Name: Sara Arora

Register no: 23BCE5036

Exercise 11

Question1:

Code:

- Html code:

```
33        </section>
34
35        <section>
36            <h2>Key Press Counter</h2>
37            <input type="text" id="key-input" placeholder="Type here">
38            <input type="text" id="key-count" readonly placeholder="Key Press Count">
39        </section>
40
41        <script src="script.js"></script>
42    </body>
43    </html>
44
```

- css file:

```
# style.css > ...
1    body {
2        font-family: Arial, sans-serif;
3        margin: 20px;
4        padding: 20px;
5        background-color: #f4f4f4;
6        text-align: center;
7    }
8
9    h1 {
10        color: #333;
11    }
12
13    section {
14        background: white;
15        padding: 20px;
16        margin: 20px auto;
17        width: 60%;
18        border-radius: 8px;
19        box-shadow: 0px 4px 8px rgba(0, 0, 0, 0.1);
20    }
21
22    table {
23        border-collapse: collapse;
24        width: 100%;
25        margin-top: 10px;
26    }
27
28    th, td {
29        border: 1px solid black;
30        padding: 10px;
31        text-align: center;
32    }
33
```

```
34    button {
35        padding: 10px;
36        font-size: 16px;
37        cursor: pointer;
38        border: none;
39        margin-top: 10px;
40        transition: background 0.3s ease-in-out;
41        background-color: red;
42        color: white;
43        border-radius: 5px;
44    }
45
46    button:hover {
47        background-color: green;
48    }
```

```css
50   input {
51       padding: 10px;
52       font-size: 14px;
53       margin-top: 10px;
54       border: 1px solid #ccc;
55       border-radius: 5px;
56   }
57
58   #key-count {
59       background: #eee;
60       font-weight: bold;
61       text-align: center;
62   }
```

- javascript file:

script.js > document.addEventListener("DOMContentLoaded") callback > createButton > butto

```javascript
1   document.addEventListener("DOMContentLoaded", function() {
2
3       function createTable() {
4           let table = document.createElement("table");
5           for (let i = 0; i < 3; i++) {
6               let row = table.insertRow();
7               for (let j = 0; j < 3; j++) {
8                   let cell = row.insertCell();
9                   cell.textContent = `(${i+1},${j+1})`;
10              }
11          }
12          document.getElementById("table-container").appendChild(table);
13      }
14
15      function createButton() {
16          let button = document.createElement("button");
17          button.textContent = "Hover me";
18          button.style.backgroundColor = "red";
19
20          button.addEventListener("mouseover", function() {
21              button.style.backgroundColor = "green";
22          });
23
24          button.addEventListener("mouseout", function() {
25              button.style.backgroundColor = "red";
26          });
27
28          document.getElementById("button-container").appendChild(button);
29      }
30
```

```javascript
31      function createTextbox() {
32          let textbox = document.createElement("input");
33          textbox.type = "text";
34          textbox.style.backgroundColor = "green";
35
36          textbox.addEventListener("focus", function() {
37              textbox.style.backgroundColor = "yellow";
38          });
39
40          textbox.addEventListener("change", function() {
41              alert("Hello! You've changed the text.");
42          });
43
44          document.getElementById("textbox-container").appendChild(textbox);
45      }
```

23BCE5036_EX11
- index.html
- JS script.js
- # style.css

```
 46
 47        function setupListAdder() {
 48            let inputField = document.getElementById("list-input");
 49            let button = document.getElementById("add-btn");
 50            let list = document.getElementById("item-list");
 51
 52            button.addEventListener("dblclick", function() {
 53                if (inputField.value.trim() !== "") {
 54                    let listItem = document.createElement("li");
 55                    listItem.textContent = inputField.value;
 56                    list.appendChild(listItem);
 57                    inputField.value = "";
 58                }
 59            });
 60        }
 61
 62        function setupKeyPressCounter() {
 63            let keyInput = document.getElementById("key-input");
 64            let keyCountField = document.getElementById("key-count");
 65            let count = 0;
 66
 67            keyInput.addEventListener("keypress", function() {
 68                count++;
 69                keyCountField.value = count;
 70            });
 71        }
 72
 73        createTable();
 74        createButton();
 75        createTextbox();
 76        setupListAdder();
 77        setupKeyPressCounter();
 78    });
```

