console.log("Inside script file")

// var array1 =["Ajay", "Deepak" , "Sagar"];

// // console.log(array1)

// var array2 = array1;

// console.log(array1, array2);

// array2[1] = "New Name";

// console.log(array1, array2);

// Solutions : Shallow Or Deep Copy

// Shallow Copy

// 1. concat 2. Array.from 3. Spread

// Deep Copy

// JSON.parse

// var array3 = [100, 200 , {name:'Ajay'}];

// var array4 = array3;

// console.log(array3, array4);

// array4[0] = 1000;

// console.log(array3, array4);

var a = [100,200,300,{a:'india'}];

var b =[1000];

var c = a.concat(b);

// Shallow Copy means , that now it will not change values

// after copying one array to other

// console.log(a, b , c);

// c[0] = 100000000;

// console.log(a);

// console.log(b);

// console.log(c);

// c[3][a] =111111111111111111111;

// console.log(a);

// console.log(b);

// console.log(c);

// console.log("Array.from")

// var d = Array.from(a);

// console.log(a);

// console.log(d);

// d[0] = 22222222222;

// console.log(a);

// console.log(d);

// d[3][a] = 50000000000000;

console.log("Spread Operator")

// ... means spread opeartor

var e = [...a]

console.log(a);

console.log(e);

e[0] = 1000000;

console.log(a);

console.log(e);

e[3][a]= 000000000000000;

console.log(a);

console.log(e);

console.log("About Spread Operator");

console.log(Math.max(1,2,3,4,5,6,3,344,45,546,3));

var num =[1,2,3,4,5,6,3,344,45,546,3];

console.log(Math.max(...num))

let person = {name:"Abhishek", age:23};

console.log(person);

var p1 = person;

console.log(person, p1);

p1.name="Jatin";

console.log(person, p1);

var p2 = {...person}

console.log(person, p2);

p2.name="Lalit";

console.log(person, p2);

 var num1 = [1,2,3];

 var num2 = [4,5,6];

 var num3 = [...num1 , ...num2];

 console.log(num3);

 var num4 = [100, 200, ...num1 , 900, 899 , ...num2];

console.log(num4);

 var arr1 = [1,2,3, {a:'hello'}];

 var arr2 = JSON.parse(JSON.stringify(arr1));

 console.log(arr1, arr2);

 arr2[3][a] = 800;

 console.log(arr1, arr2);

// Objects (Shallow Copy)

const target = { a: 1, b : 2 , d:16};

const source = { b: 4, c: 5 , d:10};

const returnedTarget = Object.assign(target, source);

console.log(target);

// expected output: Object { a: 1, b: 4, c: 5 }

console.log(returnedTarget);

// expected output: Object { a: 1, b: 4, c: 5 }

returnedTarget.b = 100;

console.log(target);

// expected output: Object { a: 1, b: 4, c: 5 }

console.log(returnedTarget);

var sourceObj =

{

  name:"Ajay",

  Age : 23,

  hobbies : ["Cricket", "Hockey"]

}

console.log(sourceObj);

var targetObj = Object.assign({}, sourceObj);

console.log(sourceObj);

console.log(targetObj);

targetObj.Age= 10;

console.log(sourceObj);

console.log(targetObj);

targetObj.hobbies[0] ="Football";

console.log(sourceObj);

console.log(targetObj);

// Deep Copy

var targetObj2 =  JSON.parse(JSON.stringify(sourceObj));

console.log(sourceObj);

console.log(targetObj);

targetObj.hobbies[0] ="Baseball";

console.log(sourceObj);

console.log(targetObj2);

