');
      } else {
         countInput.classList.remove('red');
      }
   }
}
</script>
</body>
</html>
```

OUTPUT:

Shopping Cart Counter	**Shopping Cart Counter**	**Shopping Cart Counter**
- 1 +	- 8 +	- 14 +

7. **Design a theme switcher application using HTML, CSS and JS. Add some headings and paragraph to the HTML page. Create a check box called "Dark" if checked the background of the page must change to black and all text color must change to white. Once unchecked page should get back to default style.**
    CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Assignment - 5 (Q-7)</title>
</head>
<body>
   <!-- Html Part -->
   <div class="container">
      <h1>This Is Theme Changer Application</h1>
      <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Obcaecati est quidem cum maiores
ab dolore explicabo atque aspernatur reprehenderit maxime.</p>
      <h2>I am heading 2.</h2>
      <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Officiis eum magni pariatur
suscipit necessitatibus rerum!</p>
      <h4>Theme Change Option Using Checkbox</h4>
      <div>
```

```html
            <input type="checkbox" name="dark" id="dark" value="dark" onclick="darkTheme()">
            <label for="">Dark Theme</label>
        </div>
      </div>
      <!-- JS Part -->
       <script>
         function darkTheme(){
           if(document.querySelector("#dark").checked){
             document.body.style.background = "black";
             document.body.style.color = "white";
           }
           else{
             document.body.style.background = "white";
             document.body.style.color = "black";
           }
         }
       </script>
   </body>
   </html>
```

OUTPUT:

This Is Theme Changer Application

Lorem ipsum dolor sit amet consectetur adipisicing elit. Obcaecati est quidem cum maiores ab dolore explicabo atque aspernatur reprehenderit maxime.

I am heading 2.

Lorem ipsum dolor sit amet consectetur adipisicing elit. Officiis eum magni pariatur suscipit necessitatibus rerum!

Theme Change Option Using Checkbox

☐ Dark Theme

This Is Theme Changer Application

Lorem ipsum dolor sit amet consectetur adipisicing elit. Obcaecati est quidem cum maiores ab dolore explicabo atque aspernatur reprehenderit maxime.

I am heading 2.

Lorem ipsum dolor sit amet consectetur adipisicing elit. Officiis eum magni pariatur suscipit necessitatibus rerum!

Theme Change Option Using Checkbox

☑ Dark Theme

8. **Design a BMR calculator with the fields Age, Gender, Height (CM), and Weight (KG). Use to following formula to calculate and display the BMR (Calories/day). ● For men: BMR = (10 x Weight) + (6.25 x Height) – (5 x Age) + 5 ● For women: BMR = (10 x Weight) + (6.25 x Height) – (5 x Age) – 161.**

