Day 4:

1.Anonymous Function:

a.Print odd numbers in an array

```
//Print odd numbers in an array

let oddeven=function (number){
    let odd=[];

    for(let i=0;i<number.length;i++){
            if(number[i]%2!==0){
                odd.push(number[i]);
            }
    }
    return odd
}
n=[1,2,3,4,5,6,7,8]
console.log(oddeven(n));

//IIFE:
((n)=>{
        let odd=[];

    for(let i=0;i<number.length;i++){
            if(number[i]%2!==0){

                odd.push(number[i]);
            }
    }
    console.log(odd);

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

Output:

```
// b.Convert all the strings to title caps in a string array

let capitalize=function (str){
    let capital_str=[];
    for(let i=0;i<str.length;i++){
        capital_str[i]=str[i].charAt(0).toUpperCase()+str[i].slice(1);
    }

console.log(capital_str);

}

let str=['android','browser','connection','data','Ethernet'];

capitalize(str);
```

```
//IIFE:
((str)=>{
    let capital_str=[];
    for(let i=0;i<str.length;i++){
        capital_str[i]=str[i].charAt(0).toUpperCase()+str[i].slice(1);
    }

console.log(capital_str);

})(['android','browser','connection','data','Ethernet']);
```

Output:

```
// b.Convert all the strings to title caps in a string array

let capitalize=function (str){
    let capital_str=[];
    for(let i=0;i<str.length;i++){
        capital_str[i]=str[i].charAt(0).toUpperCase()+str[i].slice(1);
    }

console.log(capital_str);

}

let str=['android','browser','connection','data','Ethernet'];

capitalize(str);
```

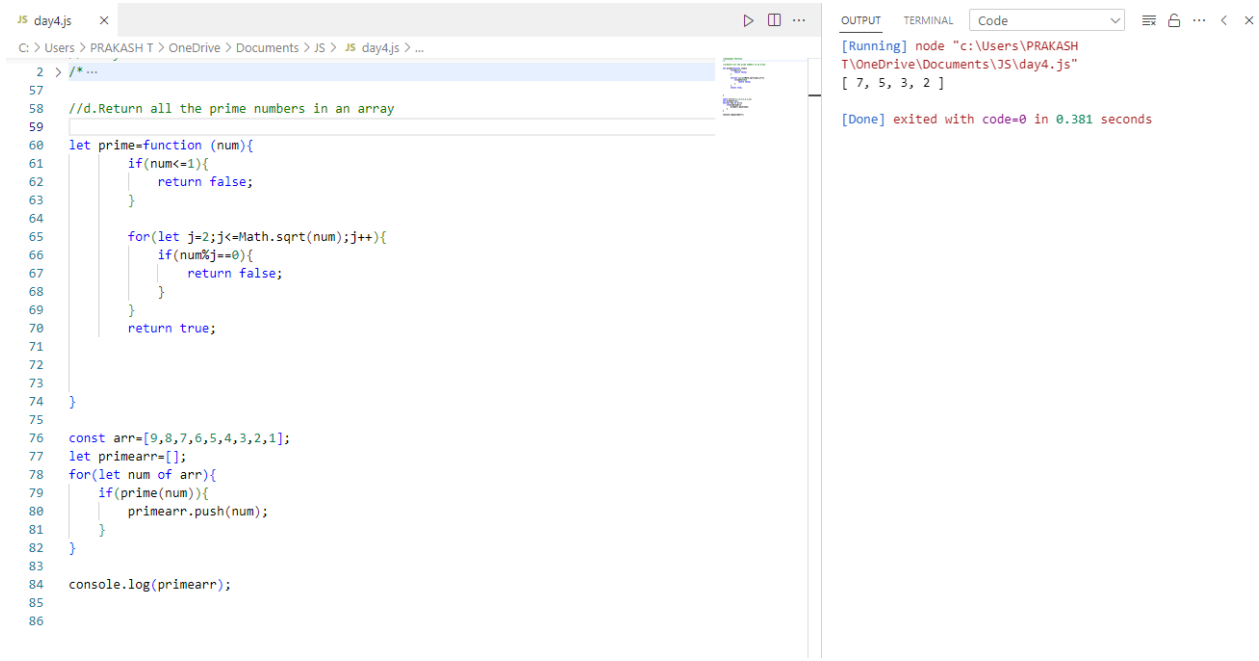
```
OUTPUT  TERMINAL                                                    Code
[Running] node "c:\Users\PRAKASH T\OneDrive\Documents\JS\day4.js"
[ 'Android', 'Browser', 'Connection', 'Data', 'Ethernet' ]

