// Write a js method, when user click on button, display random integer below it.

function randomNumber() {

document.getElementById("rand").innerHTML = Math.round(Math.random() \* 100);

}

// Write js function to format number up to specified decimal places.

function decimal(number) {

console.log(number.toFixed(2));

}

decimal(1.1725); //1.17

// Check particular sub-word exist in a string or not e.g. i am learning js: 'js' exists or not

const string = "welcome to javascript";

const substring = "to";

console.log(string.toLowerCase().includes(substring.toLowerCase()));

// Given year leap year or not (29 in feb)

function checkLeapYear(year) {

//three conditions to find out the leap year

if ((0 == year % 4 && 0 != year % 100) || 0 == year % 400) {

console.log(year + " is a leap year");

} else {

console.log(year + " is not a leap year");

}

}

checkLeapYear(2000);

// ATM Machine and style it

// balance & query

// withdraw (amount)

// change pin

// mini statement

// saving & current acc.

// print receipt

// enter pin nunber

function submitPin() {

//Intialise Pin value with varible P

var p = document.getElementById("pin").value;

var a = 1234;

//To check Pin entered is correct or not

if (p == a) {

document.getElementById("demo").innerHTML = "Account Balances";

document.getElementById("display").style.display = "block"; //if pin number is correct options will Display.

} else {

document.getElementById("demo").innerHTML = "Invalid pin";

}

}

let savingAmt = (document.getElementById("savings").innerHTML = `$10,000`);

let currentAmt = (document.getElementById("current").innerHTML = `$5,000`);

// Add only even numbers in an array (array elements to be input by user)

let numStr = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

const sumEvens = (numStr) => {

let sum = 0;

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

if (numStr[i] % 2 === 0) {

sum = sum + numStr[i];

}

}

return sum;

};

console.log(sumEvens(numStr));

// Found an element in array [10, 78, 90] return number, exit from an array// take user input

var ages = [10, 78, 90];

var remove = function (removeAge) {

var index = ages.indexOf(removeAge);

if (index > -1) {

ages.splice(index, 1);

}

};

remove(prompt("Enter age of the worker you wish to remove: "));

console.log(ages);

// Biggest of even number in an array [10, 12, 90, 93, 707]: biggest even number is 90

function max\_even(arra) {

arra.sort((x, y) => y - x);

for (var i = 0; i < arra.length; i++) {

if (arra[i] % 2 == 0) return arra[i];

}

}

console.log(max\_even([10, 12, 90, 93, 707]));

// Add two array [10,20,30] + [1,2,3]: [11, 22, 33]

var array1 = [10, 20, 30];

var array2 = [1, 2, 3];

var newArray = array1.map((e, i) => e + array2[i]);

console.log(newArray);

// Reverse an array(with loops) [10, 78, 0]: [0, 78, 10]

var array3 = [10, 78, 0];

for (var i = array3.length - 1; i >= 0; i--) {

console.log(array3[i]);

}

// Reverse a string using loops

function reverseStr(str) {

var newString = "";

for (var k = str.length - 1; k >= 0; k--) {

newString += str[k];

}

return newString;

}

console.log(reverseStr("hello"));

// Remove duplicate items from an array [10, 50,20 67, 10, 20]: remove 10, 20

let arrayDuplicate = [10, 50, 20, 67, 10, 20];

let newArray1 = arrayDuplicate.filter((j, index) => {

return arrayDuplicate.indexOf(j) === index;

});

console.log(newArray1);

// Find duplicate values in an array.(display index of duplicate values e.g. 0,2,4,5)

let arrDuplicate = [10, 10, 24, 24, 60, 61, 77];

let newArray2 = arrDuplicate.filter((h, index) => {

return arrDuplicate.indexOf(h) !== index;

});

console.log(newArray2);

// Find difference/subtraction in 2 arrays //[12, 56, 789] - [12, 56, 789]: [0, 0, 0]

var arrayNew = [12, 56, 789];

var arrayOld = [12, 56, 789];

var newArray4 = arrayNew.map((e, i) => e - arrayOld[i]);

console.log(newArray4);

