**Web Programming**

Lab - 11

JavaScript

Name: Sushen Grover

Reg No: 23BCE1728

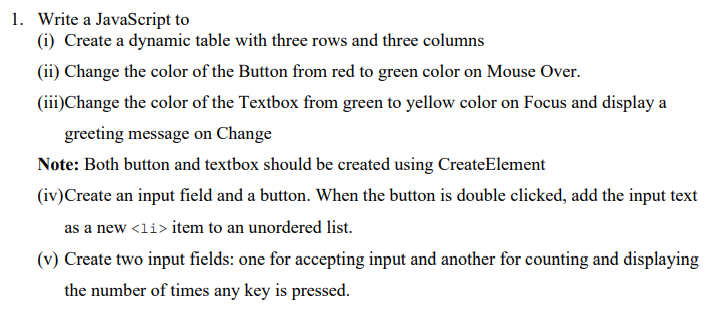
Slot: L11+L12+L31+L32

Class No: CH2024250502774

Course Code: BCSE203E

Faculty: Dr. L.M. Jenila Livingston

Question 1:



Code:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>23BCE1728</title>

</head>

<body>

    <h1>Exercise 11A</h1>

    <div class="part1"></div>

    <hr>

    <div class="part2"></div>

    <hr>

    <div class="part3"></div>

    <hr>

    <div class="part4"></div>

    <hr>

    <div class="part5"></div>

    <hr>

    <script src="script1.js"></script>

</body>

</html>

/\* 1st Part \*/

let wrapper=document.querySelector(".part1");

let table=document.createElement("table");

let num=0;

for(let i=0;i<3;i++){

    let row=table.insertRow();

    for(let j=0;j<3;j++){

        let cell=row.insertCell();

        cell.innerText=num++;

    }

}

table.border=2;

wrapper.append(table);

/\* 2nd Part \*/

wrapper=document.querySelector(".part2");

let button=document.createElement("button");

button.innerText="Click Here";

button.style.background="red";

button.addEventListener("mouseover",function(event){

    event.target.style.background="green";

},true);

button.addEventListener("mouseout",function(event){

    event.target.style.background="red";

},true);

wrapper.append(button);

// 3rd Part

wrapper=document.querySelector(".part3");

let textbox=document.createElement("input");

textbox.setAttribute("type","textbox");

wrapper.append(textbox);

let message=document.createElement("p");

message.innerText="Hello! You changed the text.";

message.style.visibility="hidden";

wrapper.append(message);

textbox.addEventListener("change",function(event){

    message.style.visibility="visible";

},true);

// 4th part

wrapper=document.querySelector(".part4");

let input=document.createElement("input");

input.type=textbox;

wrapper.append(input);

button=document.createElement("button");

button.innerText="Add Item"

wrapper.append(button);

wrapper.append(document.createElement("br"));

let list=document.createElement("ul");

wrapper.append(list);

button.ondblclick=()=>{

    let item=document.createElement("li");

    item.innerText=input.value;

    list.append(item);

};

// 5th part

wrapper=document.querySelector(".part5");

let input1=document.createElement("input");

let input2=document.createElement("input");

input1.type=textbox;

input2.type=textbox;

input2.value=0;

wrapper.append(input1,input2);

let count=0;

document.addEventListener("keypress",function(event){

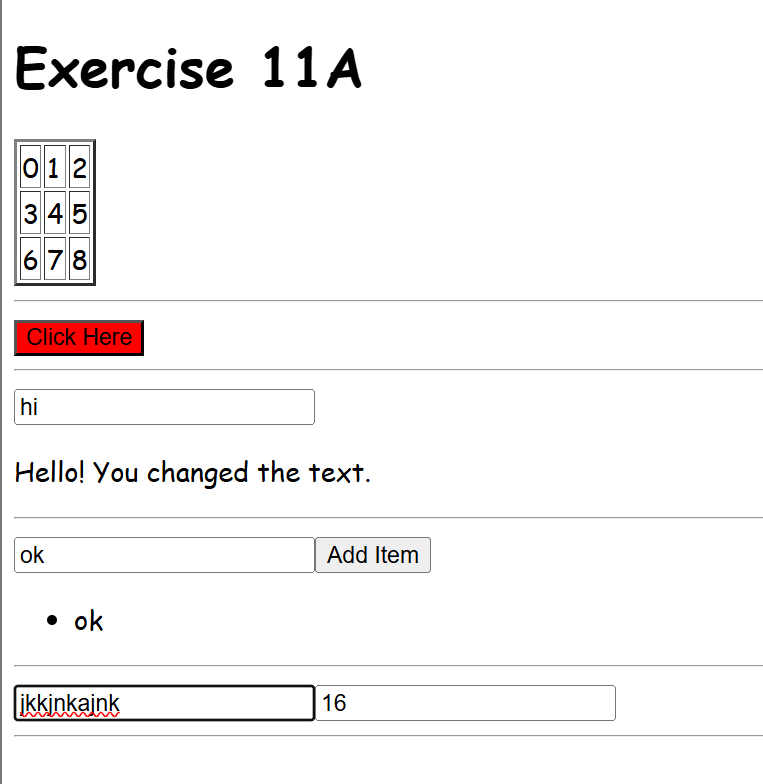
    count++;

    input2.value=count;

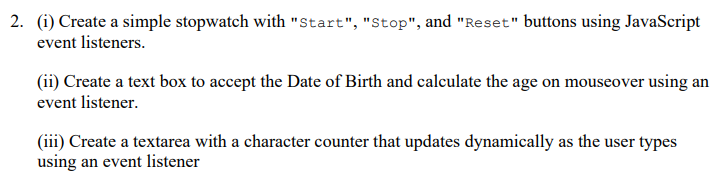
},true);

Output:





Question 2:



Code:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>23BCE1728</title>

    <link rel="stylesheet" href="style2.css">

</head>

<body>

    <h1>Exercise 11B</h1>

    <div class="part1">

        <div class="part1-buttons">

            <button class="start-button">Start</button>

            <button class="stop-button">Stop</button>

            <button class="reset-button">Reset</button>

        </div>

        <div class="part1-clock">

            <div class="timer-div">

                <div class="hour-div">0</div>:

                <div class="minute-div">0</div>:

                <div class="second-div">0</div>

            </div>

        </div>

    </div>

    <hr>

    <div class="part2">

        <input type="date" name="" id="dob-input">

        <br>

        <label for="">Age:</label>

        <input type="text" id="age-output" value="0">

    </div>

    <hr>

    <div class="part3">

        <input type="text" id="text-input">

        <br>

        <label for="">Count:</label>

        <input type="text" id="count-output">

    </div>

    <hr>

    <script src="script2.js"></script>

</body>

</html>

.part1-buttons{

    display: flex;

    flex-direction: column;

    width: 20%;

    gap: 1rem;

}

.part1{

    display: flex;

    width: 60%;

}

.part1-buttons button{

    border: 2px solid black;

    background-color: aquamarine;

}

.part1-clock{

    width: 80%;

    display: flex;

    align-items: center;

    justify-content: center;

}

.timer-div{

    display: flex;

    align-items: center;

    justify-content: center;

    gap: 2rem;

}

.timer-div div{

    border: 2px solid black;

    width: 2rem;

    height: 2rem;

    text-align: center;

}

.part1-buttons button:hover{

    background-color: aqua;

}

.part2,.part1,.part3{

    border: 2px solid black;

    padding: 10px;

}

hr{

    visibility: hidden;

}

// 1st part

let h=0,m=0,s=0;

let residue=0,interval=0;

let startTime=new Date();

let timerStatus=false;

function updateTimer(){

    if(timerStatus){

        let now=new Date();

        interval=Math.abs(now-startTime);

        interval+=residue;

        s=Math.floor(interval/1000);

        m=Math.floor(s/60);

        s%=60;

        h=Math.floor(m/60);

        m%=60;

        document.querySelector(".second-div").textContent=s;

        document.querySelector(".minute-div").textContent=m;

        document.querySelector(".hour-div").textContent=h;

        // console.log(timerStatus);

    }

}

function startTimer(event){

    event.preventDefault();

    if(timerStatus){return;}

    startTime=new Date();

    timerStatus=true;

}

function stopTimer(event){

    event.preventDefault();

    residue=interval;

    timerStatus=false;

}

function resetTimer(event){

    event.preventDefault();

    timerStatus=false;

    residue=0;

    document.querySelector(".second-div").textContent=0;

    document.querySelector(".minute-div").textContent=0;

    document.querySelector(".hour-div").textContent=0;

}

document.querySelector(".start-button").addEventListener("click",startTimer);

document.querySelector(".stop-button").addEventListener("click",stopTimer);

document.querySelector(".reset-button").addEventListener("click",resetTimer);

let t=setInterval(updateTimer,1000);

// 2nd part

document.querySelector("#age-output").addEventListener("mouseover",function(event){

    let dob=new Date(document.querySelector("#dob-input").value);

    let now=new Date();

    let diff=now-dob;

    diff/=(1000\*60\*60\*24\*365);

    event.target.value=Math.floor(diff);

    console.log(dob);

},true);

//3rd Part

function updateCount(event){

    event.preventDefault();

    let output=document.querySelector("#count-output");

    count=event.target.value.length;

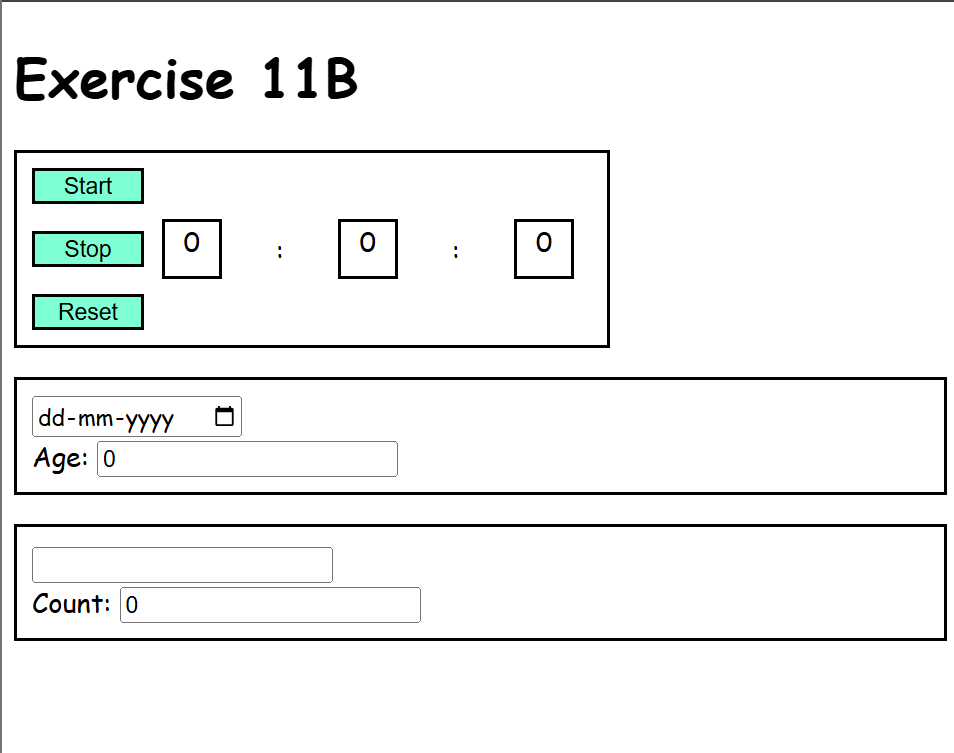
    output.value=count;

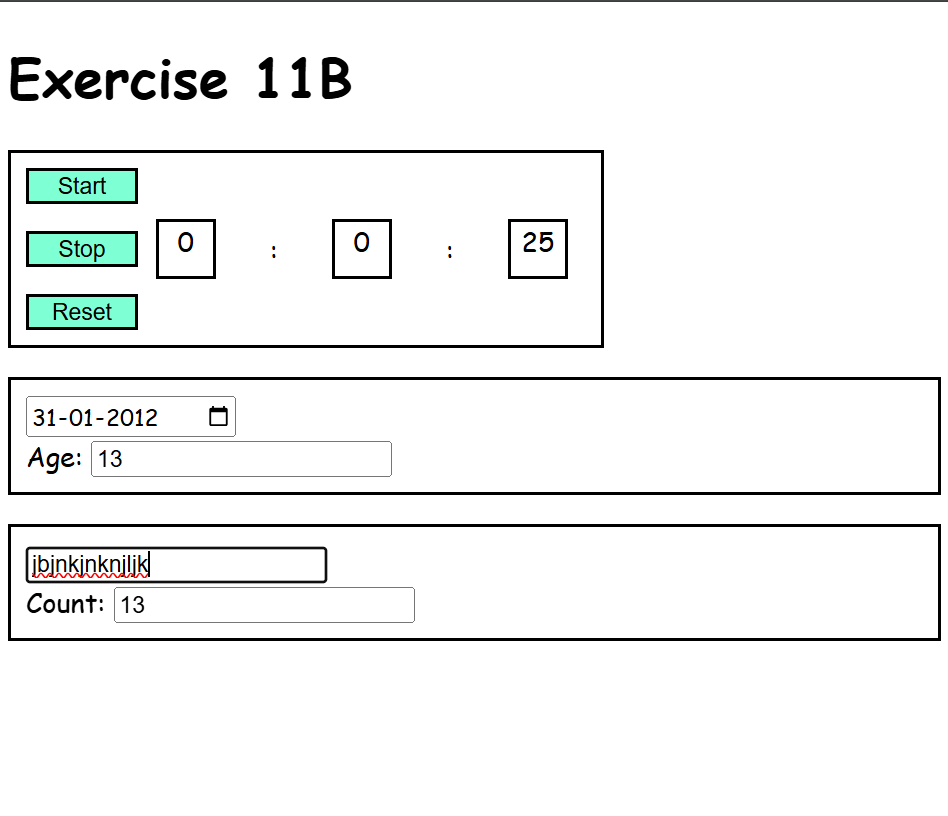
}

document.querySelector("#text-input").addEventListener("input",updateCount,true);

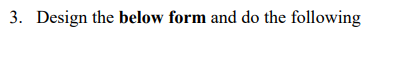
document.querySelector("#count-output").value=0;

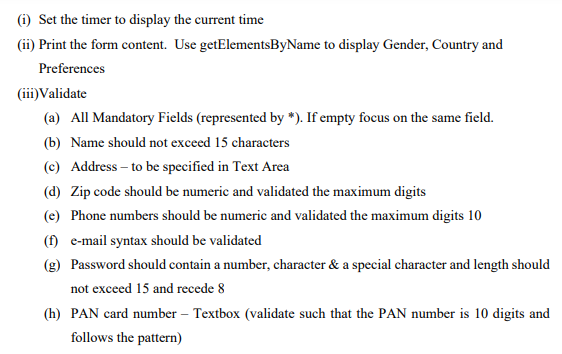
Output:

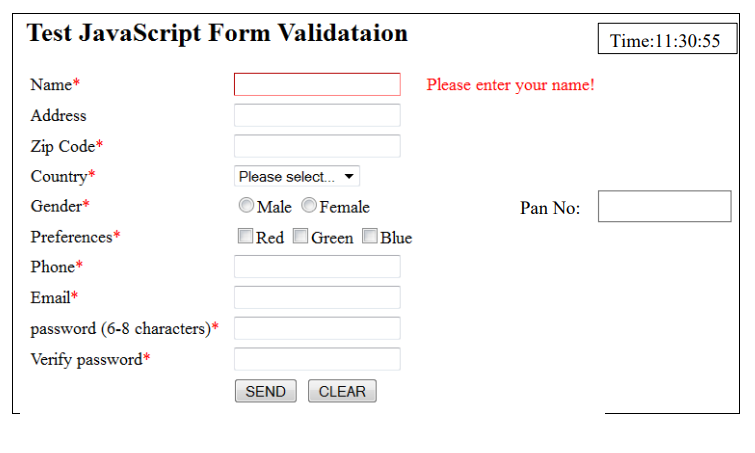




Question 3:







Code:

<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>JavaScript Form Validation</title>

    <style>

      body {

        font-family: Arial, sans-serif;

      }

      .container {

        width: 500px;

        border: 1px solid black;

        padding: 20px;

      }

      h2 {

        text-decoration: underline;

      }

      label {

        display: block;

        margin: 10px 0 5px;

      }

      input,

      select,

      textarea {

        width: 100%;

        padding: 5px;

        margin-bottom: 5px;

      }

      .error {

        color: red;

        font-size: 12px;

      }

      .inline {

        display: inline;

        width: auto;

      }

      .time-box {

        float: right;

        border: 1px solid black;

        padding: 5px;

        background-color: lightgray;

      }

      button {

        padding: 8px 15px;

        margin-top: 10px;

      }

    </style>

    <script>

      function updateTime() {

        document.getElementById("time").innerText =

          new Date().toLocaleTimeString();

      }

      setInterval(updateTime, 1000);

      function validateForm() {

        let isValid = true;

        let name = document.getElementById("name").value;

        if (name.trim() === "" || name.length > 15) {

          document.getElementById("nameError").innerText =

            "Please enter your name! (Max 15 chars)";

          isValid = false;

        } else {

          document.getElementById("nameError").innerText = "";

        }

        let address = document.getElementById("address").value;

        if (address.trim() === "") {

          document.getElementById("addressError").innerText =

            "Address is required";

          isValid = false;

        } else {

          document.getElementById("addressError").innerText = "";

        }

        let zip = document.getElementById("zip").value;

        if (!/^\d{5,6}$/.test(zip)) {

          document.getElementById("zipError").innerText =

            "Enter a valid Zip Code";

          isValid = false;

        } else {

          document.getElementById("zipError").innerText = "";

        }

        let phone = document.getElementById("phone").value;

        if (!/^\d{10}$/.test(phone)) {

          document.getElementById("phoneError").innerText =

            "Enter a 10-digit phone number";

          isValid = false;

        } else {

          document.getElementById("phoneError").innerText = "";

        }

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

        if (!/^\S+@\S+**\.**\S+$/.test(email)) {

          document.getElementById("emailError").innerText =

            "Enter a valid email address";

          isValid = false;

        } else {

          document.getElementById("emailError").innerText = "";

        }

        let password = document.getElementById("password").value;

        if (!/^(?=.\*\d)(?=.\*[a-zA-Z])(?=.\*[@#$%^&+=]).{8,15}$/.test(password)) {

          document.getElementById("passwordError").innerText =

            "Password must contain a number, letter & special character (8-15 chars)";

          isValid = false;

        } else {

          document.getElementById("passwordError").innerText = "";

        }

        let confirmPassword = document.getElementById("confirmPassword").value;

        if (confirmPassword !== password) {

          document.getElementById("confirmPasswordError").innerText =

            "Passwords do not match";

          isValid = false;

        } else {

          document.getElementById("confirmPasswordError").innerText = "";

        }

        let pan = document.getElementById("pan").value;

        if (!/^[A-Z]{5}[0-9]{4}[A-Z]{1}$/.test(pan)) {

          document.getElementById("panError").innerText =

            "Invalid PAN format (ABCDE1234F)";

          isValid = false;

        } else {

          document.getElementById("panError").innerText = "";

        }

        return isValid;

      }

      function printFormData() {

        let gender = document.getElementsByName("gender");

        let selectedGender = "";

        for (let i = 0; i < gender.length; i++) {

          if (gender[i].checked) {

            selectedGender = gender[i].value;

          }

        }

        let country = document.getElementById("country").value;

        let preferences = [];

        let prefCheckboxes = document.getElementsByName("preference");

        for (let i = 0; i < prefCheckboxes.length; i++) {

          if (prefCheckboxes[i].checked) {

            preferences.push(prefCheckboxes[i].value);

          }

        }

        alert(

          `Gender: ${selectedGender}\nCountry: ${country}\nPreferences: ${preferences.join(

            ", "

          )}`

        );

      }

    </script>

  </head>

  <body>

    <div class="container">

      <h2>Test JavaScript Form Validation</h2>

      <div class="time-box">Time: <span id="time"></span></div>

      <form onsubmit="return validateForm()">

        <label>Name\*:</label>

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

        <span class="error" id="nameError"></span>

        <label>Address\*:</label>

        <textarea id="address"></textarea>

        <span class="error" id="addressError"></span>

        <label>Zip Code\*:</label>

        <input type="text" id="zip" />

        <span class="error" id="zipError"></span>

        <label>Country\*:</label>

        <select id="country">

          <option value="">Please select...</option>

          <option value="India">India</option>

          <option value="USA">USA</option>

        </select>

        <label>Gender\*:</label>

        <input type="radio" name="gender" value="Male" class="inline" /> Male

        <input type="radio" name="gender" value="Female" class="inline" />

        Female

        <label>Preferences\*:</label>

        <input type="checkbox" name="preference" value="Red" class="inline" />

        Red

        <input type="checkbox" name="preference" value="Green" class="inline" />

        Green

        <input type="checkbox" name="preference" value="Blue" class="inline" />

        Blue

        <label>Phone\*:</label>

        <input type="text" id="phone" />

        <span class="error" id="phoneError"></span>

        <label>Email\*:</label>

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

        <span class="error" id="emailError"></span>

        <label>Password (8-15 characters)\*:</label>

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

        <span class="error" id="passwordError"></span>

        <label>Verify Password\*:</label>

        <input type="password" id="confirmPassword" />

        <span class="error" id="confirmPasswordError"></span>

        <label>PAN No\*:</label>

        <input type="text" id="pan" />

        <span class="error" id="panError"></span>

        <button type="submit">SEND</button>

        <button type="button" onclick="printFormData()">CLEAR</button>

      </form>

    </div>

  </body>

</html>

Output:

