

1) Sum of Digits

The screenshot shows the Visual Studio Code editor with a project named 'JAVATRaining'. The Explorer pane on the left shows the file structure, including 'Day7' and various Java files. The main editor displays the code for 'SumofDigit.java' in the 'Day7' package. The code defines a 'SumofDigit' class with a 'main' method that uses a 'Scanner' to read an integer 'n' and calculates the sum of its digits using a while loop. The terminal at the bottom shows the execution of 'javac SumofDigit.java' and 'java SumofDigit.java', resulting in the output '1234' and '10'.

```
Day7 > J SumofDigit.java > SumofDigit > main(String[])
1 package Day7;
2
3 import java.util.Scanner;
4
5 public class SumofDigit {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int n = sc.nextInt();
9         int sum = 0;
10        while (n > 0) {
11            int rem = n % 10;
12            sum = sum + rem;
13            n = n / 10;
14        }
15        System.out.println(sum);
16    }
17 }
18
19
```

PROBLEMS 22 OUTPUT DEBUG CONSOLE TERMINAL PORTS

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

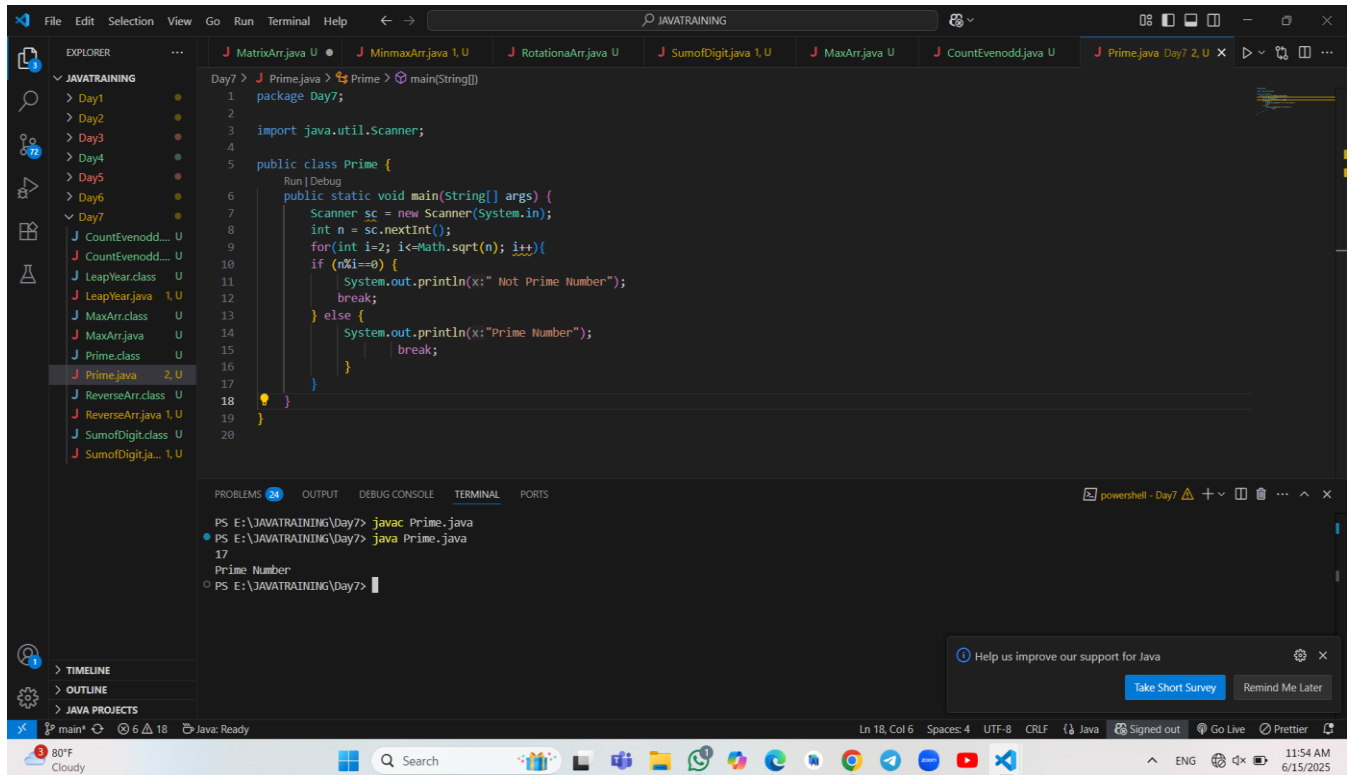
The screenshot shows the Visual Studio Code editor with the same 'JAVATRaining' project. The Explorer pane shows the file structure, including 'Day7' and various Java files. The main editor displays the code for 'MaxArr.java' in the 'Day7' package. The code defines a 'MaxArr' class with a 'main' method that initializes an array 'arr' with the values {3, 5, 2, 9, 7} and finds the maximum value using a for loop. The terminal at the bottom shows the execution of 'javac MaxArr.java' and 'java MaxArr.java', resulting in the output 'Maximum num in array 9'.

```
Day7 > J MaxArr.java > ...
1 package Day7;
2
3 public class MaxArr {
4     public static void main(String[] args) {
5         int arr[] = {3, 5, 2, 9, 7};
6         int max = -1;
7         for (int i = 0; i < arr.length; i++) {
8             if (arr[i] > max) {
9                 max = arr[i];
10            }
11        }
12        System.out.println("Maximum num in array " + max);
13    }
14 }
15
```

PROBLEMS 22 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS E:\JAVATRaining\Day7> javac MaxArr.java
PS E:\JAVATRaining\Day7> java MaxArr.java
Maximum num in 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> javac MaxArr.java
PS E:\JAVATRaining\Day7> java MaxArr.java
Maximum num in array 9
PS E:\JAVATRaining\Day7>

3) Check Prime Number



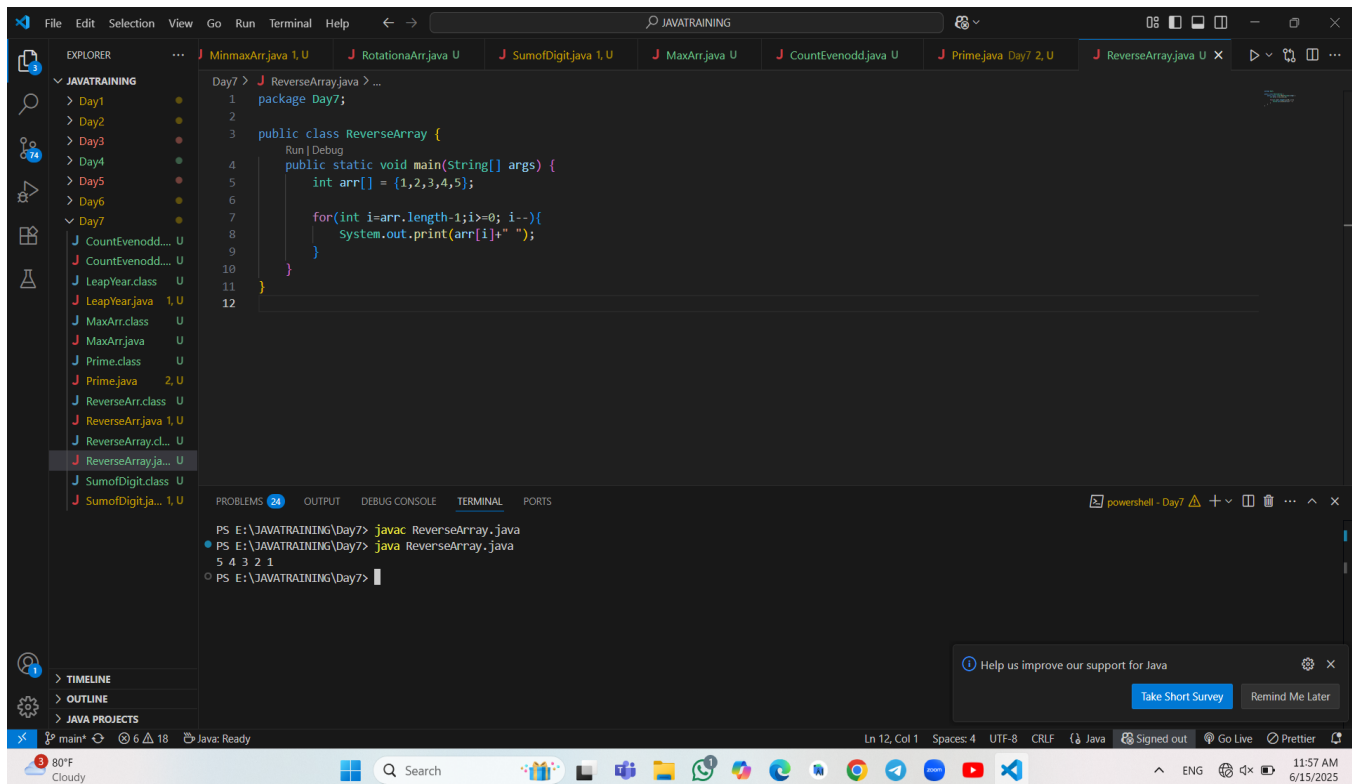
The screenshot shows an IDE with the following components:

- EXPLORER:** A list of files under the 'JAVATRAINING' project, including Day1 through Day7, and various Java files like CountEvenodd.java, LeapYear.class, MaxArr.class, Prime.class, ReverseArr.class, SumofDigit.class, and SumofDigit.java.
- Editor:** The 'Prime.java' file is open, showing the following code:

```
Day7 > J Prime.java > Prime > main(String[])  
1 package Day7;  
2  
3 import java.util.Scanner;  
4  
5 public class Prime {  
6  
7     Run | Debug  
8     public static void main(String[] args) {  
9         Scanner sc = new Scanner(System.in);  
10        int n = sc.nextInt();  
11        for(int i=2; i<=Math.sqrt(n); i++){  
12            if (n%i==0) {  
13                System.out.println(x:" Not Prime Number");  
14                break;  
15            } else {  
16                System.out.println(x:"Prime Number");  
17                break;  
18            }  
19        }  
20    }  
21 }
```
- TERMINAL:** The terminal shows the execution of the program:

```
PS E:\JAVATRAINING\Day7> javac Prime.java  
PS E:\JAVATRAINING\Day7> java Prime.java  
17  
Prime Number  
PS E:\JAVATRAINING\Day7>
```
- STATUS BAR:** The status bar at the bottom indicates 'Ln 18, Col 6', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Java'.

4) Reverse an Array



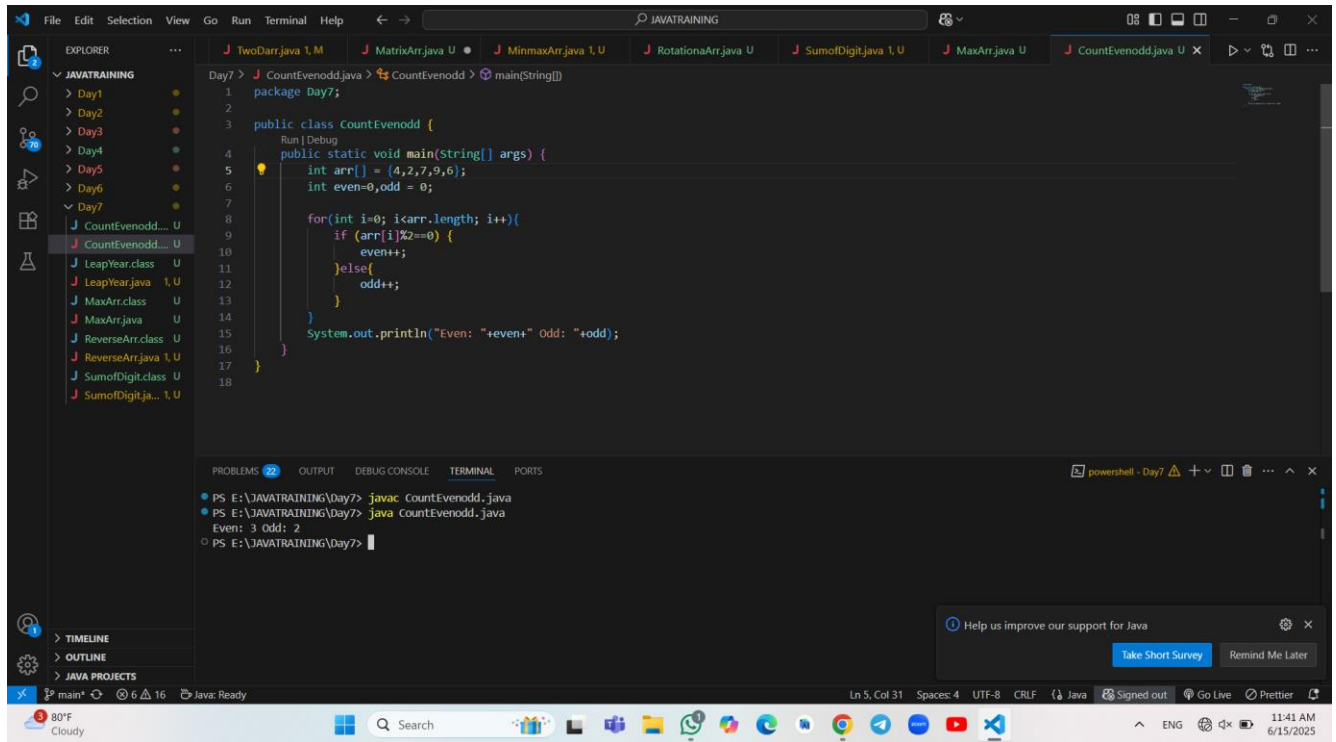
The screenshot shows an IDE with the following components:

- EXPLORER:** A list of files under the 'JAVATRAINING' project, including Day1 through Day7, and various Java files like CountEvenodd.java, LeapYear.class, MaxArr.class, Prime.class, ReverseArr.class, SumofDigit.class, and SumofDigit.java.
- Editor:** The 'ReverseArray.java' file is open, showing the following code:

```
Day7 > J ReverseArray.java > ...  
1 package Day7;  
2  
3 public class ReverseArray {  
4  
5     Run | Debug  
6     public static void main(String[] args) {  
7         int arr[] = {1,2,3,4,5};  
8  
9         for(int i=arr.length-1;i>=0; i--){  
10            System.out.print(arr[i]+" ");  
11        }  
12    }  
13 }
```
- TERMINAL:** The terminal shows the execution of the program:

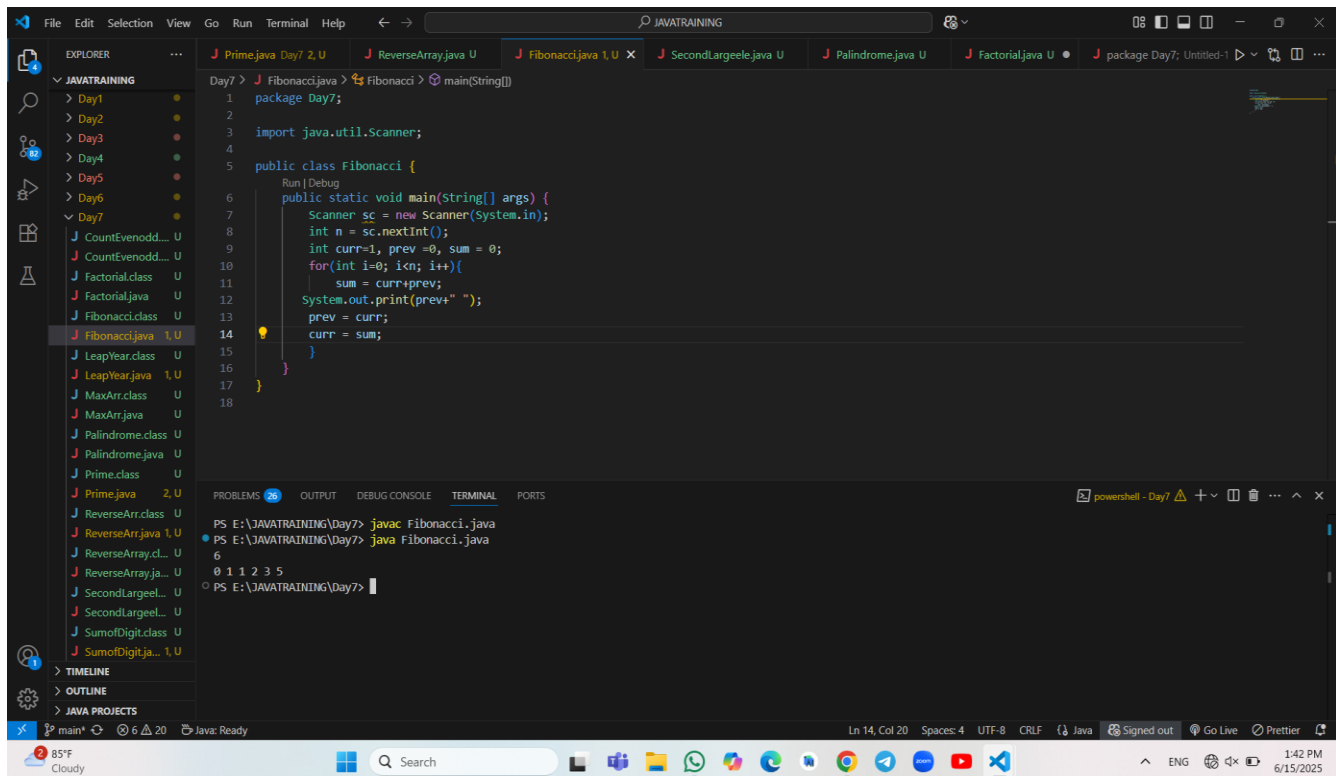
```
PS E:\JAVATRAINING\Day7> javac ReverseArray.java  
PS E:\JAVATRAINING\Day7> java ReverseArray.java  
5 4 3 2 1  
PS E:\JAVATRAINING\Day7>
```
- STATUS BAR:** The status bar at the bottom indicates 'Ln 12, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Java'.

5) Count Even and Odd Numbers



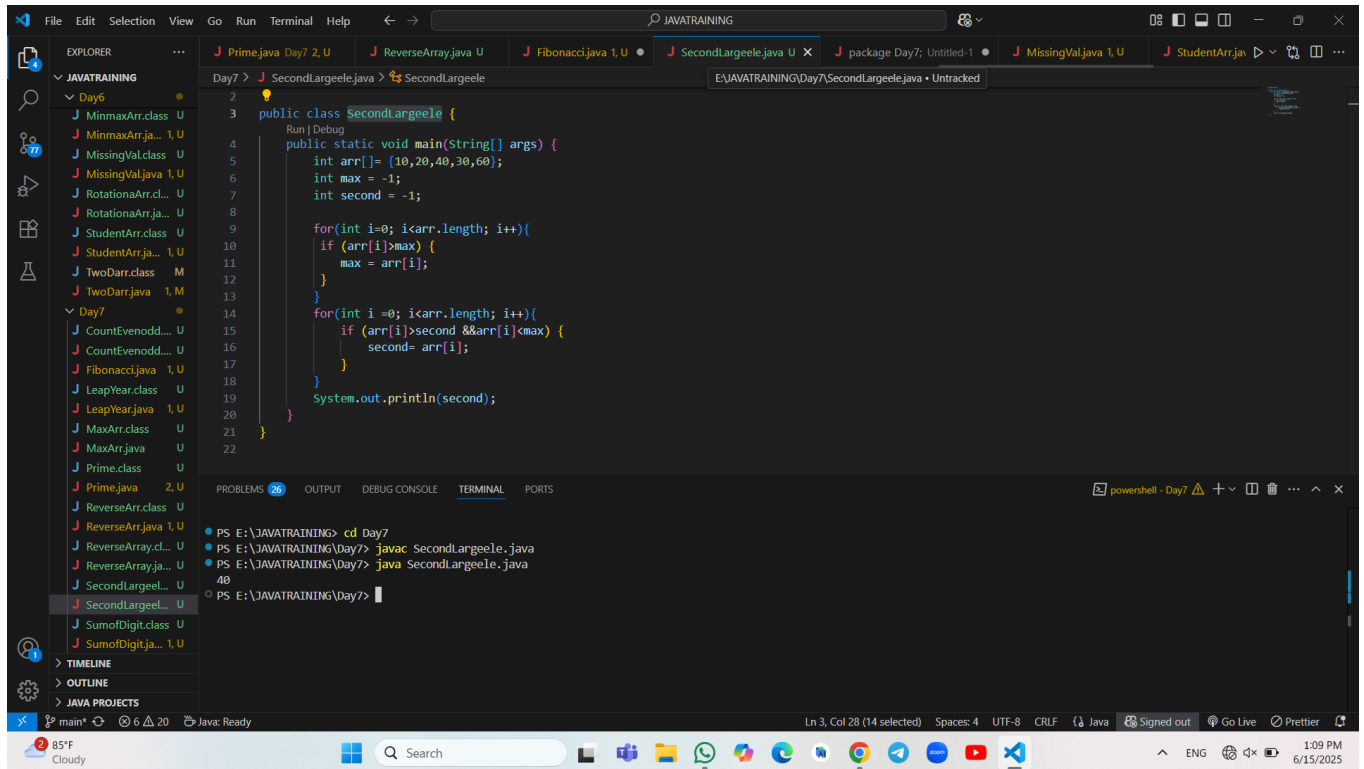
```
File Edit Selection View Go Run Terminal Help
JAVATRaining
EXPLORER
JAVATRaining
Day1
Day2
Day3
Day4
Day5
Day6
Day7
CountEvenOdd.java
CountEvenOdd.java
LeapYear.class
LeapYear.java
MaxArr.class
MaxArr.java
ReverseArr.class
ReverseArr.java
SumOfDigit.class
SumOfDigit.java
Day7 > J CountEvenOdd.java > CountEvenOdd > main(String[])
1 package Day7;
2
3 public class CountEvenOdd {
4     public static void main(String[] args) {
5         int arr[] = {4,2,7,9,6};
6         int even=0,odd = 0;
7
8         for(int i=0; i<arr.length; i++){
9             if (arr[i]%2==0) {
10                 even++;
11             }else{
12                 odd++;
13             }
14         }
15         System.out.println("Even: "+even+" Odd: "+odd);
16     }
17 }
18
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
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



```
File Edit Selection View Go Run Terminal Help
JAVATRaining
EXPLORER
JAVATRaining
Day1
Day2
Day3
Day4
Day5
Day6
Day7
CountEvenOdd.java
CountEvenOdd.java
Factorial.class
Factorial.java
Fibonacci.class
Fibonacci.java
LeapYear.class
LeapYear.java
MaxArr.class
MaxArr.java
Palindrome.class
Palindrome.java
Prime.class
Prime.java
ReverseArr.class
ReverseArr.java
ReverseArray.class
ReverseArray.java
SecondLarge.java
SecondLarge.java
SumOfDigit.class
SumOfDigit.java
Day7 > J Fibonacci.java > Fibonacci > main(String[])
1 package Day7;
2
3 import java.util.Scanner;
4
5 public class Fibonacci {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int n = sc.nextInt();
9         int curr=1, prev =0, sum = 0;
10        for(int i=0; i<n; i++){
11            sum = curr+prev;
12            System.out.print(prev+" ");
13            prev = curr;
14            curr = sum;
15        }
16    }
17 }
18
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
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



```
File Edit Selection View Go Run Terminal Help
JAVATRaining
EXPLORER
JAVATRaining
Day6
MinmaxArr.class U
MinmaxArr.java 1, U
MissingVal.class U
MissingVal.java 1, U
RotationArr.class U
RotationArr.java U
StudentArr.class U
StudentArr.java 1, U
TwoDarr.class M
TwoDarr.java 1, M
Day7
CountEvenodd.class U
CountEvenodd.java U
Fibonacci.java 1, U
LeapYear.class U
LeapYear.java 1, U
MaxArr.class U
MaxArr.java U
Prime.class U
Prime.java 2, U
ReverseArr.class U
ReverseArr.java 1, U
ReverseArray.class U
ReverseArray.java U
SecondLargestElement.class U
SecondLargestElement.java U
SumofDigit.class U
SumofDigit.java 1, U
TIMELINE
OUTLINE
JAVA PROJECTS
main* 6:20 Java: Ready
Ln 3, Col 28 (14 selected) Spaces: 4 UTF-8 CRLF Java Signed out Go Live Prettier
85°F Cloudy Search
```

```
Day7 > J SecondLargestElement.java > SecondLargestElement
public class SecondLargestElement {
    public static void main(String[] args) {
        int arr[] = {10, 20, 40, 30, 60};
        int max = -1;
        int second = -1;

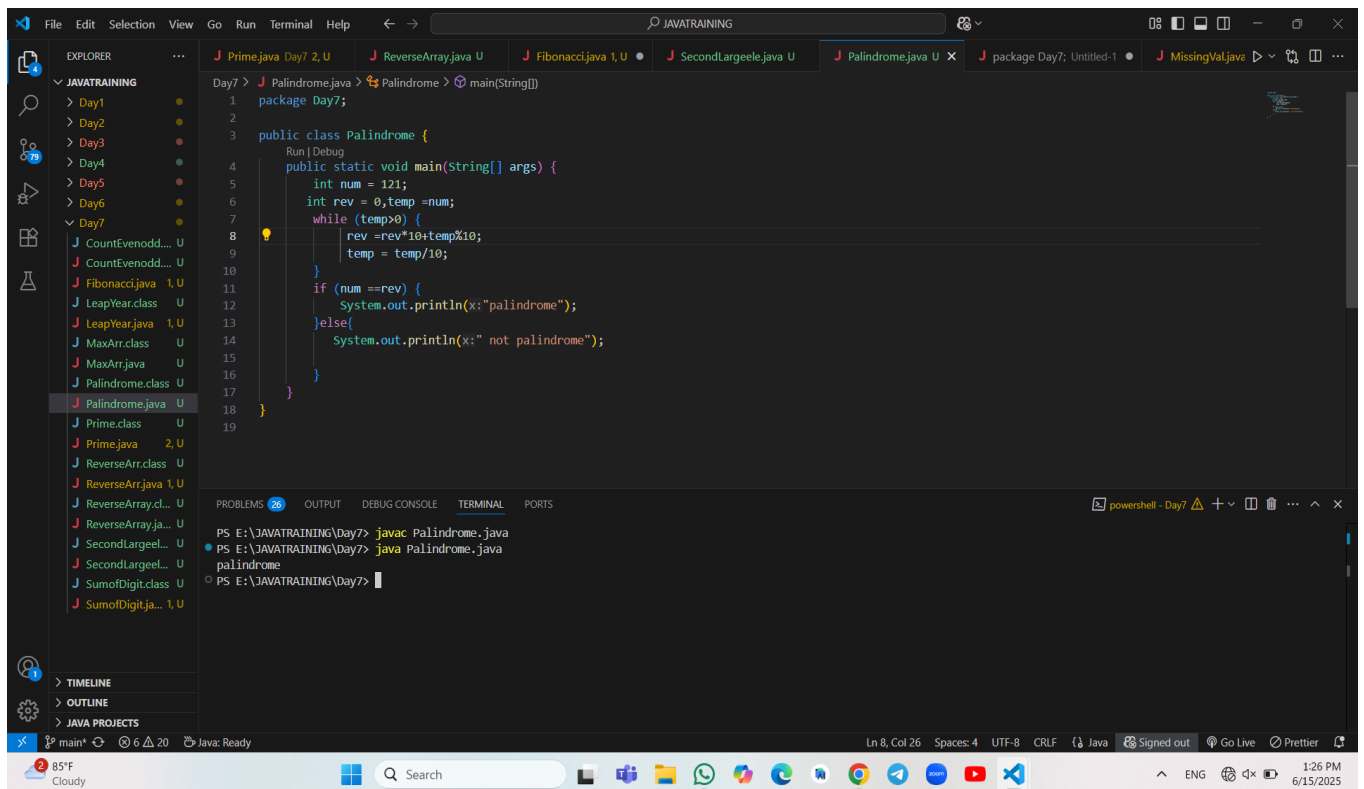
        for(int i=0; i<arr.length; i++){
            if (arr[i]>max) {
                max = arr[i];
            }
        }

        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 SecondLargestElement.java
PS E:\JAVATRaining\Day7> java SecondLargestElement.java
40
PS E:\JAVATRaining\Day7>
```

8) Check Palindrome Number



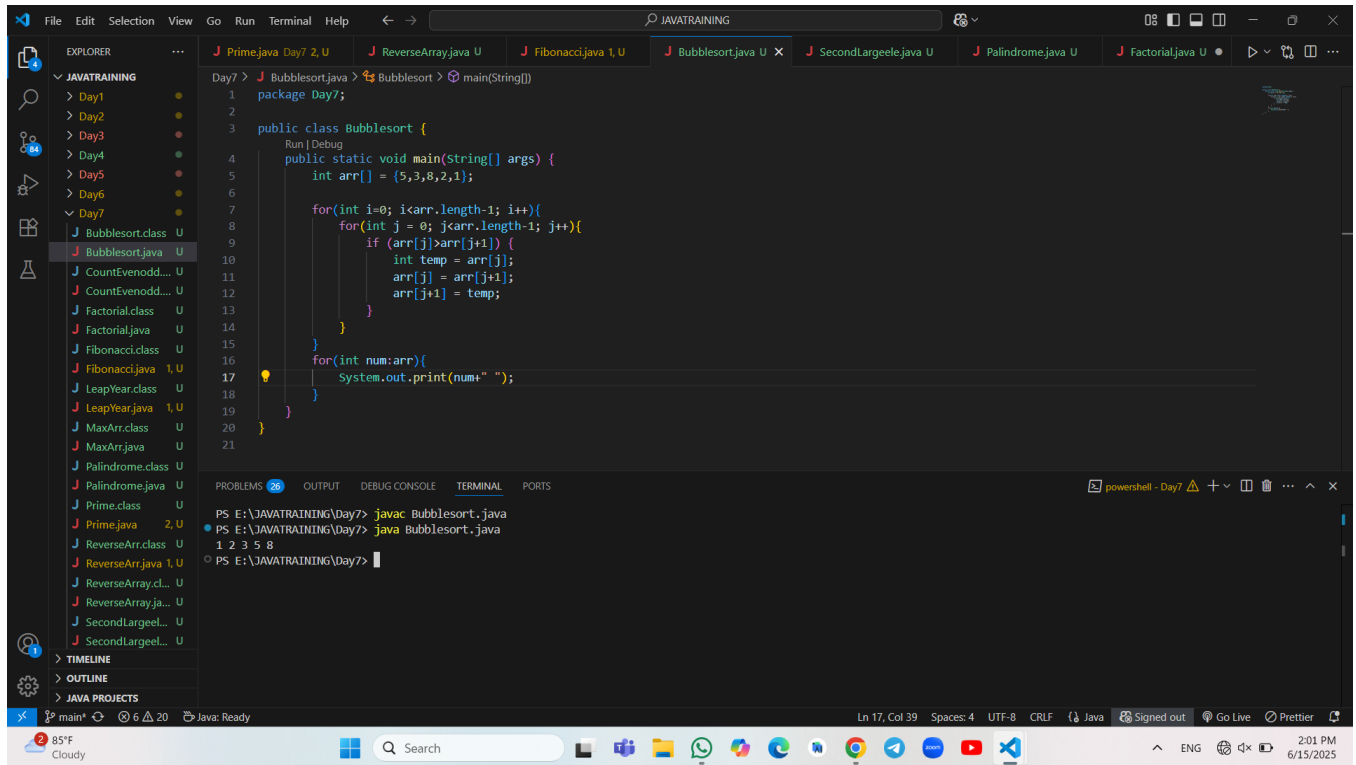
```
File Edit Selection View Go Run Terminal Help
JAVATRaining
EXPLORER
JAVATRaining
Day1
Day2
Day3
Day4
Day5
Day6
Day7
CountEvenodd.class U
CountEvenodd.java U
Fibonacci.java 1, U
LeapYear.class U
LeapYear.java 1, U
MaxArr.class U
MaxArr.java U
Palindrome.class U
Palindrome.java U
Prime.class U
Prime.java 2, U
ReverseArr.class U
ReverseArr.java 1, U
ReverseArray.class U
ReverseArray.java U
SecondLargestElement.class U
SecondLargestElement.java U
SumofDigit.class U
SumofDigit.java 1, U
TIMELINE
OUTLINE
JAVA PROJECTS
main* 6:20 Java: Ready
Ln 8, Col 26 Spaces: 4 UTF-8 CRLF Java Signed out Go Live Prettier
85°F Cloudy Search
```

```
Day7 > J Palindrome.java > Palindrome > main(String[])
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)



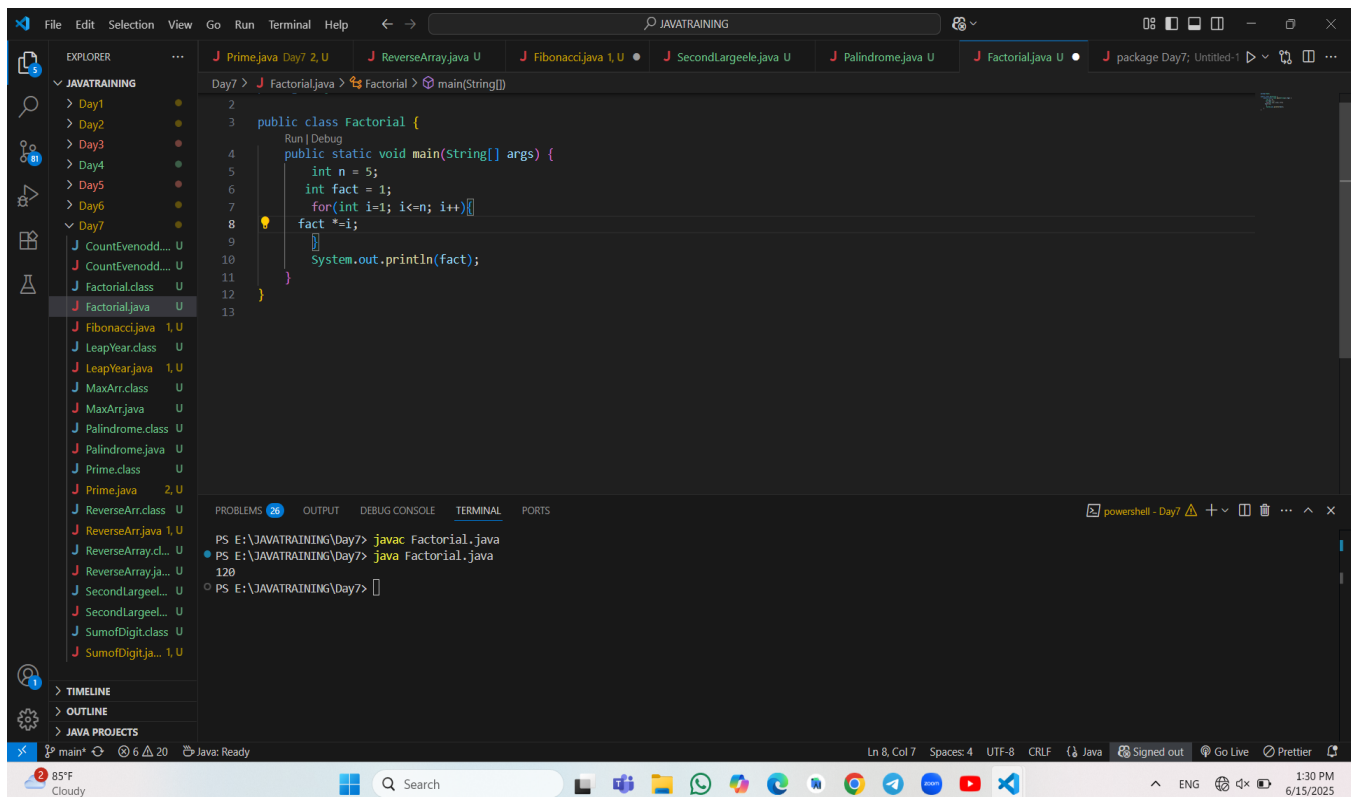
The screenshot shows an IDE with the following components:

- EXPLORER:** A file tree on the left showing a project named 'JAVATRAINING' with subfolders 'Day1' through 'Day7'. Under 'Day7', there is a 'Bubblesort.java' file.
- EDITOR:** The main window displays the code for 'Bubblesort.java'. The code is as follows:

```
1 package Day7;
2
3 public class Bubblesort {
4     public static void main(String[] args) {
5         int arr[] = {5,3,8,2,1};
6
7         for(int i=0; i<arr.length-1; i++){
8             for(int j = 0; j<arr.length-1; j++){
9                 if (arr[j]>arr[j+1]) {
10                     int temp = arr[j];
11                     arr[j] = arr[j+1];
12                     arr[j+1] = temp;
13                 }
14             }
15         }
16
17         for(int num:arr){
18             System.out.print(num+" ");
19         }
20     }
21 }
```
- TERMINAL:** The bottom panel shows the command prompt output:

```
PS E:\JAVATRAINING\Day7> javac Bubblesort.java
PS E:\JAVATRAINING\Day7> java Bubblesort.java
1 2 3 5 8
```
- STATUS BAR:** The bottom status bar indicates 'Ln 17, Col 39' and 'Spaces: 4'.

10) Find Factorial Using Loop



The screenshot shows an IDE with the following components:

- EXPLORER:** A file tree on the left showing a project named 'JAVATRAINING' with subfolders 'Day1' through 'Day7'. Under 'Day7', there is a 'Factorial.java' file.
- EDITOR:** The main window displays the code for 'Factorial.java'. The code is as follows:

```
1 package Day7;
2
3 public class Factorial {
4     public static void main(String[] args) {
5         int n = 5;
6         int fact = 1;
7         for(int i=1; i<=n; i++){
8             fact *=i;
9         }
10        System.out.println(fact);
11    }
12 }
13 }
```
- TERMINAL:** The bottom panel shows the command prompt output:

```
PS E:\JAVATRAINING\Day7> javac Factorial.java
PS E:\JAVATRAINING\Day7> java Factorial.java
120
```
- STATUS BAR:** The bottom status bar indicates 'Ln 8, Col 7' and 'Spaces: 4'.