

# Rajalakshmi Engineering College

Name: Venkat krishna.A

Email: 241801308@rajalakshmi.edu.in

Roll no: 241801308

Phone: 9361019427

Branch: REC

Department: AI & DS - Section 5

Batch: 2028

Degree: B.E - AI & DS

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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{
    InvalidUsernameException(String a){
        super(a);
    }
}
class Main{
    static int check(String a) throws InvalidUsernameException
    {
        int f=1;
        if(a.length()<5)
        {
            f=0;
            throw new InvalidUsernameException("Username must be at least 5
characters long");
        }
        for(char i:a.toCharArray())
        {
            if(i==' ')

```

```
        {
            f=0;
            throw new InvalidUsernameException("Username cannot contain
spaces");
        }
    }
    if (f==1)
    {
        return 1;
    }
    else{
        return 0;
    }
}
public static void main(String[] args)
{
    Scanner sc=new Scanner(System.in);
    String a=sc.nextLine();
    try{
        int r=check(a);
        if(r==1)
        {
            System.out.println("Username is valid: "+a);
        }
    }
    catch( InvalidUsernameException e)
    {
        System.out.println("Invalid Username : "+e.getMessage());
    }
}
}
```

**Status : Correct**

**Marks : 10/10**