**SAVEETHA SCHOOL OF ENGINEERING**

**SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES**

**INSTITUTE OF PLACEMENT AND TRAINING**

**CSA0987 –JAVA PROGRAMMING**

**NAME:M.DEEPIKA**

**REG.NO:192311027**

**ASSIGNMENT:2**

1. Write a program for matrix multiplication?

Sample Input:

Mat1 = 1 2

5 3

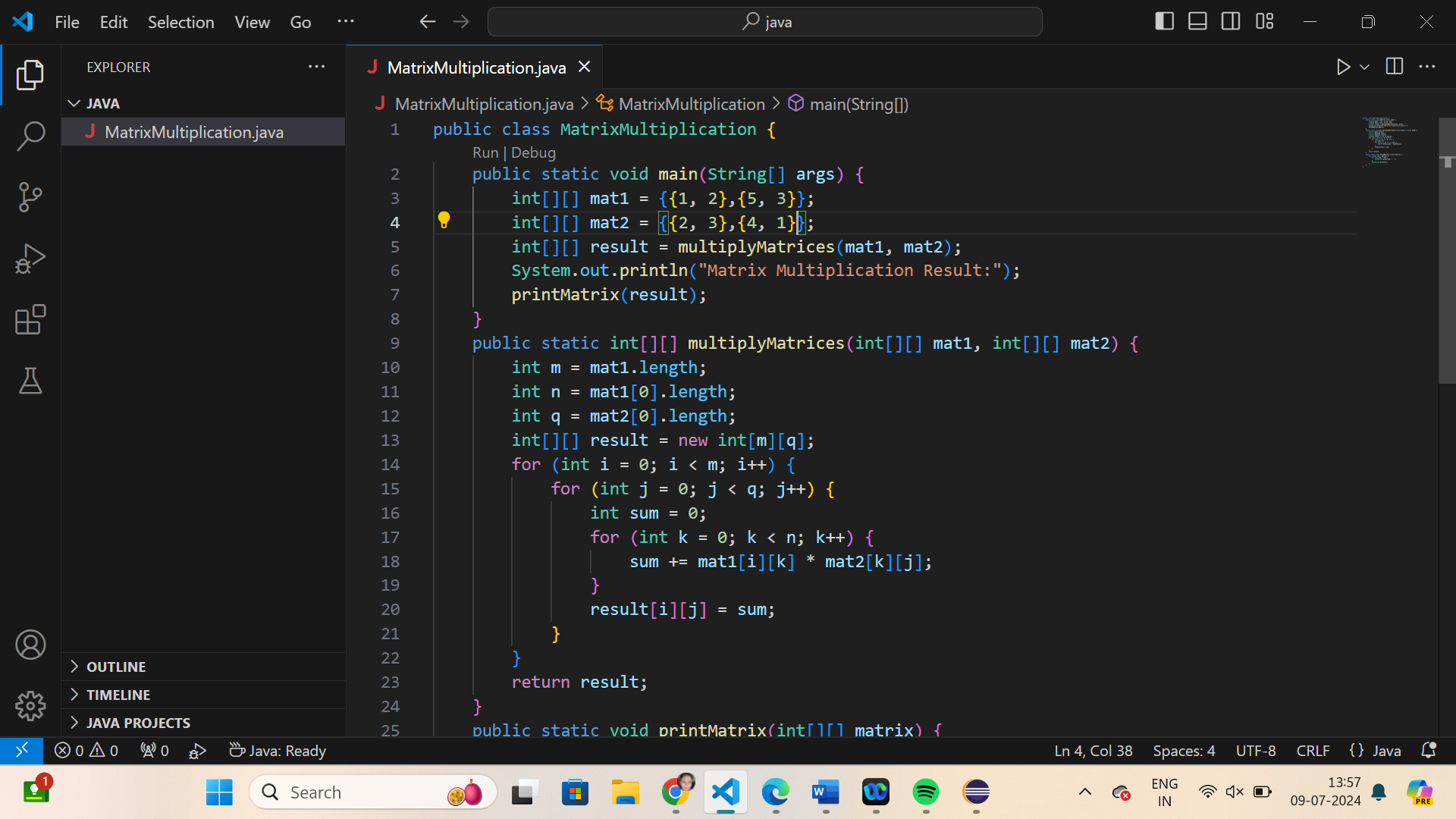
Mat2 = 2 3

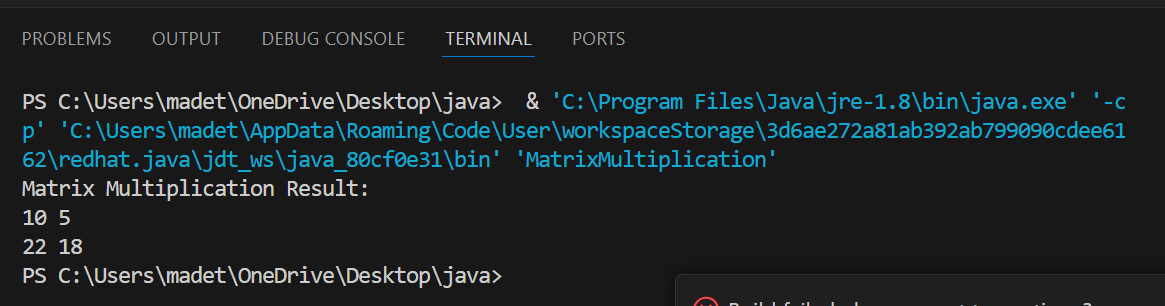
4 1

Sample Output:

Mat Sum = 10 5

22 18





1. Write a program for matrix addition?

Sample Input:

Mat1 = 1 2

5 3

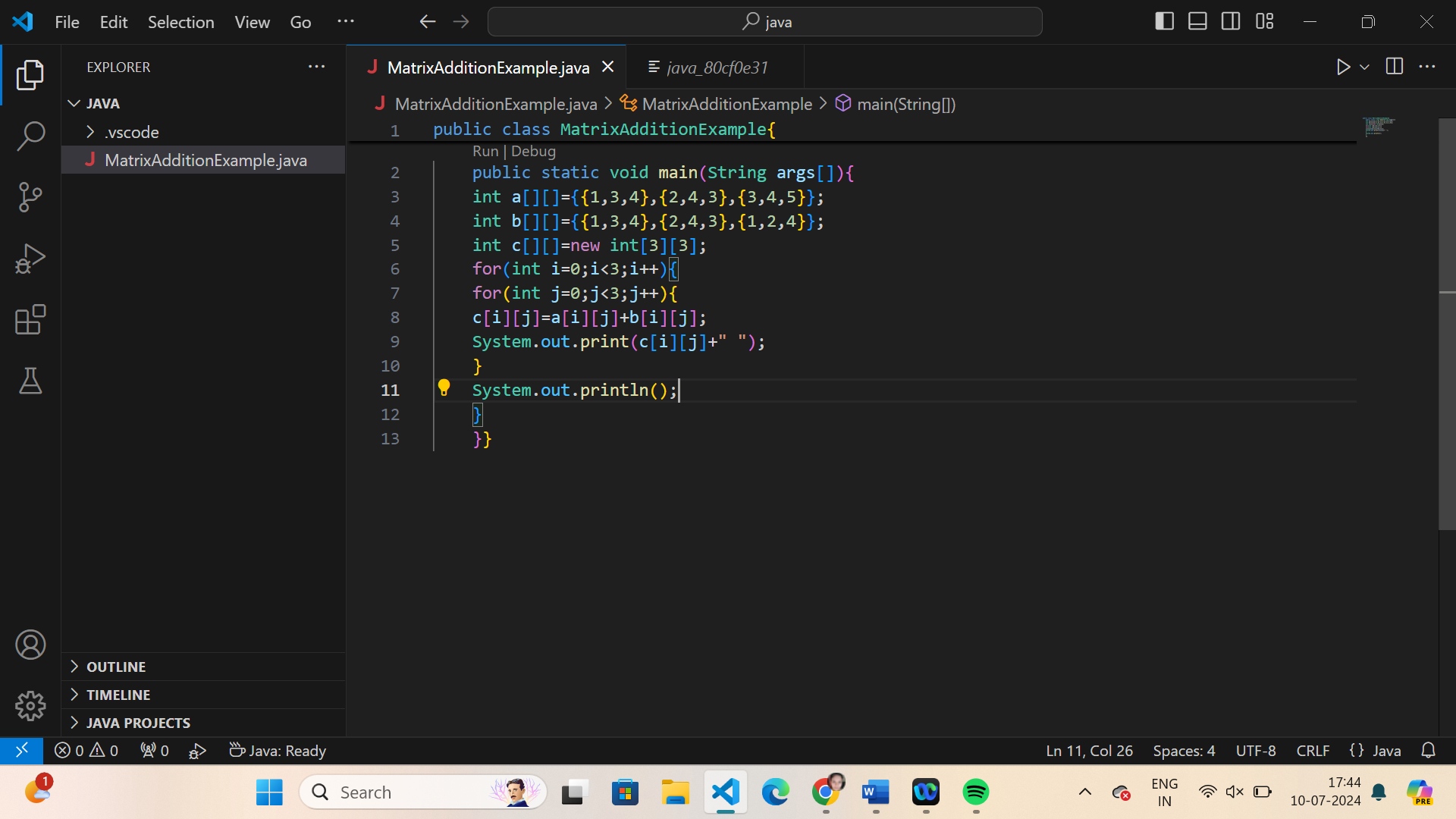
Mat2 = 2 3

4 1

Sample Output:

Mat Sum = 3 5

9 4

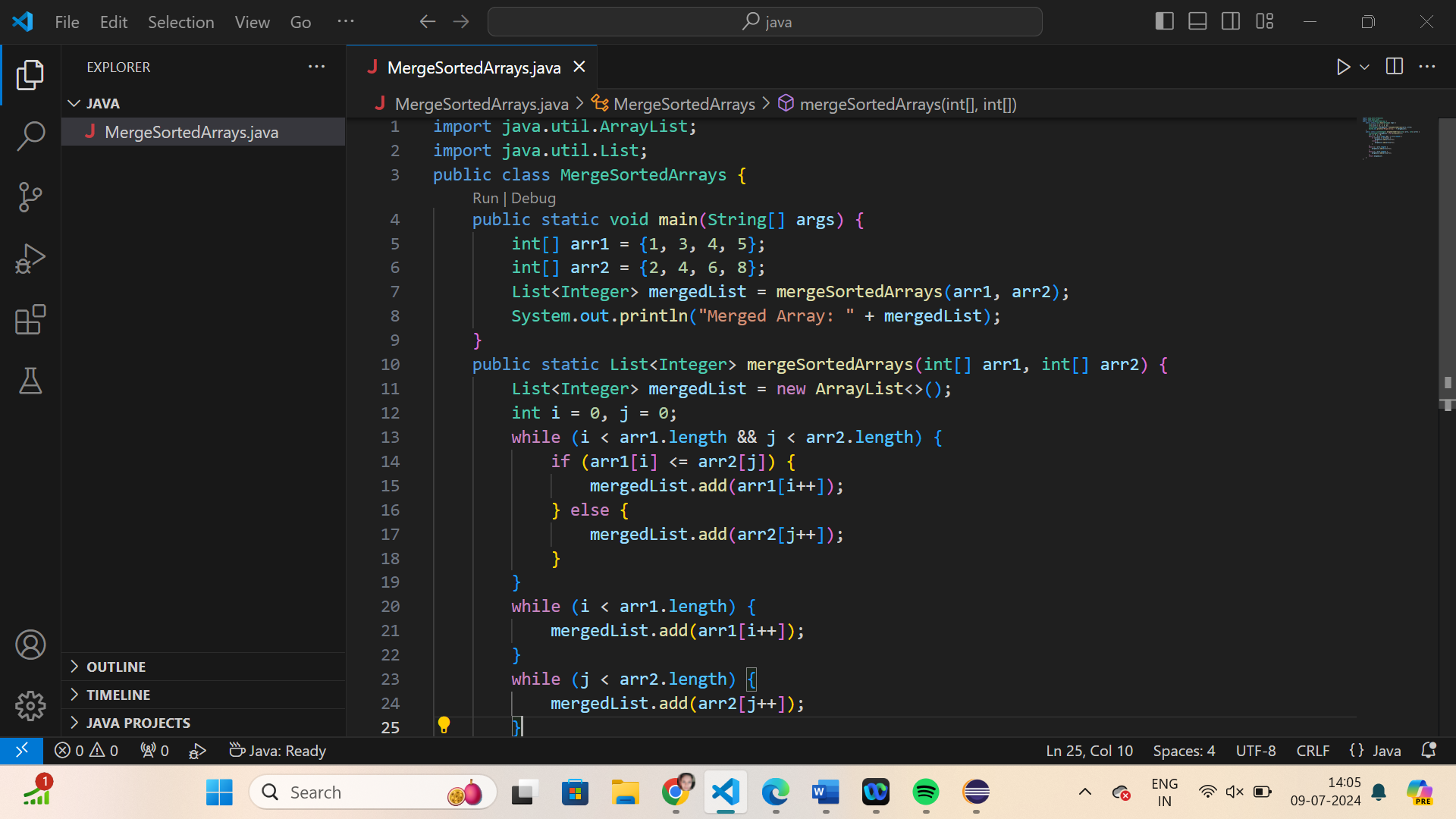


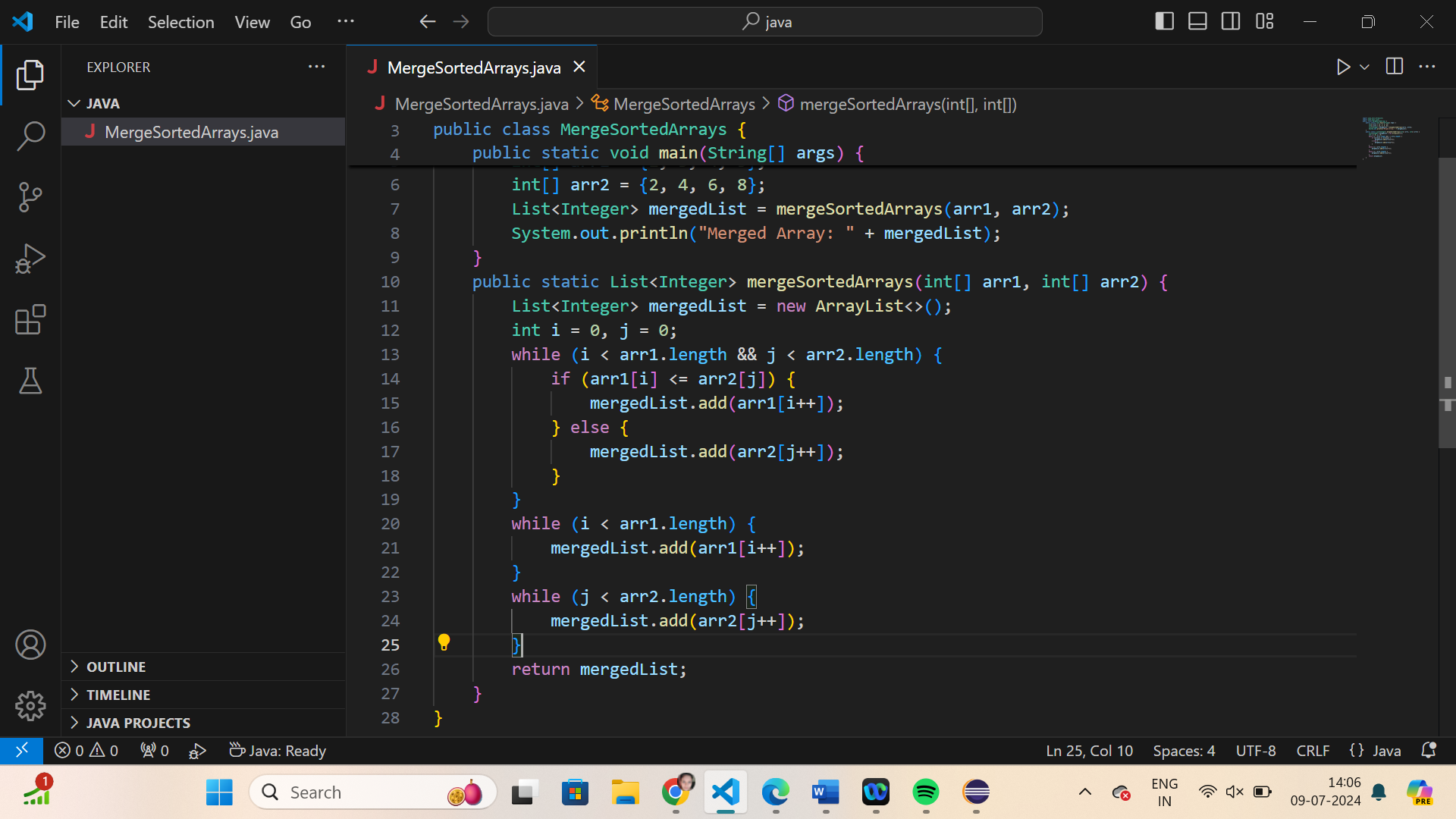


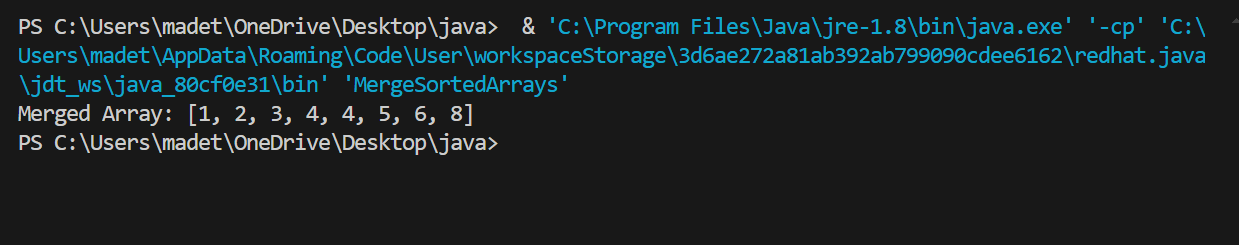
1. Write a program for Merge two sorted arrays using Array list

Input: arr1[] = { 1, 3, 4, 5}, arr2[] = {2, 4, 6, 8}

Output: arr3[] = {1, 2, 3, 4, 4, 5, 6, 8}







1. Find the Mean, Median, Mode of the array of numbers?

Sample Input;:

Array of elements = {16, 18, 27, 16, 23, 21, 19}

Sample Output:  
Mean = 20

Median = 19

Mode = 16

Test cases:

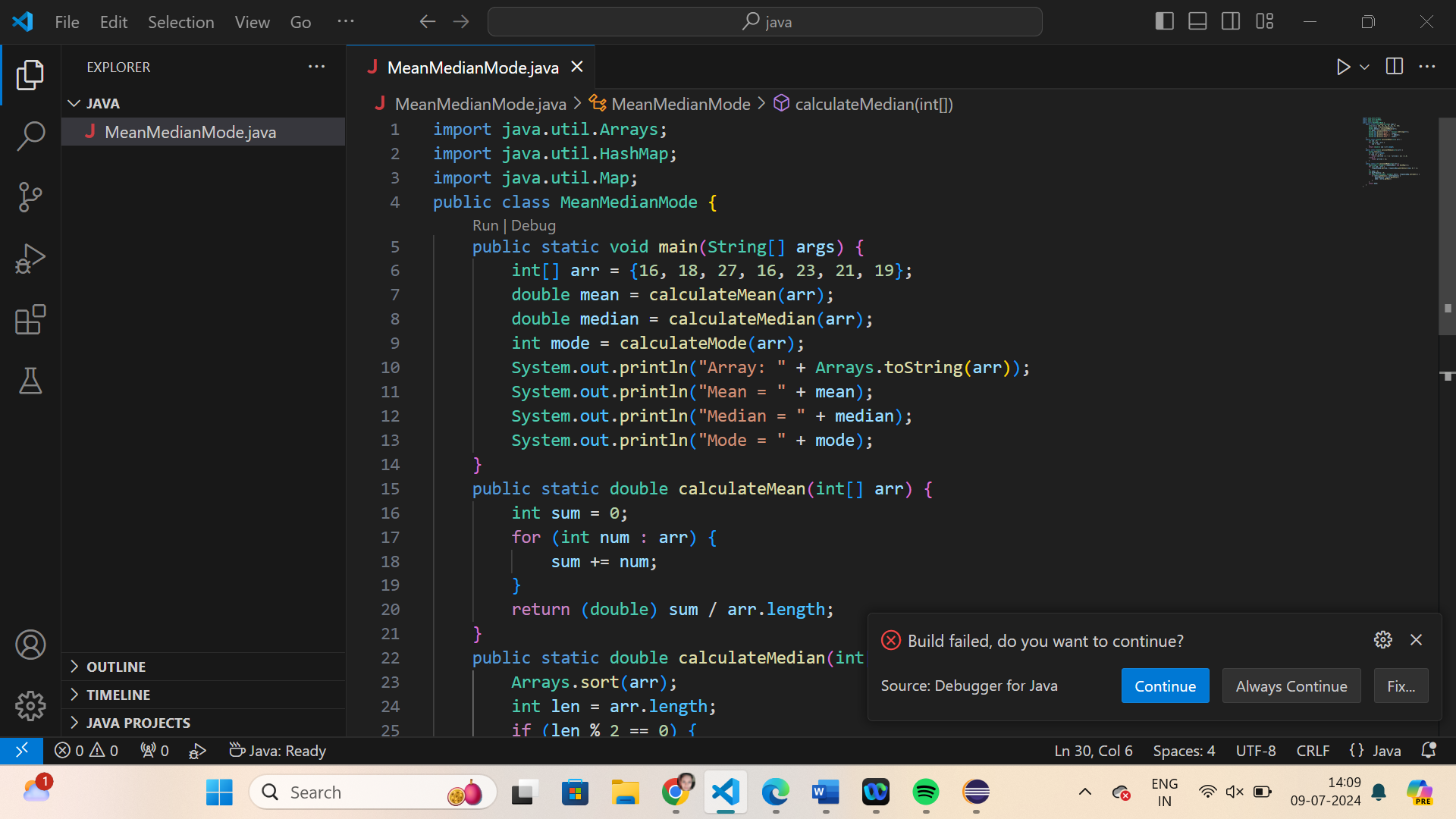
1. Array of elements = {26, 28, 37, 26, 33, 31, 29}

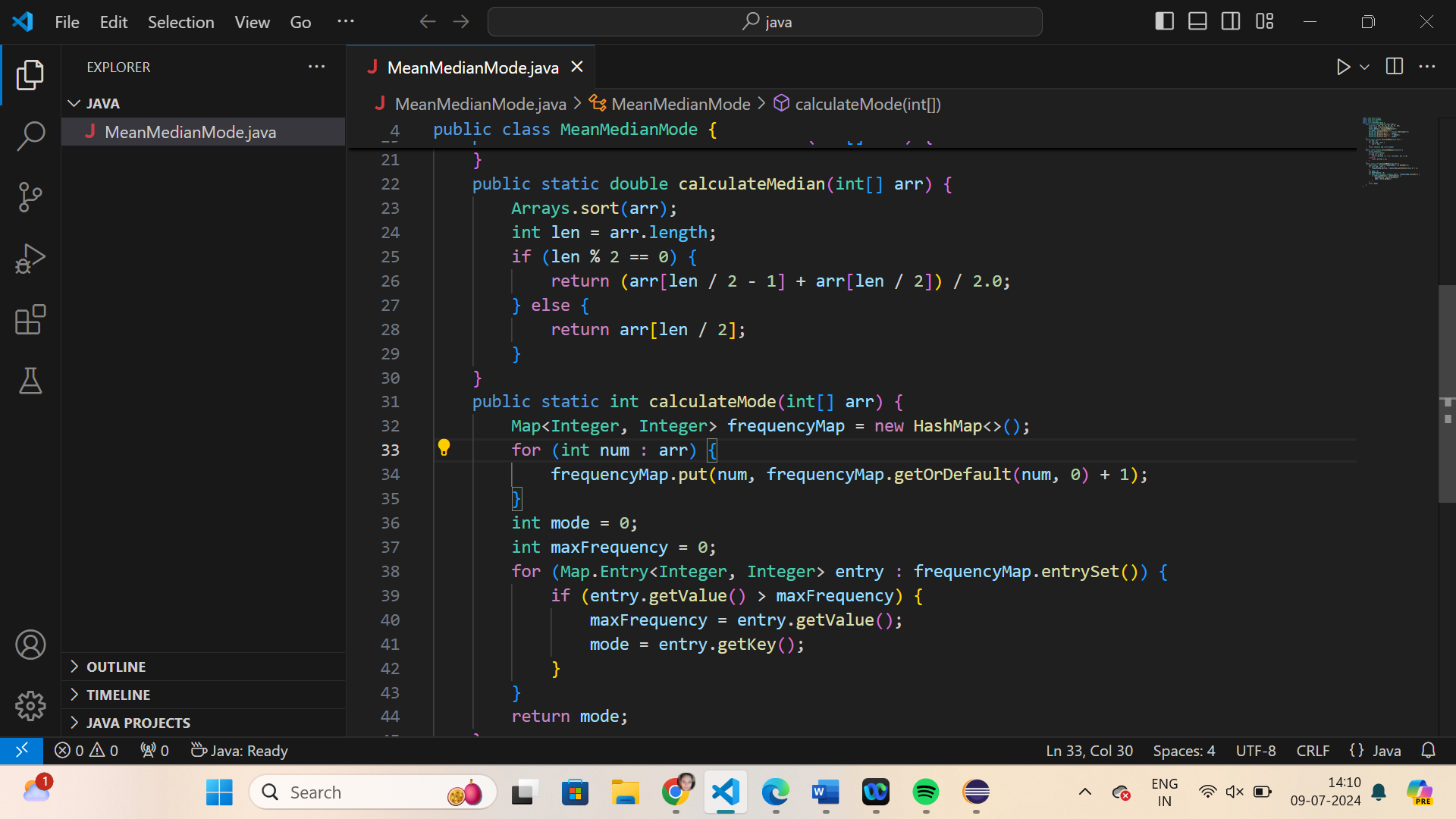
2. Array of elements = {1.6, 1.8, 2.7, 1.6, 2.3, 2.1, .19}

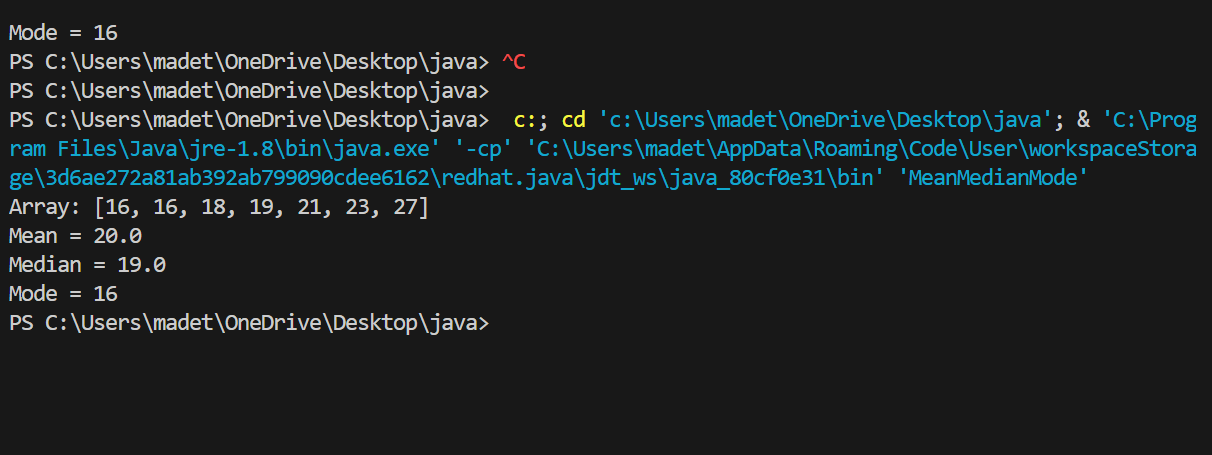
3. Array of elements = {0, 160, 180, 270, 160, 230, 210, 190, 0}

4. Array of elements = {200, 180, 180, 270, 160, 270, 270, 190, 200}

5. Array of elements = {100, 100, 100, 100, 100, 100, 100, 100, 100}







1. Write a program to find the number of composite numbers in an array of elements

Sample Input;:

Array of elements = {16, 18, 27, 16, 23, 21, 19}

Sample Output:  
Number of Composite Numbers = 5

Test cases:

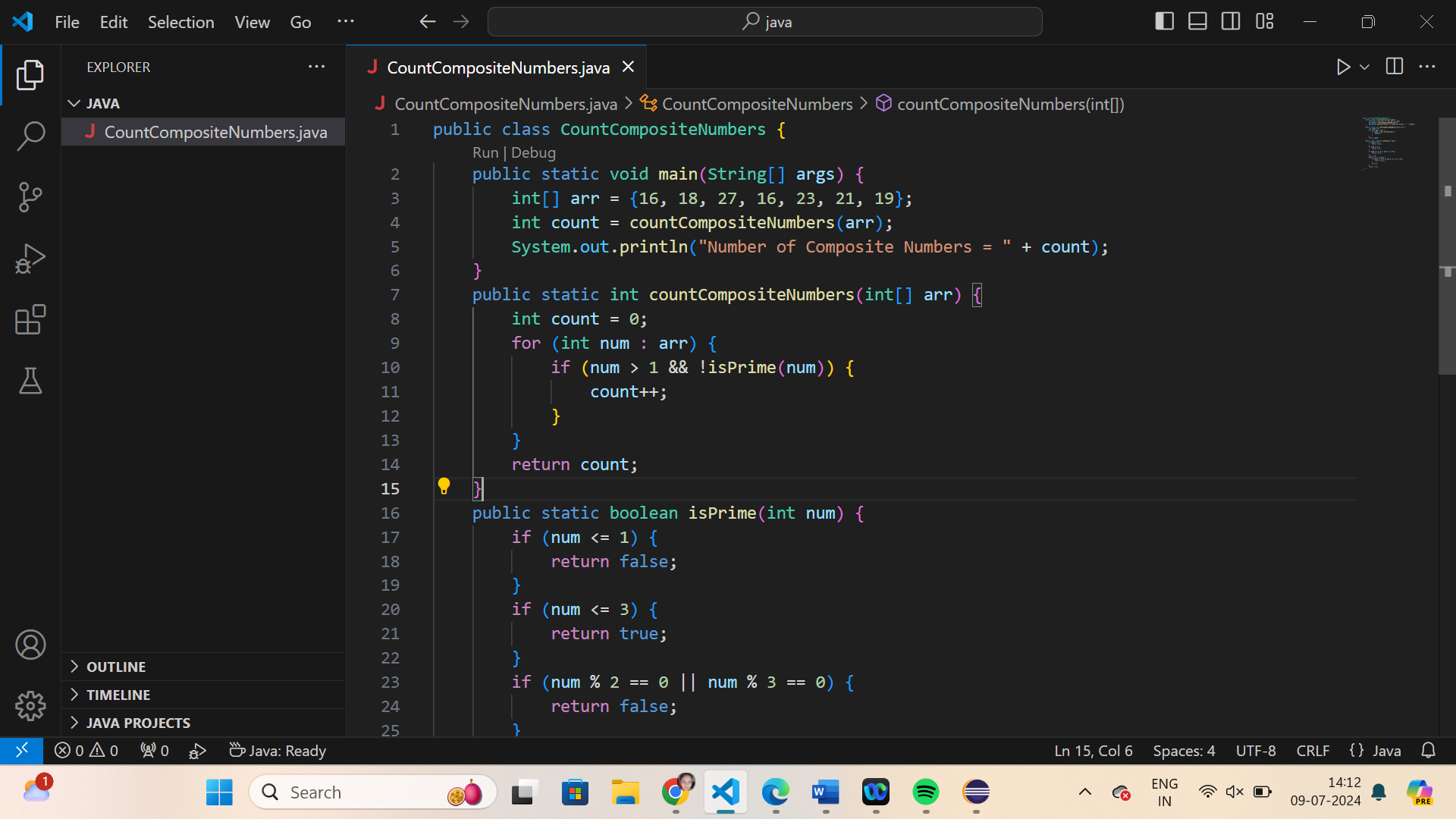
1. Array of elements = {26, 28, 37, 26, 33, 31, 29}

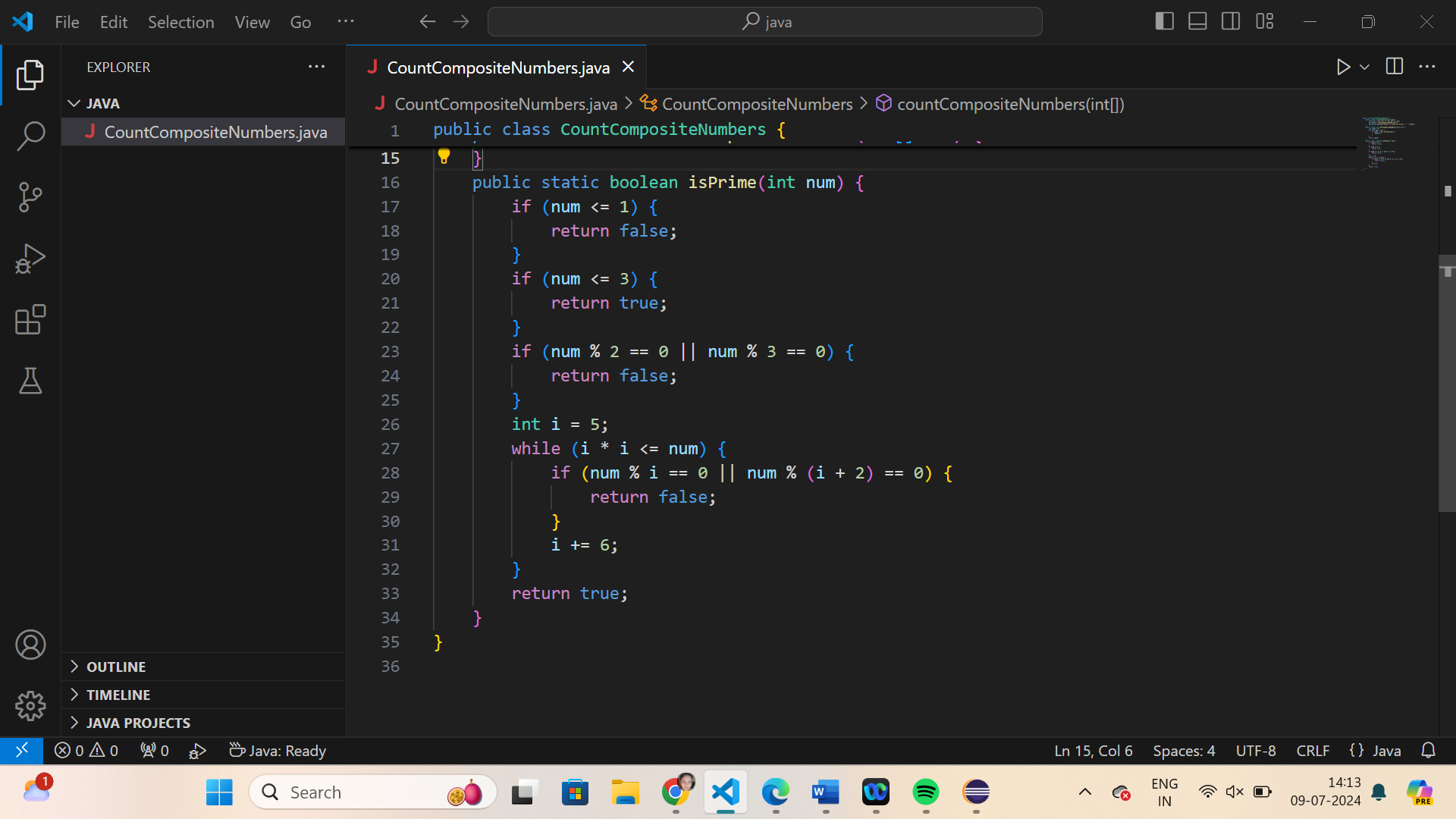
2. Array of elements = {1.6, 1.8, 2.7, 1.6, 2.3, 2.1, .19}

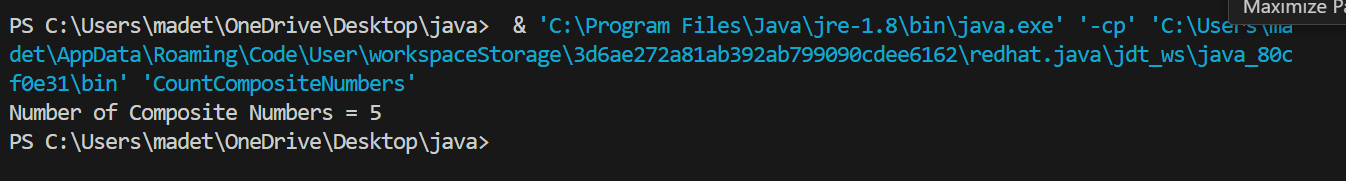
3. Array of elements = {0, 160, 180, 270, 160, 230, 210, 190, 0}

4. Array of elements = {200, 180, 180, 270, 270, 270, 190, 200}

5. Array of elements = {100, 100, 100, 100, 100, 100, 100, 100}





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**Patterns :**

1. Write a program to print Right Triangle Star Pattern

Sample Input:: n = 5

Output:

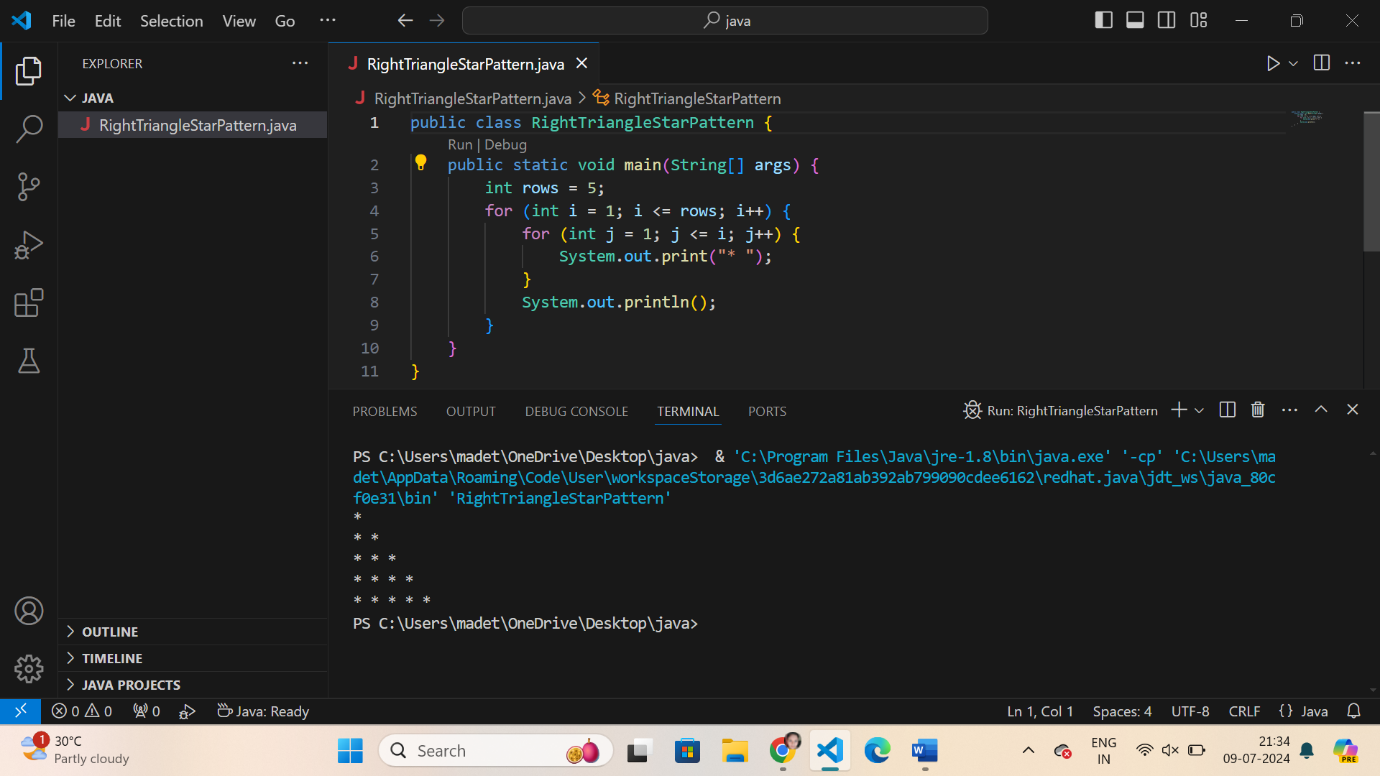
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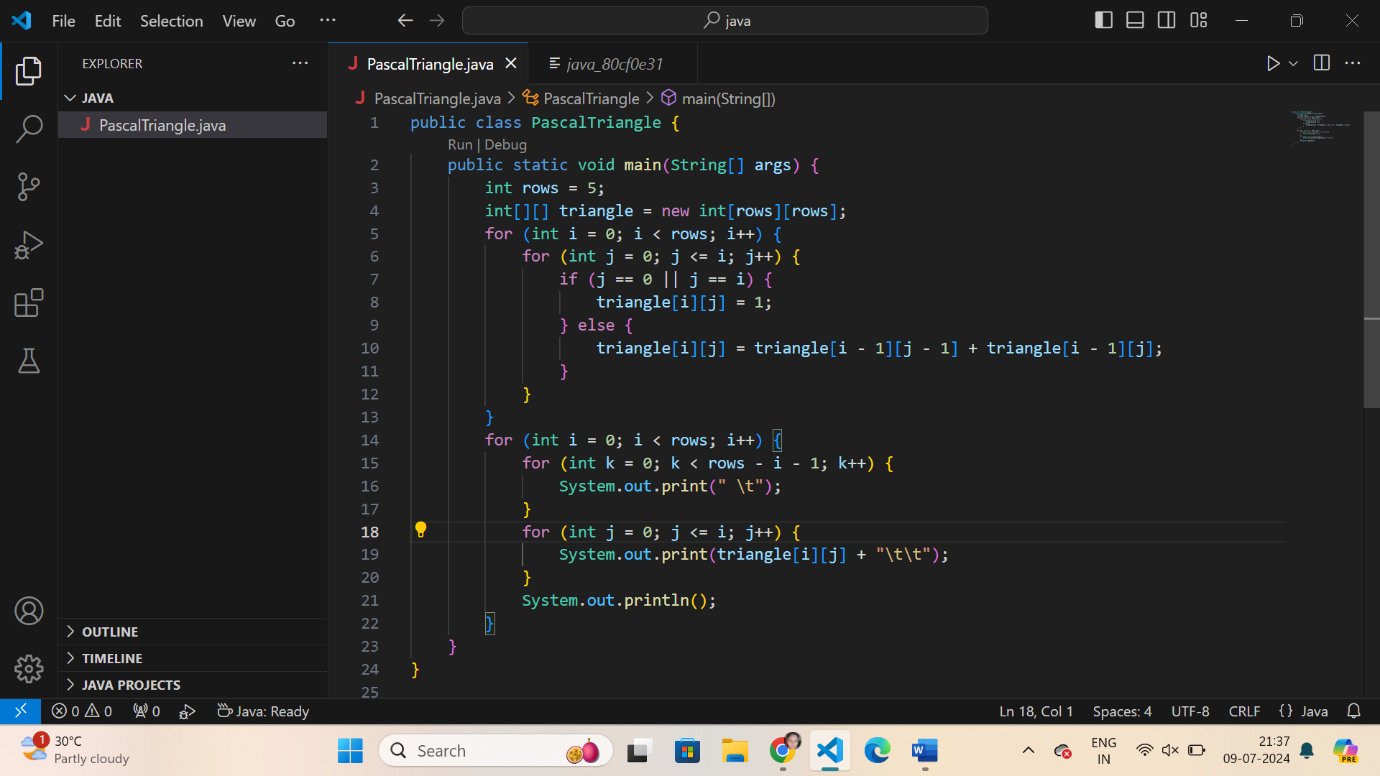
\* \* \* \*

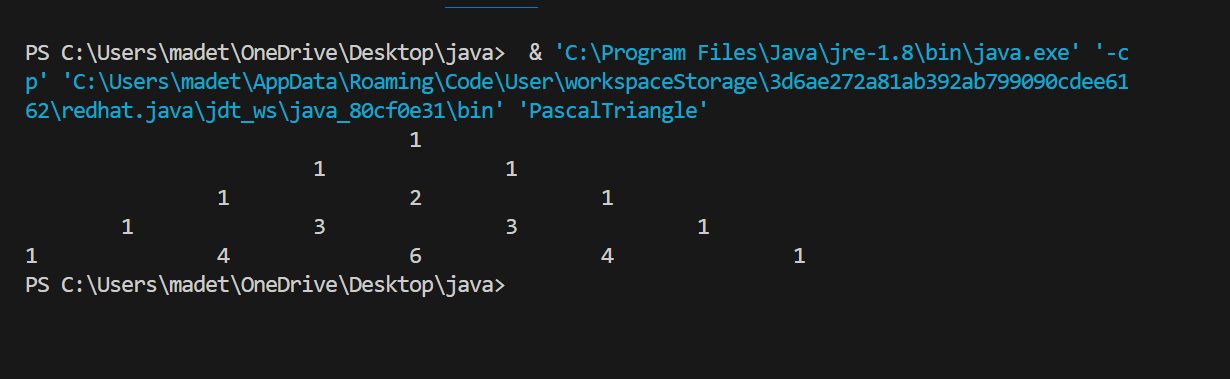
\* \* \* \* \*



1. Write a program to print the below pattern?

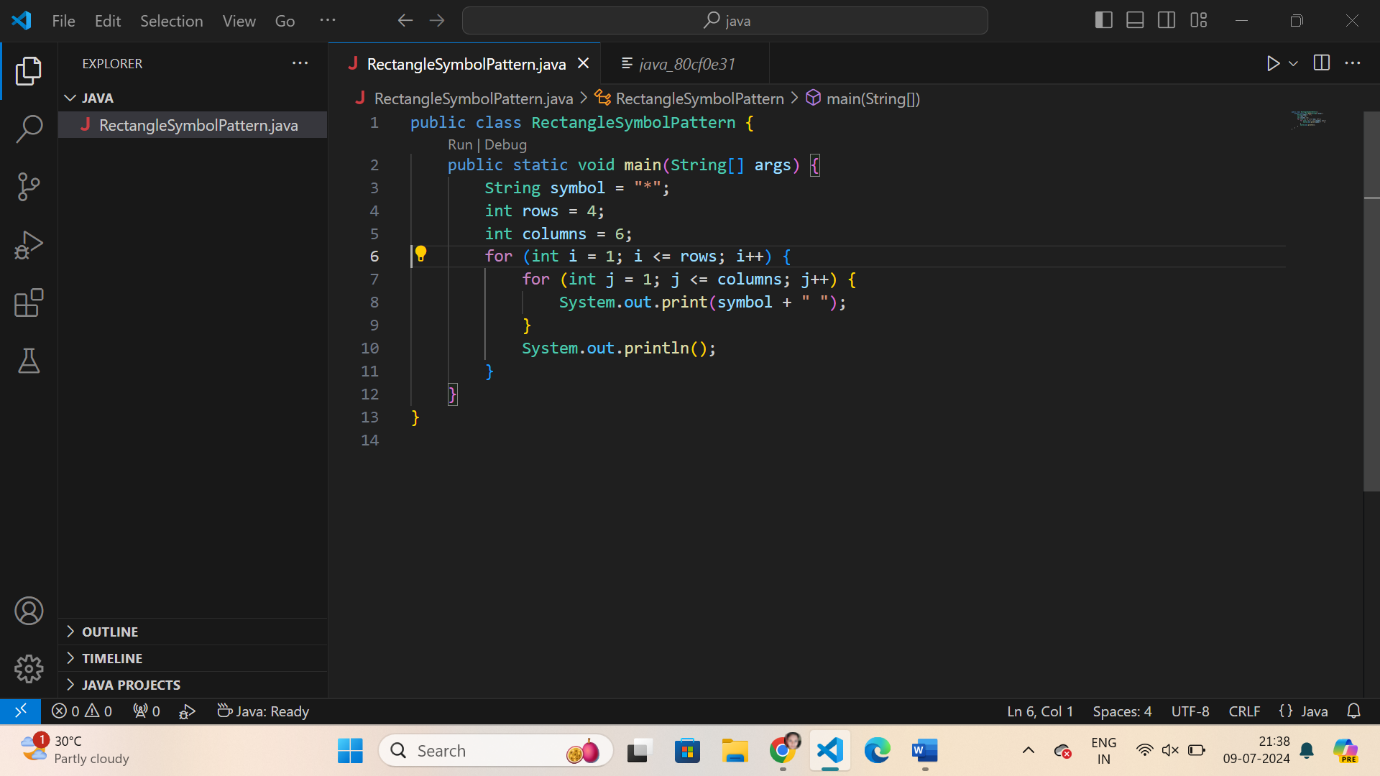
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | 1 |  |  |  |  |
|  |  |  | 1 |  | 1 |  |  |  |
|  |  | 1 |  | 2 |  | 1 |  |  |
|  | 1 |  | 3 |  | 3 |  | 1 |  |
| 1 |  | 4 |  | 6 |  | 4 |  | 1 |

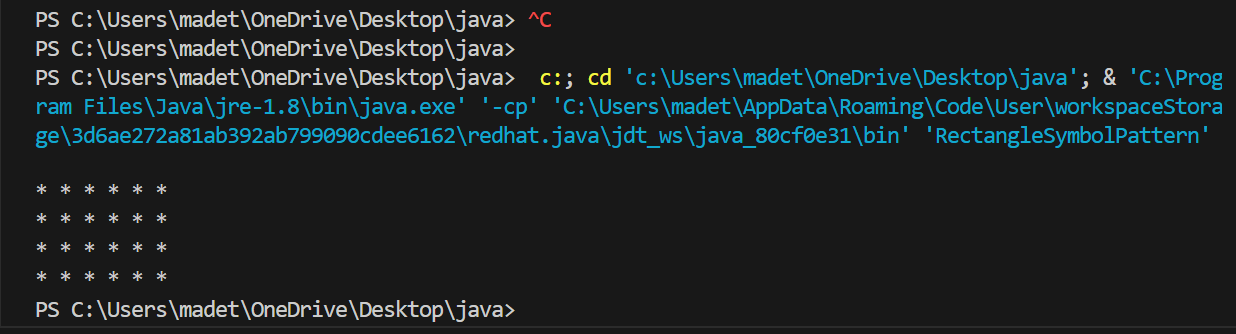




1. Write a program to print rectangle symbol pattern.

Get the symbol as input from user





1. Write a program to print the following pattern

Sample Input:

Enter the number to be printed: 1

Max Number of time printed: 3

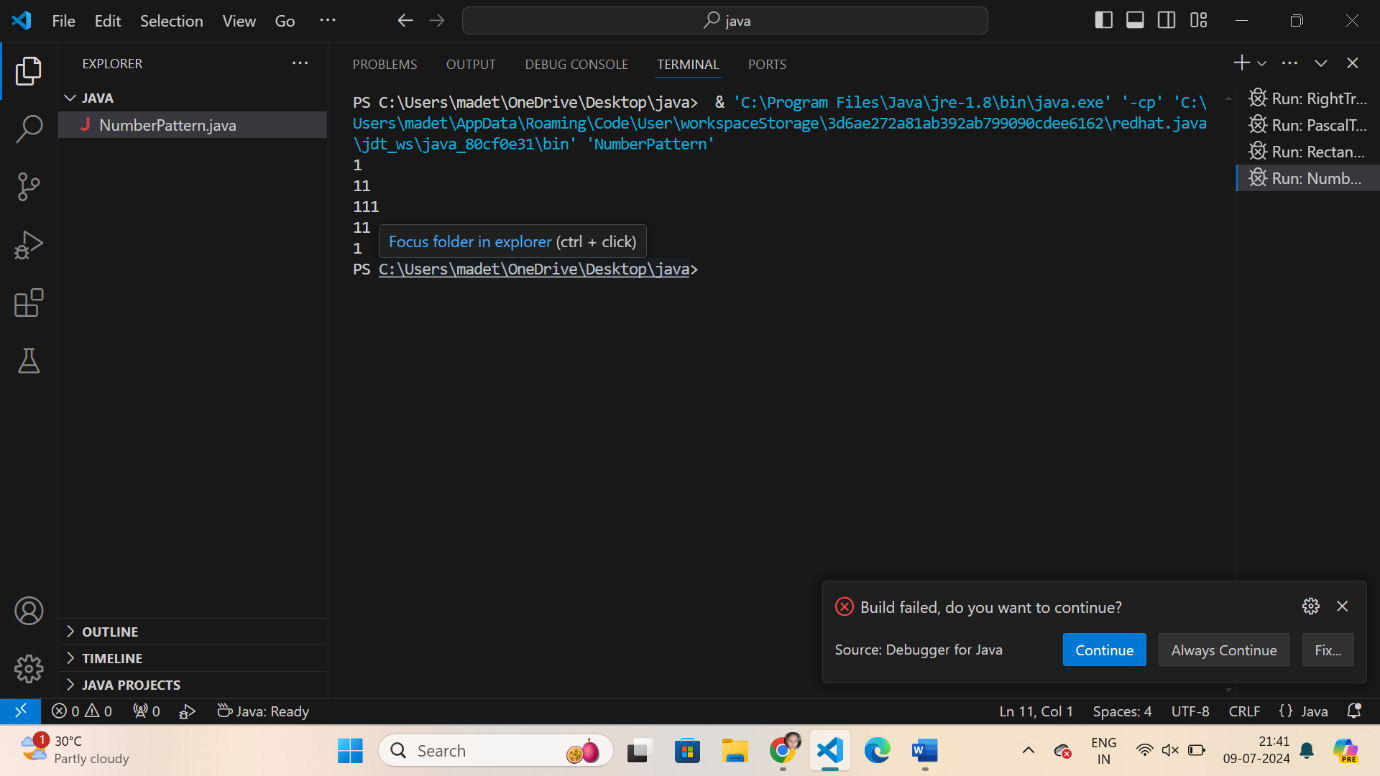
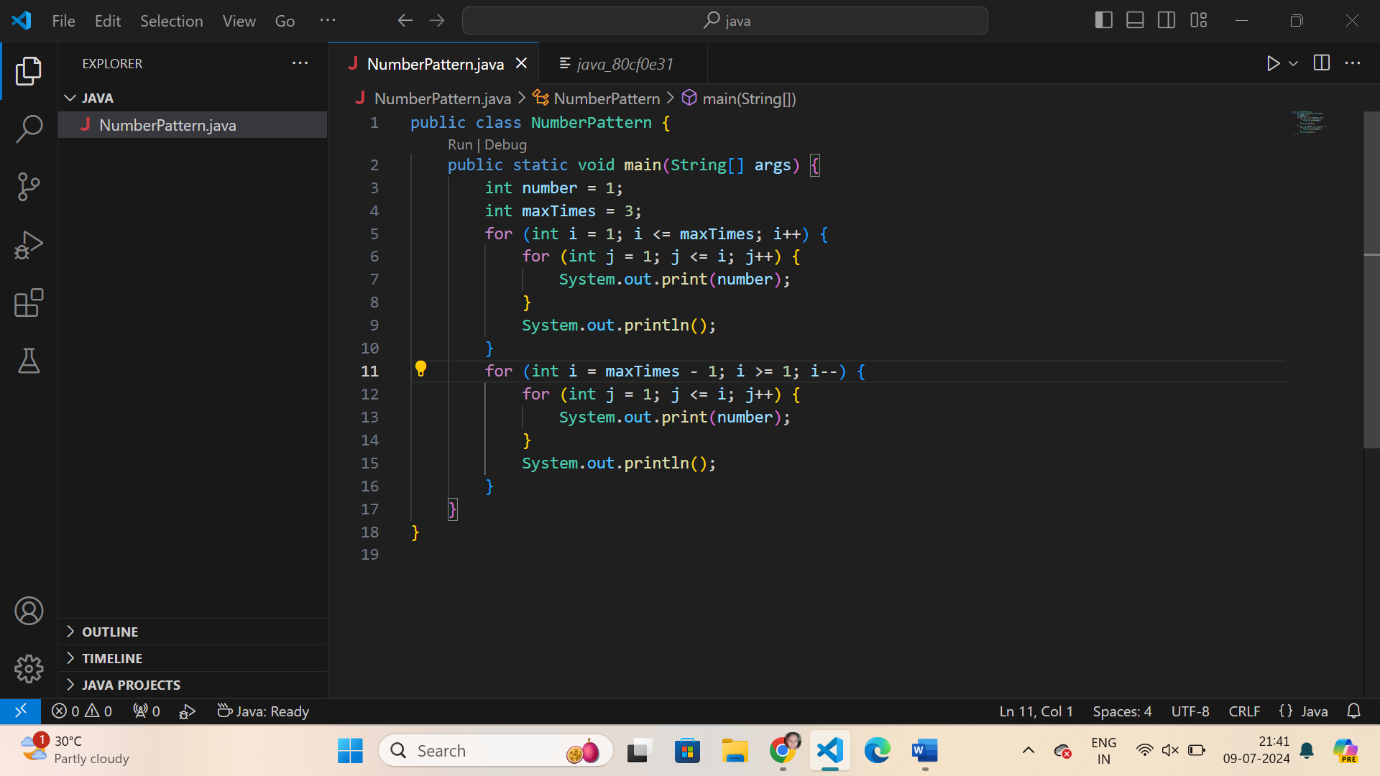
1

11

111

11

1



1. Write a program to print the Inverted Full Pyramid pattern?

