

# GUVI CLASSROOM ASSIGNMENT-3

## Q.1 Print odd numbers in an array

### Anonymous function:

```
var arr=[1,2,3,4,5,6,7];
var isOdd =function (a){
    if(a%2!=0){
        return true;
    }
    else{
        return false;
    }
}
for(let i=0;i<arr.length;i++){
    if(isOdd(arr[i])){
        console.log(arr[i])
    }
}
```

### IFFE function:

```
var arr=[1,2,3,4];
(function (arr){
    for(let i=0;i<arr.length;i++){
        if (arr[i]%2!=0){
            console.log(arr[i]);
        }
    }
})(arr);
```

## Q.2 Convert all the strings to title caps in a string array.

### Anonymous function:

```
let arr=["hi","hello","how","happy"]
var titleCaps =function (arr){
    for(let i=0;i<arr.length;i++){
        //converting string to array
        let str=arr[i].split("");
        //converting first letter of string to uppercase
        str[0]=str[0].toUpperCase();
        arr[i]=str.join("");
    }
    return arr;
}
```

```
console.log(titleCaps(arr));
```

#### **IFFE function:**

```
var arr=["hi","hello","how","happy"]
(function (arr){
    for(let i=0;i<arr.length;i++){
        //converting string to array
        let str=arr[i].split("");
        //converting first letter of string to uppercase
        str[0]=str[0].toUpperCase();
        arr[i]=str.join("");
    }
    console.log(arr);
})(arr);
```

### **Q.3 Sum of all numbers in an array**

#### **Anonymous function:**

```
let arr=[1,2,3,5,64,9,8];
var arrSum =function (arr){
    let sum=0
    for(let i=0;i<arr.length;i++){
        sum+=arr[i];
    }
    return sum;
}
console.log(arrSum(arr));
```

#### **IFFE function:**

```
var arr=[1,2,3,4];
(function (arr){
    let sum=0;
    for(let i=0;i<arr.length;i++){
        sum+=arr[i];
    }
    console.log(sum);
})(arr);
```

### **Q.4.Return all the prime numbers in an array.**

#### **Anonymous function:**

```
let arr=[1,2,3,5,64,9,8];
var prime =function (num){
    if(num===1){
```

```

        return false;
    }
    for(let i=2;i<=Math.pow(num,0.5);i++){
        if(num%i===0){
            return false;
        }
    }
    return true;
}
for(let i=0;i<arr.length;i++){
    if(prime(arr[i])){
        console.log(arr[i])
    }
}

```

### IFFE function:

```

var arr=[1,2,3,5,64,9,8];
for(let i=0;i<arr.length;i++){
    if((function (num){
        if(num===1){
            return false;
        }
        for(let i=2;i<=Math.pow(num,0.5);i++){
            if(num%i===0){
                return false;
            }
        }
        return true;
    })(arr[i])){
        console.log(arr[i]);
    }
}

```

## Q.5 Return all the palindromes in an array.

### Anonymous function:

```

var arr=[1,2,3,5,64,9,8,"peep"];
var isPalindrome=function(item){
    item = String(item); //converting number into string
    for(let i=0;i<parseInt(item.length/2);i++){
        if(item[i]!==item[item.length-1-i]){
            return false;
        }
    }
    return true;
}
for (let i=0;i<arr.length;i++){
    if(isPalindrome(arr[i])){

```

```

        console.log(arr[i]);
    }
}
});

```

#### IFFE function:

```

var arr=[1,2,3,5,64,9,8,"peep"];

for (let i=0;i<arr.length;i++){
    if((function(item) {
        item = String(item);
        for(let i=0;i<+(item.length/2);i++){
            if(item[i]!=item[item.length-1-i]){
                return false;
            }
        }
        return true;
    })(arr[i])){
        console.log(arr[i]);
    }
}

```

### Q.6.Return median of two sorted arrays of same size

#### Anonymous function:

```

var numarr1=[1,2,3,4,5,6];
var numarr2=[7,8,9,10,11,12]

var median=function(arr1,arr2){
    let newarr=arr1.concat(arr2);
    let midIndex=parseInt(newarr.length/2);
    return(newarr[midIndex]+newarr[midIndex-1])/2;
}
console.log(median(numarr1,numarr2))

```

#### IFFE function:

```

var numarr1=[1,2,3,4,5,6];
var numarr2=[7,8,9,10,11,12];

(function (arr1,arr2){

    console.log((arr1[arr1.length-1]+arr2[0])/2);
})(numarr1,numarr2));

```

## Q.7.Remove duplicates from an array

### Anonymous function:

```
var arr=[1,2,3,4,5,6,1,5,6,2];

var removeDuplicate=function(arr){
  for(i=0;i<arr.length-1;i++){
    for(j=i;j<arr.length;j++){
      if(arr[i]==arr[j]){
        arr.pop(arr[j]);
      }
    }
  }
  return arr;
}
console.log(removeDuplicate(arr))
```

### IFFE function:

```
var arr=[1,2,3,4,5,6,1,5,6,2];
```

```
(function(arr){
  for(i=0;i<arr.length-1;i++){
    for(j=i;j<arr.length;j++){
      if(arr[i]==arr[j]){
        arr.pop(arr[j]);
      }
    }
  }
  console.log(arr);
})(arr);
```

## Q.8 Rotate an array by k times and return the rotated array.

### Anonymous function:

```
var arr=[1,2,3,4,5,6,7];
var shift=2;

var rotateArray=function(arr,shift){
  //assuming shift<length of array
  let str=arr.join("");
  str=str.slice(arr.length-shift,arr.length)+str.slice(0,arr.length-shift);

  return(str.split("").map(Number));
}
console.log(rotateArray(arr,shift));
```

**IFFE function:**

```
var arr=[1,2,3,4,5,6,7];  
var shift=2;
```

```
(function(arr,shift){  
  //assuming shift<length of array  
  let str=arr.join("");  
  str=str.slice(arr.length-shift,arr.length)+str.slice(0,arr.length-shift)  
  
  console.log(str.split("").map(Number));  
}(arr,shift));
```