console.log(`Create 10 arrays of different elements and formats and use the different methods we talked about (length, push, unshift, splice) \n ------------------------------------------------------ \n`);

console.log(`1. Single Array \n ------------------`);

//the-40-smartest-people-of-all-tim

const smartestPeople = ["Albert Einstein","Leonardo da Vinci", "Isaac Newton","Galileo Galilei"," Nikola Tesla","William Shakespeare"]

//ARRAY Dispaly

console.log(`Displaying all elements in array \n -----------------------------------`);

console.log(smartestPeople);

//Array length

console.log(`\n (length) Displaying the array length \n ------------------------------------`);

console.log(smartestPeople.length);

//push adding the element at the end of the array

console.log(`\n (push) Adding Another person at the end (Marie Curie) \n ----------------------------------------------------------`);

smartestPeople.push("Marie Curie");

console.log(`\n Dispalying all Smartest People including the Marie Curie \n --------------------------------------------------------------`);

console.log(smartestPeople);

//unshift Array

console.log(`\n (unshift) Adding Thomas Edison At the beginning \n -----------------------------------------------`);

smartestPeople.unshift("Thomas Edison");

console.log(`\n Dispalying all Smartest People including Thomas Edison at the begining \n ----------------------------------------------------------------------`);

console.log(smartestPeople);

//pop

console.log(`\n (pop) Removing the last Person on the list (Marie Curie) \n -----------------------------------------------------------`);

smartestPeople.pop();

console.log(`\n (pop) Elements after Removing the last Person on the list (Marie Curie) \n ----------------------------------------------------------------------`);

console.log(smartestPeople);

//shift

console.log(`\n (shift) Removing the first Person on the list (Thomas Edison) \n --------------------------------------------------------`);

smartestPeople.shift();

console.log(`\n (shift) Elements after Removing the first Person on the list (Thomas Edison) \n ---------------------------------------------------------------------------`);

console.log(smartestPeople);

//splice

console.log(`\n (splice) Removing the two people on the list || Leonardo da Vinci & Isaac Newton | \n ----------------------------------------------------------`);

const removePerson = smartestPeople.splice(1,2);

console.log(smartestPeople);

console.log(`\n (splice) Adding two people || Stephen Hawking & Carl Gauss \n ------------------------------------------------------------`);

smartestPeople.splice(2, 0, "Stephen Hawking", "Carl Gauss");

console.log(smartestPeople);

console.log(" \n ------------------------------------------------------------------------------");

console.log(`\n 2. Array in Array \n ------------------`);

const eastAfrican = ["Rwanda","Uganda",["Kigali" , "Bujumbura" , "Dodoma" , "Nairobi","Kampala"],"Burundi","Tanzania","Kenya"]

//ARRAY Dispaly

console.log(`Displaying all elements in array \n -----------------------------------`);

console.log(eastAfrican);

//Array length

console.log(`\n (length) Displaying the array length \n ------------------------------------`);

console.log(eastAfrican.length);

//push adding the element at the end of the array

console.log(`\n (push) Adding the country of sudan at the end \n ----------------------------------------`);

eastAfrican.push("South sudan");

console.log(`\n Dispalying all countries including the country of south sudan \n --------------------------------------------------------------`);

console.log(eastAfrican);

//unshift Array

console.log(`\n (unshift) Adding the country of DRC At the beginning \n ----------------------------------------`);

eastAfrican.unshift("RDC");

console.log(`\n Dispalying all countries including the country of DRC at the begining \n ----------------------------------------------------------------------`);

console.log(eastAfrican);

//pop

console.log(`\n (pop) Removing the last country on the list S.S \n -----------------------------------------------`);

eastAfrican.pop();

console.log(`\n (pop) Elements after Removing the last country on the list S.S \n -----------------------------------------------`);

console.log(eastAfrican);

// pop removig the last elements in the middle array

const removeLastCity = eastAfrican[3].pop();

console.log(`\n (pop) Elements after Removing the last City on the list kamapla \n ----------------------------------------------------------------`);

console.log(eastAfrican);

//shift

console.log(`\n (shift) Removing the first country on the list RDC \n -----------------------------------------------`);

eastAfrican.shift();

console.log(`\n (shift) Elements after Removing the first country on the list RDC \n -----------------------------------------------------------------`);

console.log(eastAfrican);

