

# 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**

```
import java.util.Scanner;
class InvalidUsernameException extends Exception{
    public InvalidUsernameException(String message){
        super(message);
    }
}
class UsernameValidator{
    public static void validateUsername(String username) throws
InvalidUsernameException{
        if (username.contains(" ")){
            throw new InvalidUsernameException("Username cannot contain
spaces");
        }
        if (username.length()<5){
            throw new InvalidUsernameException("Username must be at least 5
characters long");
        }
    }
}
public class Main{
```

```
public static void main(String[] args){
    Scanner scanner=new Scanner(System.in);
    String username=scanner.nextLine();
    try{
        UsernameValidator.validateUsername(username);
        System.out.println("Username is valid: "+username);
    } catch (InvalidUsernameException e){
        System.out.println("Invalid Username: "+e.getMessage());
    }
}
```

**Status :** Correct

**Marks :** 10/10