CDAC-Mumbai

Subject: Pattern Challenge in Java

Date: 04-09-2024 Total Marks:10

Time duration: 40 Min. Batch: August-24

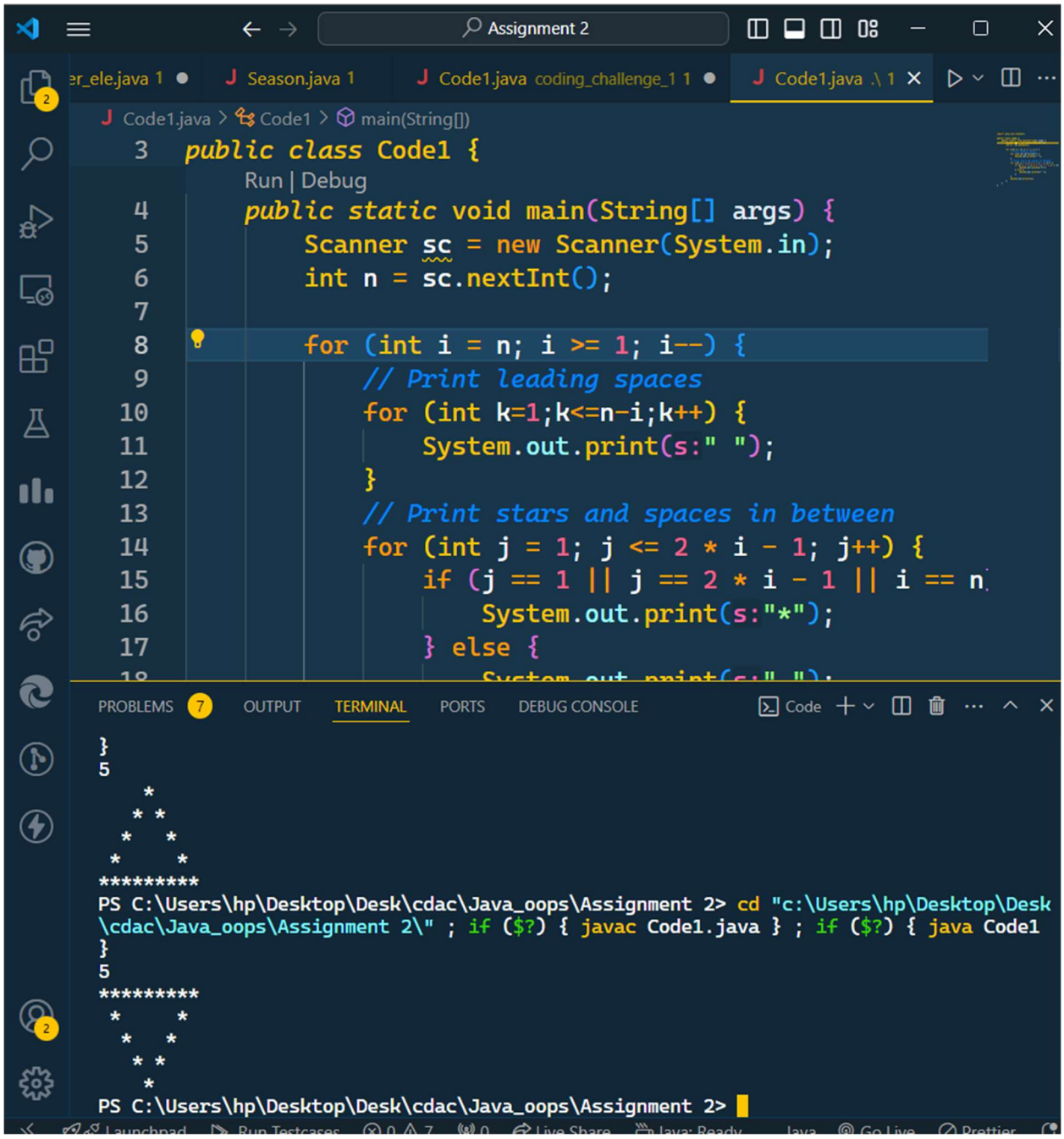
Q1. Write a Java program to print a hollow pyramid pattern using asterisks (*) and spaces.

```
import java.util.Scanner;

public class Code1 {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      int n = sc.nextInt();

      for (int i = 1; i <= n; i++) {
         // Print leading spaces
         for (int k=1;k<=n-i;k++) {
            System.out.print(" ");
         }
         // Print stars and spaces in between
         for (int j = 1; j <= 2 * i - 1; j++) {
            if (j == 1 || j == 2 * i - 1 || i == n) {
               System.out.print("*");
            } else {
               System.out.print(" ");
            }
         }
         System.out.println();
```

```
    }
  }
}
```

