

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 a){  
        super(a);  
    }
```

```
}
```

```
class Main{
```

```
    static int check(String a) throws InvalidUsernameException
```

```
    {
```

```
        int f=1;
```

```
        if(a.length()<5)
```

```
        {
```

```
            f=0;
```

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

```
        }
```

```
        for(char i:a.toCharArray())
```

```
        {
```

```
            if(i==' ')
```

```

    {
        f=0;
        throw new InvalidUsernameException("Username cannot contain
spaces");
    }
}
if (f==1)
{
    return 1;
}
else{
    return 0;
}
}
public static void main(String[] args)
{
    Scanner sc=new Scanner(System.in);
    String a=sc.nextLine();
    try{
        int r=check(a);
        if(r==1)
        {
            System.out.println("Username is valid: "+a);
        }
    }
    catch( InvalidUsernameException e)
    {
        System.out.println("Invalid Username : "+e.getMessage());
    }
}
}

```

Status : Correct

Marks : 10/10