



Java

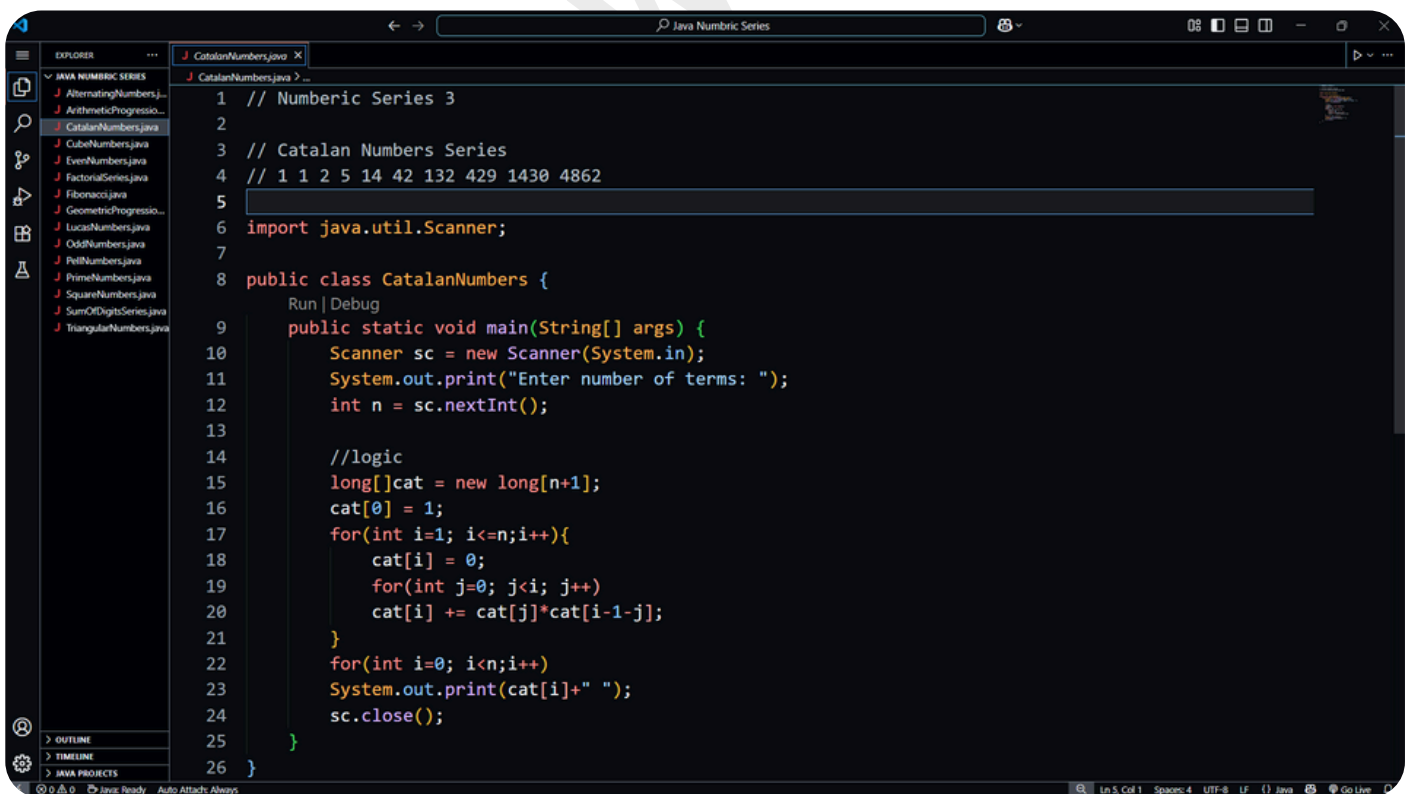
Numbtric Series

Java Program

Numbric Series

3. Catalan Numbers Series

Code



```
1 // Numeric Series 3
2
3 // Catalan Numbers Series
4 // 1 1 2 5 14 42 132 429 1430 4862
5
6 import java.util.Scanner;
7
8 public class CatalanNumbers {
9     public static void main(String[] args) {
10         Scanner sc = new Scanner(System.in);
11         System.out.print("Enter number of terms: ");
12         int n = sc.nextInt();
13
14         //logic
15         long[] cat = new long[n+1];
16         cat[0] = 1;
17         for(int i=1; i<=n; i++){
18             cat[i] = 0;
19             for(int j=0; j<i; j++){
20                 cat[i] += cat[j]*cat[i-1-j];
21             }
22         }
23         for(int i=0; i<n; i++)
24             System.out.print(cat[i]+" ");
25         sc.close();
26     }
27 }
```

Output

```
C:\Windows\System32\cmd.e  X + v
D:\system\Java Series\Java Numbric Series>javac CatalanNumbers.java
D:\system\Java Series\Java Numbric Series>java CatalanNumbers
Enter number of terms: 10
1 1 2 5 14 42 132 429 1430 4862
D:\system\Java Series\Java Numbric Series>
```

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