

# 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**

```
// You are using Java
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String line = sc.nextLine();
        sc.close();

        String[] words = line.split(" ");
        boolean anyPrinted = false;

        for (int w = 0; w < words.length; w++) {
            String word = words[w];
            if (word.length() >= 2) {
                boolean lettersOnly = true;
                for (int i = 0; i < word.length(); i++) {
                    char c = word.charAt(i);
                    if (!Character.isLetter(c)) {
                        lettersOnly = false;
                        break;
                    }
                }
                if (lettersOnly) {
                    if (anyPrinted) System.out.print(" ");
                    System.out.print(word);
                    anyPrinted = true;
                }
            }
        }
    }
}
```

```
    }  
  }  
  
  if (!anyPrinted) {  
    System.out.print("No valid words.");  
  }  
}  
}
```

**Status :** Correct

**Marks : 10/10**