**SOURCE CODE: index.html**

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

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

        <title>Password Generator</title>

        <!--Stylesheets-->

            <link rel="stylesheet" type="text/css" href="style.css" />

            <link rel="stylesheet" href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:opsz,wght,FILL,GRAD@20..48,100..700,0..1,-50..200" />

            <link rel="stylesheet" href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:opsz,wght,FILL,GRAD@20..48,100..700,0..1,-50..200" />

    </head>

    <body>

        <div id="content\_1">

            <h2>Password Generator</h2>

            <div id="password\_container">

               <div id="password\_div"><span id="password"></span></div>

                <button id="clipboard">

                    <span style="font-size: 27px" class="material-symbols-outlined">file\_copy</span>

                </button>

            </div>

            <div id="custom\_container">

                <div id="length">

                    <label for="range\_length">

                        Password Length:

                        <input type="range" id="range\_value" min="8" max="20" value="8">

                    </label>

                    <span id="display\_range">08</span>

                </div>

                <div class="checkbox\_container">

                    <label class="checkbox">

                        <input type="checkbox" id="uppercase" checked>

                        ABC

                    </label>

                    <label class="checkbox">

                        <input type="checkbox" id="lowercase" checked>

                        abc

                    </label>

                    <label class="checkbox">

                       <input type="checkbox" id="numbers" checked>

                        123

                    </label>

                    <label class="checkbox">

                        <input type="checkbox" id="symbols" checked>

                        !@%

                    </label>

                </div>

                <div id="button\_container\_1">

                    <button id="generate\_password">Generate Password</button>

                    <button id="view\_history">View History</button>

                </div>

                <p id="label">Already have a password? Then try this <span id="view\_strength\_meter">Strength Meter</span></p>

            </div>

        </div>

        <div id="content\_2">

            <div id="history">

                <div class="content\_title">

                    <h2>View History</h2>

                    <button id="hide\_history">X</button>

                </div>

                <div class="history\_table">

                    <table id="table">

                        <colgroup>

                            <col>

                            <col>

                            <col>

                        </colgroup>

                        <tr>

                            <th>Date</th>

                            <th>Time</th>

                            <th>Password</th>

                        </tr>

                    </table>

                </div>

                <button id="clear\_history">Clear History</button>

            </div>

        </div>

        <div id="content\_3">

            <div id="strength\_meter\_container">

                <div class="content\_title">

                    <h2>Strength Meter</h2>

                    <button id="hide\_strength\_meter">X</button>

                </div>

                <div id="form\_control">

                    <div id="strength\_meter">

                        <input type="password" id="password\_sample" placeholder="Type your password here">

                        <button id="check\_password">

                            <span style="font-size: 30px;" class="material-symbols-outlined">check</span>

                        </button>

                    </div>

                    <span id="strength\_status"></span>

                    <label for="show\_password">

                        <input type="checkbox" id="show\_password">

                        Show Password

                    </label>

                </div>

                <p id="result">Your password must have:</p>

                    <ul>

                        <li id="password\_length">Length of 8-20 Characters</li>

                        <li id="password\_letters">Uppercase and/or Lowercase Letters</li>

                        <li id="password\_numbers">Numbers</li>

                        <li id="password\_symbols">Special Characters</li>

                    </ul>

            </div>

        </div>

        <!--JavaScript FIle-->

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

    </body>

</html>

**SOURCE CODE: style.css**

@import url('https://fonts.googleapis.com/css2?family=Source+Code+Pro:wght@300;500&display=swap');

\* {

    margin: 0px;

    padding: 0px;

    font-family: 'Source Code Pro', monospace;

}

body {

    background-color: #FFF8D6;

}

#content\_1 {

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%);

    border-radius: 10px;

    box-shadow: 5px 5px #dbdbdb;

    height: auto;

    width: 430px;

    padding: 20px;

    background-color: #ffffff;

