

# 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.Scanner;

class InvalidUsernameException extends Exception {
    public InvalidUsernameException(String s) {
        super(s);
    }
}

class Main {
    public static void name(String s) throws InvalidUsernameException {
        int l = s.length();
        if (l < 5) {
            throw new InvalidUsernameException("Username must be at least 5
characters long");
        } else {
            for (int i = 0; i < l; i++) {
                if (s.charAt(i) == ' ') {
                    throw new InvalidUsernameException("Username cannot contain
spaces");
                }
            }
        }
    }
}
```

```
        }
    }
    System.out.print("Username is valid: " + s);
}
}

public static void main(String[] args) {
    try {
        Scanner sc = new Scanner(System.in);
        String s = sc.nextLine();
        name(s);
    } catch (InvalidUsernameException e) {
        System.out.print("Invalid Username: " + e.getMessage());
    }
}
```

**Status : Correct**

**Marks : 10/10**