Q2. Write a Java program to print a hollow inverted pyramid pattern using asterisks (*) and spaces.

```
import java.util.Scanner;

public class Code1 {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      int n = sc.nextInt();

      for (int i = n; i >= 1; i--) {
         // Print leading spaces
         for (int k=1;k<=n-i;k++) {
            System.out.print(" ");
         }
         // Print stars and spaces in between
         for (int j = 1; j <= 2 * i - 1; j++) {
            if (j == 1 || j == 2 * i - 1 || i == n) {
               System.out.print("*");
            } else {
               System.out.print(" ");
            }
         }
         System.out.println();
      }
   }
}
```



Q3. Write a Java program to print a pyramid pattern of alphabets, starting from 'A', using spaces.

A

BCD

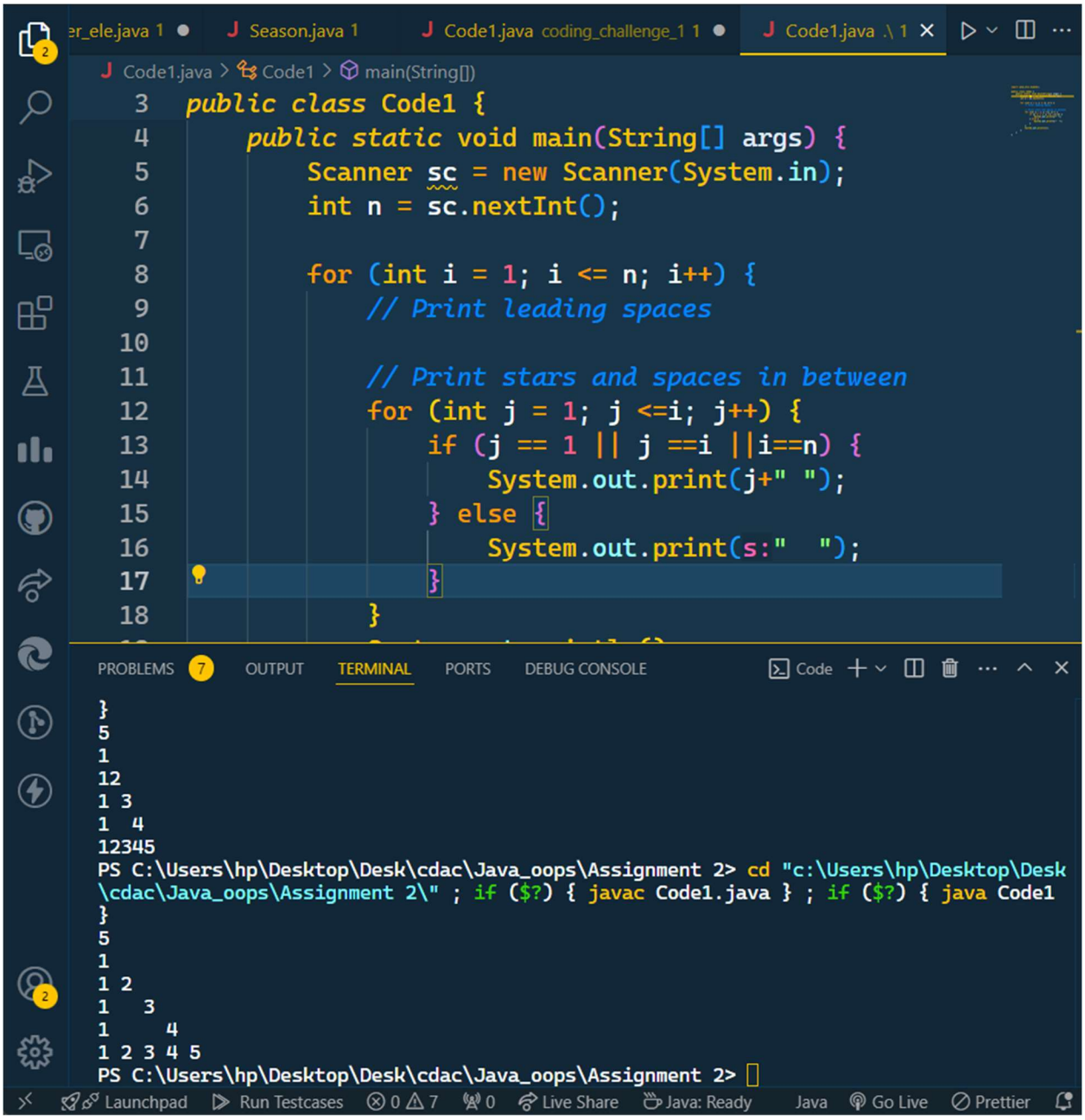
EFGHI

JKLMNOP

QRSTUVWXYZ

Q4. Write a Java program to print a hollow right triangle pattern using numbers and spaces.

```
import java.util.Scanner;

public class Code1 {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      int n = sc.nextInt();

      for (int i = 1; i <= n; i++) {
         // Print leading spaces

         // Print stars and spaces in between
         for (int j = 1; j <=i; j++) {
            if (j == 1 || j ==i ||i==n) {
               System.out.print(j+" ");
            } else {
               System.out.print("  ");
            }
         }
