

# Rajalakshmi Engineering College

Name: Aldrine Linjoe.s

Email: 240701033@rajalakshmi.edu.in

Roll no: 240701033

Phone: 7092049029

Branch: REC

Department: CSE - Section 10

Batch: 2028

Degree: B.E - CSE

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## 2024\_28\_III\_OOPS Using Java Lab

### 2028\_REC\_OOPS using Java\_Week 8\_Q3

Attempt : 1

Total Mark : 10

Marks Obtained : 10

#### **Section 1 : Coding**

##### **1. Problem Statement**

In a user registration system, there is a requirement to implement a username validation module. Users attempting to register must adhere to specific criteria for their usernames to be considered valid.

Your task is to develop a program that takes user input for a desired username and validates it according to the following rules:

The username must not contain any spaces. The username must be at least 5 characters long.

Implement a custom exception, InvalidUsernameException, to handle cases where the entered username does not meet the specified criteria.

##### ***Input Format***

The input consists of a string S, representing the desired username.

### ***Output Format***

If the username is valid, print "Username is valid: [S]" .

If the username is invalid:

1. If the username is short, print "Invalid Username: Username must be at least 5 characters long"
2. If the username contains spaces, print "Invalid Username: Username cannot contain spaces"

Refer to the sample output for formatting specifications.

### ***Sample Test Case***

Input: John

Output: Invalid Username: Username must be at least 5 characters long

### ***Answer***

```
// You are using Java
import java.util.*;
class InvalidUsernameException extends Exception{
    public InvalidUsernameException(String m){
        super(m);
    }
}
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String n=sc.nextLine();
        int k=0;
        try{
            int c=0;
            for(int i=0;i<n.length();i++){
                if(!Character.isLetter(n.charAt(i))){
                    c++;
                }
            }
            if(n.length()<5){
```

```
        throw new InvalidUsernameException("Invalid Username: Username  
must be at least 5 characters long");  
    }else if(c!=0){  
        throw new InvalidUsernameException("Invalid Username: Username  
cannot contain spaces");  
    }  
}  
}catch(InvalidUsernameException e){  
    System.out.println(e.getMessage());  
    k++;  
}  
if(k==0){  
    System.out.println("Username is valid: "+n);  
}  
}  
}
```

**Status : Correct**

**Marks : 10/10**