**JAVA:**  
**1. Create an array with the values{1,2,3,4,5,6,7} and shuffle it.**

**Program:**

import java.util.Random;

public class ShuffleArray {

public static void main(String args[])

{

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

ShuffleArray(array);

System.out.print("Shuffles Array: ");

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

{

System.out.print(array[i] + " ");

}

}

public static void ShuffleArray(int[] array)

{

int n=array.length;

Random ran=new Random();

for(int i=n-1; i>0;i--)

{

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

int temp =array[i];

array[i] =array[j];

array[j]= temp;

}

}

}

**OUTPUT**: Shuffles Array: 4 1 7 3 6 5 2

**2. Enter a roman number as input and convert it to an integer**

**Program:**

public class sample9

{

public static void main(String[] args)

{

String romanNumeral = "M"; // Replace with the Roman numeral you want to convert

int result = romanToInteger(romanNumeral);

if (result == -1) {

System.out.println("Invalid Roman numeral entered.");

}

else

{

System.out.println("Integer value: " + result);

}

}

public static int romanToInteger(String s) {

// Define the Roman numeral to integer mappings

String romanNumerals = "IVXLCDM";

int[] values = {1, 5, 10, 50, 100, 500, 1000};

int result = 0;

int prevValue = 0;

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

char currentChar = s.charAt(i);

int currValue = values[romanNumerals.indexOf(currentChar)];

if (currValue == -1) {

return -1; // Invalid Roman numeral

}

if (currValue < prevValue) {

result -= currValue;

} else {

result += currValue;

}

}

return result;

}

}

**OUTPUT:** Integer value: 1000

**3. Check if the input is pangram or not. (A pangram is a sentence that contains all the alphabets from A to Z)**

**Program:**

import java.util.HashSet;

import java.util.Scanner;

import java.util.Set;

public class sample10 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a sentence: ");

String input = scanner.nextLine();

scanner.close();

boolean isPangram = isPangram(input);

if (isPangram) {

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

} else {

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

}

}

public static boolean isPangram(String input) {

// Remove non-alphabetic characters and convert to lowercase

input = input.replaceAll("[^a-zA-Z]", "").toLowerCase();

Set<Character> uniqueLetters = new HashSet<>();

for (char letter : input.toCharArray()) {

if (Character.isAlphabetic(letter)) {

uniqueLetters.add(letter);

}

}

return uniqueLetters.size() == 26; // There are 26 letters in the English alphabet

}

}

OUTPUT: Enter a sentence: MY NAME IS NAVYA MALLELA.

The input is not a pangram.

Enter a sentence: ABC IS THE STARTING FROM TO LEARN QWERYUIOPLKJHGFDSAZXCVBNM

The input is a pangram.

**JavaScript**

1. **Take a sentence as an input and reverse every word in that sentence. Example - This is a sunny day > shiT si a ynnus yad.**

**PROGRAM:**

function reverseWords(sentence) {

return sentence.split(" ").map(word => word.split("").reverse().join("")).join(" ");

}

var inputSentence = "NAVYA IS GOOD GIRL";

var reversedSentence = reverseWords(inputSentence);

console.log(reversedSentence);

**OUTPUT**: AYVAN SI DOOG LRIG

**2. Perform sorting of an array in descending order.**

**Program:**

const numbers = [5, 2, 9, 1, 5, 6];

numbers.sort(function(a, b)

{

return b - a; // Compare in descending order

});

console.log("Sorted in descending order:", numbers);

**OUTPUT:**Sorted in descending order: [9, 6, 5, 5, 2, 1]

**HTML**

**1. Create a basic calculator using HTML, CSS, and JavaScript with the functionality of add, subtract, multiply and divide. Use the following picture for reference**

<!DOCTYPE html>

<html>

<head>

<title>Basic Calculator</title>

<style>

.calculator {

width: 300px;

margin: 0 auto;

padding: 20px;

background: #f5f5f5;

border: 1px solid #ccc;

border-radius: 5px;

box-shadow: 2px 2px 5px #888888;

}

input[type="text"], input[type="button"] {

width: 50px;

height: 50px;

font-size: 20px;

margin: 5px;

}

</style>

</head>

<body>

<div class="calculator">

<input type="text" id="display" readonly>

<br>

<input type="button" value="7" onclick="addToDisplay('7')">

<input type="button" value="8" onclick="addToDisplay('8')">

<input type="button" value="9" onclick="addToDisplay('9')">

<input type="button" value="+" onclick="addToDisplay('+')">

<br>

<input type="button" value="4" onclick="addToDisplay('4')">

<input type="button" value="5" onclick="addToDisplay('5')">

<input type="button" value="6" onclick="addToDisplay('6')">

<input type="button" value="-" onclick="addToDisplay('-')">

<br>

<input type="button" value="1" onclick="addToDisplay('1')">

<input type="button" value="2" onclick="addToDisplay('2')">

<input type="button" value="3" onclick="addToDisplay('3')">

<input type="button" value="\*" onclick="addToDisplay('\*')">

<br>

<input type="button" value="0" onclick="addToDisplay('0')">

<input type="button" value="C" onclick="clearDisplay()">

<input type="button" value="=" onclick="calculate()">

<input type="button" value="/" onclick="addToDisplay('/')">

</div>

<script>

function addToDisplay(value) {

document.getElementById("display").value += value;

}

function clearDisplay() {

document.getElementById("display").value = '';

}

function calculate() {

try {

document.getElementById("display").value = eval(document.getElementById("display").value);

} catch (err) {

document.getElementById("display").value = 'Error';

}

}

</script>

</body>

</html>

1. **Create a survey form with Fields; First Name, Last Name, Date of Birth, Country (dropdown), Gender (checkbox), Profession, email, and mobile number. All the input fields are necessary to submit the form. Create two buttons Submit and Reset. Reset will reset the form while clicking on submit, first, it will check all the fields and necessary validations and then a popup will appear displaying all the selected values with labels in front of it. On closing the popup, the form should reset all the values. Use the following image for reference**

**Program:**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible"

content="IE=edge">

<meta name="viewport"

content="width=device-width, initial-scale=1.0">

<title>

Build a Survey Form using HTML and CSS

</title>

<style>

/\* Styling the Body element i.e. Color,

Font, Alignment \*/

body {

background-color: #05c46b;

font-family: Verdana;

text-align: center;

}

/\* Styling the Form (Color, Padding, Shadow) \*/

form {

background-color: #fff;

max-width: 500px;

margin: 50px auto;

padding: 30px 20px;

box-shadow: 2px 5px 10px rgba(0, 0, 0, 0.5);

}

/\* Styling form-control Class \*/

.form-control {

text-align: left;

margin-bottom: 25px;

}

/\* Styling form-control Label \*/

.form-control label {

display: block;

margin-bottom: 10px;

}

/\* Styling form-control input,

select, textarea \*/

.form-control input,

.form-control select,

.form-control textarea {

border: 1px solid #777;

border-radius: 2px;

font-family: inherit;

padding: 10px;

display: block;

width: 95%;

}

/\* Styling form-control Radio

button and Checkbox \*/

.form-control input[type="radio"],

.form-control input[type="checkbox"] {

display: inline-block;

width: auto;

}

/\* Styling Button \*/

button {

background-color: #05c46b;

border: 1px solid #777;

border-radius: 2px;

font-family: inherit;

font-size: 21px;

display: block;

width: 100%;

margin-top: 50px;

margin-bottom: 20px;

}

</style>

</head>

<body>

<h1>Survey Form</h1>

<form id="form">

<div class="form-control">

<label for="name" id="label-name">First Name</label>

<input type="text" id="name"placeholder="Enter your name" />

</div>

<div class="form-control">

<label for="name" id="label-name">Last Name</label>

<input type="text" id="name"placeholder="Enter your name" />

</div>

<div class="form-control">

<label for="DOB" id="DOB">Date of Birth</label>

<input type="dob"id="Date of Birth"placeholder="Enter your dob" />

</div>

<div class="form-control">

<label for="country">Country:</label>

<select id="country" name="country" required><br><br>

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

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

<option value="Canada">Canada</option>

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

<option value="IND">india</option>

</select>

</div>

<div class="form-control">

<label>

gender:

</label>

<label for="recommed-1">

<input type="radio"id="recommed-1"name="recommed">male</input>

</label>

<label for="recommed-2">

<input type="radio"id="recommed-2"name="recommed">female</input>

</label>

<label for="recommed-3">

<input type="radio"id="recommed-3"name="recommed">other</input>

</label>

</div>

<div class="form-control">

<label for="role" id="label-role">

profession:

</label>

<select name="role" id="role">

<option value="student">Student</option>

<option value="intern">Intern</option>

<option value="professional">

Professional

</option>

<option value="other">Other</option>

</select>

</div>

</div>

<div class="form-control">

<label for="email" id="label-email">

Email

</label>

<input type="email"

id="email"

placeholder="Enter your email" />

</div>

<div class="form-control">

<label for=" mobile number" id="label- number">

mobile number:

</label>

<input type=" mobile number"

id=" mobile number"

placeholder="Enter your number" />

</div>

<button type="cancel" value="cancel">cancel</button>

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

</form>

</body>

</html>