WE Lab 04

1. **Task 1:**

function function1(){

    let str = "Hello";

    let num = 100;

    let isActive = true;

    let person = { name: "John", age: 25 };

    let colors = ["red", "green", "blue"];

    let value = null;

    let x;

    console.log("Using LET:");

    console.log(`String = ${str}`);

    console.log(`Number = ${num}`);

    console.log(`Boolean = ${isActive}`);

    console.log(`Object = ${person}`);

    console.log(`Array = ${colors}`);

    console.log(`Null = ${value}`);

    console.log(`Undefined = ${x}`);

    // var str = "Hello";

    // var num = 100;

    // var isActive = true;

    // var person = { name: "John", age: 25 };

    // var colors = ["red", "green", "blue"];

    // var value = null;

    // var x;

    console.log("Using VAR:");

    console.log(`String = ${str}`);

    console.log(`Number = ${num}`);

    console.log(`Boolean = ${isActive}`);

    console.log(`Object = ${person}`);

    console.log(`Array = ${colors}`);

    console.log(`Null = ${value}`);

    console.log(`Undefined = ${x}`);

    // const str = "Hello";

    // const num = 100;

    // const isActive = true;

    // const person = { name: "John", age: 25 };

    // const colors = ["red", "green", "blue"];

    // const value = null;

    // const x;

    console.log("Using CONST:");

    console.log(`String = ${str}`);

    console.log(`Number = ${num}`);

    console.log(`Boolean = ${isActive}`);

    console.log(`Object = ${person}`);

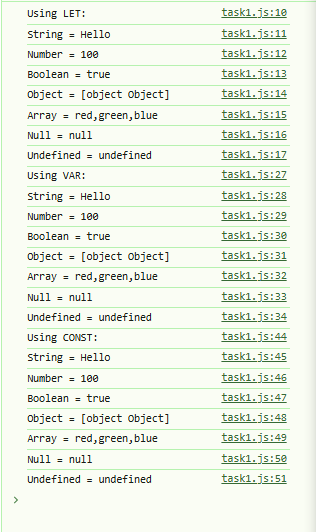
    console.log(`Array = ${colors}`);

    console.log(`Null = ${value}`);

    console.log(`Undefined = ${x}`);

}

function1();



1. **Task 2:**

function function2(str){

    let arr = [];

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

        arr.push( str.charAt(i) );

    arr.reverse();

    for (let i = 0; i < arr.length - 1; i++) {

        for (let j = 0; j < arr.length - i - 1; j++) {

            if (arr[j] > arr[j + 1]) {

                let temp = arr[j];

                arr[j] = arr[j + 1];

                arr[j + 1] = temp;

            }

        }

    }

    let finalStr = "";

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

        finalStr += arr[i];

    alert(`Answer = ${finalStr}`);

}

let str = prompt("Enter a string");

function2(str);



1. **Task 3:**

task3.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>k225186 Task 3</title>

</head>

<body>

    <h1>Task 3</h1>

    <input type="number" name="num" id="num">

    <button id="submitbtn" type="submit">Submit</button>

    <div></div>

    <script src="./task3.js"></script>

</body>

</html>

task3.js:

let submitBtn = document.querySelector("#submitbtn");

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

    let div = document.querySelector("div");

    div.innerHTML = "";

    let num = document.querySelector("#num").value;

    let str = "";

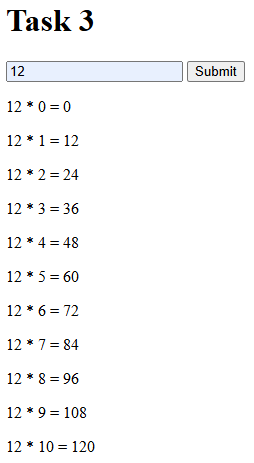
    for (let index = 0; index <= 10; index++) {

        str += `<p>${num} \* ${index} = ${num\*index}</p>`;

    }

    div.innerHTML = str;

});



1. **Task 4:**

task4.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>k225186 Task 4</title>

