Rajalakshmi Engineering College

Name: Kiruthick SM
Email: 240701263@rajalakshmi.edu.in
Roll no: 240701263
Phone: 8122868914
Branch: REC
Department: CSE - Section 4
Batch: 2028
Degree: B.E - CSE

Scan to verify results

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 4_Q4

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Arjun is learning how to filter words from a sentence based on grammar rules. He wants to identify the valid words in a sentence.

A word is considered valid if it satisfies all these conditions:

The word contains only alphabets (a–z, A–Z).The word length is at least 2 characters.The word should not contain digits or special characters.

Your task is to read a sentence and print all the valid words in it.

Input Format

The input contains a single line containing a sentence S.

Output Format

The output prints all the valid words separated by spaces.

If no valid word exists, print "No valid words."

Refer to the sample output for formatting specifications.

Sample Test Case

Input: Hello world1 123 ab" @#$ Hi
Output: Hello Hi

Answer

```
import java.util.*;


class ValidWordsFilter {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);
      String sentence = scanner.nextLine();  // Read the input line
      scanner.close();

      String[] words = sentence.split(" ");
      List<String> validWords = new ArrayList<>();

      for (String word : words) {
         if (isValidWord(word)) {
            validWords.add(word);
         }
      }

      if (validWords.isEmpty()) {
         System.out.println("No valid words.");
      } else {
         System.out.println(String.join(" ", validWords));
      }
   }

   // A valid word contains only letters and is at least 2 characters long
   private static boolean isValidWord(String word) {
      return word.length() >= 2 && word.matches("[a-zA-Z]+");
```

```
    }
}
```

Status : Correct *Marks : 10/10*