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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(" ");
        List<String> validWords = new ArrayList<>();

        for (String word : words) {
            if (isValidWord(word)) {
                validWords.add(word);
            }
        }

        if (validWords.isEmpty()) {
            System.out.println("No valid words.");
        } else {
            // Print all valid words separated by space
            for (String w : validWords) {
                System.out.print(w + " ");
            }
            System.out.println(); // newline at end
        }

        sc.close();
```

```
    }

    private static boolean isValidWord(String word) {
        // Length at least 2
        if (word.length() < 2) return false;

        // Check if only letters (a-z or A-Z)
        for (char ch : word.toCharArray()) {
            if (!Character.isLetter(ch)) {
                return false;
            }
        }

        return true;
    }
}
```

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