CODE:

```html
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
```

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

```html
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Assignment - 5 (Q-8)</title>
        <style>
          .container {
            height: 500px;
            width: 400px;
            margin: auto;
            padding-top: 100px;
          }
          .bmr-container {
            background-color: white;
            border: 1px solid black;
            border-radius: 10px;
            padding: 10px;
          }
          .bmr-heading {
            text-align: center;
            border-bottom: 1px solid black;
          }
          .bmr-data {
            display: block;
          }
          .data {
            margin: 15px;
          }
          .buttons {
            text-align: center;
          }
          #btn-submit,
          #btn-reset {
            margin: 10px;
            height: 20px;
            width: 70px;
          }
          .result-box {
            text-align: center;
            margin-top: 15px;
          }
          #bmr-result {
            font-weight: bold;
          }
        </style>
      </head>
      <body>
        <div class="container">
          <form action="" method="post" onsubmit="display(event)" onreset="clearBMR()">
            <div class="bmr-container">

              <div class="bmr-heading">
                <h1>BMR - Calculator</h1>
```

```
                </div>
                <div class="bmr-data">
                   <div class="data">
                      <label for="age">Age:</label>
                      <input type="number" name="" id="age" required>
                   </div>
                   <div class="data">
                      <label for="gender">Gender:</label>
                      <input type="radio" name="gender" id="male" value="male" required>Male
                      <input type="radio" name="gender" id="female" value="female" required>Female
                   </div>
                   <div class="data">
                      <label for="height">Height:</label>
                      <input type="number" name="" id="height" placeholder="Enter in CM" required>
                   </div>
                   <div class="data">
                      <label for="weight">Weight:</label>
                      <input type="number" name="" id="weight" placeholder="Enter in KG" required>
                   </div>
                   <div class="buttons">
                      <input type="submit" id="btn-submit" value="Submit">
                      <input type="reset" id="btn-reset" value="Reset">
                   </div>
                   <div class="result-box">
                      <label id="bmr-result">Your BMR Is: </label>
                   </div>
                </div>
             </div>
          </form>
       </div>
       <script>
          function display(e) {
             e.preventDefault();
             let age = document.querySelector("#age").value;
             let height = document.querySelector("#height").value;
             let weight = document.querySelector("#weight").value;
             let bmr = 0;
             let gender = document.querySelector("input[name='gender']:checked").value;
             if (gender === "male") {
                bmr = (10 * weight) + (6.25 * height) - (5 * age) + 5;
             } else if (gender === "female") {
                bmr = (10 * weight) + (6.25 * height) - (5 * age) - 161;
             }

             document.querySelector("#bmr-result").innerHTML = `BMR: ${bmr}`; // I am using
      toFixed(2) for decimal value upto 2.
          }
          function clearBMR() {
             document.querySelector("#bmr-result").innerHTML = "BMR: ";
          }
```

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

```
        </script>
    </body>
    </html>
```

OUTPUT:

9. **With the help of JS create a strong password generator application. Design a form to ask the user for the length of the password. If the length is not between 8 and 16 display that "Password length must be between 8 and 16 characters. If length is in the range generate a password that contains at least one of each – Upper case letter, lower case letter, number and special character and the password length is what user wants.**

CODE:

```
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Assignment - 5 (Q-9)</title>
    <style>
        .container {
            width: 400px;
            margin: auto;
            margin-top: 100px;
            text-align: center;
            padding: 20px;
            border: 1px solid #1e00ff;
            border-radius: 10px;
        }
        input[type="number"] {
            width: 85%;
```

```css
            padding: 10px;
            margin: 10px 0;
            border: 2px solid gray;
            border-radius: 7px;

        }
        .btn {
            padding: 10px 20px;
            background-color: #1e00ff;
            color: white;
            border: none;
            border-radius: 5px;
            cursor: pointer;
            margin-top: 10px;
        }
        .btn:hover {
            background-color: #1e00ff;
        }
        .error {
            color: red;
            margin-top: 10px;
        }
        #password-display {
            margin-top: 15px;
            padding: 10px;
            border: 1px solid #ccc;
            border-radius: 5px;
            word-break: break-all;
            background-color: #f8f9fa;
        }
    </style>
</head>
<body>
    <div class="container">
        <h2>My Password Generator App</h2>
        <form id="password-form">
            <label for="length">Enter The Password Length:</label>
            <input type="number" id="length" min="8" max="16" placeholder="Enter Length Of
Password(8-16):" required>
            <br>
            <input type="button" class="btn" value="Generate Password"
onclick="generatePassword()">
            <div id="error-message" class="error"></div>
            <div id="password-display"></div>
        </form>
    </div>
    <script>
        function generatePassword() {
            let length = document.getElementById('length').value;
            let errorMessage = document.getElementById('error-message');
```

```
        let passwordDisplay = document.getElementById('password-display');
        errorMessage.innerHTML = '';
        passwordDisplay.innerHTML = '';
        if (length < 8 || length > 16) {
            errorMessage.innerHTML = 'Please Enter Password Length Between(8-16).';
            return;
        }
        let lowerCase = 'abcdefghijklmnopqrstuvwxyz';
        let upperCase = 'ABCDEFGHIJKLMNOPQRSTUVWXYZ';
        let numbers = '0123456789';
        let specialChars = '!@#$%^&*()_+[]{}|;:,.<>?';
        let password = '';
        password += getRandomChar(lowerCase);
        password += getRandomChar(upperCase);
        password += getRandomChar(numbers);
        password += getRandomChar(specialChars);
        let allChars = lowerCase + upperCase + numbers + specialChars;
        for (let i = password.length; i < length; i++) {
            password += getRandomChar(allChars);
        }
        passwordDisplay.innerHTML = `The Password Is : ${password}`
    }
    function getRandomChar(str) {
        return str[Math.floor(Math.random() * str.length)];
    }
  </script>
</body>
</html>
```