</head>

<body>

    <h1>Task 4</h1>

    <label for="num1">Enter number 1: </label>

    <input id="num1" type="number">

    <br><br>

    <label for="num2">Enter number 2: </label>

    <input id="num2" type="number">

    <br><br>

    <label for="operation">Select operation: </label>

    <select id="operation">

        <option value="+">+</option>

        <option value="-">-</option>

        <option value="\*">\*</option>

        <option value="/">/</option>

    </select>

    <br><br>

    <button id="submitBtn">Calculate</button>

    <br><br>

    <div id="result">

        <h2>Result = 0</h2>

    </div>

    <script src="./task4.js"></script>

</body>

</html>

task4.js:

let submitBtn = document.querySelector("#submitBtn");

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

    let num1 = Number (document.querySelector("#num1").value);

    let num2 = Number (document.querySelector("#num2").value);

    let operater = document.querySelector("#operation").value;

    let resultDiv = document.querySelector("#result");

    resultDiv.innerHTML = "";

    let result = 0;

if(operater == '+'){

        result = num1 + num2;

    }

    else if(operater == '-'){

        result = num1 - num2;

    }

    else if(operater == '\*'){

        result = num1 \* num2;

    }

    else if(operater == '/'){

        if(num2 == 0){

            result = "Undefined"

        }

        else{

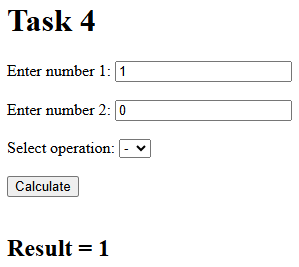
            result = num1 / num2;

        }

    }

    resultDiv.innerHTML =  `<h2>Result = ${result}</h2>`;

});



1. **Task 5:**

task5.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>k225186 Task 5</title>

</head>

<body>

    <h1>Task 5</h1>

    <input type="text" id="inputStr" placeholder="Enter string">

    <button type="submit" id="checkBtn">Check</button>

    <div id="resultDiv">

        <h3>Result: </h3>

    </div>

    <script src="./task5.js"></script>

</body>

</html>

task5.js:

let resultDiv = document.querySelector("#resultDiv");

let checkBtn = document.querySelector("#checkBtn");

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

    let inputStr = document.querySelector("#inputStr").value;

    if( checkPalindrome(inputStr) ){

        resultDiv.innerHTML = `<h3>Result: ${inputStr} is a palindrome.</h3>`;

    }

    else{

        resultDiv.innerHTML = `<h3>Result: ${inputStr} is not a palindrome.</h3>`;

    }

});

function checkPalindrome(str){

    if(str.length % 2 == 0){

        str1 = str.substring(0,str.length/2);

        str2 = str.substring(str.length/2);

        str2 = reverseString(str2);

        if(str1 == str2){

            return true;

        }

    }

    else if(str.length % 2 != 0 ){

        str1 = str.substring(0,str.length/2);

        str2 = str.substring(str.length/2 + 1);

        str2 = reverseString(str2);

        if(str1 == str2){

            return true;

        }

    }

    return false;

}

function reverseString(str){

    let revStr = "";

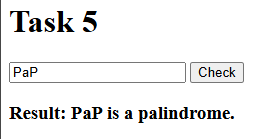
    for(let i = str.length - 1; i >= 0; i--){

        revStr += str.charAt(i);

    }

    return revStr;

}



1. **Task 6:**

task6.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>k225186 Task 6</title>

</head>

<body>

    <h1>Task 6</h1>

    <label for="name">Enter name: </label>

    <input type="text" id="name"><br>

    <label for="age">Enter age: </label>

    <input type="number" id="age"><br>

    <label for="birthDate">Enter date of birth: </label>

    <input type="date" id="birthDate"><br>

    <label for="password">Enter password: </label>

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

    <button id="signUpBtn">Sign Up</button><br>

    <div id="infoDiv"></div>

    <script src="./task6.js"></script>

</body>

</html>

task6.js:

let signUpBtn = document.querySelector("#signUpBtn");

let infoDiv = document.querySelector("#infoDiv");

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

    let name = document.querySelector("#name").value;

    let age = document.querySelector("#age").value;

    let dateOfBirth = document.querySelector("#birthDate").valueAsDate;

    let password = document.querySelector("#password").value;

    infoDiv.innerHTML = `

        <h3>Your info:</h3>

        <p><b>Name: </b>${name}</p>

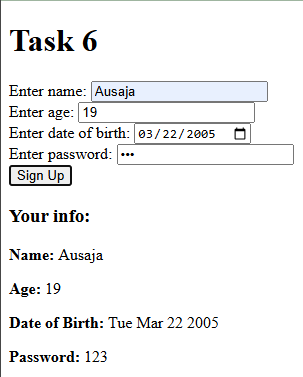
        <p><b>Age: </b>${age}</p>

        <p><b>Date of Birth: </b>${dateOfBirth.toDateString()}</p>

        <p><b>Password: </b>${password}</p>

    `;

});



1. **Task 7:**

task7.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>k225186 Task 7</title>

</head>

<body>

    <h1>Task 7 - Sign up validation</h1>

    <label for="name">Enter name: </label>

    <input type="text" id="name">

    <br><br>

    <label for="contact">Enter contact: </label>

    <input type="text" id="contact">

    <br><br>

    <label for="email">Enter email: </label>

    <input type="email" id="email">

    <br><br>

    <label for="password">Enter password: </label>

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

    <br><br>

    <label>Select gender:</label>

    <input type="radio" id="male"> Male

    <input type="radio" id="female"> Female

    <br><br>

    <input type="checkbox" id="notARobot">

    <label for="notARobot">Are you not a robot?</label>

    <br><br>

    <button id="signUpBtn">Sign Up</button>

    <div id="resultDiv"></div>

    <script src="./task7.js"></script>

</body>

</html>

task7.js:

let signUpBtn = document.querySelector("#signUpBtn");

let notARobotChckBox = document.querySelector("#notARobot");

let resultDiv = document.querySelector("#resultDiv");

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

    resultDiv.innerHTML = "";

    let name = document.querySelector("#name").value;

    let nameRegex = /^[A-Za-z\s]{0,}$/;

    let contact = document.querySelector("#contact").value;

    let contactRegex = /^\d{11}$/;

    let email = document.querySelector("#email").value;

    let emailRegex = /^[a-zA-Z0-9.\_%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$/;

    let password = document.querySelector("#password").value;

    let gender = (document.querySelector("#male").checked) ? "Male" : ( document.querySelector("#female").checked ? "Female" : "" );

    if( !nameRegex.test(name) ){

        alert("Name should have ONLY alphabets!");

    }

    else if( !contactRegex.test(contact) ){

        alert("Contact should have 11 digits!");

    }

    else if ( !emailRegex.test(email) ) {

        alert("Invalid email format!");

    }

    else if ( password == "" ) {

        alert("Enter password!");

    }

    else if (gender == ""){

        alert("Gender not selected!");

    }

    else if (!notARobotChckBox.checked){

        alert("You are a robot (checkbox not selected)!");

    }

    else{

        resultDiv.innerHTML = "<h3>Sign up successful!</h3>";

    }

});



1. **Task 8:**

task8.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>k225186 Task 8</title>

</head>

<body style="text-align: center;">

    <h1>Task 8 - Image Slider</h1>

    <h3>Currently displaying Image <span id="imgNo">1</span></h3>

    <img src="./images/img1.jpeg" id="image" style="height: 300px; width: 600px;"><br>

    <button id="moveBackward">&lt;</button>

    <button id="moveForward">&gt;</button>

    <script src="./task8.js"></script>

</body>

</html>

task8.js:

let imageLinks = [

    "./images/img1.jpeg",

    "./images/img2.jpeg",

    "./images/img3.jpeg",

    "./images/img4.jpeg"

];

let img = document.querySelector("img");

let mover = 1;

setInterval( ()=>{

    mover = (mover == 3) ? (0) : (mover + 1);

    img.src = imageLinks[mover];

    imgNumber.innerHTML = mover + 1;

}, 3500);

let moveBackwardBtn = document.querySelector("#moveBackward");

let moveForwardBtn = document.querySelector("#moveForward");

let imgNumber = document.querySelector("#imgNo");

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

    mover = (mover == 0) ? (3) : (mover-1);

    img.src = imageLinks[mover];

    imgNumber.innerHTML = mover + 1;

});

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

    mover = (mover == 3) ? (0) : (mover+1);

    img.src = imageLinks[mover];

    imgNumber.innerHTML = mover + 1;

});