[Done] exited with code=0 in 0.656 seconds
```

```
//c.Sum of all numbers in an array

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


let arr=[6,5,4,3,2,1]

sum(arr)

//IIFE:

((arr)=>{
    let total=0;
    for(let i=0;i<arr.length;i++){
        total=total+arr[i];
    }
    console.log(total);
})([6,5,4,3,2,1]);
```

```
//d.Return all the prime numbers in an array

let prime=function (num){
        if(num<=1){
            return false;
        }

        for(let j=2;j<=Math.sqrt(num);j++){
            if(num%j==0){
                return false;
            }
        }
        return true;
    }

const arr=[9,8,7,6,5,4,3,2,1];
let primearr=[];
for(let num of arr){
    if(prime(num)){
        primearr.push(num);
    }
}
console.log(primearr);

IIFE:

((arr)=>{
    function isprime(num){
        if(num<=1){
            return false;
        }

        for(let j=2;j<=Math.sqrt(num);j++){
            if(num%j==0){
                return false;
            }
        }
        return true;
    }
    let primearr=[];
```

```
    for(let num of arr){
        if(isprime(num)){
            primearr.push(num);
        }
    }
    console.log(primearr);
})([9,8,7,6,5,4,3,2,1]);
```

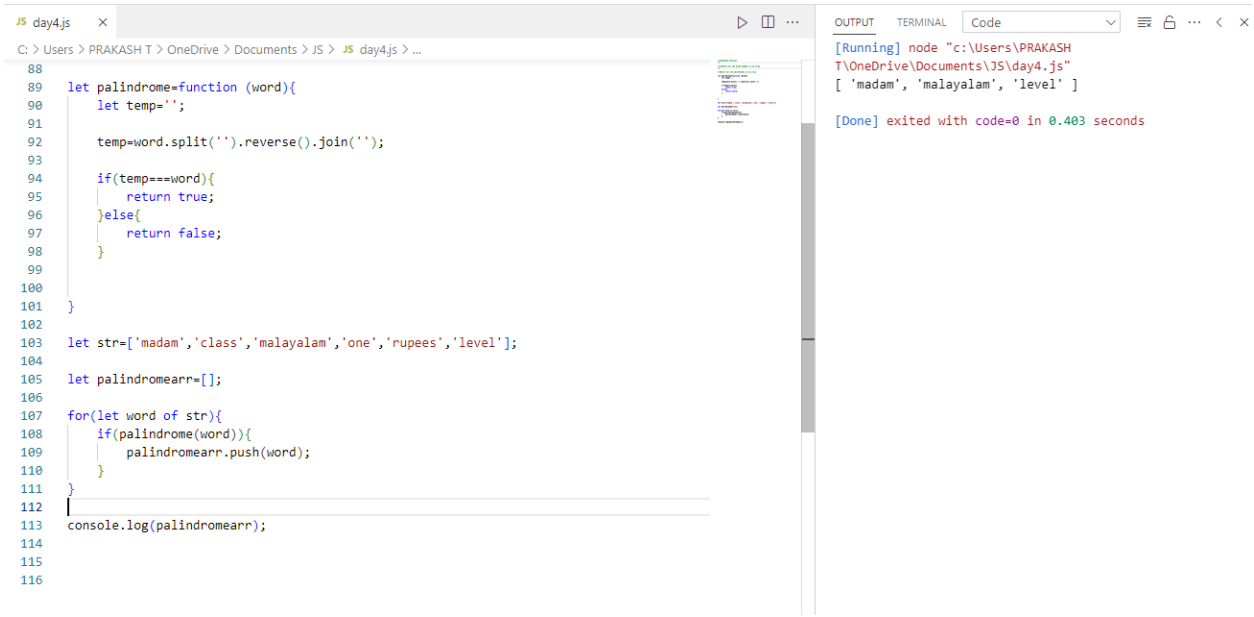
OUTPUT:




```
//e.Return all the palindromes in an array

let palindrome=function (word){
    let temp='';

    temp=word.split('').reverse().join('');

    if(temp===word){
        return true;
    }else{
        return false;
    }
}
```

```
let str=['madam','class','malayalam','one','rupees','level'];

let palindromearr=[];

for(let word of str){
    if(palindrome(word)){
        palindromearr.push(word);
    }
}
console.log(palindromearr);
IIFE:
((wordarr)=>{
    function ispalindrome(word){
    let temp='';

    temp=word.split('').reverse().join('');

    if(temp===word){
        return true;
    }else{
        return false;
    }
}
let palindromearr=[];
for(let word of wordarr){
    if(ispalindrome(word)){
        palindromearr.push(word);
    }
}
console.log(palindromearr);
})(['madam','class','malayalam','one','rupees','level']);
```

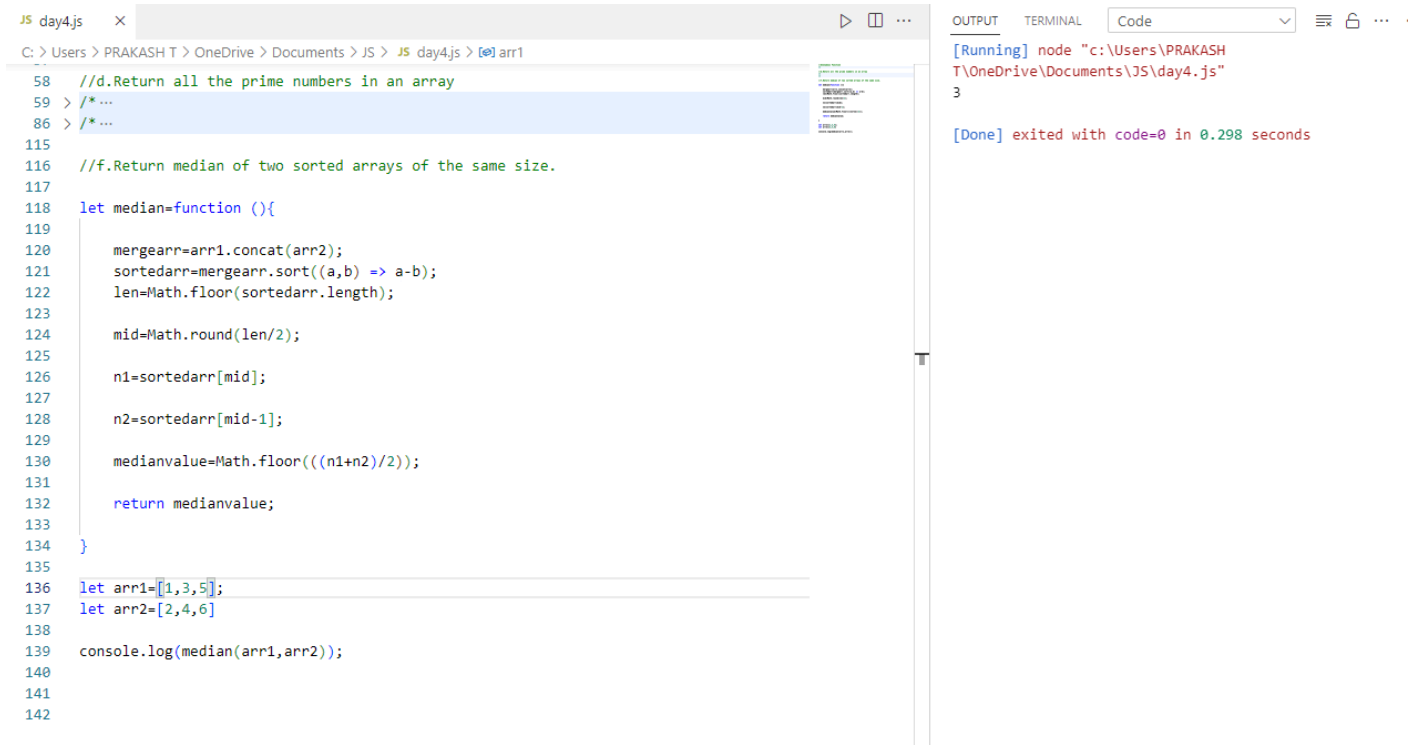
output:



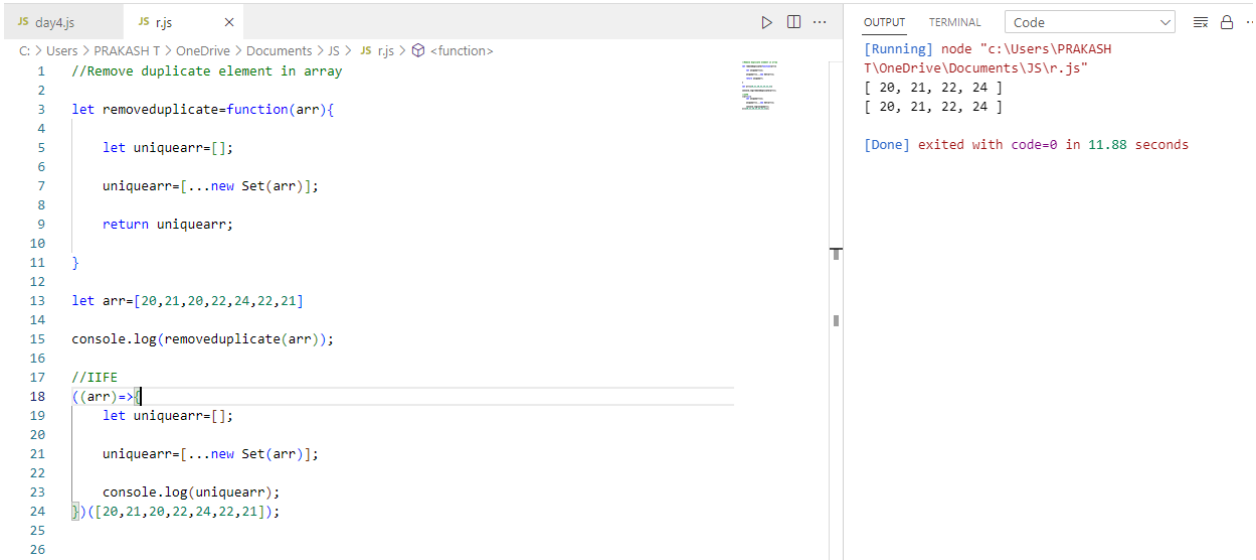

