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

```java
// You are using Java
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("Invalid Username: Username
cannot contain spaces");
    }
    if (username.length() < 5) {
      throw new InvalidUsernameException("Invalid Username: Username must
be at least 5 characters long");
    }
```

```java
        }

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

Status : Correct   ***Marks : 10/10***