Lab-5

1. Play video in your web page and play/pause, change the dimension of it using javascript using button(small,normal,large).

Html File :-

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

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

    <title>Video Controls</title>

    <style>

      body {

        padding-top: 50px;

        background-color: black;

        margin: 0;

      }

      video,

*.row* div,

*.row* {

        display: flex;

        align-items: center;

        justify-content: center;

      }

      video {

        border: 2px solid aliceblue;

        border-radius: 20px;

      }

      button {

        width: 100px;

        height: 50px;

        margin: 20px;

        border: none;

        border-radius: 15px;

        font-size: 17px;

        font-weight: 600;

        background-color: aliceblue;

        transition: transform 0.5s ease;

      }

      button*:hover* {

        transform: scale(1.1);

        background-color: rgb(184, 188, 200);

      }

    </style>

  </head>

  <body>

    <div *class*="container">

      <div *class*="row">

        <div *class*="col-md-12">

          <video *id*="video" *width*="660" *height*="415" *controls*>

            <source *src*="image/shinChan.mp4" *type*="video/mp4" />

            Your browser does not support the video tag.

          </video>

        </div>

      </div>

      <br />

      <div *class*="row">

        <button *onclick*="pauseVideo()">Pause</button>

        <button *onclick*="playVideo()">Play</button>

        <button *onclick*="smallSize()">Small</button>

        <button *onclick*="normalSize()">Normal</button>

        <button *onclick*="largeSize()">Large</button>

      </div>

    </div>

    <script>

      document.addEventListener("DOMContentLoaded", (event) => {

        const video = document.getElementById("video");

        function pauseVideo() {

          video.pause();

        }

        function playVideo() {

          video.play();

        }

        function smallSize() {

          video.style.width = "560px";

          video.style.height = "315px";

        }

        function normalSize() {

          video.style.width = "660px";

          video.style.height = "415px";

        }

        function largeSize() {

          video.style.width = "800px";

          video.style.height = "450px";

        }

        window.pauseVideo = pauseVideo;

        window.playVideo = playVideo;

        window.smallSize = smallSize;

        window.normalSize = normalSize;

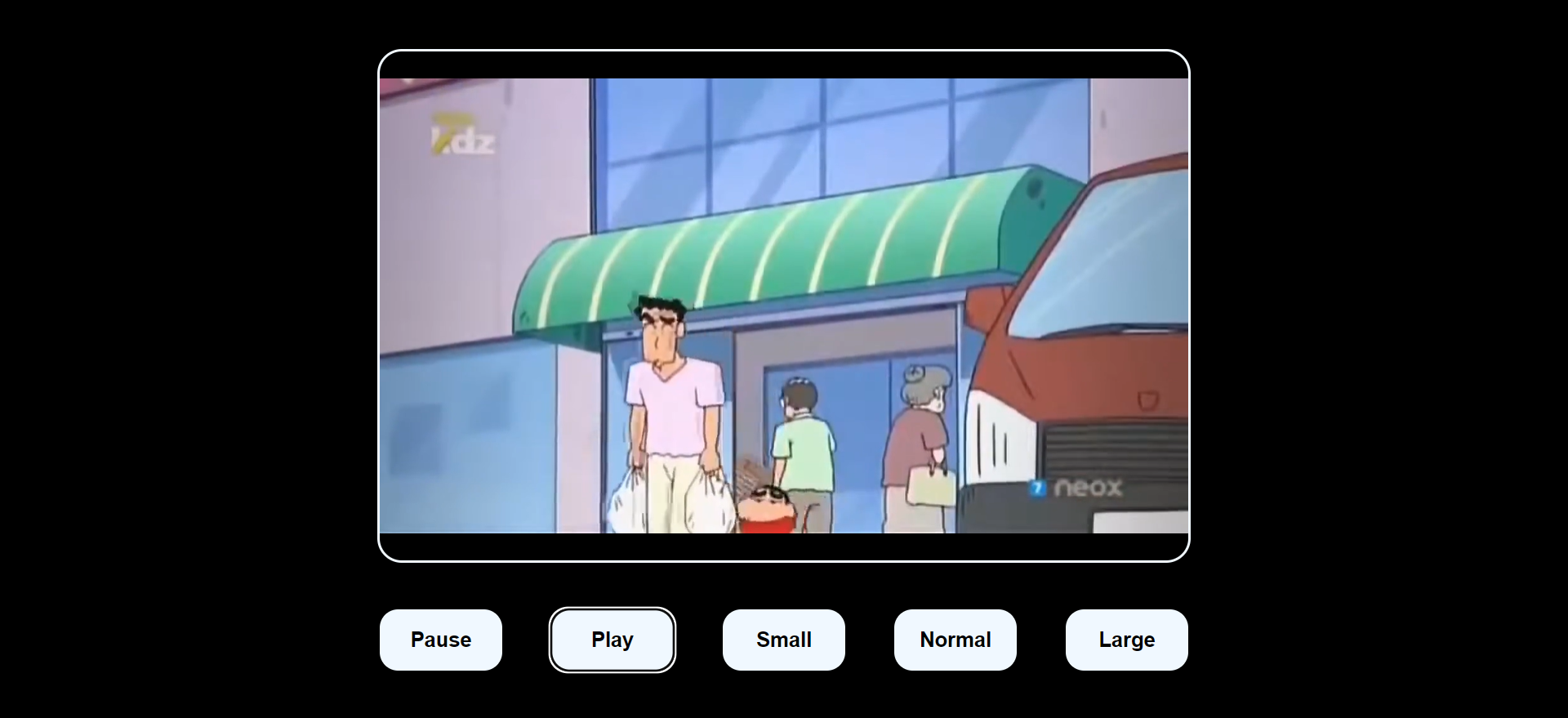
        window.largeSize = largeSize;