// Ask user, remove a specific element from an array [12, 56, 89]: remove 1 element

function removeOneItem(arr, value) {

var index = arr.indexOf(value);

if (index > -1) {

arr.splice(index, 1);

}

return arr;

}

console.log(removeOneItem([12, 56, 89], 56));

// Get the largest odd and even number in an array [10, 12, 900, 93, 707].

function max\_even(arrayList) {

arrayList.sort((x, y) => y - x);

for (var i = 0; i < arrayList.length; i++) {

if (arrayList[i] % 2 == 0) return arrayList[i];

}

}

function max\_odd(arrayList) {

arrayList.sort((x, y) => y - x);

for (var i = 0; i < arrayList.length; i++) {

if (arrayList[i] % 2 !== 0) return arrayList[i];

}

}

console.log(max\_even([10, 12, 90, 93, 707]));

console.log(max\_odd([10, 12, 90, 93, 707]));

// Take 3 inputs from user and structure them into objects.

firstname = document.getElementById("firstname");

middlename = document.getElementById("middlename");

lastname = document.getElementById("lastname");

jsonText = document.getElementById("jsontext");

function jsonbtn() {

data = {

firstName: firstname.value,

middleName: middlename.value,

lastName: lastname.value,

};

document.getElementById("jsontext").innerHTML = JSON.stringify(data);

}

// Create a class Car: city(),specialFeature()

// name, brand, color, manufacture

class Car {

constructor(name, brand, color, manufacture, specialFeature) {

this.name = name;

this.brand = brand;

this.color = color;

this.manufacture = manufacture;

this.specialFeature = specialFeature;

}

city() {

let country = [America];

return country;

}

}

// Create a class Book: type\_of\_book()

// no. of pages, type of pages, author

class Book {

constructor(pageNumbers, pageType, author, bookType) {

this.pageNumbers = pageNumbers;

this.pageType = pageType;

this.author = author;

this.bookType = bookType;

}

}

// Create a class Animal: walk(), eat(), climb()

// gender, name, disease

class Animal {

constructor(name, gender, disease) {

this.name = name;

this.gender = gender;

this.disease = disease;

}

walk(move) {

let fourLeg = 4;

let twoLeg = 2;

if (move == fourLeg) {

console.log(`It can walk on 4 legs.`);

} else if (move == twoLeg) {

console.log(`It can walk on 2 legs`);

} else {

console.log(`It can't walk.`);

}

}

eat(food) {

if ((food = "vegetables")) {

console.log(`Herbivore`);

} else if ((food = "meat")) {

console.log(`Carnivore`);

} else {

console.log(`Onmivore`);

}

}

climb(tree) {

if ((tree = "climbing")) {

console.log(`It can climb`);

} else {

console.log(`It cannot climb`);

}

}

}

// Inheritance: parent electronics (methods: name, version, company name): childclass(laptop, ipad, mobile, tablet):

// class child {

// configuration()

// price()

// }

class Electronics {

constructor(name, version, companyName) {

this.name = name;

this.version = version;

this.companyName = companyName;

}

}

class Laptop extends Electronics {

constructor(name, version, companyName, price) {

super(name, version, companyName);

this.price = price;

}

configuration(size) {

if (size > 1000) {

console.log(`This is big.`);

} else {

console.log(`This is small.`);

}

}

}

class Ipad extends Electronics {

constructor(name, version, companyName, price) {

super(name, version, companyName);

this.price = price;

}

configuration(size) {

if (size > 1000) {

console.log(`This is big.`);

} else {

console.log(`This is small.`);

}

}

}

class Mobile extends Electronics {

constructor(name, version, companyName, price) {

super(name, version, companyName);

this.price = price;

}

configuration(size) {

if (size > 500) {

console.log(`This is big.`);

} else {

console.log(`This is small.`);

}

}

}

class Tablet extends Electronics {

constructor(name, version, companyName, price) {

super(name, version, companyName);

this.price = price;

}

configuration(size) {

if (size > 1000) {

console.log(`This is big.`);

} else {

console.log(`This is small.`);

}

}

}