Rajalakshmi Engineering College

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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.io.*;
import java.util.Scanner;
import java.util.*;
public class Main{
   public static void main(String[] args){
      Scanner scanner=new Scanner(System.in);
      String sentence=scanner.nextLine();
      String[] words=sentence.split(" ");

      int count=0;
      for(int i=0;i<words.length;i++){  //use length -> array
         if(words[i].length()>=2) { //use length() -> string
            boolean isWord = true;
            for (int j = 0; j < words[i].length(); j++) {
               char ch = words[i].charAt(j);
               if (!((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))) {
                  isWord = false;
                  break;
               }
            }
            if (isWord) {
               count += 1;
               System.out.print(words[i] + " ");
            }
         }
      }
      if(count==0){
         System.out.println("No valid words.");
```

```
        }
    }
}
```

Status : Correct ***Marks : 10/10***