}

#password\_container, #strength\_meter {

    margin-top: 5px;

    width: auto;

    display: flex;

    flex-direction: row;

    align-items: flex-start;

    justify-content: flex-start;

}

#length {

    display: flex;

    flex-direction: row;

}

#display\_range {

    margin-left: 15px;

}

#password\_div, #password\_sample {

    width: 360px;

    height: 18px;

    border: 2px solid #5a5a5a;

    padding: 10px;

    font-size: 16px;

}

#clipboard, #check\_password {

    height: 42px;

    width: 45px;

    border: 2px solid #5a5a5a;

    background-color: #A4D0A4;

}

#custom\_container {

    margin-top: 25px;

    display: flex;

    flex-direction: column;

}

.checkbox\_container {

    display: flex;

    flex-direction: row;

    justify-content: space-between;

    width: 325px;

}

#button\_container\_1 {

    margin-top: 10px;

    display: flex;

    flex-direction: row;

}

#generate\_password {

    border: 0px;

    border-radius: 5px;

    height: 35px;

    width: 190px;

    background-color: #A4D0A4;

}

#view\_history {

    margin-left: 15px;

    border: 0px;

    border-radius: 5px;

    height: 35px;

    width: 145px;

    background-color: #F7E1AE;

}

#clipboard:hover, #generate\_password:hover, #check\_password:hover {

    background-color: #81e281;

    transition: 0.5s;

}

#view\_history:hover {

    background-color: #ffda82;

    transition: 0.5s;

}

label, div, button {

    font-size: 16px;

}

#label {

    margin-top: 40px;

    text-align: center;

    font-size: 16px;

}

#view\_strength\_meter {

    color: #193bac;

}

#view\_strength\_meter:hover {

    cursor: pointer;

    text-decoration: underline;

}

#content\_2, #content\_3 {

    display: none;

    position: fixed;

    top: 0;

    left: 0;

    right: 0;

    bottom: 0;

    background-color: rgba(0, 0, 0, 0.6);

}

#content\_2.show\_content, #content\_3.show\_content {

    display: block;

}

#history {

    display: flex;

    flex-direction: column;

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%);

    border-radius: 10px;

    height: 350px;

    width: 635px;

    background-color: #ffffff;

    padding: 20px;

    animation-name: open\_container;

    animation-duration: 0.3s;

}

.content\_title {

    margin-bottom: 10px;

    display: flex;

    flex-direction: row;

    justify-content: space-between;

}

#hide\_history, #hide\_strength\_meter {

    margin-bottom: 10px;

    height: 32px;

    width: 32px;

    border: none;

    border-radius: 30px;

    background-color: #d8d8d8;

    text-align: center;

    font-size: 20px;

}

#hide\_history:hover {

    background-color: #bebebe;

    transition: 0.5s;

    cursor: pointer;

}

.history\_table {

    overflow: auto;

    margin-bottom: 20px;

    align-content: center;

    height: 300px;

}

table {

    border-spacing: 0;

}

col:first-child {

    width: 150px;

  }

col:nth-child(2) {

    width: 150px;

  }

col:nth-child(3) {

    width: 330px;

  }

th, td {

    text-align: center;

    border: 1px solid #5a5a5a;

}

th {

    background-color: #8cdf8c;

}

td {

    background-color: #f0f0f0;

}

td:hover {

    background-color: #dddddd;

    cursor: context-menu;

}

#clear\_history {

    border: 0px;

    border-radius: 5px;

    height: 35px;

    width: 180px;

    background-color: #ff8080;

}

#clear\_history:hover {

    background-color: #ff6666;

    transition: 0.5s;

}

#strength\_meter\_container {

    display: flex;

    flex-direction: column;

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%);

    border-radius: 10px;

    height: auto;

    width: auto;

    padding: 20px;

    background-color: #ffffff;

    animation-name: open\_container;

    animation-duration: 0.3s;

}

#form\_control {

    margin-bottom: 15px;

    display: flex;

    flex-direction: column;