      });

    </script>

  </body>

</html>



2. Implement Type Writer using DHTML and Javascript.

Html File :-

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

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

    <title>Typewriter</title>

    <link

*href*="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"

*rel*="stylesheet"

    />

    <style>

      body {

        background-color: #f8f9fa;

        color: #343a40;

      }

*#txt* {

        width: 100%;

        height: 100px;

        background-color: #e9ecef;

        border: 1px solid #ced4da;

        border-radius: 15px;

        margin-bottom: 15px;

        padding: 10px;

        font-family: "Courier New", Courier, monospace;

        white-space: pre-wrap;

        overflow-wrap: break-word;

        overflow: hidden;

        font-size: 18px;

      }

*.container* {

        border: 2px solid #ced4da;

        background-color: #ced4da;

        padding: 30px 45px;

        border-radius: 30px;

        width: fit-content;

        display: grid;

        justify-content: center;

        align-items: center;

        align-content: center;

      }

*.row* {

        display: flex;

        justify-content: center;

        align-items: center;

        align-content: center;

      }

*#shift1*,

*#shift2* {

        width: 70px;

      }

*.shift-active* {

        background-color: #343a40 !important;

        color: white;

      }

*.btn-grid* div {

        margin: 5px;

        padding: 10px;

        background-color: #6c757d;

        color: white;

        text-align: center;

        cursor: pointer;

        width: 40px;

        height: 40px;

        display: flex;

        border-radius: 10px;

        opacity: 0.7;

        justify-content: center;

        align-items: center;

        align-content: center;

      }

*.btn-grid* div*:hover* {

        background-color: #5a6268;

