Program 2:-

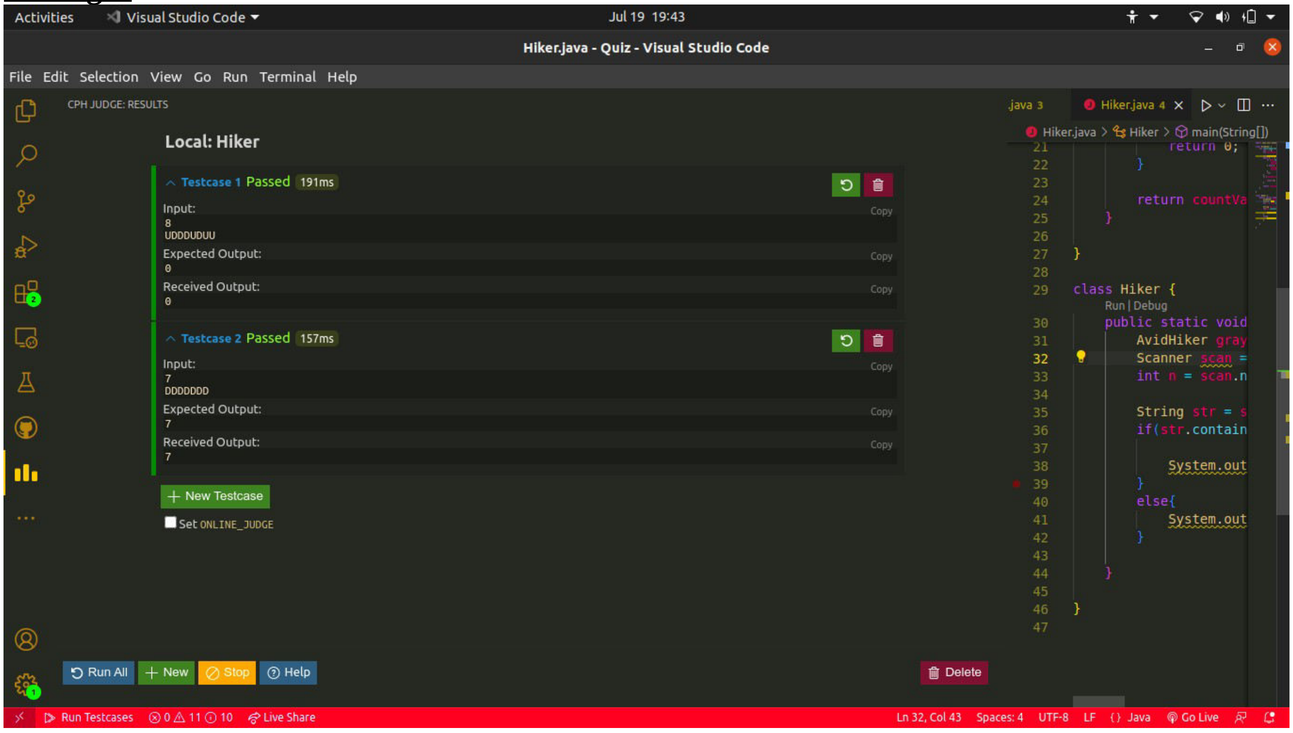
Gary is an avid hiker. He tracks his hikes meticulously, paying close attention to small details like topography. During his last hike, he took exactly n steps. For every step he took, he noted if it was an uphill or a downhill step. Gary's hikes start and end at sea level. We define the following terms:
A mountain is a non-empty sequence of consecutive steps above sea level, starting with a step up from sea level and ending with a step down to sea level.A valley is a non-empty sequence of consecutive steps below sea level, starting with a step down from sea level and ending with a step up to sea level.

Given Gary's sequence of up and down steps during his last hike, find and print the number of valleys he walked through.
Input Format
The first line contains an integer, , denoting the number of steps in Gary's hike.
The second line contains a single string of characters. Each character belongs to {U, D} (where U indicates a step up and D indicates a step down), and the i(th) cin the string describes Gary's i(th) step during the hike.
Constraints
2 <= N <= 10^6

Output Format
Print a single integer denoting the number of valleys Gary walked through during his hike.
Sample Input
8
UDDDUDUU
Implementation_:-

```
import java.util.Scanner;

class AvidHiker {
    int countingValleys(int n, String str) {
        int i = 0;
        int countValley = 0;

        int countMount = 0;
        while (i < n) {
            if (str.charAt(i)== 'U') {
                countValley--;
                countMount++;
            } else {
                countValley++;
                countMount--;
            }
            i++;
        }
        if (countValley < 0) {
            return 0;
        }

        return countValley;
    }

}

class Hiker {
    public static void main(String[] args) {
        AvidHiker gray = new AvidHiker();
        Scanner scan = new Scanner(System.in);
        int n = scan.nextInt();

        String str = scan.next();
        if(str.contains("U") || str.contains("D")){

            System.out.println(gray.countingValleys(n, str.toUpperCase()));
        }
        else{
            System.out.println("Unacceptable character");
        }

    }

}
```

Testing:-



Hiker.java - Quiz - Visual Studio Code

CPH JUDGE: RESULTS

Local: Hiker

Testcase 1 Passed 191ms

```
Input:
8
UDDDUDUU
Expected Output:
0
Received Output:
0
```

Testcase 2 Passed 157ms

```
Input:
7
DDDDDDD
Expected Output:
7
Received Output:
7
```

```
        return 0;
    }

    return countVa
  }

}

class Hiker {
  Run | Debug
  public static void
    AvidHiker gray
    Scanner scan =
    int n = scan.n

    String str = s
    if(str.contain

        System.out
    }
    else{
        System.out
    }

  }

}
```

Ln 32, Col 43 Spaces: 4 UTF-8 LF Java