1)Sum of Digits


```java
package Day7;

import java.util.Scanner;

public class SumofDigit {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int sum = 0;
        while (n>0) {
            int rem = n%10;
            sum = sum +rem;
            n = n/10;

        }
        System.out.println(sum);
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac SumofDigit.java
PS E:\JAVATRAINING\Day7> java SumofDigit.java
1234
10
PS E:\JAVATRAINING\Day7>
```
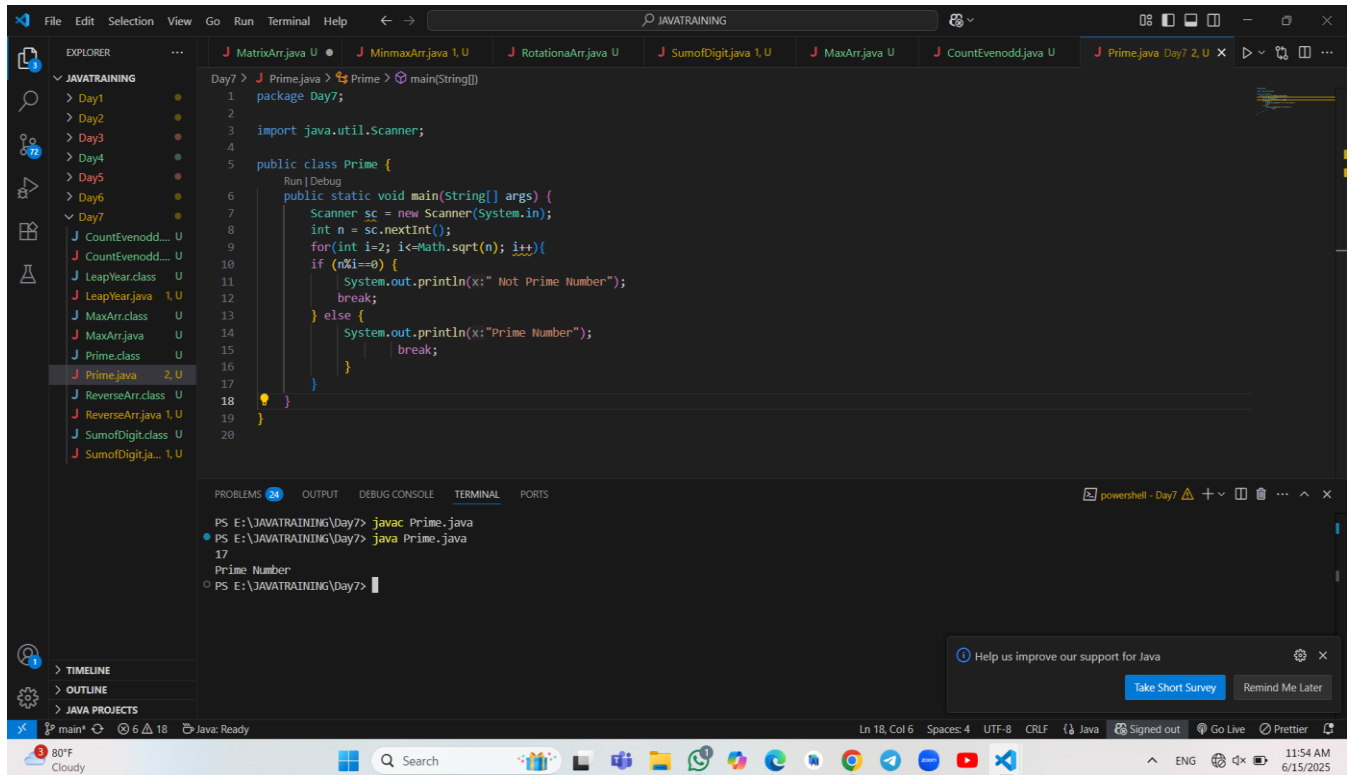
2) Find Maximum in an Array


```java
package Day7;

public class MaxArr {
    public static void main(String[] args) {
        int arr[] = {3,5,2,9,7};
        int max = -1;
        for(int i=0; i<arr.length; i++){
            if (arr[i]>max) {
                max = arr[i];
            }
        }
        System.out.println("Maximum num in array "+max);
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac MaxArr.java
PS E:\JAVATRAINING\Day7> java MaxArr.java
9
PS E:\JAVATRAINING\Day7> javac MaxArr.java
PS E:\JAVATRAINING\Day7> java MaxArr.java
Maximum numin array 9
PS E:\JAVATRAINING\Day7> javac MaxArr.java
PS E:\JAVATRAINING\Day7> java MaxArr.java
Maximum num in array 9
PS E:\JAVATRAINING\Day7>
```
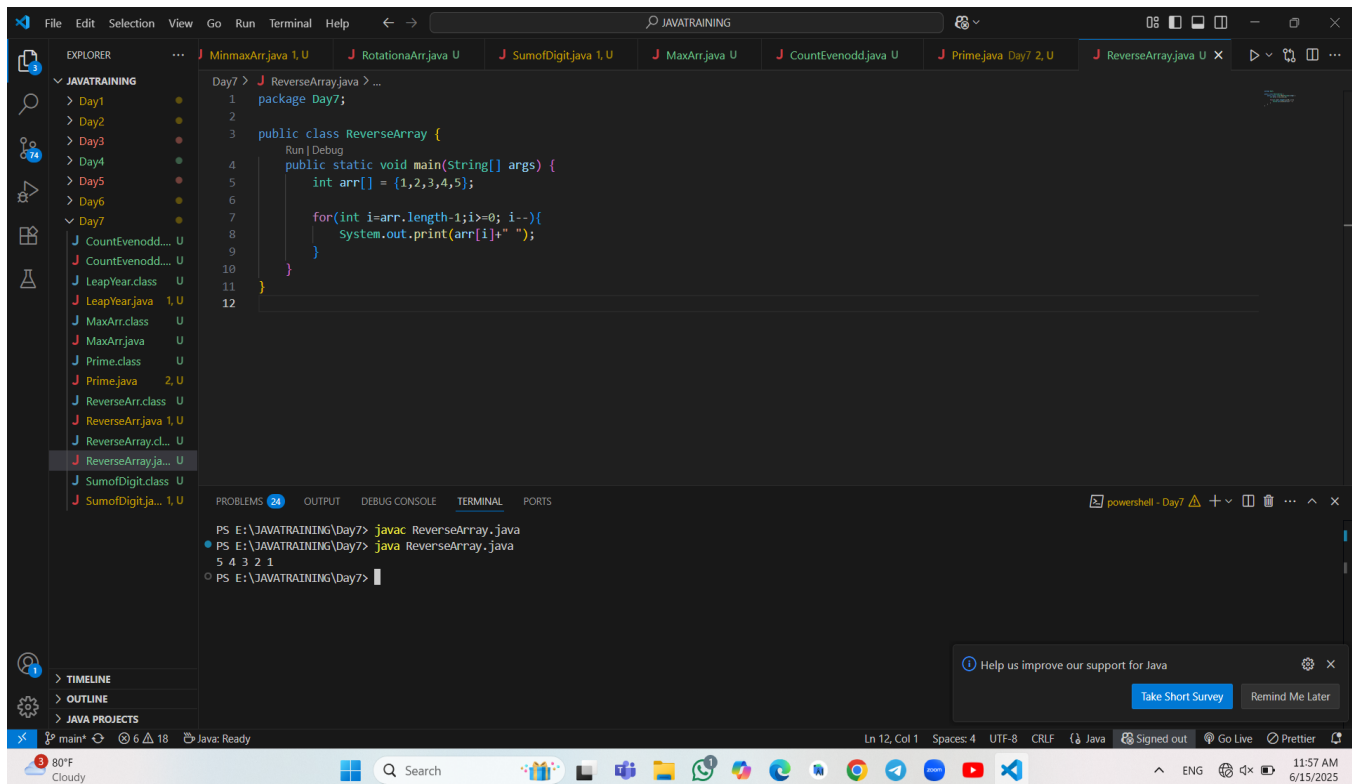
3) Check Prime Number

```java
package Day7;

import java.util.Scanner;

public class Prime {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        for(int i=2; i<=Math.sqrt(n); i++){
            if (n%i==0) {
                System.out.println(x:" Not Prime Number");
                break;
            } else {
                System.out.println(x:"Prime Number");
                break;
            }
        }
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac Prime.java
PS E:\JAVATRAINING\Day7> java Prime.java
17
Prime Number
PS E:\JAVATRAINING\Day7>
```

4) Reverse an Array

```java
package Day7;

public class ReverseArray {
    public static void main(String[] args) {
        int arr[] = {1,2,3,4,5};

        for(int i=arr.length-1;i>=0; i--){
            System.out.print(arr[i]+" ");
        }
    }
}
```
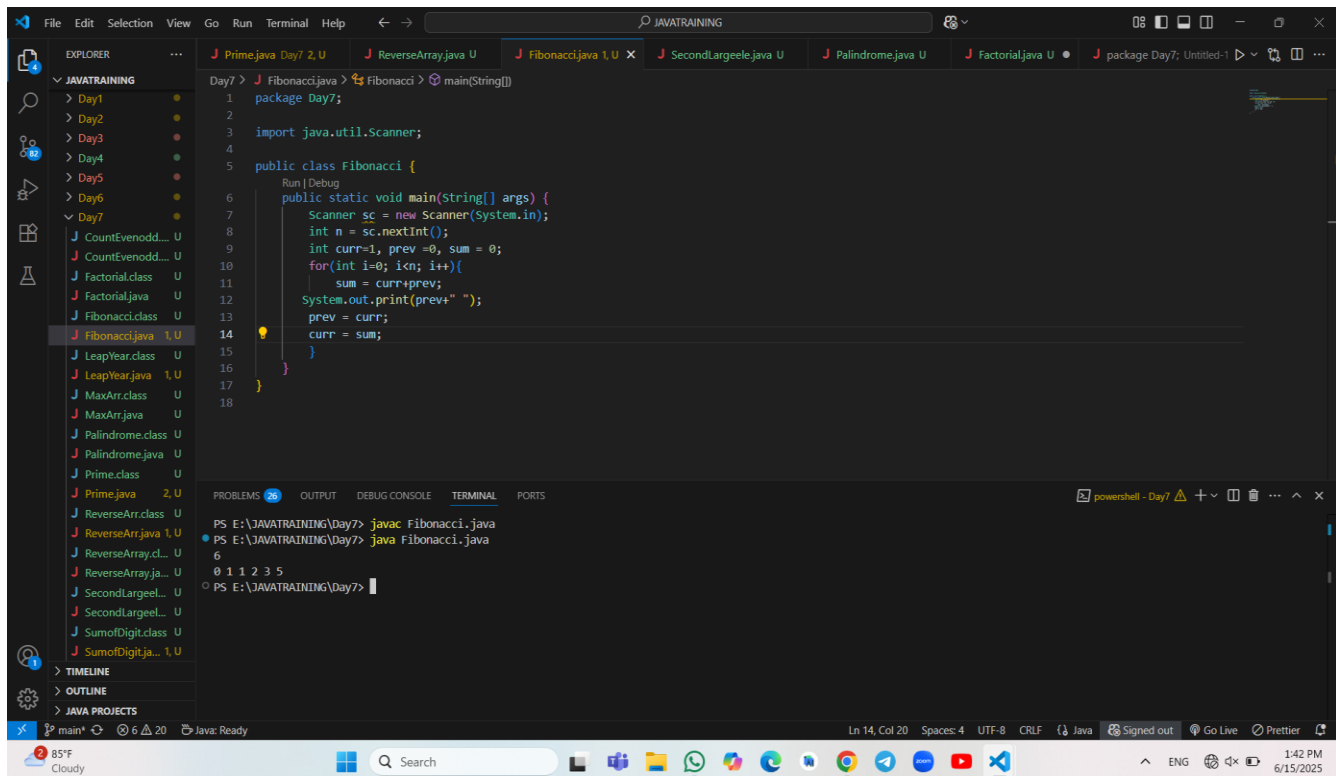
```
PS E:\JAVATRAINING\Day7> javac ReverseArray.java
PS E:\JAVATRAINING\Day7> java ReverseArray.java
5 4 3 2 1
PS E:\JAVATRAINING\Day7>
```

5) Count Even and Odd Numbers
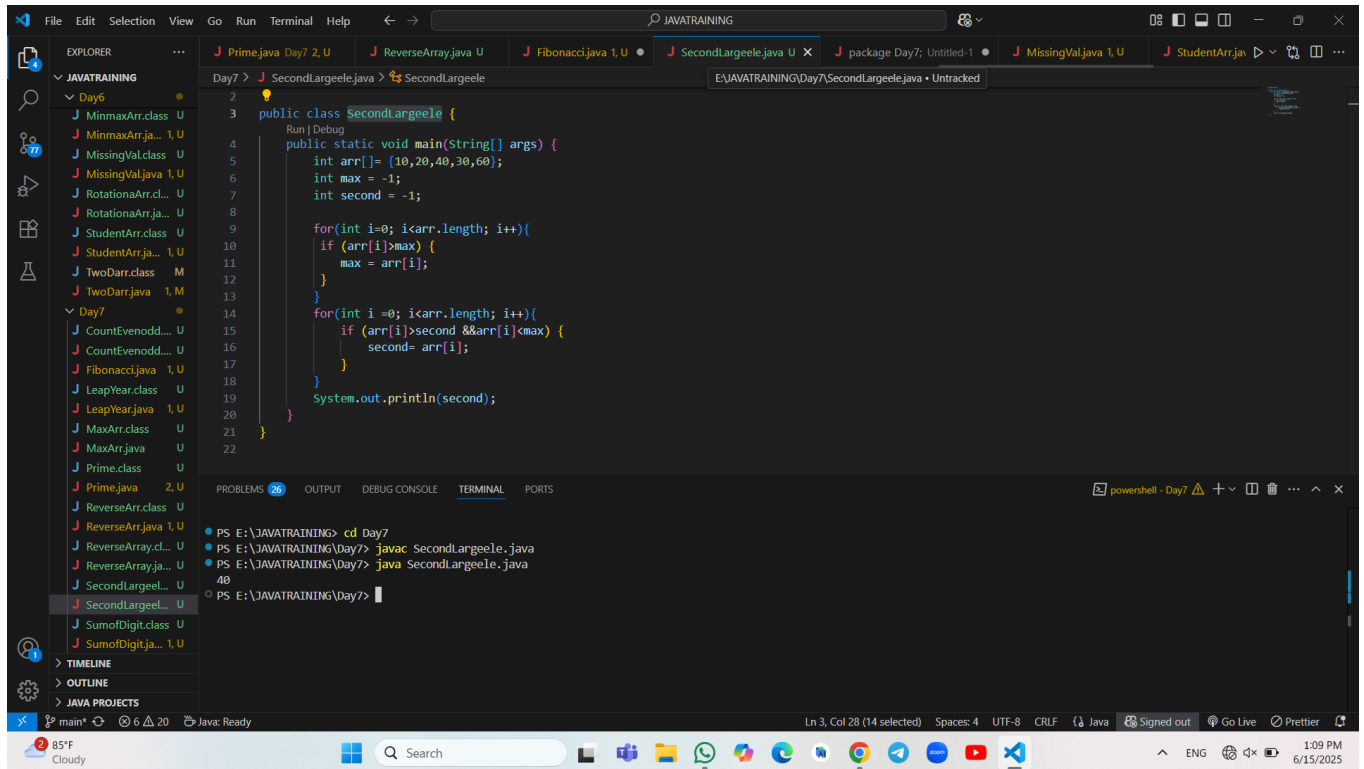

```java
package Day7;

public class CountEvenodd {
    public static void main(String[] args) {
        int arr[] = {4,2,7,9,6};
        int even=0,odd = 0;

        for(int i=0; i<arr.length; i++){
            if (arr[i]%2==0) {
                even++;
            }else{
                odd++;
            }
        }
        System.out.println("Even: "+even+" Odd: "+odd);
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac CountEvenodd.java
PS E:\JAVATRAINING\Day7> java CountEvenodd.java
Even: 3 Odd: 2
PS E:\JAVATRAINING\Day7>
```

6) Fibonacci Series


```java
package Day7;

import java.util.Scanner;

public class Fibonacci {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int curr=1, prev =0, sum = 0;
        for(int i=0; i<n; i++){
            sum = curr+prev;
        System.out.print(prev+" ");
            prev = curr;
            curr = sum;
        }
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac Fibonacci.java
PS E:\JAVATRAINING\Day7> java Fibonacci.java
6
0 1 1 2 3 5
PS E:\JAVATRAINING\Day7>
```

7) Find Second Largest Element

```java
public class SecondLargeele {
    public static void main(String[] args) {
        int arr[]= {10,20,40,30,60};
        int max = -1;
        int second = -1;

        for(int i=0; i<arr.length; i++){
            if (arr[i]>max) {
                max = arr[i];
            }
        }
        for(int i =0; i<arr.length; i++){
            if (arr[i]>second &&arr[i]<max) {
                second= arr[i];
            }
        }
        System.out.println(second);
    }
}
```
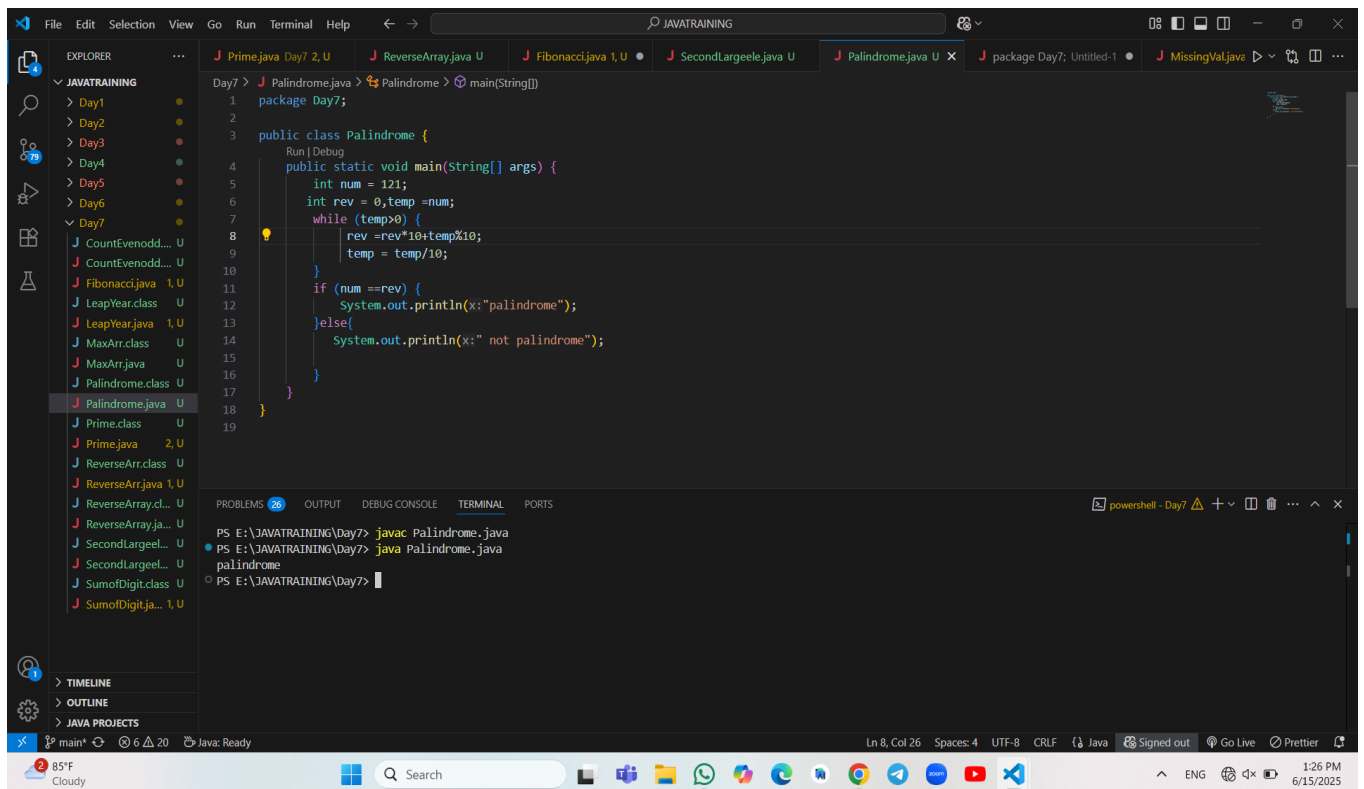
```
PS E:\JAVATRAINING> cd Day7
PS E:\JAVATRAINING\Day7> javac SecondLargeele.java
PS E:\JAVATRAINING\Day7> java SecondLargeele.java
40
PS E:\JAVATRAINING\Day7>
```
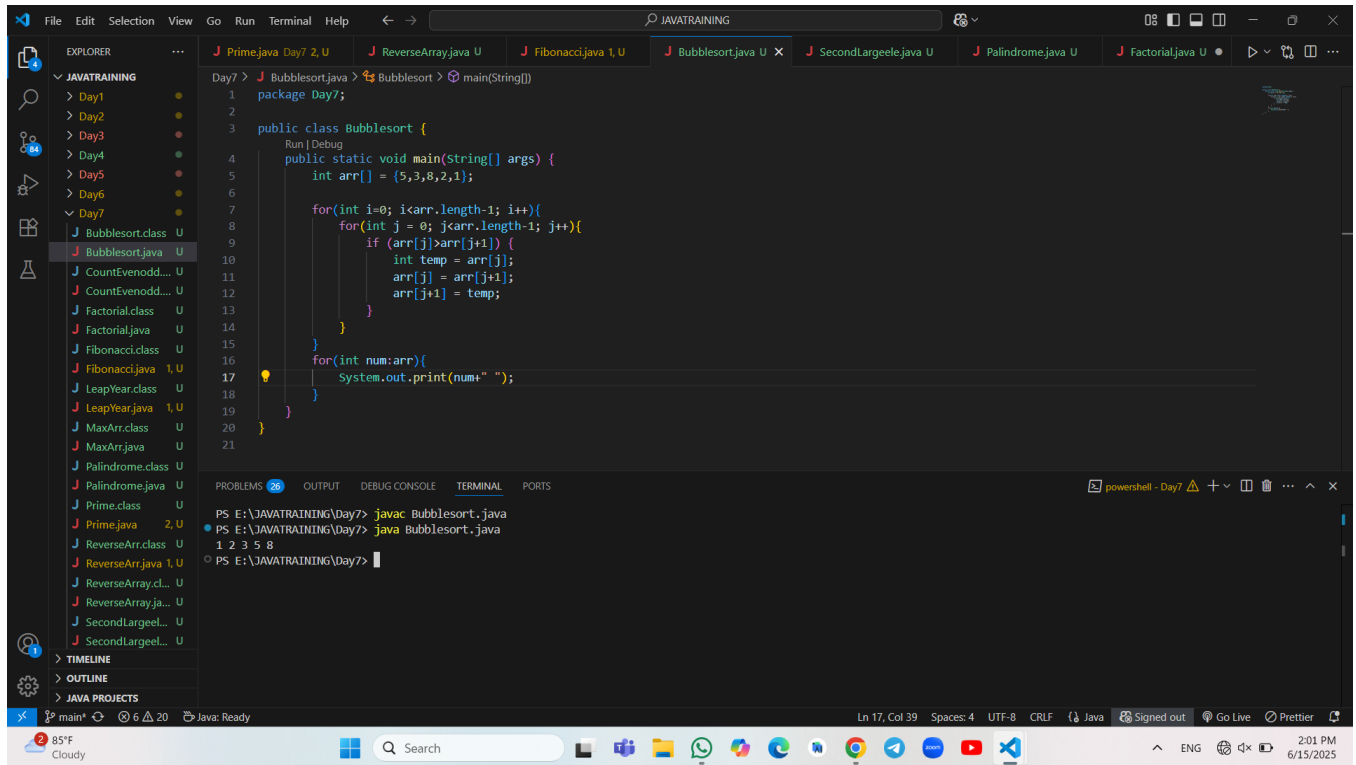
8) Check Palindrome Number

```java
package Day7;

public class Palindrome {
    public static void main(String[] args) {
        int num = 121;
        int rev = 0,temp =num;
        while (temp>0) {
            rev =rev*10+temp%10;
            temp = temp/10;
        }
        if (num ==rev) {
            System.out.println(x:"palindrome");
        }else{
            System.out.println(x:" not palindrome");
        }
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac Palindrome.java
PS E:\JAVATRAINING\Day7> java Palindrome.java
palindrome
PS E:\JAVATRAINING\Day7>
```
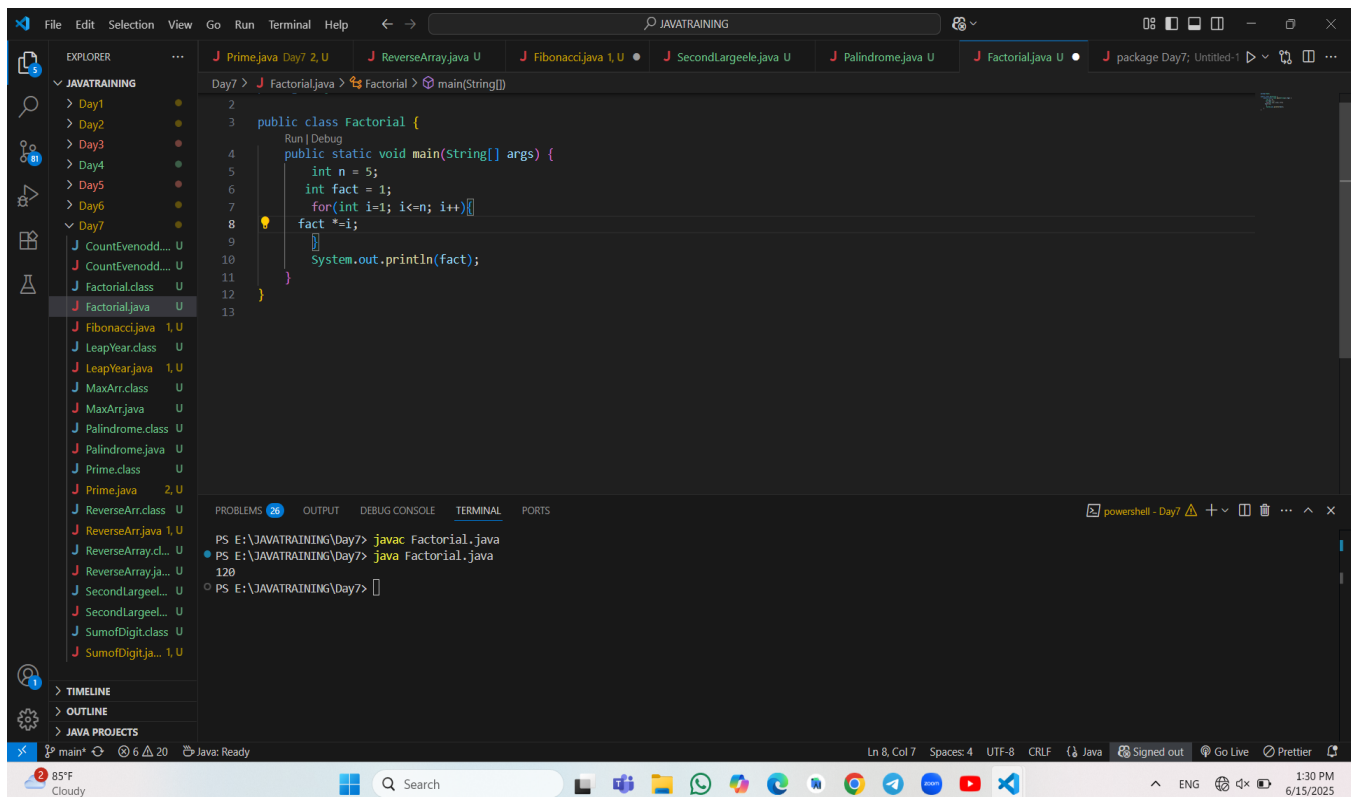
9) Sort an Array (Bubble Sort)


```java
package Day7;

public class Bubblesort {
    public static void main(String[] args) {
        int arr[] = {5,3,8,2,1};

        for(int i=0; i<arr.length-1; i++){
            for(int j = 0; j<arr.length-1; j++){
                if (arr[j]>arr[j+1]) {
                    int temp = arr[j];
                    arr[j] = arr[j+1];
                    arr[j+1] = temp;
                }
            }
        }
        for(int num:arr){
            System.out.print(num+" ");
        }
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac Bubblesort.java
PS E:\JAVATRAINING\Day7> java Bubblesort.java
1 2 3 5 8
PS E:\JAVATRAINING\Day7>
```

10) Find Factorial Using Loop


```java
public class Factorial {
    public static void main(String[] args) {
        int n = 5;
        int fact = 1;
        for(int i=1; i<=n; i++){
            fact *=i;
        }
        System.out.println(fact);
    }
}
```

```
PS E:\JAVATRAINING\Day7> javac Factorial.java
PS E:\JAVATRAINING\Day7> java Factorial.java
120
PS E:\JAVATRAINING\Day7>
```