      }

    </style>

  </head>

  <body>

    <div *class*="container mt-5">

      <div *class*="row">

        <div *id*="txt"></div>

      </div>

      <div *class*="row mt-3 btn-grid">

        <div *onclick*="type(this)">1</div>

        <div *onclick*="type(this)">2</div>

        <div *onclick*="type(this)">3</div>

        <div *onclick*="type(this)">4</div>

        <div *onclick*="type(this)">5</div>

        <div *onclick*="type(this)">6</div>

        <div *onclick*="type(this)">7</div>

        <div *onclick*="type(this)">8</div>

        <div *onclick*="type(this)">9</div>

        <div *onclick*="type(this)">0</div>

      </div>

      <div *class*="row mt-3 btn-grid">

        <div *onclick*="type(this)">Q</div>

        <div *onclick*="type(this)">W</div>

        <div *onclick*="type(this)">E</div>

        <div *onclick*="type(this)">R</div>

        <div *onclick*="type(this)">T</div>

        <div *onclick*="type(this)">Y</div>

        <div *onclick*="type(this)">U</div>

        <div *onclick*="type(this)">I</div>

        <div *onclick*="type(this)">O</div>

        <div *onclick*="type(this)">P</div>

      </div>

      <div *class*="row mt-3 btn-grid">

        <div *onclick*="type(this)">A</div>

        <div *onclick*="type(this)">S</div>

        <div *onclick*="type(this)">D</div>

        <div *onclick*="type(this)">F</div>

        <div *onclick*="type(this)">G</div>

        <div *onclick*="type(this)">H</div>

        <div *onclick*="type(this)">J</div>

        <div *onclick*="type(this)">K</div>

        <div *onclick*="type(this)">L</div>

      </div>

      <div *class*="row mt-3 btn-grid">

        <div *id*="shift1" *onclick*="shiftText()">Shift</div>

        <div *onclick*="type(this)">Z</div>

        <div *onclick*="type(this)">X</div>

        <div *onclick*="type(this)">C</div>

        <div *onclick*="type(this)">V</div>

        <div *onclick*="type(this)">B</div>

        <div *onclick*="type(this)">N</div>

        <div *onclick*="type(this)">M</div>

        <div *id*="shift2" *onclick*="shiftText()">Shift</div>

      </div>

      <div *class*="row mt-3 btn-grid">

        <div *onclick*="type(this)">.</div>

        <div *onclick*="type(this)">,</div>

        <div *onclick*="type(this)">!</div>

        <div *onclick*="type(this)">?</div>

        <div *onclick*="type(this)">@</div>

        <div *onclick*="type(this)">#</div>

        <div *onclick*="type(this)">$</div>

        <div *onclick*="type(this)">%</div>

        <div *onclick*="type(this)">&</div>

        <div *onclick*="type(this)">\*</div>

      </div>

      <div *class*="row mt-3 btn-grid">

        <div *style*="width: 70px" *onclick*="clearText()">Clear</div>

        <div *style*="width: 300px" *onclick*="type(this)"></div>

        <div *style*="width: 70px" *onclick*="backText()">Back</div>

      </div>

    </div>

    <script>

      let shiftActive = false;

      function type(bt) {

        const txt = document.getElementById("txt");

        let textToAdd = shiftActive

          ? bt.innerHTML.toUpperCase()

          : bt.innerHTML.toLowerCase();

        if (bt.innerHTML == "") textToAdd = " ";

        txt.innerHTML += textToAdd;

      }

      function backText() {

        var txt = document.getElementById("txt");

        var t = txt.innerHTML;

        txt.innerHTML = t.slice(0, t.length - 1);

      }

      function clearText() {

        document.getElementById("txt").innerHTML = "";

      }

      function shiftText() {

        shiftActive = !shiftActive;

        document.getElementById("shift1").classList.toggle("shift-active");

        document.getElementById("shift2").classList.toggle("shift-active");

      }

    </script>

  </body>

</html>



3. Write down java script code to validate user name and password (password length must in between 6 to 12 characters. User name should not start with \_, @, or any number, both are not blank).

Html File :-

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

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

    <title>Username and Password Validation</title>

    <style>

      body {

        font-family: Arial, sans-serif;

        background-color: #f4f4f4;

        display: flex;

        justify-content: center;

        align-items: center;

        height: 100vh;

        margin: 0;

      }

*.container* {

        width: 230px;

        background-color: #fff;

        padding: 30px 70px 50px 50px;

        border-radius: 8px;

        box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);

      }

*.form-group* {

        margin-bottom: 15px;

      }

*.form-group* label {

        display: block;

        margin-bottom: 5px;

      }

*.form-group* input {

        width: 100%;

        padding: 8px;

        border: 1px solid #ccc;

        border-radius: 4px;

      }

*.form-group* input*:focus* {

        border-color: #007bff;

      }

*.error-message* {

        color: red;

        font-size: 14px;

      }

      h2 {

        text-align: center;

        color: rgb(73, 73, 76);

        margin-bottom: 25px;

      }

*.row* {

        display: flex;

        justify-content: center;

        align-items: center;

        width: 100%;

        margin: 0;

        align-content: center;

