**Javascript Assignment - Iterators**

**1. Create a function to iterate over the following list [“John”, “Rohn”, “Danny”, “James”]**

function iterate(lis) {

    let x = lis[Symbol.iterator]();

    let res = x.next();

    while(!res.done) {

        console.log(res)

        res = x.next();

    }

}

var c = ["John", "Rohn", "Danny", "James"];

iterate(c);

**OUTPUT:**

**PS C:\Users\ADMIN\Documents\c\JS\_CODE> node assign\_17.js**

**{ value: 'John', done: false }**

**{ value: 'Rohn', done: false }**

**{ value: 'Danny', done: false }**

**{ value: 'James', done: false }**

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**2. Iterate over all the characters of the word “iNeuron”.**

let str = "iNeuron";

let itr = str[Symbol.iterator]();

let res = itr.next();

while(!res.done) {

    console.log(res);

    res = itr.next();

}

**{ value: 'i', done: false }**

**{ value: 'N', done: false }**

**{ value: 'e', done: false }**

**{ value: 'u', done: false }**

**{ value: 'r', done: false }**

**{ value: 'o', done: false }**

**{ value: 'n', done: false }**

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**3. Create a functional iterator, with a next function.**

let arr = ['a', 'b', 'c'];

let itr = arr[Symbol.iterator]();

let res = itr.next();

console.log(res);

let aa = itr.next();

console.log(aa);

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**{ value: 'a', done: false }**

**{ value: 'b', done: false }**

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**4. In the following two arrays find which two elements match using iterators.**

**Array 1 - [“a”, “b”, “c”, “d”]**

**Array 2 - [“e”, “f”, “g”, “h”, “a”, “i”, “j”]**

let arr1 = ['a', 'b', 'c', 'd'];

let arr2 = ['e' ,'f', 'g', 'h', 'a', 'i', 'j'];

const res = arr1.filter(obj => arr2.indexOf(obj) !== -1)

console.log(res)

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**[ 'a' ]**

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**5. What are the different ways of iterating through an array? Demonstrate them.**

**ANS:** (a) Using methods like, every(), some(), indexof(), forEach for-in, for-of, map, reduce, filter, lastIndexOf, find, findIndex, from, entries, includes, keys.

let arr = ['a', 'b', 'c'];

/\* forEach loop \*/

arr.forEach((ele,index) => console.log(ele, index));

/\*for-in \*/

for(let x in arr){

    console.log(x, arr[x]);

}

/\* for-of \*/

for( let x of arr) {

    console.log(x);

}

/\* every \*/

arr1 = [2,4,6];

let arr2 = arr1.every((value) =>  {

return (value % 2 == 0);}

);

console.log(arr2);

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a 0

b 1

0 a

1 b

2 c

a

b

c

true