

# 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.*;
```

```
class Main {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        String sentence = sc.nextLine();
```

```
        String[] words = sentence.split(" ");
```

```
        StringBuilder sb = new StringBuilder();
```

```
        for(String w : words){
```

```
            if(w.matches("[a-zA-Z]{2,}")){
```

```
                if(sb.length() > 0) sb.append(" ");
```

```
                sb.append(w);
```

```
            }
```

```
        }
```

```
        if(sb.length() == 0) System.out.println("No valid words.");
```

```
        else System.out.println(sb.toString());
```

```
    }
```

```
}
```

**Status : Correct**

**Marks : 10/10**