      }

      button {

        width: 90px;

        background-color: #007bff;

        color: white;

        font-weight: 700;

        margin-top: 15px;

        padding: 10px 0px;

        border: none;

        border-radius: 4px;

        cursor: pointer;

      }

      button*:hover* {

        background-color: #0056b3;

      }

    </style>

  </head>

  <body>

    <div *class*="container">

      <h2>Login Form</h2>

      <form *onsubmit*="return validateForm()">

        <div *class*="form-group">

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

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

          <div *id*="username-error" *class*="error-message"></div>

        </div>

        <div *class*="form-group">

          <label *for*="password">Password:</label>

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

          <div *id*="password-error" *class*="error-message"></div>

        </div>

        <div *class*="row">

          <button *style*="float: left; margin-right: 45px" *type*="submit">

            Login

          </button>

          <button

*style*="float: right; margin-left: 20px; margin-right: -20px"

*type*="reset"

*onclick*="cancelText()"

          >

            Cancel

          </button>

        </div>

      </form>

    </div>

    <script>

      function validateUsername(username) {

        if (username.trim() === "") {

          return "Username cannot be blank";

        }

        if (/^[0-9\_@]/.test(username)) {

          return "Username cannot start with \_, @, or any number";

        }

        return true;

      }

      function validatePassword(password) {

        if (password.trim() === "") {

          return "Password cannot be blank";

        }

        if (password.length < 6 || password.length > 12) {

          return "Password must be between 6 to 12 characters long";

        }

        return true;

      }

      function cancelText() {

        document.getElementById("username").innerHTML = "";

        document.getElementById("password").innerHTML = "";

      }

      function validateForm() {

        const username = document.getElementById("username").value;

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

        const usernameValidation = validateUsername(username);

        const passwordValidation = validatePassword(password);

        let isValid = true;

        document.getElementById("username-error").innerText = "";

        document.getElementById("password-error").innerText = "";

        if (usernameValidation !== true) {

          document.getElementById("username-error").innerText =

            usernameValidation;

          isValid = false;

        }

        if (passwordValidation !== true) {

          document.getElementById("password-error").innerText =

            passwordValidation;

          isValid = false;

        }

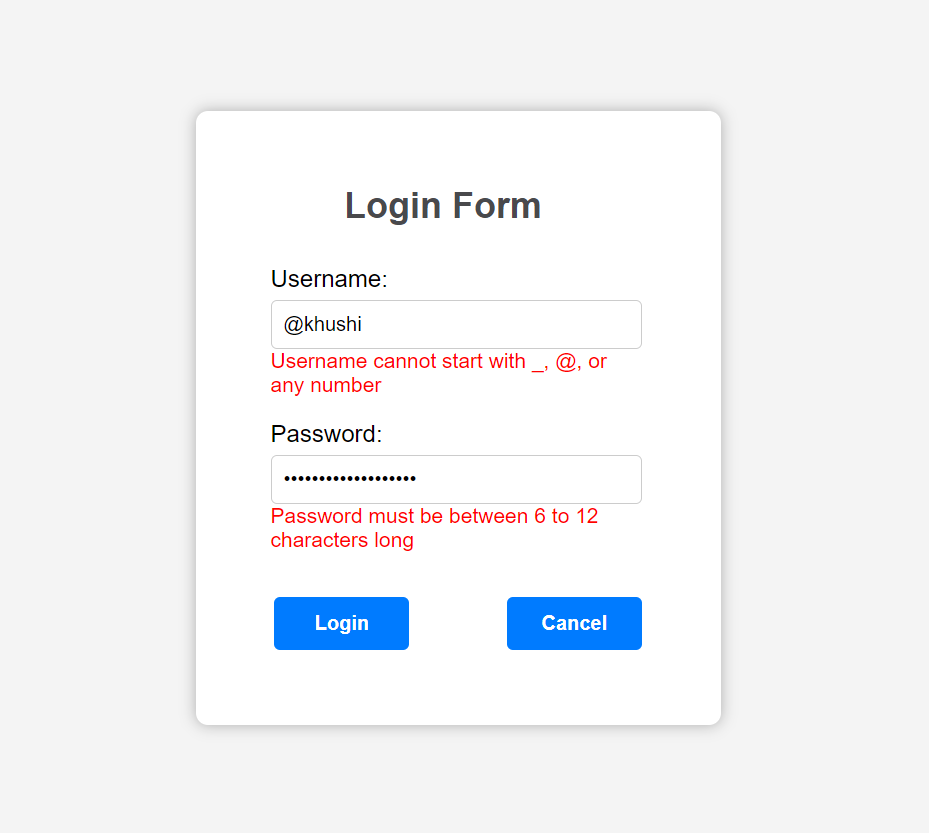
        return isValid;

      }

    </script>

  </body>

</html>



4. Write an HTML file with Javascript that finds position of first occurrence of vowel “a”, last occurrence of vowel “a” in a given word and returns the string between them. For example, ajanta- then script would return first occurrence of “a”-that is position 1 and last occurrence-6 and string between them is “jant”.

Html File :-

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

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

    <title>Find String Between Vowels</title>

    <style>

      body {

        font-family: Arial, sans-serif;

        background-color: #f8f9fa;

        display: flex;

        justify-content: center;

        align-items: center;

        height: 100vh;

        margin: 0;

      }

*.container* {

        background-color: #fff;

        padding: 20px;

        padding-right: 35px;

        border-radius: 8px;

        box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

        width: 300px;

      }

*.form-group* {

        margin-bottom: 15px;

      }

*.form-group* label {

        display: block;

        margin-bottom: 5px;

      }

*.form-group* input {

        width: 100%;

        padding: 8px;

        border: 1px solid #ccc;

        border-radius: 4px;

      }

*.form-group* input*:focus* {

        border-color: #007bff;

      }

*.result* {

        margin-top: 15px;

        font-weight: bold;

        color: #007bff;

      }

      button {

        background-color: #007bff;

        color: white;

        padding: 10px 15px;

        border: none;

        border-radius: 4px;

        cursor: pointer;

        width: 105%;

      }

      button*:hover* {

        background-color: #0056b3;

      }

    </style>

  </head>

  <body>

    <div *class*="container">

      <h2>Find String Between Vowels</h2>

      <div *class*="form-group">

        <label *for*="inputWord">Enter a word:</label>

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

      </div>

      <button *onclick*="findStringBetweenVowels()">Find</button>

      <div *id*="result" *class*="result"></div>

    </div>

    <script>

      function findStringBetweenVowels() {

        let text = document.getElementById("inputWord").value;

        let i = text.indexOf("a");

        let j = text.lastIndexOf("a");

        if (i === -1) {

          alert("No occurence of 'a'");

        } else if (i === j) {

          alert("Only 1 Occurence of 'a'");

        } else {

          alert(text.slice(i + 1, j));

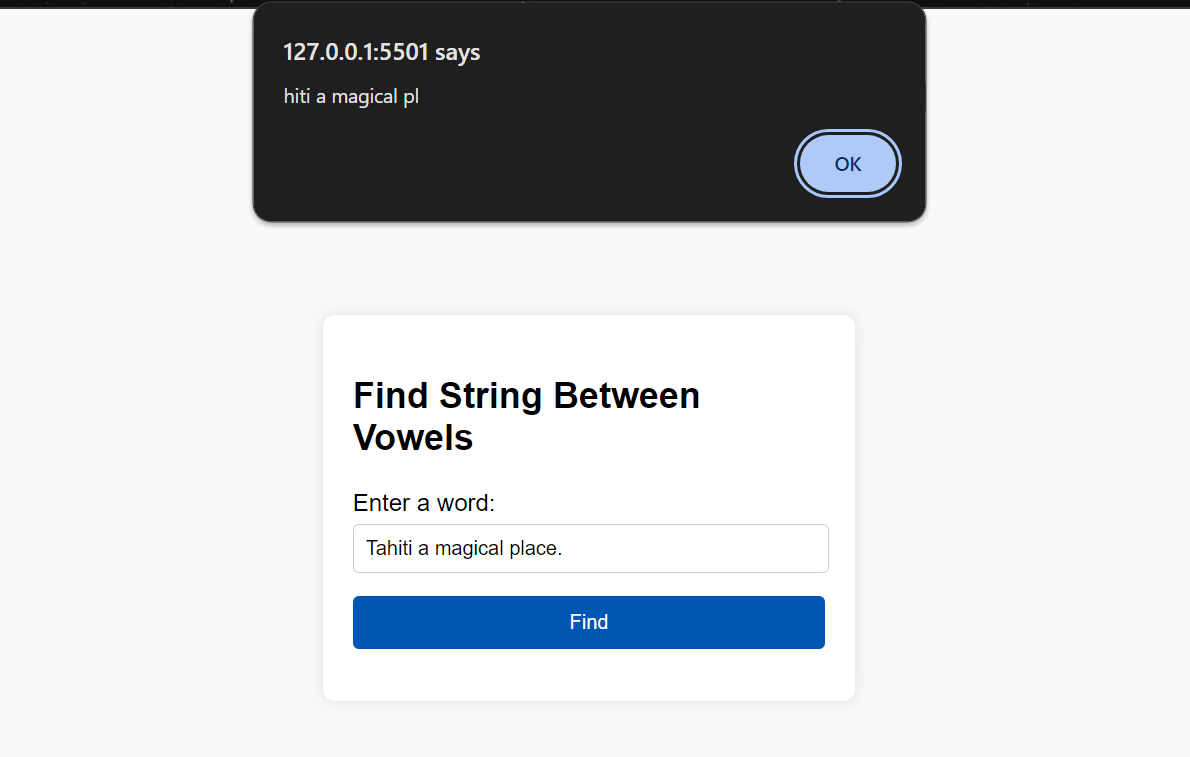
        }

      }

    </script>

  </body>

</html>



5. Write a JavaScript that handles following mouse events. Add necessary elements.

(i) JavaScript gives the key code for the key pressed.

(ii) If the key pressed is “a”,”e”,”i”,”o”,”u”, the script should announce that vowel is pressed.

(iii) When the key is released background should change to blue.

Html File :-

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

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

    <title>Mouse and Key Events</title>

    <style>

      body {

        font-family: Arial, sans-serif;

        display: flex;

        justify-content: center;

        background-color: #f8f9fa;

        align-items: center;

        height: 100vh;

        margin: 0;

        transition: background-color 0.5s ease;

      }

*.container* {

        text-align: center;

        padding: 50px;

        border: none;

        background-color: white;

        box-shadow: 0 0 10px rgba(0, 0, 0, 0.4);

        border-radius: 8px;

      }

*.info* {

        color: #bdbdbd;

      }

      h2 {

        color: #8c8a8a;

        margin-bottom: 30px;

      }

      input {

        padding: 10px;

        background-color: #f8f9fa;

        box-shadow: 0 0 10px rgba(0, 0, 0, 0.4);

        border: transparent;

        border-radius: 5px;

      }

      input*:focus* {

        border: 1px solid #bdbdbd !important;

      }

*.info* {

        font-size: 18px;

        margin-top: 20px;

      }

    </style>

  </head>

  <body>

    <div *class*="container">

      <h2>Mouse Event Handler Demonstration</h2>

      <input

*type*="text"

*id*="inputField"

*placeholder*="Type something"

*autofocus*

      />

      <div *class*="info" *id*="info"></div>

    </div>

    <script>

      document

        .getElementById("inputField")

        .addEventListener("keydown", function (event) {

          let key = event.key;

          let keyCode = event.keyCode;

          let infoDiv = document.getElementById("info");

          infoDiv.innerHTML = `Key pressed: ${key} (Code: ${keyCode})`;

          if (["a", "e", "i", "o", "u"].includes(key.toLowerCase())) {

            alert(`Vowel '${key}' is pressed`);

          }

        });

      document

        .getElementById("inputField")

        .addEventListener("keyup", function () {

          document.body.style.backgroundColor = "#66b2ff";

          setTimeout(function () {

            document.body.style.backgroundColor = "";

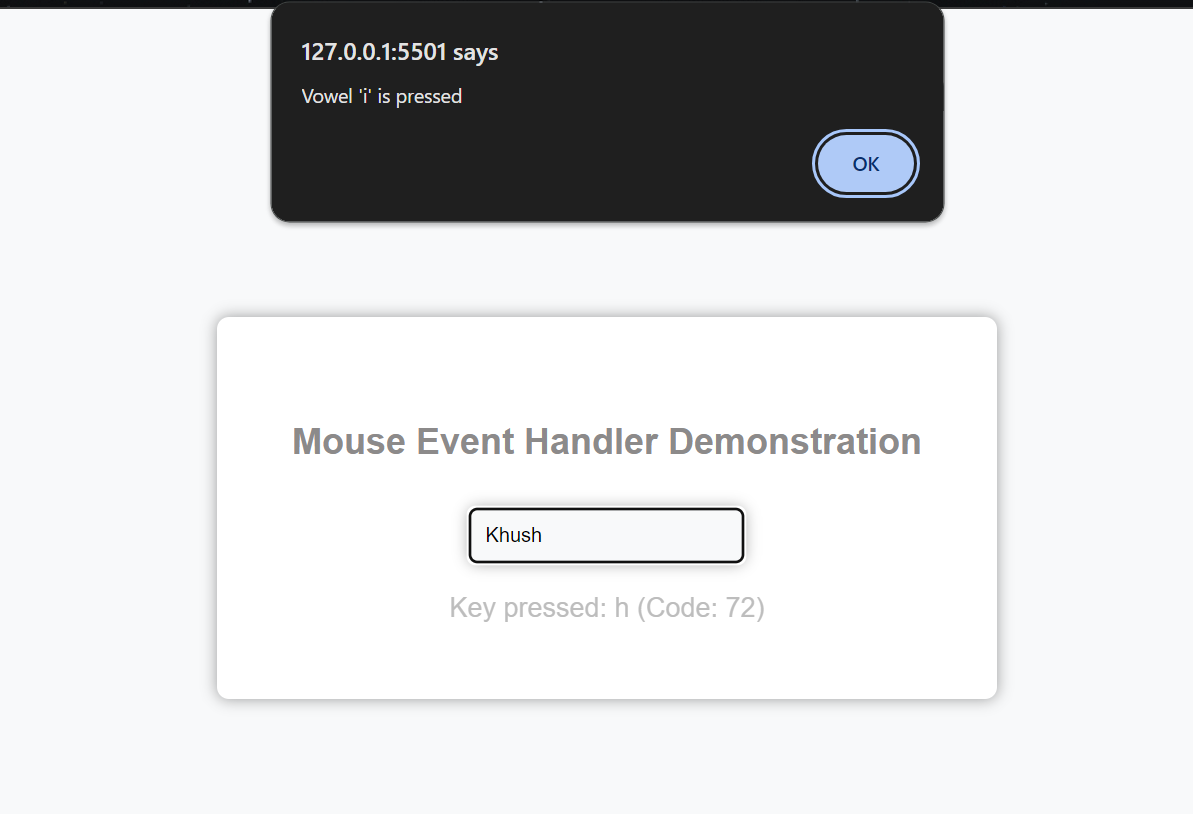
          }, 1000);

        });

    </script>

  </body>

</html>



6. Design a webpage which demonstrate snow fall using javascript.

Html File :-

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

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

    <title>Snowfall Animation</title>

    <style>

      body {

        margin: 0;

        padding: 0;

        overflow: hidden;

        background-color: #0a0515;

      }

*.snowflake* {

        position: absolute;

        top: -50px;

        width: 20px;

        height: 20px;

        pointer-events: none;

        animation: fall linear infinite;

      }

      @keyframes fall {

        to {

          transform: translateY(100vh);

        }

      }

    </style>

  </head>

  <body>

    <script>

      function createSnowflake() {

        const snowflake = document.createElement("img");

        snowflake.src = "image/snowflake.svg";

        snowflake.classList.add("snowflake");

        snowflake.style.left = Math.random() \* 100 + "vw";

        snowflake.style.animationDuration = Math.random() \* 3 + 2 + "s";

        snowflake.style.opacity = Math.random();

        snowflake.style.transform = `scale(${Math.random()})`;

        document.body.appendChild(snowflake);

        snowflake.addEventListener("animationend", () => {

          snowflake.remove();

        });

      }

      setInterval(createSnowflake, 100);

    </script>

  </body>

</html>

