

# Rajalakshmi Engineering College

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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 m){  
        super(m);  
    }  
}
```

```
public class Main{
```

```
    static void validuser(String s) throws InvalidUsernameException{
```

```
        int l=s.length();
```

```
        int c=0;
```

```
        for(int i=0;i<l;i++){
```

```
            if(s.contains(" ")){
```

```
                c++;
```

```
            }
```

```
        }
```

```
        if(l<5){
```

```
            throw new InvalidUsernameException("Username must be at least 5  
characters long");
```

```
        }
```

```
        if(c>1){
            throw new InvalidUsernameException("Username cannot contain
spaces");
        }
    }
    public static void main(String args[]){
        Scanner in=new Scanner(System.in);
        String s=in.nextLine();
        try{
            validuser(s);
            System.out.println("Username is valid:"+s);
        }
        catch(InvalidUsernameException e){
            System.out.println("Invalid Username: "+e.getMessage());
        }
    }
}
```

**Status :** Correct

**Marks :** 10/10