> OUTLINE
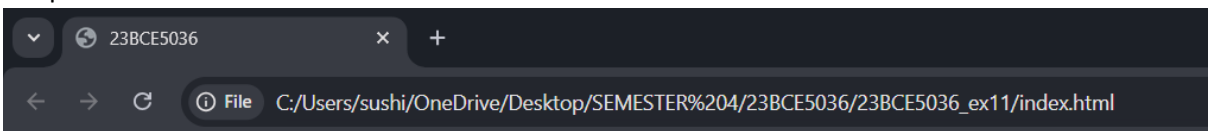
> TIMELINE

output:

23BCE5036

C:/Users/sushi/OneDrive/Desktop/SEMESTER%204/23BCE5036/23BCE5036_ex11/index.html

23BCE5036

Dynamic Table

(1,1) (1,2) (1,3)
(2,1) (2,2) (2,3)
(3,1) (3,2) (3,3)

Button Color Change

Hover me

Textbox Color Change & Greeting

Add List Item on Double Click

Enter text   Add to List

Key Press Counter

Type here   Key Press Count

This page says

Hello! You've changed the text.

OK

23BCE5036

Dynamic Table

(1,1) (1,2) (1,3)
(2,1) (2,2) (2,3)
(3,1) (3,2) (3,3)

Button Color Change

Hover me

Textbox Color Change & Greeting

Sara Arora

Add List Item on Double Click

Enter text | Add to List

Key Press Counter

Type here | Key Press Count

Add List Item on Double Click

Pat3 | Add to List

- Pat1
- Pat2

Key Press Counter

HelloWorld | 10

Question 2:

Code:

- html file:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>23BCE5036</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <section>
        <h2>Stopwatch</h2>
        <div id="stopwatch">00:00:00</div>
        <button id="start-btn">Start</button>
        <button id="stop-btn">Stop</button>
        <button id="reset-btn">Reset</button>
    </section>

    <section>
        <h2>Calculate Age from DOB</h2>
        <input type="date" id="dob-input">
        <p id="age-result">Hover over the box to see your age.</p>
    </section>

    <section>
        <h2>Character Counter</h2>
        <textarea id="text-area" placeholder="Type here..."></textarea>
        <p>Characters: <span id="char-count">0</span></p>
    </section>

    <script src="script.js"></script>
</body>
</html>
```
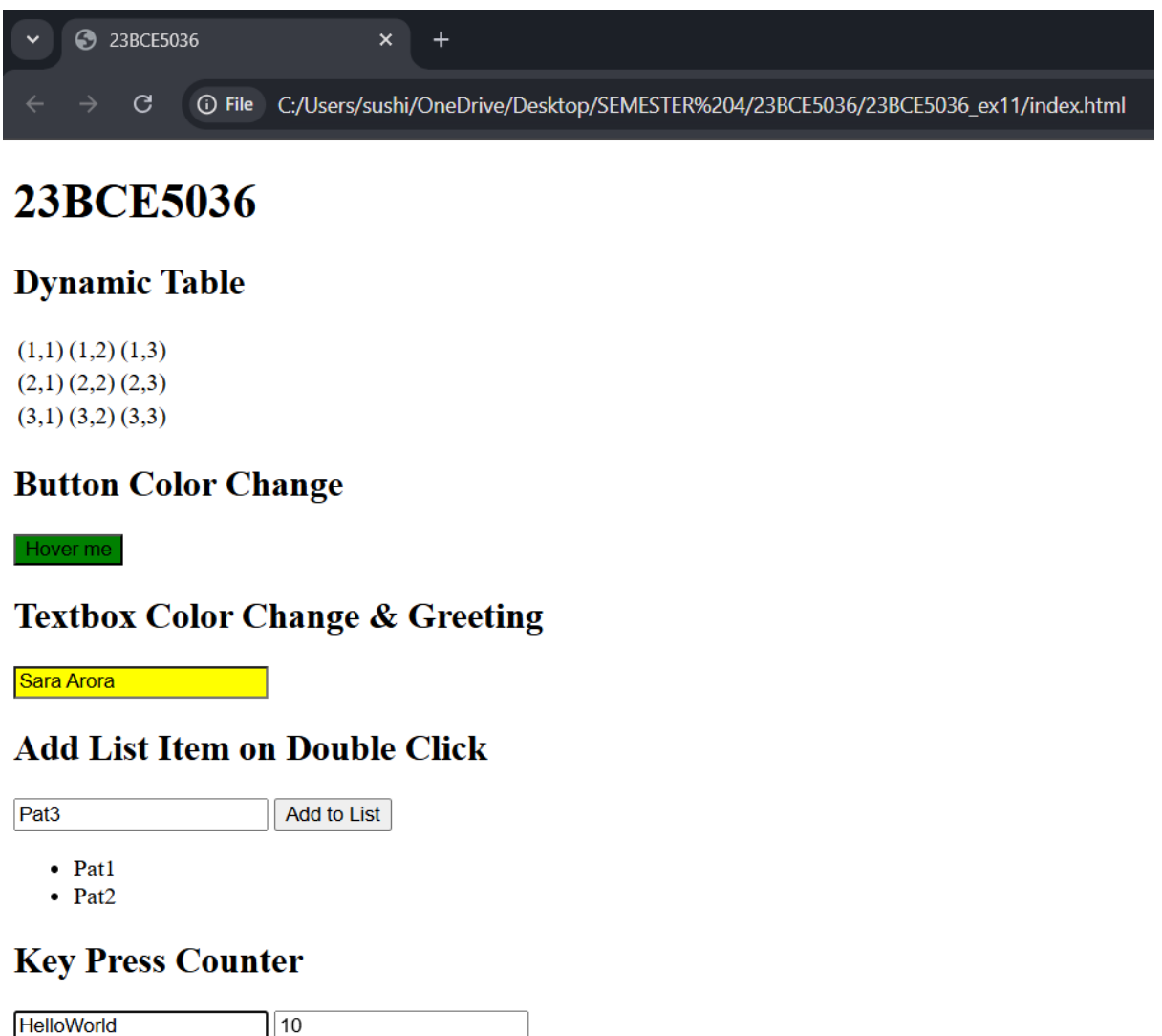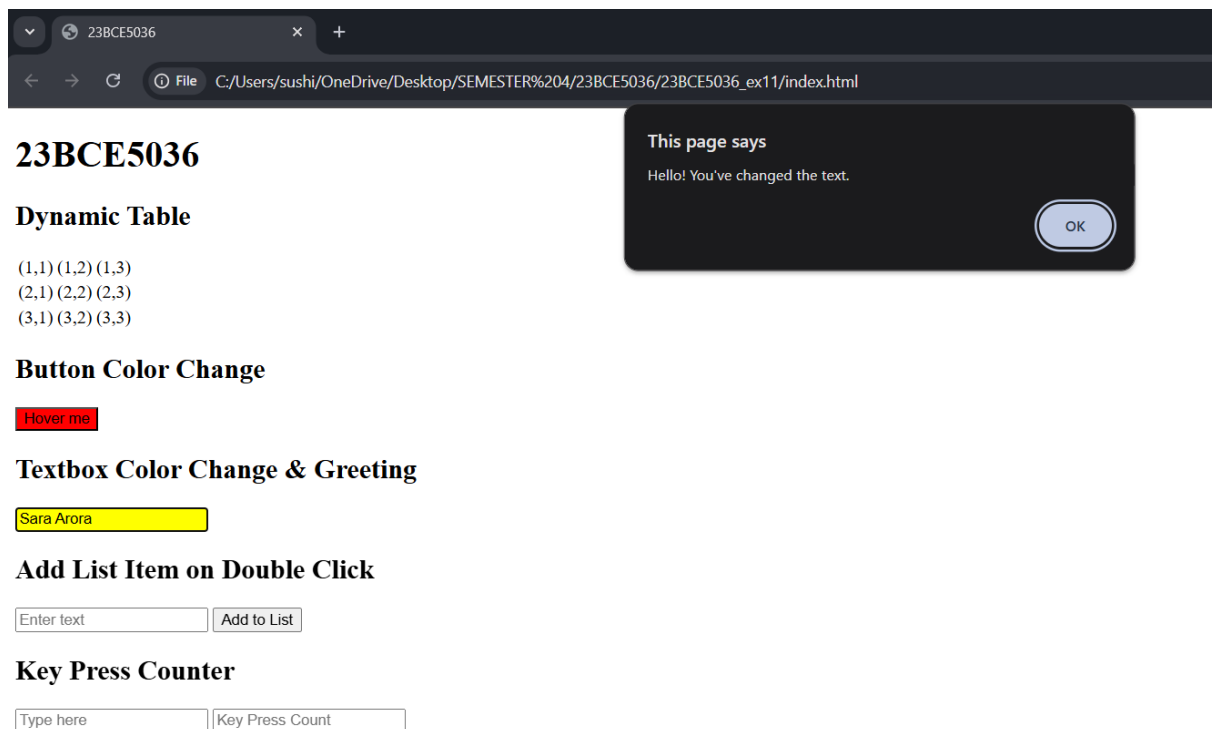
- css file:

```css
body {
    font-family: Arial, sans-serif;
    margin: 20px;
    padding: 20px;
    background-color: #f4f4f4;
    text-align: center;
}

h1 {
    color: #333;
}

section {
    background: white;
    padding: 20px;
    margin: 20px auto;
    width: 60%;
    border-radius: 8px;
    box-shadow: 0px 4px 8px rgba(0, 0, 0, 0.1);
}
```

```css
#stopwatch {
    font-size: 24px;
    font-weight: bold;
    margin-bottom: 10px;
}

button {
    padding: 10px;
    font-size: 16px;
    cursor: pointer;
    border: none;
    margin: 5px;
    background-color: red;
    color: white;
    border-radius: 5px;
    transition: background 0.3s ease-in-out;
}

button:hover {
    background-color: green !important;
}

input, textarea {
    padding: 10px;
    font-size: 14px;
    margin-top: 10px;
    border: 1px solid #ccc;
    border-radius: 5px;
    width: 80%;
}

textarea {
    height: 100px;
    resize: none;
}
```
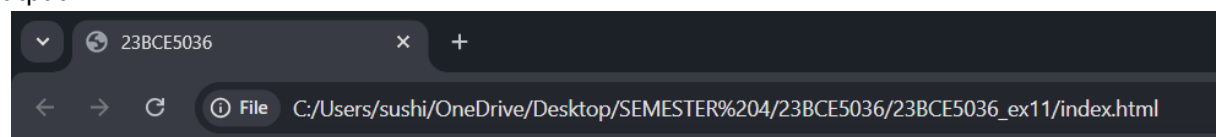
- javascript file:

```javascript
document.addEventListener("DOMContentLoaded", function() {
    let stopwatchDisplay = document.getElementById("stopwatch");
    let startBtn = document.getElementById("start-btn");
    let stopBtn = document.getElementById("stop-btn");
    let resetBtn = document.getElementById("reset-btn");

    let timer;
    let seconds = 0, minutes = 0, hours = 0;

    function updateStopwatch() {
        seconds++;
        if (seconds === 60) {
            seconds = 0;
            minutes++;
        }
        if (minutes === 60) {
            minutes = 0;
            hours++;
        }
        stopwatchDisplay.textContent =
            (hours < 10 ? "0" + hours : hours) + ":" +
            (minutes < 10 ? "0" + minutes : minutes) + ":" +
            (seconds < 10 ? "0" + seconds : seconds);
    }

    startBtn.addEventListener("click", function() {
        if (!timer) {
            timer = setInterval(updateStopwatch, 1000);
        }
    });
```

```
32          stopBtn.addEventListener("click", function() {
33              clearInterval(timer);
34              timer = null;
35          });
36
37          resetBtn.addEventListener("click", function() {
38              clearInterval(timer);
39              timer = null;
40              seconds = 0;
41              minutes = 0;
42              hours = 0;
43              stopwatchDisplay.textContent = "00:00:00";
44          });
45
46          let dobInput = document.getElementById("dob-input");
47          let ageResult = document.getElementById("age-result");
48
49          dobInput.addEventListener("mouseover", function() {
50              let dobValue = dobInput.value;
51              if (dobValue) {
52                  let birthDate = new Date(dobValue);
53                  let today = new Date();
54                  let age = today.getFullYear() - birthDate.getFullYear();
55
56                  let monthDiff = today.getMonth() - birthDate.getMonth();
57                  let dayDiff = today.getDate() - birthDate.getDate();
58
59                  if (monthDiff < 0 || (monthDiff === 0 && dayDiff < 0)) {
60                      age--;
61                  }
62
63                  ageResult.textContent = `Your age is: ${age} years`;
64              } else {
65                  ageResult.textContent = "Please select your Date of Birth.";
66              }
67          });
```

