

# Rajalakshmi Engineering College

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Department: AI & DS - Section 3

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**

```
// You are using Java
import java.util.*;
public class Main{
    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        String sentence = sc.nextLine();
        String[] words = sentence.split(" ");
        boolean foundValidWord = false;
        for(String word : words){
            boolean isValid = true;
            if(word.length() < 2){
                isValid = false;
            }
            else{
                for(int i = 0; i < word.length(); i++){
                    if(!Character.isLetter(word.charAt(i))){
                        isValid = false;
                        break;
                    }
                }
            }
            if(isValid){
                System.out.print(word + " ");
                foundValidWord = true;
            }
        }
        if(!foundValidWord){
            System.out.println("No valid words.");
        }
    }
}
```

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}

**Status : Correct**

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**Marks : 10/10**