//declaring variables, assigning value, hoisting

// variables, dataypes and assignments to those variables

//debugging, operators

/\* var, let and const \*/

let fullName = 'Aman Sharma'; //declaration

var age = 29;//declaration

//Hoisting

//declare the variable

let variableName1;

//assignment of that variable

variableName1 = 'toyota';

document.write('name: ',variableName1);

const socialSecurity = 999999999;//declaration + assignment

//dataTypes

//string, number, boolean

//mutable dataType, immutable

const isMarried = false;

let phoneNumber = null;

/\* if(phoneNumber){

// statements

} \*/

let var1;

//operators

/\* %, ++, -- \*/

let x= 10;

let y = 8;

let result = x%y;

document.write('<br />');

document.write('result: ', result);

document.write('<br />');

/\* console.log('result output: ', result); \*/

/\* debugger; \*/

let result2 = x++;

let result3 = y--;

document.write('result2: ', result2);

document.write('<br />');

document.write('result3: ', result3);

document.write('<br />');

document.write('x: ', x);

document.write('<br />');

document.write('y: ', y);

//if else statements

if(x%y!=0 || x>y){

console.log('the condition executed successfully');

//statement executes if the condition is true

} else if(condition2) {

} else if(condition3){

} else {

//statement here executes if all the above conditions are false

}

//switch

/\* switch(expression) {

case 1:

//statement 1

break;

case 2:

//statement 2

break;

default:

//default statement

} \*/

/\* let vehicleType = 'sedan';

switch(vehicleType){

case 'sedan':

document.write('case 1 got executed');

document.write('<br />');

document.write('here i am');

break;

case 'crossover':

document.write('case 2 got executed');

document.write('<br />');

break;

default:

document.write('default executed');

document.write('<br />');

} \*/

//calculator - ask user x and y (prompt)

/\* let userInput = prompt('enter the opeartor either +, -, \*, /');

let userInputA = prompt('enter first number');

let userInputB = prompt('enter second number');

//asking the user what opeartion to perform, addition, sub, mul, div -> '+', '-', '\*', '/'

switch(userInput){

case '+':

document.write('result: ', 5+5);

break;

case '-':

document.write('result: ', x-y);

break;

default:

document.write('user input dint match any operators ');

} \*/

//functions

function checkNumber(variable2){ // function definition

// calling return early

if (variable2 > 10) {

return;

}

let result = variable2 + ' yes i did';

return result;

/\* if(variable2 < 10 && variable2 > 5){

return 'if executed';

} else {

return 'else executed';

} \*/

}

//calling the function

/\* let returnValue = checkNumber(7); \*/

/\* document.write('return value: ', returnValue); \*/

/\* document.write('<br />'); \*/

/\* let userInput = prompt('enter a number'); \*/

document.write(checkNumber(prompt('enter a number'))); //call the function

// Arrays

/\* et array1 = ['toyota', 'buick', 'honda', 'GMC'];

let array2 = []; // push, pop, slice, splice

let array3 = new Array();

array2.push('jeep');

document.write('new array: ', array1[1]);

for(let i = 0; i<= array1.length; i++){

document.write('<br />');

document.write(i, ' : ', array1[i]);

} \*/

// map, reduce and filter for arrays

let array1 = ['toyota', 'honda', 'subaru', 'GMC', 'buick'];

/\* let array2 = [2, 4, 6, 8]; \*/

// 1st way

/\* let result = array1.filter((element) => element.length > 5);

document.write(result); \*/

/\* let array2 = ['toyota', 'honda', 'subaru', 'GMC', 'buick'];

document.write('<br />'); \*/

//2nd way

function checkResultArray(element) {

//fewfewfewfewfew

return element.length > 5;

}

let result1 = array1.filter(checkResultArray);

document.write(result1);

document.write('<br />');

// map

/\* let mapResult = array2.map((element) => element\*element);

document.write(mapResult);

document.write('<br />'); \*/

//reduce

let array2 = [2, 4, 6, 8];

document.write('<br />');

let reduceResult = array2.reduce((storeResult, currentElement) => storeResult + currentElement);

document.write(reduceResult);

function A(array1){

let result = array1.filter((element) => element.length > 5);

return result;

}

A(['toyota', 'honda', 'subaru', 'GMC', 'buick']);

/closures //anonymous function //self invoked function  
let counter = (function(){  let privateCounter = 0;  function change(val) {  
   privateCounter+=val; // privateCounter = privateCounter + val;  
   }  
   return {  
     increment: function(){  
      change(1);  
     },  
     decrement: function(){  
      change(-1);  
     },  
     value: function(){  
      return privateCounter;  
   }  
   };  
})();// if you remove the self-invoked function syntax use this code block below  
/\*  let result = counter();  
 console.log('result: ', result);  
 alert(result.value());  
 result.increment();  
 result.increment();  
 alert(result.value());  
 result.decrement();  
 alert(result.value());  \*///execute this code block below when counter is a self invoked function  
alert(counter.value());// privatecounter = 0  
counter.increment(); //privatecounter = 1  
counter.increment();//privatecounter = 2  
alert(counter.value());//privatecounter = 2  
counter.decrement();//privateCounter = 1  
alert(counter.value());//privateCounter = 1

//classes in javascript

// two naming conv = member functions/methods, class members

const var1 ='classes';

class className{

constructor(vehicleType, year){

this.vehicle = vehicleType;

this.year = year;

}

func1(){ //user defined function

/\* let func1Result; \*/

document.write (this.vehicle);

}

func2(){ // user defined function

let concatString = 'vehicle: ' + this.vehicle;

document.write(concatString);

}

}

/\* JSON object = {

['subaru', 'toyota', ....]

} \*/

/\* let vehicleArray = JSON.parse(); \*/

/\* vehicleArray = ['subaru', 'toyota', ....] \*/

/\* let myVehicle = 'subaru'; \*/

let classInstance = new className('Subaru', 2010); //create instance of the class to execute the class.

/\* let classInstance1 = new className('toyota', 2005); \*/

document.write(classInstance.vehicle);

document.write('<br />');

classInstance.func1();

document.write('<br />');

classInstance.func2();