}

#password\_sample:focus {

    outline: none;

}

#strength\_status {

    font-size: 14px;

}

#result {

    margin-top: 15px;

    font-size: 16px;

}

li {

    margin-left: 30px;

    font-size: 14px;

}

.valid {

    visibility: visible;

    color: #007c15;

}

.invalid {

    visibility: visible;

    color: #ff2a2a;

}

@keyframes open\_container {

    from {

        opacity: 0;

    }

    to {

        opacity: 1;

    }

}

**SOURCE CODE: script.js**

//Displaying the value of the input range

    var range\_length = document.getElementById("range\_value");

    var range\_value = document.getElementById("display\_range");

    range\_length.addEventListener('input', function() {

        range\_value.textContent = range\_length.value < 10 ? "0" + range\_length.value : range\_length.value;

    });

//Show History

    var view\_history = document.getElementById("view\_history");

    var content\_2 = document.getElementById("content\_2");

    view\_history.addEventListener('click', () => content\_2.classList.add('show\_content'));

//Hide History

    var hide\_history = document.getElementById("hide\_history");

    hide\_history.addEventListener('click', () => content\_2.classList.remove('show\_content'));

    window.addEventListener('click', e => e.target == content\_2 ? content\_2.classList.remove('show\_content') : false);

//Show Strength Meter

    var view\_strength\_meter = document.getElementById("view\_strength\_meter");

    var content\_3 = document.getElementById("content\_3");

    view\_strength\_meter.addEventListener('click', () => content\_3.classList.add('show\_content'));

//Empty Strength Meter

    function empty\_strength\_meter() {

        content\_3.classList.remove('show\_content');

        password\_sample.value = "";

        show\_password.checked = false;

        password\_sample.type = show\_password.checked ? "text" : "password";

        display\_status.className = "";

        display\_status.innerHTML = "";

        password\_length.className = "";

        password\_letters.className = "";

        password\_numbers.className = "";

        password\_symbols.className = "";

    }

//Hide Strength Meter

    var hide\_strength\_meter = document.getElementById("hide\_strength\_meter");

    hide\_strength\_meter.addEventListener('click', () => {

        empty\_strength\_meter();

    });

    window.addEventListener('click', e => e.target == content\_3 ? empty\_strength\_meter() : false);

//Generate Password

    function generated\_password() {

        var uppercase\_checkbox = document.getElementById("uppercase");

        var lowercase\_checkbox = document.getElementById("lowercase");

        var number\_checkbox = document.getElementById("numbers");

        var symbol\_checkbox = document.getElementById("symbols");

        //Add the characters in the charset that was selected by the user

            let charset = "";

            if (uppercase\_checkbox.checked)     { charset += "ABCDEFGHIJKLMNOPQRSTUVWXYZ"; }

            if (number\_checkbox.checked)        { charset += "1234567890"; }

            if (lowercase\_checkbox.checked)     { charset += "abcdefghijklmnopqrstuvwxyz"; }

            if (symbol\_checkbox.checked)        { charset += "!@#$%^&\*()+=-\_'?[]/|`~"; }

        //Generating the password using the characters selected by the user

            let password = "";

            for (let i = 1; i <= range\_length.value; i++) {

                var randomIndex = Math.floor(Math.random() \* charset.length);

                password += charset.charAt(randomIndex);

            }

        return password;

    }

//Insert Data

    function insert\_data(generated\_password) {

        //Get the current date and time

            var date = new Date().toLocaleDateString();

            var time = new Date().toLocaleTimeString();

        //Creating a data array and return that data to use for history\_arr

            var data = [date, time, generated\_password];

            return data;

    }

//Create History

    const table\_body = document.getElementById("table");

    function create\_history(history\_arr) {

        history\_arr.forEach(data => {

            const row = table\_body.insertRow();

            data.forEach(value => {

                const cell = row.insertCell();

                cell.textContent = value;

            });

        });

    }

//Display Password and History

    var display\_password = document.getElementById("password");

    var generate\_password = document.getElementById("generate\_password");

    generate\_password.addEventListener('click', () => {

        var password = generated\_password();

        display\_password.innerHTML = password;

        //Inserting the data array to the history\_arr

            var data = insert\_data(password);

            var history\_arr = [];

            history\_arr.push(data);

            create\_history(history\_arr);

    });

//Copy the Password to Clipboard

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

    clipboard.addEventListener('click', () => {

        var passwordText = document.getElementById("password");

        var textArea = document.createElement("textarea");

        textArea.value = passwordText.textContent;

        document.body.appendChild(textArea);

        textArea.select();

        document.execCommand("Copy");

        document.body.removeChild(textArea);

        alert("The generated password has been copied on the clipboard");

    });

//Clear History

    var clear\_history = document.getElementById('clear\_history');

    clear\_history.addEventListener('click', () => {

        while (table\_body.rows.length > 0) {

            table\_body.deleteRow(1);

        }

    });

//Show Password

    var show\_password = document.getElementById("show\_password");

    show\_password.addEventListener('change', () => {

        password\_sample.type = show\_password.checked ? "text" : "password";

    });

//Check for Special Characters

    function check\_symbols(password\_sample) {

        var symbols = /[.,~!/@#$%^&\*()+;\_=:{}|`<>-]/;

        return symbols.test(password\_sample);

    }

//Display Strength Meter Status

    var check\_password = document.getElementById("check\_password");

    var display\_status = document.getElementById("strength\_status");

    var password\_length = document.getElementById("password\_length");

    var password\_letters = document.getElementById("password\_letters");

    var password\_numbers = document.getElementById("password\_numbers");

    var password\_symbols = document.getElementById("password\_symbols");

    //Main counter that will increase if the user has a specific character on their password

        let main\_counter = 0;

    check\_password.addEventListener('click', () => {

        //Main counter will reset for another password checking

            main\_counter = 0;

            var password\_sample = document.getElementById("password\_sample");

            //Check if the password has symbols

                if (check\_symbols(password\_sample.value)) {

                    password\_symbols.classList.remove("invalid");

                    password\_symbols.classList.add("valid");

                    main\_counter++;

                } else {

                    password\_symbols.classList.remove("valid");

                    password\_symbols.classList.add("invalid");

                }

            //Check if the password has upper/lower case letters

                var lowerCaseLetters = /[a-z]/g;

                var upperCaseLetters = /[A-Z]/g;

                if(password\_sample.value.match(lowerCaseLetters) || password\_sample.value.match(upperCaseLetters)) {

                    password\_letters.classList.remove("invalid");

                    password\_letters.classList.add("valid");

                    main\_counter++;

                } else {

                    password\_letters.classList.remove("valid");

                    password\_letters.classList.add("invalid");

                }

            //Check if the password has numbers

                var numbers = /[0-9]/g;

                if(password\_sample.value.match(numbers)) {

                    password\_numbers.classList.remove("invalid");

                    password\_numbers.classList.add("valid");

                    main\_counter++;

                } else {

                    password\_numbers.classList.remove("valid");

                    password\_numbers.classList.add("invalid");

                }

            //Check if the password has more than 8 characters

                if(password\_sample.value.length >= 8) {

                    password\_length.classList.remove("invalid");

                    password\_length.classList.add("valid");

                } else {

                    password\_length.classList.remove("valid");

                    password\_length.classList.add("invalid");

                }

            //Display the password strength status

                if(main\_counter <= 2 || password\_sample.value.length <= 7) {

                    display\_status.classList.remove("valid");

                    display\_status.classList.add("invalid");

                    display\_status.innerHTML = "Password is not strong";

                } else {

                    display\_status.classList.remove("invalid");

                    display\_status.classList.add("valid");

                    display\_status.innerHTML = "Password is strong";

                }

    });