```
//f.Return median of two sorted arrays of the same size.

let median=function (arr1,arr2){

    mergearr=arr1.concat(arr2);
    sortedarr=mergearr.sort((a,b) => a-b);
    len=Math.floor(sortedarr.length);

    mid=Math.round(len/2);

    n1=sortedarr[mid];

    n2=sortedarr[mid-1];

    medianvalue=Math.floor(((n1+n2)/2));

    console.log(medianvalue);

}

let arr1=[1,3,5];
let arr2=[2,4,6]
```

```
median(arr1,arr2);

//IIFE:
((arr1,arr2)=>{

    mergearr=arr1.concat(arr2);
    sortedarr=mergearr.sort((a,b) => a-b);
    len=Math.floor(sortedarr.length);

    mid=Math.round(len/2);
    n1=sortedarr[mid];
    n2=sortedarr[mid-1];

    medianvalue=Math.floor(((n1+n2)/2));
    console.log(medianvalue);

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

Output:



```
//g.Remove duplicate element in array

let removeduplicate=function(arr){

    let uniquearr=[];

    uniquearr=[...new Set(arr)];

    return uniquearr;

}

let arr=[20,21,20,22,24,22,21]

console.log(removeduplicate(arr));

//IIFE
((arr)=>{
    let uniquearr=[];

    uniquearr=[...new Set(arr)];

    console.log(uniquearr);
})([20,21,20,22,24,22,21]);
```



```
//h.Rotate an array by k times
let rotatearr=function (arr, k) {
    for (let i = 0; i < k; i++) {
        let temp = arr.shift();
        arr.push(temp);
    }
    return arr;
}

let array = [1, 2, 3, 4, 5];
let k = 2;
let rotatedArray = rotatearr(array, k);
console.log(rotatedArray);
//IIFE
((arr,k)=>{
    for (let i = 0; i < k; i++) {
        let temp = arr.shift();
        arr.push(temp);
    }
    console.log(arr);
})(array);
```

Output: