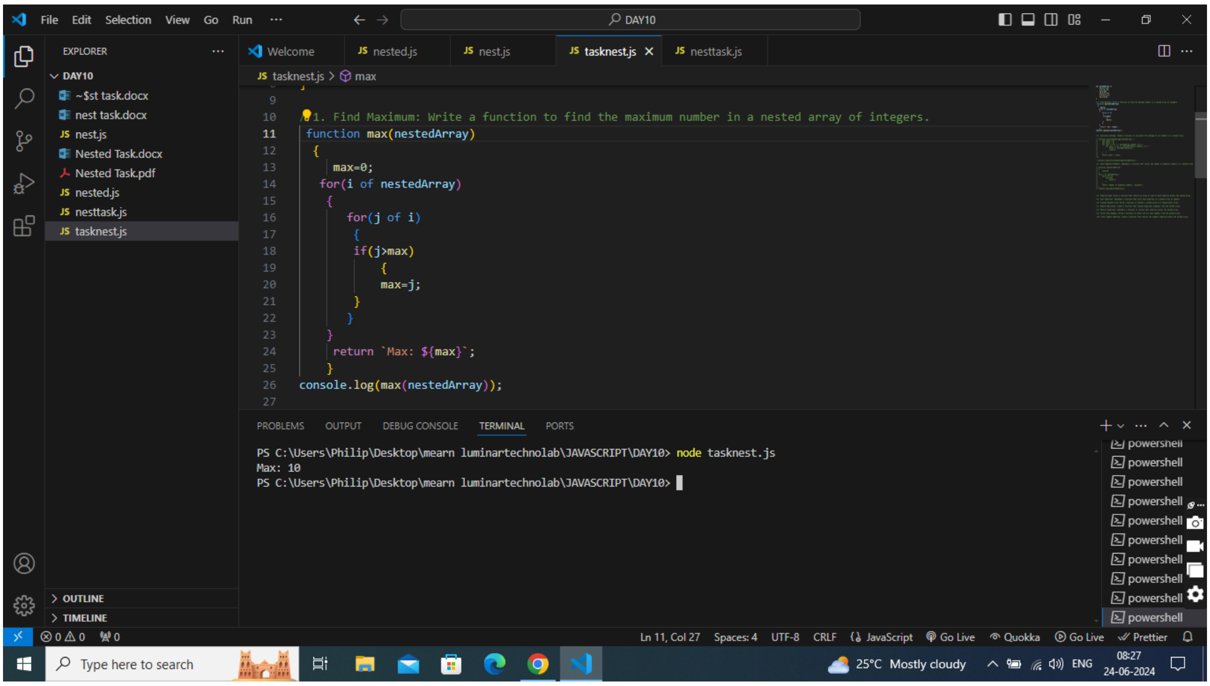
TASK2

```
var nestedArray =[
    [5,6,7,-2],
    [-5,-6,-7],
    [8,9,10],
    [3,5,2,1,4],
    [-3,5,2,1,],
    [4,2,6,8],
]
```

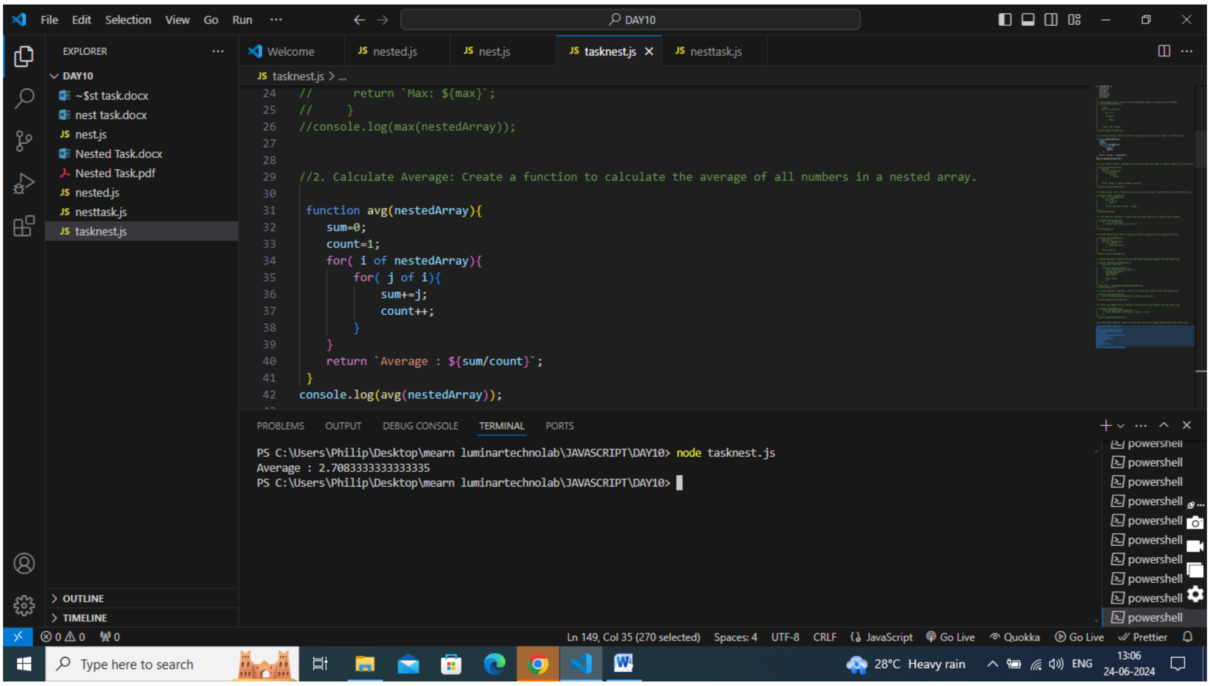
//1. Find Maximum: Write a function to find the maximum number in a nested array of integers.



```
//1. Find Maximum: Write a function to find the maximum number in a nested array of integers.
 function max(nestedArray)
  {
     max=0;
    for(i of nestedArray)
     {
       for(j of i)
        {
        if(j>max)
            {
            max=j;
        }
       }
     }
     return `Max: ${max}`;
     }
console.log(max(nestedArray));
```

```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
Max: 10
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

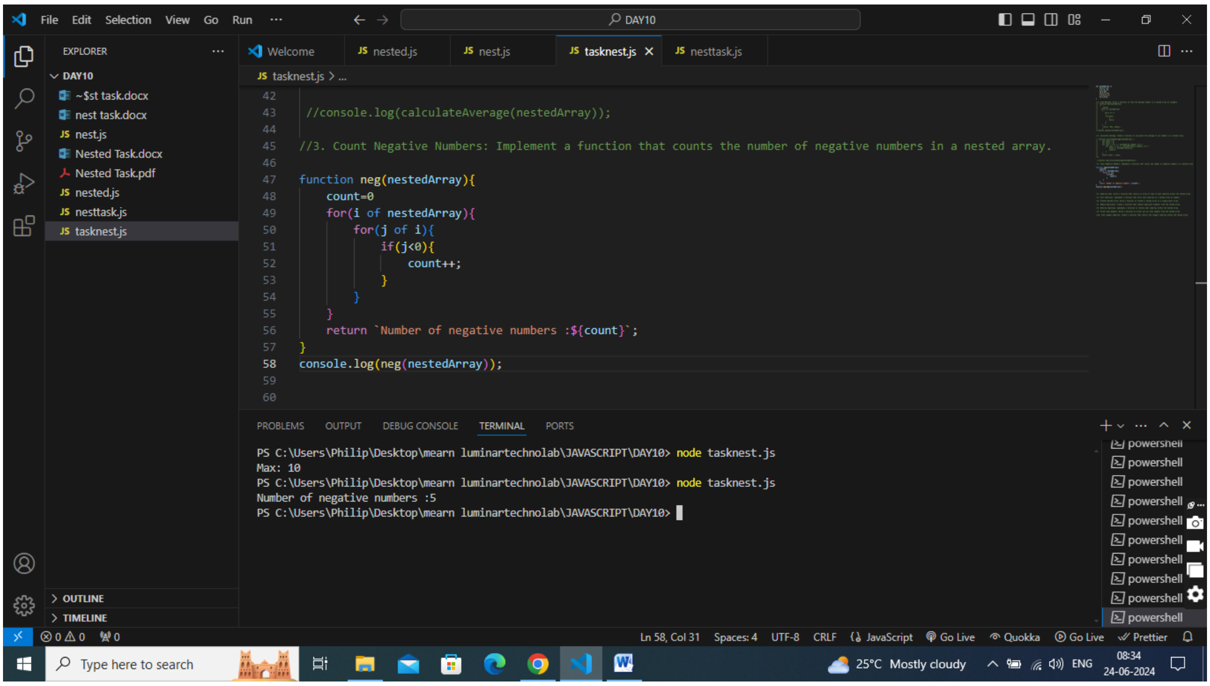
//2. Calculate Average: Create a function to calculate the average of all numbers in a nested array.