         System.out.println();
      }
   }
}
```



Write a Java program to print a Palindrome Number Pyramid

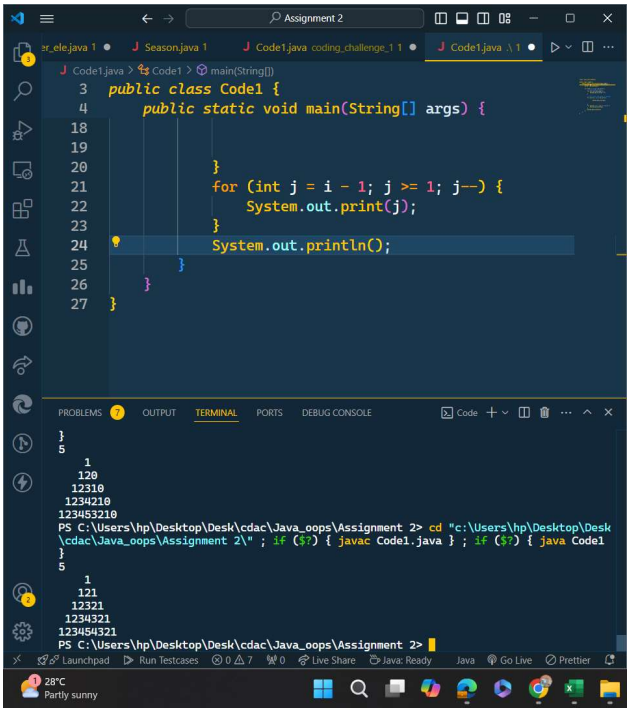
import *java.util.Scanner*;

public class Code1 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

```
        int n = sc.nextInt();

        for (int i = 1; i <= n; i++) {
            // Print leading spaces
            for (int k=1;k<=n-i;k++) {
                System.out.print(" ");
            }

            // Print stars and spaces in between
            for (int j = 1; j <=i; j++) {

                    System.out.print(j);



            }
            for (int j = i - 1; j >= 1; j--) {
                System.out.print(j);
            }
            System.out.println();
        }
    }
}
```


Assignment 2
Season.java 1
Code1.java coding_challenge_1 1
Code1.java 1
Code1.java > Code1 > main(String[])
public class Code1 {
public static void main(String[] args) {
}
for (int j = i - 1; j >= 1; j--) {
System.out.print(j);
}
System.out.println();
}
}
}
PROBLEMS 7
OUTPUT
TERMINAL
PORTS
DEBUG CONSOLE
}
5
1
120
12310
1234210
123453210
PS C:\Users\hp\Desktop\Desk\cdac\Java_oops\Assignment 2> cd "c:\Users\hp\Desktop\Desk\cdac\Java_oops\Assignment 2\" ; if ($?) { javac Code1.java } ; if ($?) { java Code1
}
5
1
121
12321
1234321
123454321
PS C:\Users\hp\Desktop\Desk\cdac\Java_oops\Assignment 2>
Launchpad
Run Testcases
Live Share
Java: Ready
Java
Go Live
Prettier
28°C
Partly sunny