1. Java Code Array

import java.util.Arrays;

import java.util.Random;

public class ShuffleArray {

    public static void main(String[] args) {

       int[] array = {1, 2, 3, 4, 5, 6, 7};

        // Shuffle the array using the Fisher-Yates shuffle algorithm

        Random random = new Random();

        for (int i = array.length - 1; i > 0; i--) {

            int j = random.nextInt(i + 1);

            int temp = array[i];

            array[i] = array[j];

            array[j] = temp;

        }

        // Print the shuffled array

        System.out.println(Arrays.toString(array));

    }

}

OutPut :

[2, 7, 3, 5, 4, 6, 1]

2 . Roman Number

import java.util.HashMap;

import java.util.Map;

public class RomanToInteger {

public static int convertRomanToInt(String romanNumber) {

Map<Character, Integer> romanNumeralMap = new HashMap<>();

romanNumeralMap.put('I', 1);

romanNumeralMap.put('V', 5);

romanNumeralMap.put('X', 10);

romanNumeralMap.put('L', 50);

romanNumeralMap.put('C', 100);

romanNumeralMap.put('D', 500);

romanNumeralMap.put('M', 1000);

int total = 0;

for (int i = 0; i < romanNumber.length(); i++) {

char currentChar = romanNumber.charAt(i);

int currentValue = romanNumeralMap.get(currentChar);

if (i + 1 < romanNumber.length() && romanNumeralMap.get(romanNumber.charAt(i + 1)) > currentValue) {

total -= currentValue;

} else {

total += currentValue;

}

}

return total;

}

public static void main(String[] args) {

String romanNumber = "IX";

int integerValue = convertRomanToInt(romanNumber);

System.out.println(romanNumber + " = " + integerValue);

}

}

OutPut:

IX =9

3 .Pangram Code

public class Pangram {

public static boolean isPangram(String input) {

boolean[] seenLetters = new boolean[26];

for (char c : input.toLowerCase().toCharArray()) {

int index = c - 'a';

if (index >= 0 && index < 26) {

seenLetters[index] = true;

}

}

for (boolean seen : seenLetters) {

if (!seen) {

return false;

}

}

return true;

}

public static void main(String[] args) {

String input = "The quick brown fox jumps over the lazy dog";

if (isPangram(input)) {

System.out.println("The input is a pangram.");

} else {

System.out.println("The input is not a pangram.");

}

}

}

OutPut:

The input is aPangram

JAVA SCRIPT

1. function reverseWords(sentence) {

const words = sentence.split(' ');

const reversedWords = words.map(word => word.split('').reverse().join(''));

const reversedSentence = reversedWords.join(' ');

return reversedSentence;

}

const sentence = 'This is a sunny day';

const reversedSentence = reverseWords(sentence);

console.log(reversedSentence); // sihT si a ynnus yad

OutPut:

sihT si a ynnus yad

2. const array = [1, 5, 3, 2, 4];

// Define a comparator function to sort the array in descending order

const descendingComparator = (a, b) => b - a;

// Sort the array using the descending comparator function

array.sort(descendingComparator);

// Print the sorted array

console.log(array); // [5, 4, 3, 2, 1]

HTML

1. Calculator

<!DOCTYPE html>

<html>

<head>

<title>Calculator</title>

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

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

</head>

<body>

<div id="calculator">

<input type="number" id="display">

<div class="buttons">

<button type="button" id="add">+</button>

<button type="button" id="subtract">-</button>

<button type="button" id="multiply">\*</button>

<button type="button" id="divide">/</button>

<button type="button" id="equals">=</button>

<button type="button" id="clear">C</button>

</div>

</div>

</body>

</html>

1. Survey Form

<!DOCTYPE html>

<html>

<head>

<title>Survey Form</title>

<style>

form {

width: 500px;

margin: 0 auto;

}

input,

select,

textarea {

width: 100%;

margin-bottom: 10px;

}

button {

width: 100%;

margin-top: 10px;

}

.popup {

position: fixed;

top: 0;

left: 0;

width: 100%;

height: 100%;

background-color: rgba(0, 0, 0, 0.5);

display: flex;

justify-content: center;

align-items: center;

}

.popup-content {

width: 500px;

height: 500px;

background-color: white;

padding: 20px;

}

.popup-close-button {

position: absolute;

top: 10px;

right: 10px;

cursor: pointer;

}

</style>

</head>

<body>

<form action="/submit" method="post" onsubmit="return validateForm()">

<h1>Survey Form</h1>

<input type="text" name="first\_name" placeholder="First Name" required>

<input type="text" name="last\_name" placeholder="Last Name" required>

<input type="date" name="date\_of\_birth" placeholder="Date of Birth" required>

<select name="country" required>

<option value="">Select Country</option>

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

<option value="United States">United States</option>

<option value="United Kingdom">United Kingdom</option>

</select>

<input type="checkbox" name="gender" value="Male" required> Male

<input type="checkbox" name="gender" value="Female" required> Female

<input type="text" name="profession" placeholder="Profession" required>

<input type="email" name="email" placeholder="Email" required>

<input type="tel" name="mobile\_number" placeholder="Mobile Number" required>

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

<button type="reset">Reset</button>

</form>

<div class="popup" id="popup">

<div class="popup-content">

<span class="popup-close-button">&times;</span>

<h1>Survey Results</h1>

<ul id="survey-results"></ul>

</div>

</div>

<script>

function validateForm() {

const form = document.querySelector('form');

const inputs = form.querySelectorAll('input, select, textarea');

for (const input of inputs) {

if (input.required && !input.value) {

alert('Please fill in all required fields.');

return false;

}

}

return true;

}

const popup = document.querySelector('#popup');

const popupCloseButton = document.querySelector('.popup-close-button');

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

popup.style.display = 'none';

});

form.addEventListener('submit', (event) => {

event.preventDefault();

const formData = new FormData(form);

const surveyResults = document.querySelector('#survey-results');

surveyResults.innerHTML = '';

for (const [name, value] of formData) {

const surveyResult = document.createElement('li');

surveyResult.textContent = `${name}: ${value}`;

surveyResults.appendChild(surveyResult);

}

popup.style.display = 'flex';

});

</script>

</body>