```
//      return `Max: ${max}`;
//     }
//console.log(max(nestedArray));


//2. Calculate Average: Create a function to calculate the average of all numbers in a nested array.

 function avg(nestedArray){
    sum=0;
    count=1;
    for( i of nestedArray){
        for( j of i){
            sum+=j;
            count++;
        }
    }
    return `Average : ${sum/count}`;
 }
console.log(avg(nestedArray));
```

```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
Average : 2.7083333333333335
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

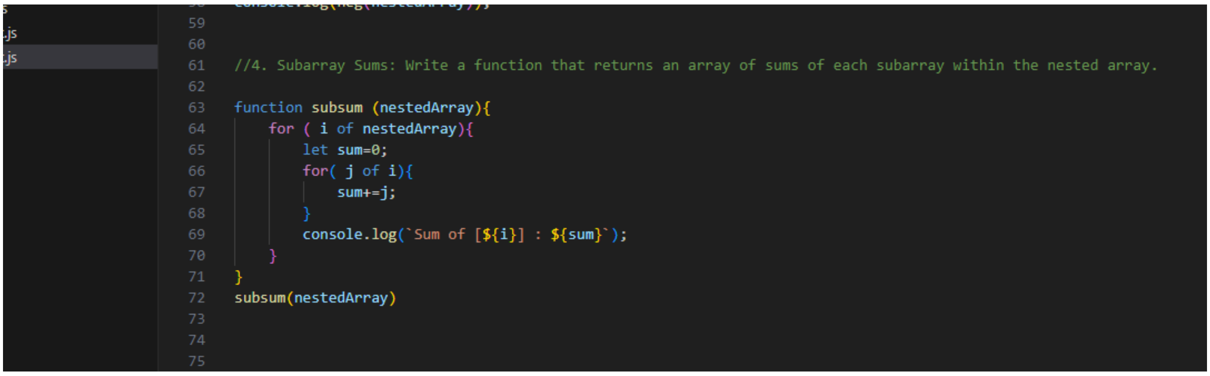
//3. Count Negative Numbers: Implement a function that counts the number of negative numbers in a nested array.



```

 //console.log(calculateAverage(nestedArray));

//3. Count Negative Numbers: Implement a function that counts the number of negative numbers in a nested array.

function neg(nestedArray){
    count=0
    for(i of nestedArray){
        for(j of i){
            if(j<0){
                count++;
            }
        }
    }
    return `Number of negative numbers :${count}`;
}
console.log(neg(nestedArray));
```

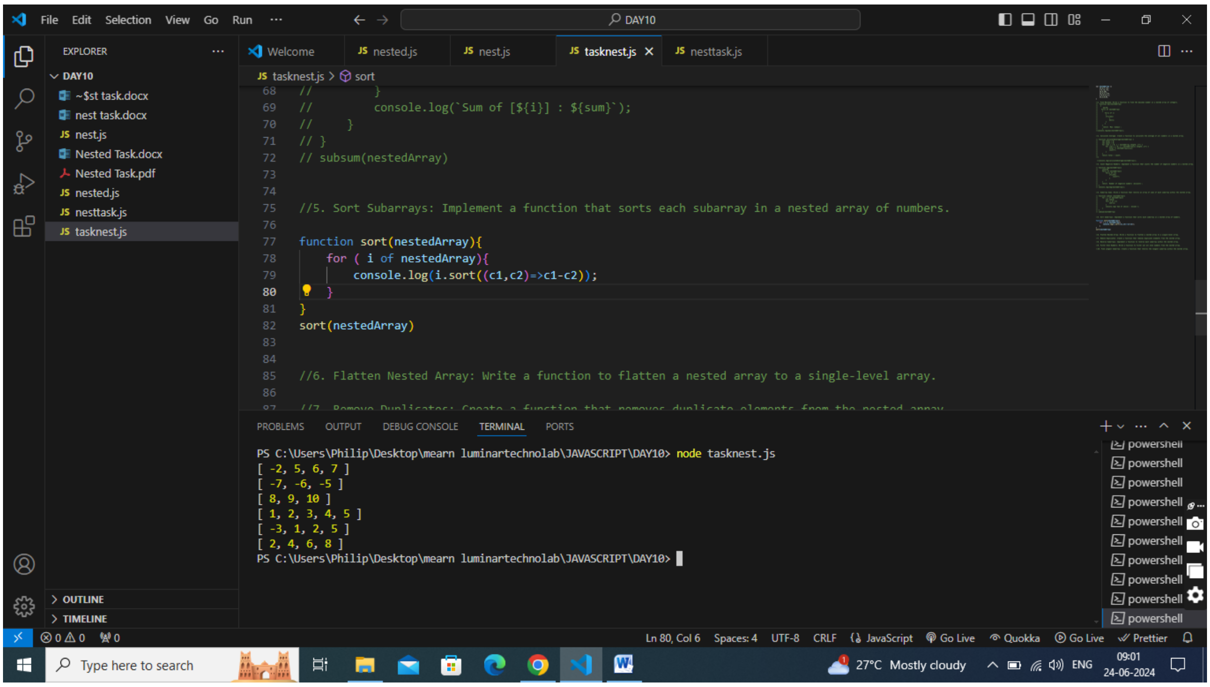
```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
Max: 10
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
Number of negative numbers :5
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

//4. Subarray Sums: Write a function that returns an array of sums of each subarray within the nested array.



```
console.log(neg(nestedArray));


//4. Subarray Sums: Write a function that returns an array of sums of each subarray within the nested array.

function subsum (nestedArray){
    for ( i of nestedArray){
        let sum=0;
        for( j of i){
            sum+=j;
        }
        console.log(`Sum of [${i}] : ${sum}`);
    }
}
subsum(nestedArray)
```

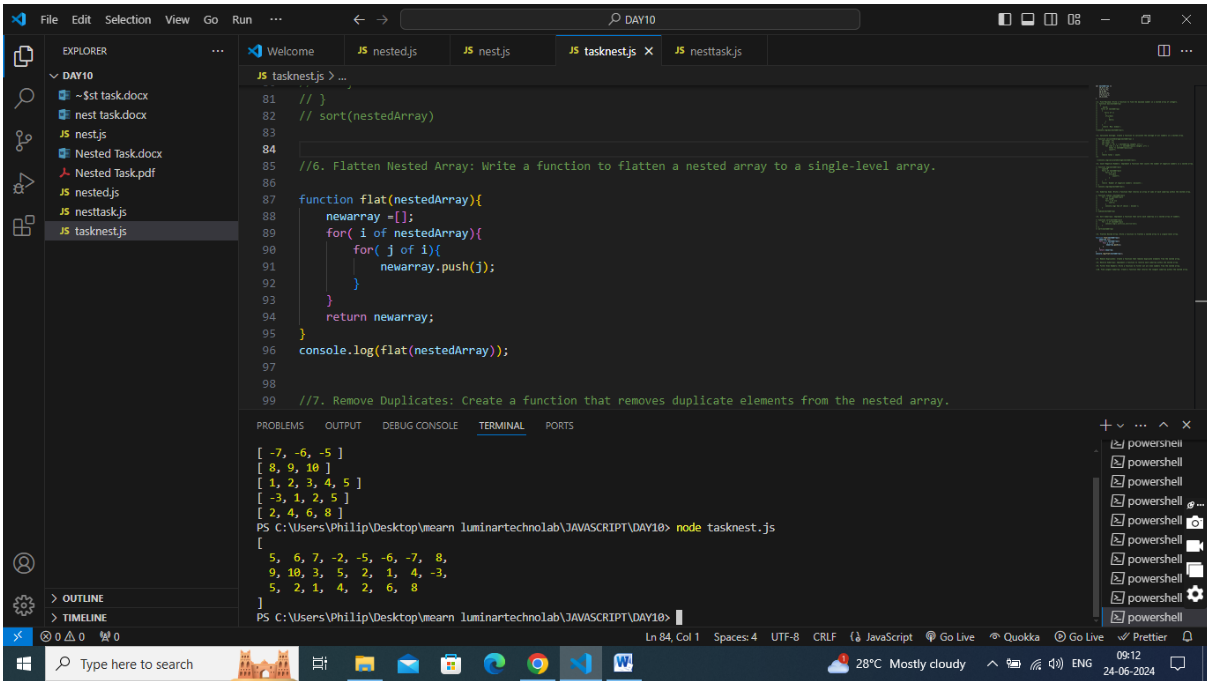
//5. Sort Subarrays: Implement a function that sorts each subarray in a nested array of numbers.



```
//            }
//            console.log(`Sum of [${i}] : ${sum}`);
//        }
// }
// subsum(nestedArray)


//5. Sort Subarrays: Implement a function that sorts each subarray in a nested array of numbers.

function sort(nestedArray){
    for ( i of nestedArray){
        console.log(i.sort((c1,c2)=>c1-c2));
    }
}
sort(nestedArray)


//6. Flatten Nested Array: Write a function to flatten a nested array to a single-level array.

//7. Remove Duplicates: Create a function that removes duplicate elements from the nested array.
```

```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
[ -2, 5, 6, 7 ]
[ -7, -6, -5 ]
[ 8, 9, 10 ]
[ 1, 2, 3, 4, 5 ]
[ -3, 1, 2, 5 ]
[ 2, 4, 6, 8 ]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

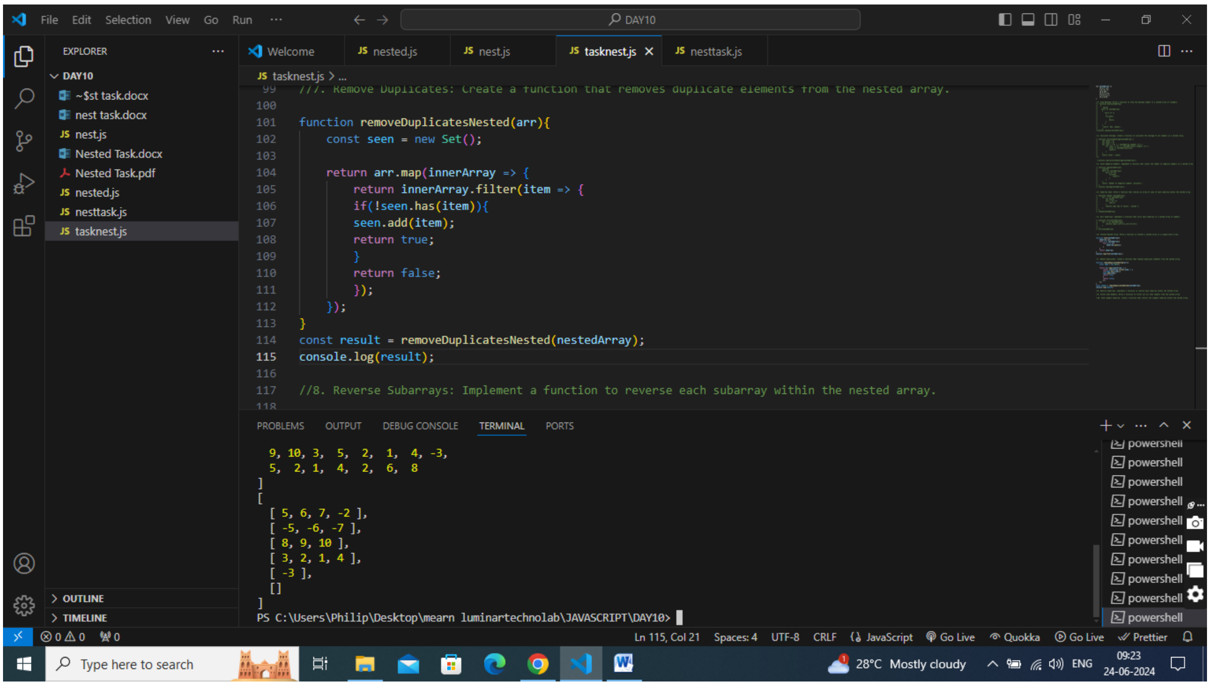
//6. Flatten Nested Array: Write a function to flatten a nested array to a single-level array.



```
// }
// sort(nestedArray)


//6. Flatten Nested Array: Write a function to flatten a nested array to a single-level array.

function flat(nestedArray){
    newarray =[];
    for( i of nestedArray){
        for( j of i){
            newarray.push(j);
        }
    }
    return newarray;
}
console.log(flat(nestedArray));


//7. Remove Duplicates: Create a function that removes duplicate elements from the nested array.
```

```
[ -7, -6, -5 ]
[ 8, 9, 10 ]
[ 1, 2, 3, 4, 5 ]
[ -3, 1, 2, 5 ]
[ 2, 4, 6, 8 ]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
[
   5,  6, 7, -2, -5, -6, -7,  8,
   9, 10, 3,  5,  2,  1,  4, -3,
   5,  2, 1,  4,  2,  6,  8
]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

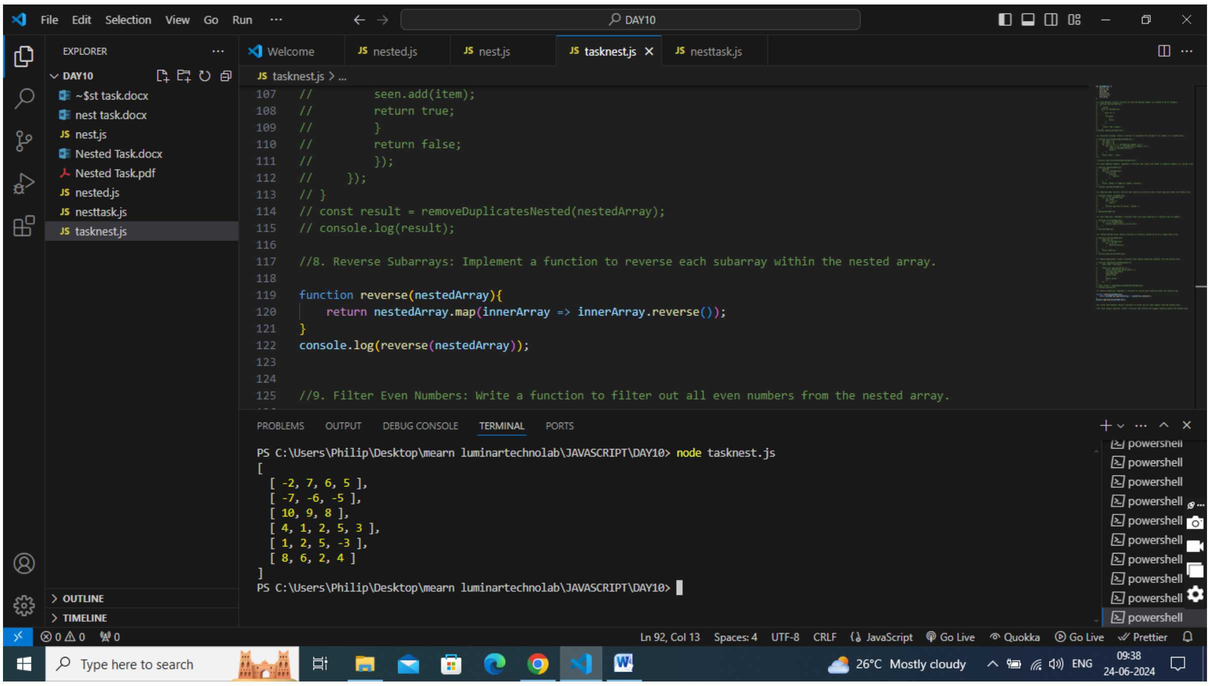
//7. Remove Duplicates: Create a function that removes duplicate elements from the nested array.



```
//7. Remove Duplicates: Create a function that removes duplicate elements from the nested array.

function removeDuplicatesNested(arr){
    const seen = new Set();

    return arr.map(innerArray => {
        return innerArray.filter(item => {
        if(!seen.has(item)){
        seen.add(item);
        return true;
        }
        return false;
        });
    });
}
const result = removeDuplicatesNested(nestedArray);
console.log(result);

//8. Reverse Subarrays: Implement a function to reverse each subarray within the nested array.
```

```
   9, 10, 3,  5,  2,  1,  4, -3,
   5,  2, 1,  4,  2,  6,  8
]
[
  [ 5, 6, 7, -2 ],
  [ -5, -6, -7 ],
  [ 8, 9, 10 ],
  [ 3, 2, 1, 4 ],
  [ -3 ],
  []
]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

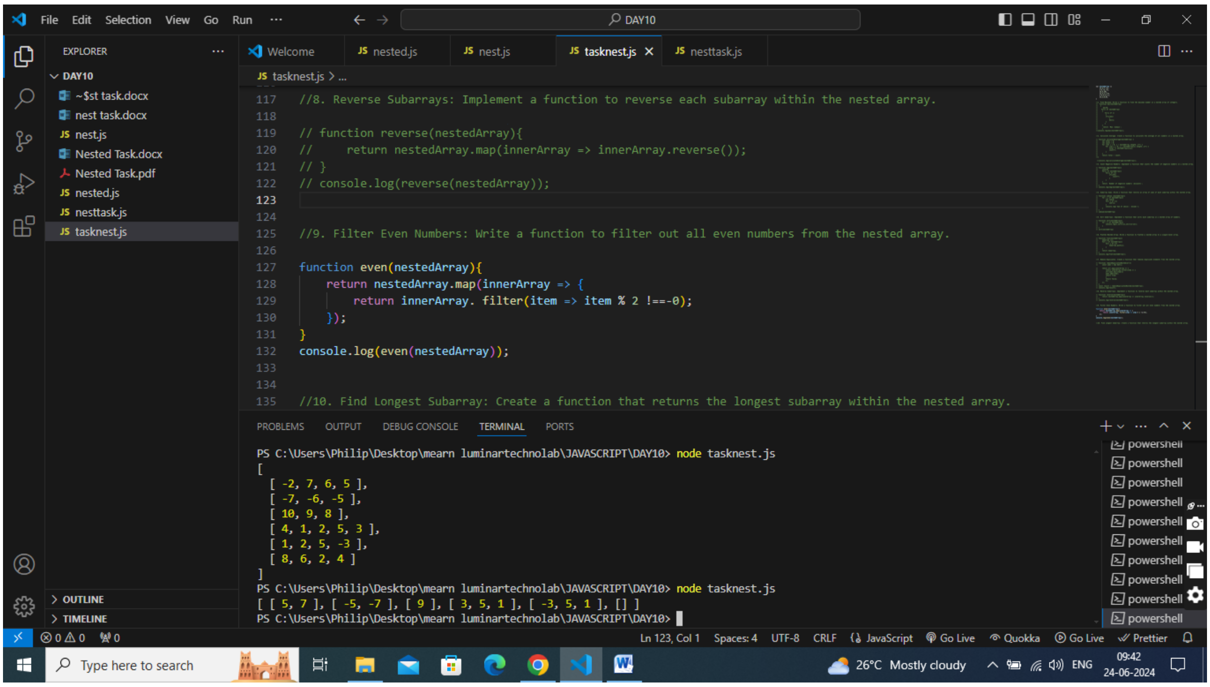
//8. Reverse Subarrays: Implement a function to reverse each subarray within the nested array.



```javascript
//          seen.add(item);
//          return true;
//          }
//          return false;
//          });
//      });
// }
// const result = removeDuplicatesNested(nestedArray);
// console.log(result);

//8. Reverse Subarrays: Implement a function to reverse each subarray within the nested array.

function reverse(nestedArray){
    return nestedArray.map(innerArray => innerArray.reverse());
}
console.log(reverse(nestedArray));


//9. Filter Even Numbers: Write a function to filter out all even numbers from the nested array.
```

```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
[
  [ -2, 7, 6, 5 ],
  [ -7, -6, -5 ],
  [ 10, 9, 8 ],
  [ 4, 1, 2, 5, 3 ],
  [ 1, 2, 5, -3 ],
  [ 8, 6, 2, 4 ]
]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

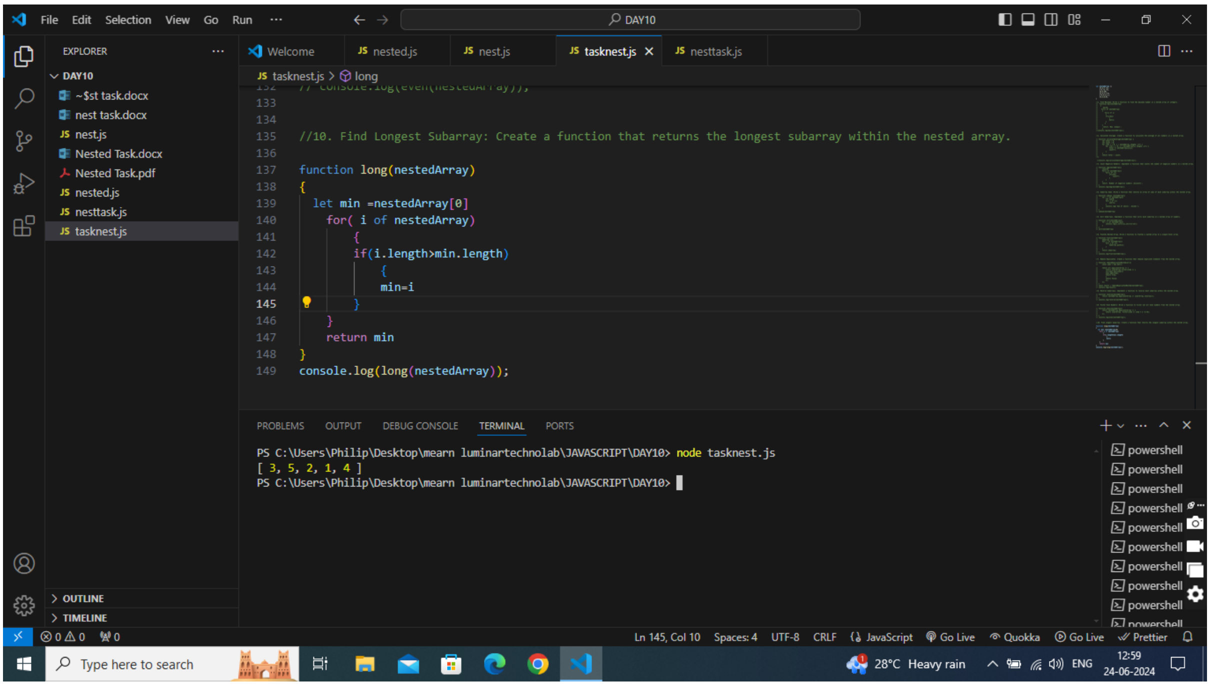
//9. Filter Even Numbers: Write a function to filter out all even numbers from the nested array.



```javascript
//8. Reverse Subarrays: Implement a function to reverse each subarray within the nested array.

// function reverse(nestedArray){
//     return nestedArray.map(innerArray => innerArray.reverse());
// }
// console.log(reverse(nestedArray));


//9. Filter Even Numbers: Write a function to filter out all even numbers from the nested array.

function even(nestedArray){
    return nestedArray.map(innerArray => {
        return innerArray. filter(item => item % 2 !==-0);
    });
}
console.log(even(nestedArray));


//10. Find Longest Subarray: Create a function that returns the longest subarray within the nested array.
```

```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
[
  [ -2, 7, 6, 5 ],
  [ -7, -6, -5 ],
  [ 10, 9, 8 ],
  [ 4, 1, 2, 5, 3 ],
  [ 1, 2, 5, -3 ],
  [ 8, 6, 2, 4 ]
]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
[ [ 5, 7 ], [ -5, -7 ], [ 9 ], [ 3, 5, 1 ], [ -3, 5, 1 ], [] ]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10>
```

//10. Find Longest Subarray: Create a function that returns the longest subarray within the nested array.



```javascript
// console.log(even(nestedArray));


//10. Find Longest Subarray: Create a function that returns the longest subarray within the nested array.

function long(nestedArray)
{
  let min =nestedArray[0]
    for( i of nestedArray)
        {
        if(i.length>min.length)
            {
            min=i
        }
    }
    return min
}
console.log(long(nestedArray));
```

```
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> node tasknest.js
[ 3, 5, 2, 1, 4 ]
PS C:\Users\Philip\Desktop\mearn luminartechnolab\JAVASCRIPT\DAY10> 
```