

Rajalakshmi Engineering College

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Batch: 2028

Degree: B.E - CSE (CS)

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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 Validator {
    public static void validate(String name) throws InvalidUsernameException {
        if (name.contains(" ")) {
            throw new InvalidUsernameException("Username cannot contain
spaces");
        }

        if (name.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 name = scanner.nextLine();  
  
    try {  
        Validator.validate(name); // Method call from UsernameValidator  
        System.out.println("Username is valid: " + name);  
    } catch (InvalidUsernameException e) {  
        System.out.println("Invalid Username: " + e.getMessage());  
    }  
}
```

Status : Correct

Marks : 10/10