

# Rajalakshmi Engineering College

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Department: AI & DS - Section 5

Batch: 2028

Degree: B.E - AI & DS

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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.util.*;
public class Main{
    public static void main(String args[]){
        Scanner s = new Scanner(System.in);
        String n = s.nextLine();
        int c = 0;
        List<String> a = new ArrayList<>(Arrays.asList(n.split(" ")));
        for(String h : a){
            if(h.matches("[a-zA-Z]+" ) && h.length() > 1){
                System.out.print(h+" ");
                c = 1;
            }
        }
        if(c!=1){
            System.out.println("No valid words.");
        }
    }
}
```

**Status :** Correct

**Marks :** 10/10