Day-4

Demo1.ts

```
//Splice Method

let a:number[]=[3,56,12,9,8];
//console.log(a);
a.splice(2,0,100);//on 2nd index it will add 100 and further values will
remain same
//console.log(a);
a.splice(1,0,31,67,98);
//console.log(a);//[3,31,67,98,56,100,12,9,8]
a.splice(3,1);//will delete 98 value
//console.log(a);[3,31,67,56,100,12,9,8]
a.splice(4,2);
//console.log(a);//[ 3, 31, 67, 56, 9, 8 ]
a.splice(1,1,200);
//console.log(a);//[ 3, 200, 67, 56, 9, 8 ]
a.splice(3,1,500,800);//1 means deleting one value which is present at that
index
//console.log(a);

//Slice
//It copy a section data from an array & return a new array

let str:String[]=['Core Java','Advanced Java','Spring Boot','Angular
12','React JS','Docker','Jenking','AWS'];
let new1=str.slice(1,6);//copying array from 1 to 6
console.log("Original array " + str);
//console.log("Copied array is " + new1);
let new2=str.slice(1);//copying array from 1
//console.log("Copied array is " + new2);
let new3=str.slice();//copying whole array
//console.log("Copied array is " + new3);
let new4=str.slice(2,-1);//Spring Boot,Angular 12,React JS,Docker,Jenking
//console.log("Copied array is new 4 " + new4);
let new5=str.slice(2,-2);//Spring Boot,Angular 12,React JS,Docker
//console.log("Copied array is new5 " + new5);
let new6=str.slice(-2,0);
//console.log("Copied array is new6 " + new6);//not possible
let new7=str.slice(-2);//Jenking,AWS
let new8=str.slice(-3);//Docker,Jenking,AWS
//console.log("Copied array is new7 " + new7);

//Map

let arr:number[]=[2,3,4,5,6];
```

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let res=arr.map((myvalue)=>{
return (myvalue*myvalue);//will give square
});
console.log("Original array " + arr);
console.log("Resultant array " + res);

let res1=arr.map((myvalue,i)=>{
    if(i==2 || i==3){//will only take value at index 2 & 3
        return (myvalue*myvalue)
    }
})

console.log("Resultant array " + res1.join(" "));
```

demo2.ts=>

```
//Dereference of Array

let a:number[]=[21,4,55,6];

let [t1,t2,t3,t4]=a;
console.log(`
T1=${t1}
T2=${t2}
T3=${t3}
T4=${t4}
`)

let[s1,...arr]=a;

console.log(`
s1=${s1}//here s1 is first number of above array
Arr=${arr}//remaining array
`)
```

Demo3.ts

```
//Shallow Copy & Deep Copy

let a=10;
let b=a;
// console.log("Value of a " + a);
// console.log("Value of b " + b);

b=20;
console.log("Value of a " + a);
console.log("Value of b " + b);
//by default array variable is shallow copy

let arr:number[]=[9,3,45,14];
let arr1=arr;
```

```
console.log("Arr array is " + arr)
console.log("Arr1 array is " + arr1);
console.log("-----------------------------------------");
arr1[0]=200;
console.log("Arr array is " + arr)//[200,3,45,14]
console.log("Arr1 array is " + arr1);

//Make array as Deep Copy

let arr2=[2,4,7,62];
let[...arr3]=arr2;
console.log("Arr2 array is " + arr2)//[2,4,7,62]
console.log("Arr3 array is " + arr3);
console.log("-----------------------------------------")

arr3[0]=400;
console.log("Arr2 array is " + arr2)//[2,4,7,62]
console.log("Arr3 array is " + arr3);//[400,4,7,62] now it is deep copy
```