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28 Oct 2022

JavaScript Assignment 17

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

//function to iterate over the list

```
function iterateArr(arr) {  
    arr.forEach(element => {  
        console.log(element)  
    });  
    return 0;  
}
```

//driver code

```
let arr = ["John", "Rohn", "Danny", "James"];  
iterateArr(arr);
```

2. Iterate over all the characters of the word "iNeuron".

```
let str = "iNeuron";  
for (const char of str) {  
    console.log(char);  
};
```

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

//functional iterator with next function

```
function rangeIterator(start=0, end = Infinity, step =1){
  let nextIndex = start;
  let count = 0;

  const rangeIterator = {
    next() {
      let result;
      if (nextIndex < end) {
        result = { value: nextIndex, done: false };
        nextIndex += step;
        count++;
        return result;
      }
      return { value: count, done: true };
    }
  };
  return rangeIterator;
}
```

//driver code

```
const it = rangeIterator(0,10,1);
let result = it.next();
while(!result.done){
  console.log(result.value);
  result = it.next();
}
```

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"]

//Program to find which two elements match using array filter iterator

```
let arr1 = ["a","b","c","d"];
```

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

```
let result = arr1.filter(ele => {  
    return arr2.indexOf(ele) > -1;  
})
```

```
console.log(result);
```

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

The following are different ways to iterate through arrays:

1.for loop

2.while loop

3.forEach method

4.every method

5.map method

6.filter method

7.reduce method

8.some method

```
let arr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ];
```

//Using for loop

```
for ( let i=0; i<arr.length; i++){  
    console.log(arr[i]);  
};
```

//Using while loop

```
let i=0;  
while(i<arr.length){  
    console.log(arr[i]);  
    i++;  
}
```

//Using for-Each method

```
arr.forEach(ele => {  
    console.log(ele);  
})
```

//Using every method

```
function lessThan5(ele){  
    return ele < 5;  
}  
console.log(arr.every(lessThan5));
```

//Using map method

```
let mp = arr.map(ele => ele*2);  
console.log(mp);
```

//using filter method

```
let fil = arr.filter(ele => ele < 6)  
console.log(fil);
```

//Using reduce method

```
let red = arr.reduce((acc,ele) => acc+ele);  
console.log(red);
```

//Using some method

```
function addtwo(ele){  
    console.log(`${ele+2}`)  
}  
console.log(arr.some(addtwo));
```