//splice

console.log(`\n (splice) Removing the two countries || Kenya & Tanzania \n ----------------------------------------------------------`);

const removeCountries = eastAfrican.splice(4,5);

console.log(eastAfrican);

console.log(`\n (splice) Adding two countries || Zambia & Togo \n ----------------------------------------------------------`);

eastAfrican.splice(2, 0, "Zambia", "Togo");

console.log(eastAfrican);

console.log(`\n (splice) Adding two Cities after countries || Zambia(Lusaka) & Togo(lome) \n -----------------------------------------------------------------`);

eastAfrican[4].splice(2, 0, "Lusaka", "lome");

console.log(eastAfrican);

console.log(" \n ------------------------------------------------------------------------------");

console.log(`\n 3. two Array in Array \n ----------------------`);

const SuperHeroes = ["Thor" , "Captain America" ,["Aquaman" , "Batman" , "Flash", "Superman" , [" Thanos", " Loki" , "Joker" ,"Ultron", "Red Skull"] , "Wonder Woman"] , "Hulk" , "Quicksilver" , "T'Challa" , "Tony Stark" , "Wanda "]

//ARRAY Dispaly

console.log(`Displaying all elements in array \n -----------------------------------`);

console.log(SuperHeroes);

//Array length

console.log(`\n (length) Displaying the general array length \n ------------------------------------`);

console.log(SuperHeroes.length);

console.log(`\n (length) Displaying the first array in array's length \n ----------------------------------------------------`);

console.log(SuperHeroes[2].length);

console.log(`\n (length) Displaying the second array in array's length \n ------------------------------------------------------`);

console.log(SuperHeroes[2][4].length);

//push adding the element at the end of the array

console.log(`\n (push) Adding another character at the end of array [Ant-Man ]\n -----------------------------------------------------------`);

SuperHeroes.push("Ant-Man");

console.log(`\n Dispalying all Super Heros including Ant-Man, \n --------------------------------------------------------------`);

console.log(SuperHeroes);

console.log(`\n (push) Adding another character at the end of the first array in array\n -----------------------------------------------------------`);

SuperHeroes[2].push("Green Lantern");

console.log(`\n Dispalying all Super Heros including Green Lantern \n --------------------------------------------------------------`);

console.log(SuperHeroes);

console.log(`\n (push) Adding another character at the end of the second array in array\n -----------------------------------------------------------`);

SuperHeroes[2][4].push("Killmonger");

console.log(`\n Dispalying all Super Heros including Killmonger \n --------------------------------------------------------------`);

console.log(SuperHeroes);

// //unshift Array

console.log(`\n (unshift) Adding another character At the beginning (Captain Marvel) \n -------------------------------------------------------------------`);

SuperHeroes.unshift("Captain Marvel");

console.log(`\n Dispalying all Super Heroes including the Captain Marvel at the begining \n ----------------------------------------------------------------------`);

console.log(SuperHeroes);

console.log(`\n (unshift) Adding another character At the beginning of the first Array in Array (Green Arrow)\n -------------------------------------------------------------------`);

SuperHeroes[3].unshift("Green Arrow");

console.log(`\n Dispalying all Super Heroes including the Green Arrow at the begining of the first Array in Array \n ----------------------------------------------------------------------`);

console.log(SuperHeroes);

console.log(`\n (unshift) Adding another character At the beginning of the second Array in Array (Agent Smith)\n -------------------------------------------------------------------`);

SuperHeroes[3][5].unshift("Agent Smith");

console.log(`\n Dispalying all Super Heroes including the Agent Smith at the begining of the second Array in Array \n ----------------------------------------------------------------------`);

console.log(SuperHeroes);

//pop

console.log(`\n (pop) Removing the last character on the list Ant-man \n --------------------------------------------------`);

SuperHeroes.pop();

console.log(`\n (pop) Elements after Removing the last country on the list Ant-man \n -------------------------------------------------------------`);

console.log(SuperHeroes);

// // pop removig the last elements in the middle array

console.log(`\n (pop) Removing the last character on the first Array in Array (Green Lantern) \n --------------------------------------------------`);

const removeLastDcCharacter = SuperHeroes[3].pop();

console.log(`\n (pop) Elements after Removing the last character (Green Lantern) \n ----------------------------------------------------------------`);

console.log(SuperHeroes);

console.log(`\n (pop) Removing the last character on the second Array in Array (Killmonger) \n ----------------------------------------------------------------------------`);

const removeLastbadCharacter = SuperHeroes[3][5].pop();

console.log(`\n (pop) Elements after Removing the last character (Killmonger) \n ----------------------------------------------------------------`);

console.log(SuperHeroes);

//shift

console.log(`\n (shift) Removing the first character on marvel the list (Captain Marvel) \n -------------------------------------------------------------------------`);

SuperHeroes.shift();

console.log(`\n (shift) Elements after Removing the first character on the list (Captain Marvel) \n -----------------------------------------------------------------`);

console.log(SuperHeroes);

//splice

console.log(`\n (splice) Removing the two characters || Tony Stark & Wanda \n ----------------------------------------------------------`);

const removeCharacters = SuperHeroes.splice(6,7);

console.log(SuperHeroes);

console.log(`\n (splice) Adding two characters || Spider- man & Doctor Strange \n ---------------------------------------------------------------`);

SuperHeroes.splice(2, 0, "Spider-man", " Doctor-Strange");

console.log(SuperHeroes);

console.log(`\n (splice) Adding two Cities after countries || Zambia(Lusaka) & Togo(lome) \n -----------------------------------------------------------------`);

SuperHeroes[4].splice(2, 0, "Deadshot", "x-men");

console.log(SuperHeroes);

console.log(" \n ------------------------------------------------------------------------------");

New codes

// const SuperHeroes = ["Thor" , " Captain America " ,"Hulk" , " T'Challa" , " Tony Stark" , " Wanda " , " Aquaman" , " Batman" , " Flash", " Superman"," Wonder Woman" , " Thanos", " Loki" , " Joker" ," Ultron", " Red Skull", ]

// console.log(`selecting super Heroes from Marvel (using slice) \n --------------------------------------------------`);

// const marvelSuperHeroes = SuperHeroes.slice(0, 6);

// console.log(`Marvel SuperHeroes Are: ${marvelSuperHeroes}`);

// console.log(`selecting super Heroes from DC (using slice) \n -----------------------------------------------`);

// const dcSuperHeroes = SuperHeroes.slice(6, 11);

// console.log(`DC SuperHeroes Are: ${dcSuperHeroes}`);

// console.log(`selecting the notorious guys (using slice -n) \n -------------------------------------------`);

// const superNotorious = SuperHeroes.slice(-5);

// console.log(`The popular Notorious guys Are: ${superNotorious}`);

// console.log(`Joining Marvel & DC super Heroes ( using concat) \n ----------------------------------------------`);

// const onlySuperHeroes = marvelSuperHeroes.concat(dcSuperHeroes);

// console.log(`Only Super Heroes Excluding the bad guys: \n \n ${onlySuperHeroes} \n`);

// console.log(`Checking if Wonder Woman is among the super Heroes at index -1 ( using indexOf) \n -------------------------------------------------------------`);

// if (onlySuperHeroes.indexOf(" Wonder Woman") != -1) {

// console.log(" \nWonder Woman is a Super Hero at index of -1")

// } else {

// console.log(" \n Wonder Woman is not a super Hero")

// }

// console.log(`Checking if thanos is among the super Heroes ( using includes) \n -------------------------------------------------------------`);

// console.log(onlySuperHeroes.includes(" Thanos"))

// console.log(`Checking if Hulk is among the super Heroes ( using includes) \n -------------------------------------------------------------`);

// console.log(onlySuperHeroes.includes("Hulk"))

// console.log(`listing all super Heroes according to there index \n -----------------------------------------------`);

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

// // console.log(`Super Heroes at index ${i} is ${onlySuperHeroes[i]}`);

// // }

// let evenNumbers = [4, 6, 8, 10, 2, 12, 14];

// const numbersLessThan10 = evenNumbers.find(function(number) {

// return number < 10;

// });

// console.log(`the number less than 10 is ${numbersLessThan10}`)

// console.log(`\n --------------------OBJECTS---------------------------------------------------------------`);

/////////OBJECTS

const appleInc = {

companyName: "Apple Inc",

specialization: "Consumer Electronics",

headQuaters: "United State",

"current CEO": "Tim Cook",

mainProducts: ['iphone', 'Macbook', 'ipod'],

yearFounded: 1976,

calcAge: function () {

this.age = 2021 - this.yearFounded;

return this.age;

},

companySummary: function () {

console.log(`this company was founded in ${this.yearFounded}, and named: ${this.companyName}`);

}

// companySummary: function() {

// console.log(`this company was founded in ${this.yearFounded}, and named: ${this.companyName}`);

// },

// addProduct: function () {

// this.Products = push.mainProducts("ipad");

// return Products;

// },

}

console.log(appleInc);

appleInc["headQuaters"] = "Rwanda";

console.log(`editing the country from Rwanda to USA`);

console.log(appleInc);

delete appleInc.headQuaters

console.log(`Deleting the head quaters`);

console.log(appleInc);

console.log(`------- --- --- -Looping --- ------ ----`);

for (var inc in appleInc) {

console.log(appleInc[inc]);

}

console.log(`------- --- --- -display --- ------ ----`);

console.log(`the company is specialized in ${appleInc.specialization}\n`);

console.log(`\n ------- --- --- -adding an element --- ------ ----`);

appleInc.products = "iphone";

console.log(appleInc);

console.log(`\n ------- --- --- -diplaying with qoutetion --- ------ ----`);

console.log(`the current CEO is ${appleInc['current CEO']}`);

console.log(`\n ------- --- --- -Calculating The Company age --- ------ ----`);

console.log(appleInc.calcAge());

console.log(appleInc.age);

console.log(appleInc);

appleInc.companySummary();

console.log(appleInc);

// ------------------------------

// Object Methods

// const jonas = {

// firstName: 'Jonas',

// lastName: 'Schmedtmann',

// birthYeah: 1991,

// job: 'teacher',

// friends: ['Michael', 'Peter', 'Steven'],

// hasDriversLicense: true,

// // calcAge: function (birthYeah) {

// // return 2037 - birthYeah;

// // }

// // calcAge: function () {

// // // console.log(this);

// // return 2037 - this.birthYeah;

// // }

// calcAge: function () {

// this.age = 2037 - this.birthYeah;

// return this.age;

// },

// getSummary: function () {

// return `${this.firstName} is a ${this.calcAge()}-year old ${jonas.job}, and he has ${this.hasDriversLicense ? 'a' : 'no'} driver's license.`

// }

// };

// console.log(jonas.calcAge());

// console.log(jonas.age);

// console.log(jonas.age);

// console.log(jonas.age);

// const SuperHeroes = ["Thor" , " Captain America " ,"Hulk" , " T'Challa" , " Tony Stark" , " Wanda " , " Aquaman" , " Batman" , " Flash", " Superman"," Wonder Woman" , " Thanos", " Loki" , " Joker" ," Ultron", " Red Skull", ]

// console.log(`selecting super Heroes from Marvel (using slice) \n --------------------------------------------------`);

// const marvelSuperHeroes = SuperHeroes.slice(0, 6);

// console.log(`Marvel SuperHeroes Are: ${marvelSuperHeroes}`);

// console.log(`selecting super Heroes from DC (using slice) \n -----------------------------------------------`);

// const dcSuperHeroes = SuperHeroes.slice(6, 11);

// console.log(`DC SuperHeroes Are: ${dcSuperHeroes}`);

// console.log(`selecting the notorious guys (using slice -n) \n -------------------------------------------`);

// const superNotorious = SuperHeroes.slice(-5);

// console.log(`The popular Notorious guys Are: ${superNotorious}`);

// console.log(`Joining Marvel & DC super Heroes ( using concat) \n ----------------------------------------------`);

// const onlySuperHeroes = marvelSuperHeroes.concat(dcSuperHeroes);

// console.log(`Only Super Heroes Excluding the bad guys: \n \n ${onlySuperHeroes} \n`);

// console.log(`Checking if Wonder Woman is among the super Heroes at index -1 ( using indexOf) \n -------------------------------------------------------------`);

// if (onlySuperHeroes.indexOf(" Wonder Woman") != -1) {

// console.log(" \nWonder Woman is a Super Hero at index of -1")

// } else {

// console.log(" \n Wonder Woman is not a super Hero")

// }

// console.log(`Checking if thanos is among the super Heroes ( using includes) \n -------------------------------------------------------------`);

// console.log(onlySuperHeroes.includes(" Thanos"))

// console.log(`Checking if Hulk is among the super Heroes ( using includes) \n -------------------------------------------------------------`);

// console.log(onlySuperHeroes.includes("Hulk"))

// console.log(`listing all super Heroes according to there index \n -----------------------------------------------`);

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

// // console.log(`Super Heroes at index ${i} is ${onlySuperHeroes[i]}`);

// // }

// let evenNumbers = [4, 6, 8, 10, 2, 12, 14];

// const numbersLessThan10 = evenNumbers.find(function(number) {

// return number < 10;

// });

// console.log(`the number less than 10 is ${numbersLessThan10}`)

// console.log(`\n --------------------OBJECTS---------------------------------------------------------------`);