OUTPUT:

My Password Generator App

Enter The Password Length:

14

[Generate Password]

The Password Is : sM0{*nt{}?UbT|

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

10. **Design an html page with different fields like name (text), gender (radio), dob (date), address (textarea), mobile (text), email (text), Country (dropdown), password and confirm password. Validate each of the fields using external JS. If all the data is valid then the form will be submitted to a thank you page, otherwise not. Use regular expression whenever required.**
    HTML CODE:

```html
<!-- Name: Sunil Kumar Sahoo  -->
<!-- Sic No: 23MMCI38  -->
<!-- Roll No: 16 (A2)  -->
<!DOCTYPE html>
<html lang="en">

<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Assignment - 5 (Q-10)</title>
   <link rel="stylesheet" href="Q10.css">
</head>

<body>
   <div class="container">
      <h1>Registration Form</h1>
      <form action="Q10thankyou.html" method="get" onsubmit="validate(event)">
         <label for="name">Name:</label>
         <input type="text" name="name" id="name" placeholder="Enter Your Name">
         <span class="error" id="nameError"></span>

         <label for="gender">Gender:</label>
         <input type="radio" name="gender" id="male" value="male">Male
         <input type="radio" name="gender" id="female" value="female">Female
         <input type="radio" name="gender" id="other" value="female">Other
         <span class="error" id="genderError"></span>

         <label for="dob">D.O.B:</label>
         <input type="date" name="dob" id="dob">
         <span class="error" id="dobError"></span>

         <label for="address">Address:</label>
         <textarea name="address" id="address" placeholder="Enter Correct Address"></textarea>
         <span class="error" id="addressError"></span>

         <label for="mobile">Mobile:</label>
         <input type="text" name="mobile" id="mobile" placeholder="Enter Mobile Number">
         <span class="error" id="mobileError"></span>

         <label for="email">E-Mail:</label>
         <input type="text" name="email" id="email" placeholder="Enter Your Email Address">
         <span class="error" id="emailError"></span>

         <label for="country">Country</label>
         <select name="country" id="country">
```

```
            <option value="">-SELECT-</option>
            <option value="India">India</option>
            <option value="Pakistan">Pakistan</option>
            <option value="Srilanka">Srilanka</option>
            <option value="Nepal">Nepal</option>
            <option value="China">China</option>
        </select>
        <span class="error" id="countryError"></span>

        <label for="password">Password:</label>
        <input type="text" name="password" id="password" placeholder="Enter A Strong
Password">
        <span class="error" id="passwordError"></span>

        <input type="submit" name="submit" id="submit" value="SUBMIT">
        <!-- <input type="reset" name="reset" id="reset" value="reset"> -->
      </form>
    </div>
    <!-- ----------- SCRIPT ------------  -->
    <script src="Q10.js"></script>
</body>
</html>
```

THANK YOU PAGE HTML CODE:
```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Thank You</title>
</head>

<body>
    <h1 style="text-align: center; padding-top: 200px;">Thank You!</h1>
</body>

</html>
```
CSS CODE:
```
* {
    margin: 0;
    padding: 0;
    font-family: Arial, Helvetica, sans-serif;
}

.container {
    width: 400px;
    margin: 20px auto;
    padding: 30px;
    border: 2px solid blue;
```

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

```css
        border-radius: 10px;
        background-color: #cee0ee5c;
    }

    h1 {
        text-align: center;
    }

    label {
        display: block;
        margin: 7px 0px 5px;
    }

    input[type='text'],
    input[type='date'],
    input[type='password'],
    textarea,
    select {
        width: 100%;
        padding: 7px;
        margin-bottom: 5px;
        border: 1px solid rgb(97, 97, 243);
        border-radius: 5px;
    }


    input[type="radio"] {
        margin-right: 10px;
        margin-left: 5px;
    }

    input[type="submit"] {
        width: 50%;
        padding: 10px;
        background-color: #3279eb;
        color: white;
        border: none;
        border-radius: 5px;
        cursor: pointer;
        display: block;
        margin: auto;
        margin-top: 10px;
        text-align: center;
    }

    input[type="submit"]:hover {
        background-color: #0040ff;
    }

    .error {
```

```
          color: red;
          font-size: 12px;
      }
```

JS CODE:
```js
function validate(e) {
  // console.log("Connected.")

  let name = document.querySelector("#name").value
  let dob = document.querySelector("#dob").value
  let address = document.querySelector("#address").value
  let mobile = document.querySelector("#mobile").value
  let email = document.querySelector("#email").value
  let country = document.querySelector("#country").value
  let password = document.querySelector("#password").value

  let gender = document.querySelectorAll("input[name='gender']")
  let genderSelect = false
  for (let i = 0; i < gender.length; i++) {
    if (gender[i].checked) {
      console.log(gender[i].value);
      genderSelect = true
    }
  }

  // Initializing The Error Is False
  let error = false

  // Name Validate
  if (name === "") {
    document.querySelector("#nameError").innerHTML = "Name is required"
    error = true
  } else {
    document.querySelector("#nameError").innerHTML = ""
  }

  // Gender Validation
  if (!genderSelect) {
    document.querySelector("#genderError").innerHTML = "Please Select Your Gender.";
    error = true;
  } else {
    document.querySelector("#genderError").innerHTML = "";
  }

  // DOB Validate
  if (dob === "") {
    document.querySelector("#dobError").innerHTML = "Please Select Your Date Of Birth"
    error = true
  } else {
    document.querySelector("#dobError").innerHTML = ""
  }
```

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

```javascript
    // Address Validate
    if (address === "") {
      document.querySelector("#addressError").innerHTML = "Address is required"
      error = true
    } else {
      document.querySelector("#addressError").innerHTML = ""
    }

    // Mobile Validate
    const mobilePattern = /^[6-9]\d{9}$/;
    if (!mobilePattern.test(mobile)) {
      document.querySelector("#mobileError").innerHTML = "Please Enter Valid Mobile Number."
      error = true
    }
    else {
      document.querySelector("#mobileError").innerHTML = ""
    }

    // Email Validation
    const emailPattern = /^[a-zA-Z0-9-.]{3,}@[a-zA-Z.]{3,12}.[a-zA-Z]{2,5}$/;
    if (!emailPattern.test(email)) {
      document.querySelector("#emailError").innerHTML = "Please Enter Your Valid Email
Address"
      error = true
    }
    else {
      document.querySelector("#emailError").innerHTML = ""
    }

    // Country Validate
    if (country === "") {
      document.querySelector("#countryError").innerHTML = "Country is required"
      error = true
    } else {
      document.querySelector("#countryError").innerHTML = ""
    }

    //Password Validate
    const passwordPattern = /^(?=.*[A-Za-z])(?=.*\d)(?=.*[@$!%*#?&])[A-Za-
z\d@$!%*#?&]{8,}$/;
    if (!passwordPattern.test(password)) {
      document.querySelector("#passwordError").innerHTML = "Password Must Be at least 8
characters, include a letter, a number, and a special character."
      error = true
    }
    else {
      document.querySelector("#passwordError").innerHTML = ""
    }
```

```
    // Apply Prevent Default
    if (error) {
        e.preventDefault();
    }
}
```

OUTPUT:

Thank You!

Name: Sunil Kumar Sahoo
SIC No: 23MMCI38
Roll: 16 (A2)