```
68
69          let textArea = document.getElementById("text-area");
70          let charCount = document.getElementById("char-count");
71
72          textArea.addEventListener("input", function() {
73              charCount.textContent = textArea.value.length;
74          });
75      });
76
```

Output:

23BCE5036

File C:/Users/sushi/OneDrive/Desktop/SEMESTER%204/23BCE5036/23BCE5036_ex11/index.html

Stopwatch

00:00:00
Start | Stop | Reset

Calculate Age from DOB

dd - mm - yyyy

Hover over the box to see your age.

Character Counter

Type here...

Characters: 0

Stopwatch

00:00:32

[Start] [Stop] [Reset]

Calculate Age from DOB

19-03-2004 📅
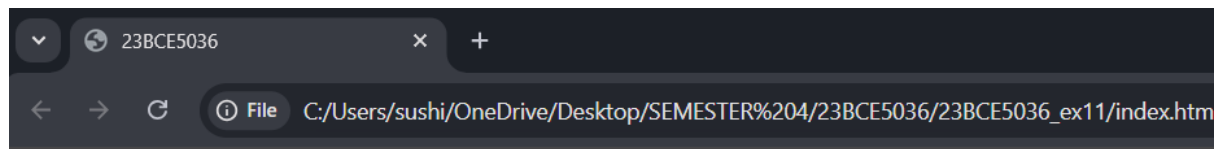
Your age is: 20 years

Character Counter

```
Sara Arora
```

Characters: 10

Question 3:

Code:

- Html file


```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>23BCE5036</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <p id="time"></p>
    <form id="validationForm">
        <label>Name*:</label>
        <input type="text" id="name">
        <br>
        <label>Address:</label>
        <textarea id="address"></textarea>
        <br>
        <label>Zip Code*:</label>
        <input type="text" id="zipCode">
        <br>
        <label>Country*:</label>
        <select id="country">
```

```html
 9    <body>
11        <form id="validationForm">
22            <select id="country">
23                <option value="">Please select...</option>
24                <option value="Australia">Australia</option>
25                <option value="India">India</option>
26                <option value="Nepal">Nepal</option>
27                <option value="Pakistan">Pakistan</option>
28                <option value="Russia">Russia</option>
29                <option value="USA">USA</option>
30            </select>
31            <br>
32            <label>Gender*:</label>
33            <input type="radio" name="gender" value="Male"> Male
34            <input type="radio" name="gender" value="Female"> Female
35            <br>
36            <label>Preferences*:</label>
37            <input type="checkbox" name="preferences" value="Pink"> Pink
38            <input type="checkbox" name="preferences" value="Yellow"> Yellow
39            <input type="checkbox" name="preferences" value="Blue"> Blue
40            <br>
41            <label>Phone*:</label>
42            <input type="text" id="phone">
43            <br>
44            <label>Email*:</label>
45            <input type="email" id="email">
46            <br>
47            <label>Password (6-8 characters)*:</label>
48            <input type="password" id="password">
49            <br>
50            <label>Verify Password*:</label>
51            <input type="password" id="verifyPassword">
52            <br>
53            <label>PAN No:</label>
54            <input type="text" id="pan">
55            <br>
```

```html
53            <label>PAN No:</label>
54            <input type="text" id="pan">
55            <br>
56            <button type="button" id="send">SEND</button>
57            <button type="reset">CLEAR</button>
58            <button type="button" id="print">PRINT</button>
59        </form>
60        <script src="script.js"></script>
61    </body>
62 </html>
63
```

css file:

```css
body {
    font-family: Arial, sans-serif;
    background-color: #fff;
    margin: 30px;
    padding: 20px;
}

h2 {
    font-size: 20px;
    font-weight: bold;
    text-decoration: underline;
}

.timer-box {
    position: absolute;
    right: 20px;
    top: 20px;
    padding: 10px;
    border: 1px solid black;
}

form {
    width: 60%;
    border: 1px solid black;
    padding: 20px;
}

.form-group {
    display: flex;
    align-items: center;
    margin-bottom: 10px;
}
```

```css
28  .form-group {
32  }
33
34  label {
35      width: 150px;
36      font-weight: bold;
37  }
38
39  input, select, textarea {
40      width: 250px;
41      padding: 5px;
42      border: 1px solid #ccc;
43  }
44
45  textarea {
46      height: 50px;
47      resize: none;
48  }
49
50  .gender-group, .preferences-group {
51      display: flex;
52      align-items: center;
53  }
54
55  .gender-group input,
56  .preferences-group input {
57      width: auto;
58      margin-left: 5px;
59  }
60
61  .error {
62      color: red;
63      font-size: 14px;
64      margin-left: 10px;
65  }
66
67  .buttons {
68      margin-top: 10px;
69      display: flex;
70      gap: 10px;
71  }
72
73  button {
74      padding: 8px 15px;
75      border: none;
76      background-color: grey;
77      color: white;
78      font-size: 14px;
79      cursor: pointer;
80  }
81
82  button:hover {
83      background-color: black;
84  }
85
```

- Js file:

```js
1   function updateTime() {
2       let timeDisplay = document.getElementById("time");
3       let now = new Date();
4       timeDisplay.textContent = "Time: " + now.toLocaleTimeString();
5   }
6   setInterval(updateTime, 1000);
7
8   function validateForm() {
9       let valid = true;
10
11      let name = document.getElementById("name").value;
12      let zip = document.getElementById("zipcode").value;
13      let country = document.getElementById("country").value;
14      let phone = document.getElementById("phone").value;
15      let email = document.getElementById("email").value;
16      let password = document.getElementById("password").value;
17      let verifyPassword = document.getElementById("verifyPassword").value;
18      let pan = document.getElementById("pan").value;
19      let gender = document.getElementsByName("gender");
20      let preferences = document.getElementsByName("preferences");
21
22      document.querySelectorAll(".error").forEach(e => e.textContent = "");
23
24      if (name.trim() === "" || name.length > 15) {
25          document.getElementById("nameError").textContent = "Please enter your name!";
26          valid = false;
27      }
28
29      if (zip.trim() === "" || isNaN(zip) || zip.length > 6) {
30          document.getElementById("zipError").textContent = "Invalid Zip Code!";
31          valid = false;
32      }
```

```javascript
29          if (zip.trim() === "" || isNaN(zip) || zip.length > 6) {
30              document.getElementById("zipError").textContent = "Invalid Zip Code!";
31              valid = false;
32          }
33
34          if (country === "") {
35              document.getElementById("countryError").textContent = "Select a country!";
36              valid = false;
37          }
38
39          if (![...gender].some(g => g.checked)) {
40              document.getElementById("genderError").textContent = "Select gender!";
41              valid = false;
42          }
43
44          if (![...preferences].some(p => p.checked)) {
45              document.getElementById("prefError").textContent = "Select at least one preference!";
46              valid = false;
47          }
48
49          if (phone.trim() === "" || isNaN(phone) || phone.length !== 10) {
50              document.getElementById("phoneError").textContent = "Enter valid 10-digit phone!";
51              valid = false;
52          }
53
54          let emailPattern = /^[a-zA-Z0-9._-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$/;
55          if (!emailPattern.test(email)) {
56              document.getElementById("emailError").textContent = "Enter a valid email!";
57              valid = false;
58          }
59
60          let passwordPattern = /^(?=.*[A-Za-z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!%*?&]{8,15}$/;
61          if (!passwordPattern.test(password)) {
62              document.getElementById("passwordError").textContent = "Weak password!";
63              valid = false;
64          }
65
66          if (password !== verifyPassword) {
67              document.getElementById("verifyPasswordError").textContent = "Passwords do not match!";
68              valid = false;
69          }
70
71          let panPattern = /^[A-Z]{5}[0-9]{4}[A-Z]{1}$/;
72          if (!panPattern.test(pan)) {
73              document.getElementById("panError").textContent = "Invalid PAN format!";
74              valid = false;
75          }
76
77          if (!valid) return;
78          alert("Form Submitted Successfully!");
79      }
80
81      function printForm() {
82          let gender = [...document.getElementsByName("gender")].find(g => g.checked)?.value || "Not selected";
83          let country = document.getElementById("country").value || "Not selected";
84          let preferences = [...document.getElementsByName("preferences")].filter(p => p.checked).map(p => p.value).join(", ") || "None";
85
86          console.log("Gender:", gender);
87          console.log("Country:", country);
88          console.log("Preferences:", preferences);
89          window.print();
90      }
91
```
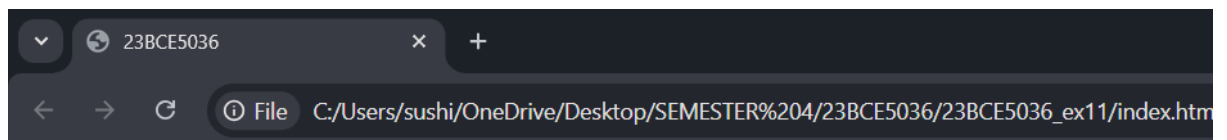
Output: