# Solutions-Lab: Functions and Logic Flow

## Multiplication Table

function solve() {

let multipliedStartNumberElement = document.getElementById('num1');

let multiplicationStartNumber = Number(multipliedStartNumberElement.value);

let multiplierElement = document.getElementById('num2');

let multiplier = Number(multiplierElement.value);

let resultElement = document.getElementById('result');

resultElement.innerHTML = '';

findWrongInput(multiplicationStartNumber, multiplier);

showResults(multiplicationStartNumber, multiplier)

function findWrongInput(multiplicationStartNumber, multiplier){

if (multiplicationStartNumber > multiplier){

//document.getElementById('result').innerHTML = 'Try with other numbers.';

resultElement.innerHTML = 'Try with other numbers.';

}

}

function showResults(multiplicationStartNumber, multiplier){

for (let i = multiplicationStartNumber; i <= multiplier; i++) {

let result = i \* multiplier;

let p = document.createElement('p');

p.innerHTML = `${i} \* ${multiplier} = ${result}`;

resultElement.appendChild(p);

}

}

}

## Temperature Converter

function solve() {

let degreeNumber = Number(document.getElementById('num1').value);

let type = document.getElementById('type').value;

let result = '';

let convertedTemperature = 0;

let isTypeCorrect = false;

convert();

showResult()

document.getElementById('result').innerHTML = result;

function convert(){

if (type.toLowerCase() === 'fahrenheit'){

convertedTemperature = ((degreeNumber - 32) \* 5) / 9;

isTypeCorrect = true;

} else if (type.toLowerCase() === 'celsius'){

convertedTemperature = ((degreeNumber \* 9) / 5) + 32;

isTypeCorrect = true;

}

}

function showResult(){

if (isTypeCorrect){

result = Math.round(convertedTemperature);

} else {

result = 'Error!';

}

}

}

## Count Occurrences of a Given Character

function solve() {

let string = document.getElementById('string').value;

let character = document.getElementById('character').value;

let count = 0;

let result = '';

findCharacterCount(string, character);

showEvenOrOdd();

document.getElementById('result').innerHTML = result;

function findCharacterCount(string, character){

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

if (string[i] === character){

count++;

}

}

}

function showEvenOrOdd(){

if (count % 2 === 0){

result = `Count of ${character} is even.`;

} else {

result = `Count of ${character} is odd.`;

}

}

}

## Unique Characters

function solve() {

let string = document.getElementById('string').value;

let uniqueCharacters = '';

fillUniqueCharacters(string);

document.getElementById('result').innerHTML = uniqueCharacters;

function fillUniqueCharacters(string){

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

adWhiteSpaces(i);

addUniqueCharacters(i);

}

}

function adWhiteSpaces(i){

if (string[i] === ' '){

uniqueCharacters += string[i];

}

}

function addUniqueCharacters(i){

if (uniqueCharacters.indexOf(string[i]) === -1){

uniqueCharacters += string[i];

}

}

}

## 5.Special Words

function solve() {

let startNumber = Number(document.getElementById('firstNumber').value);

let endNumber = Number(document.getElementById('secondNumber').value);

let firstString = document.getElementById('firstString').value;

let secondString = document.getElementById('secondString').value;

let thirdString = document.getElementById('thirdString').value;

let resultElement = document.getElementById('result');

for (let i = startNumber; i <= endNumber; i++) {

checkCurrentNumber(i);

}

function checkCurrentNumber(i){

let p = document.createElement('p');

if (i % 3 === 0 && i % 5 === 0){

p.innerHTML = `${i} ${firstString}-${secondString}-${thirdString}`;

} else if (i % 3 === 0){

p.innerHTML = `${i} ${secondString}`;

} else if (i % 5 === 0){

p.innerHTML = `${i} ${thirdString}`;

} else{

p.innerHTML = i;

}

resultElement.appendChild(p);

}

}