

NAME : HARSHRAJSINH ZALA
REG : 22BCE2238

ARRAY METHODS SESSION 2

CODE :

```
//Array methods Session 2
//filter ,map,foreach,some,every,reduce

const x = [2, 2, 4, 6, 7];
const st = ["java", "python", "os", "network"];
//for each value in teh array we will invoke a function

//Intro to functions
function display(x, y) {
    return x * y;
}
let result = display(3, 2);
console.log(result);

//FILTER Method is used for filtering the values inside the array ....
//return type is array
console.log("\nFilter method");
console.log(`original array: ${x}`);
console.log(x);
const res = x.filter(filterfunction);
function filterfunction(value, index, array) {
    return value > 2
}
console.log(`Filtering values greater than 2: ${res}`);

const res2 = st.filter(filterfunction2);
function filterfunction2(value) {
    return value.includes("java");
}
console.log(`Filtering values having JAVA: ${res2}`);

//foreach
{
    console.log("for each method");
    const x = [2, 3, 4, 5, 6];
    x.forEach(testfunction);
    function testfunction(value, index, array) {
        console.log(`${value}-->${index}`);
    }
}
```

```

    console.log();
}

//map
{
    console.log("map function");
    const x = [2, 3, 4, 5, 6];
    console.log(`original array : ${x}`);

    const res = x.map(mapfunction);
    function mapfunction(value){
        return value*2;
    }
    console.log(`mapped to *2 : ${res}`);
}

//Reduce : reduce the array to a single value
{
    console.log("\nReduce function");
    const x = [1,1,1,1,1];
    let res = x.reduce(sumfunction,10);
    function sumfunction(total,value,index,array){
        return total+=value
    }
    console.log(res);
}

//EVERY: when every value in the array satisfies a condition then returns true and
false otherwise
{
    const x = [2,9,3,5,6];
    let res = x.every(checkfunc);
    function checkfunc(value,index,array){
        return value>1;
    }
    console.log("every mehtod checking if every val >1: ");
    console.log(res);
}

//some
{
    const x = [2,9,3,5,6];
    let res = x.some(checkfunc);
    function checkfunc(value,index,array){
        return value>50;
    }
    console.log("some method checking if some val>50: ");
    console.log(res);
}

//Sort

```

```
{
  const sub = ["cat","jar","orange","Apple"]
  sub.sort();
  console.log(sub);

  //numeric sort doesnt work with .sort make a function to make it work
  console.log("numeric sort using function");
  const x = [56,33,21,456,723,44]
  x.sort(mysort)
  function mysort(x,y){
    return x-y;
  }
  console.log(x);

  x.sort(mysortde)
  function mysortde(x,y){
    return y-x;
  }
  console.log(x);

  //or use reverse
  console.log("reversing using .reverse()");
  x.reverse();
  console.log(x);
}
```

OUTPUT :

```
● harsh@Harshs-MacBook-Air LAB3 % cd "/Users/h
● harsh@Harshs-MacBook-Air LAB3 % node "/Users

6

Filter method
original array: 2,2,4,6,7
[ 2, 2, 4, 6, 7 ]
Filtering values greater than 2: 4,6,7
Filtering values having JAVA: java
for each method
2-->0
3-->1
4-->2
5-->3
6-->4

map function
original array : 2,3,4,5,6
mapped to *2 : 4,6,8,10,12

Reduce function
15
every mehthod checking if every val >1:
true
some method checking if some val>50:
false
[ 'Apple', 'cat', 'jar', 'orange' ]
numeric sort using function
[ 21, 33, 44, 56, 456, 723 ]
[ 723, 456, 56, 44, 33, 21 ]
reversing using .reverse():
[ 21, 33, 44, 56, 456, 723 ]
○ harsh@Harshs-MacBook-Air LAB3 % □
```

DATA TYPES IN JS :

CODE :

```
let x = 10.5;
let n = BigInt(98888888888888888888888888888888);
//string
let k = 'Harsh';
//boolean
let result = true;
//null
let j = null;
if(null){
    console.log("null is true");
}
else{
    console.log("null is always false");
}

{
    console.log("UNDEFINED");
    let x;
    if(x ==undefined){
        console.log("assign some value for x");
    }
    console.log("type of x is "+typeof(x));
    console.log();
}
//obj
{
    console.log("OBJECT :");
    const st = {
        reg:"22BCE2238",address:"vellore",branch:"BCE"
    }
    console.log(st["reg"]);
    console.log("type of student is: "+typeof(st));
    console.log();
}

//Symbol
{
    console.log("Symbol: ");
    let mysymbol = Symbol();
    let mysecsymbol = Symbol();

    if(mysymbol == mysecsymbol){
        console.log("they are equal");
    }
    else{
```

```

    console.log("they are not equal");
  }

  const st = {
    [Symbol()]: "22BCE2238", address: "vellore", branch: "BCE"
  }
  for(let j in st){
    console.log(st[j]);
  }
}

```

OUTPUT :

```

● harsh@Harshs-MacBook-Air LAB3 % cd "/Users/harsh"
● harsh@Harshs-MacBook-Air LAB3 % node "/Users/harsh"
null is always false
UNDEFINED
assign some value for x
type of x is undefined

OBJECT :
22BCE2238
type of student is: object

Symbol:
they are not equal
vellore
BCE
○ harsh@Harshs-MacBook-Air LAB3 % █

```