Task-3

1. **Print odd numbers in an array in**

Anonymous code:

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

let oddarr = function(arr){
   return arr.filter((item) => (item%2) !== 0);
}
console.log(oddarr(arr));
```

IIFE code:

```
(function(arr){
   console.log(arr.filter((item) => (item%2) !== 0));
}) ([1,2,3,4,5,6,7,8,9]);
```

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

Anonymous code:

```
let arr = ["Nathaniel", "John", "Wesley"];

let uppercasearr = function(arr) {
      return arr.map(item=>item.toUpperCase()); };
console.log(uppercasearr(arr));
```

IIFE code:

```
(function uppercasearr(arr) {
     console.log(arr.map(item=>item.toUpperCase())) })

(["Nathaniel", "John", "Wesley"]);
```

3. Sum of all numbers in an array in

Anonymous Code:

```
let arr = [1,2,3,4,5,6,7,8,9];
let sum = function(arr){
return arr.reduce((acc,item)=>item+acc);
};
console.log(sum(arr));
```

IIFE Code:

```
(function(arr){
console.log(arr.reduce((acc,item)=>item+acc));
})([1,2,3,4,5,6,7,8,9]);
```

4. Return all the prime numbers in an array

Anonymous Code:

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

let getPrimes = function(arr) {
   return arr.filter((n) => {

   if(n<=1)
   {  return false;  }

   else if(n === 2)
   { return true;  }

   else if(n%2 === 0)
   { return false; }

   for(let i=3; i<= Math.sqrt(n); i++)
   {
      if(n%i ===0)
      return false;
   }
   return true;
```

```
    })
}
console.log(getPrimes(arr));
```

IIFE Code:

```
(function getPrimes(arr) {
    console.log(arr.filter((n) => {
        if(n<=1)
    {  return false;  }

    else if(n === 2)
    { return true;  }

    else if(n%2 === 0)
    { return false; }

    for(let i=3; i<= Math.sqrt(n); i++)
    {
        if(n%i ===0)
        return false;
    }
    return true;

    }));
})([1,2,3,4,5,6,7,8,9]);
```

5. Return all the palindromes in an array

Anonymous Code:

```
let arr = ["02022020","madam","asdfgh"];
let getPalindromes = function (arr) {
    return arr.filter((str) => {

    return str.split("").reverse().join("") === str;
    })
}
console.log(getPalindromes(arr));
```

IIFE Code:

```
(function getPalindromes(arr) {
   console.log(arr.filter((str) => {

   return str.split("").reverse().join("") === str;
   })
)})
(["02022020","madam","asdfgh"]);
```

6. Return median of two sorted arrays of same size

Anonymous Code:

```
let arr1 = [1,2,3,4];
let arr2 = [9,8,7,6];

let median = function(arr1,arr2)
{

   var arr;
   arr=arr1+","+arr2;
   arr=arr.split(",");
   arr=arr.sort((arr,b)=>arr-b);

   len=arr.length/2;
   median= ((+arr[len-1]) +  (+arr[len]))/2;
   console.log(median);

};
median(arr1,arr2);
```

IIFE Code:

```
(function (arr1,arr2) {
   var arr;
   arr=arr1+","+arr2;
   arr=arr.split(",")
   arr=arr.sort((arr,b)=>arr-b);
   len=arr.length/2;
   med=((+arr[len-1]) +  (+arr[len]))/2;
```

```
    console.log(med);
})([1,2,3,4],[9,8,7,6]);
```

7. Remove duplicates from an array

Anonymous Code:

```
let arr = [1,2,4,3,8,3,2,1,3,4];

let duplicate = arr.filter((num,index)=>arr.indexOf(num)===index);

console.log(duplicate);
```

IIFE Code:

```
(function duplicate(arr) {

    console.log(arr.filter((num,index) => arr.indexOf(num) ===index));

})([1,2,4,3,8,3,2,1,3,4]);
```

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

Anonymous Code:

```
let arr = [1,2,4,3,8,3,2,1];
let n=4;
let rotatearray = function(arr,n)
{
    for (let i = 1; i <= n; i++)
    {
        let elem = arr.shift();
        arr.push(elem);
    }
    return arr;
};
console.log(rotatearray(arr,n));
```

IIFE Code:

```
( function(arr,n)
{
   for (let i = 1; i <= n; i++)
   {
      let elem = arr.shift();
      arr.push(elem);
   }
   console.log (arr) ;
}) ( [1,2,4,3,8,3,2,1,3,4], 4)
```

THE END