Problem 1: String Analysis (Easy Level)

Description:
Write a Java program to analyze a user-input string. The program should:

- Count the number of **vowels, consonants, digits, and special characters**.
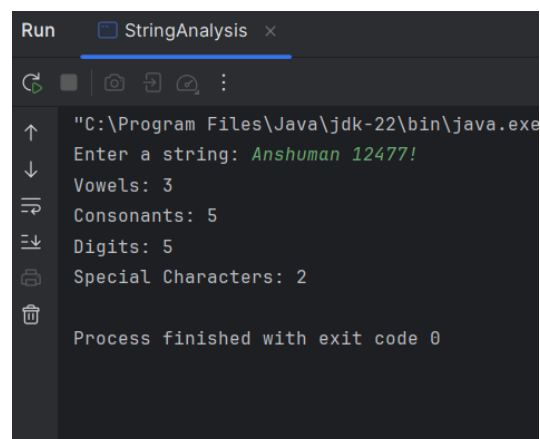
Code:

```java
import java.util.Scanner;

public class StringAnalysis {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();
        int vowels = 0, consonants = 0, digits = 0, specialChars = 0;

        for (char ch : input.toCharArray()) {
            if (Character.isLetter(ch)) {
                if ("AEIOUaeiou".indexOf(ch) != -1) {
                    vowels++;
                } else {
                    consonants++;
                }
            } else if (Character.isDigit(ch)) {
                digits++;
            } else {
                specialChars++;
            }
        }

        System.out.println("Vowels: " + vowels);
        System.out.println("Consonants: " + consonants);
        System.out.println("Digits: " + digits);
        System.out.println("Special Characters: " + specialChars);
    }
}
```

Output:


```
Run     StringAnalysis  ×

"C:\Program Files\Java\jdk-22\bin\java.exe
Enter a string: Anshuman 12477!
Vowels: 3
Consonants: 5
Digits: 5
Special Characters: 2

Process finished with exit code 0
```