

Rajalakshmi Engineering College

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Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 8_Q1

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Write a program to validate the email address and display suitable exceptions if there is any mistake.

Create 3 custom exception classes as below

DotExceptionAtTheRateExceptionDomainException

A typical email address should have a ". " character, and a "@" character, and also the domain name should be valid. Valid domain names for practice be 'in', 'com', 'net', or 'biz'.

Display Invalid Dot usage, Invalid @ usage, or Invalid Domain message based on email id.

Get the email address from the user, validate the email by checking the

above-mentioned criteria, and print the validity status of the input email address.

Input Format

The first line of input contains the email to be validated.

Output Format

The output prints a Valid email address or an Invalid email address along with the suitable exception

If email ends with . or contains not exactly one . after @, it throws:

DotException: Invalid Dot usage

Invalid email address

If @ appears not exactly once, it throws:

AtTheRateException: Invalid @ usage

Invalid email address

If the part after the last dot is not among accepted domains:

DomainException: Invalid Domain

Invalid email address

If all conditions satisfied then print:

Valid email address

Refer to the sample input and output for format specifications.

Sample Test Case

Input: sample@gmail.com

Output: Valid email address

Answer

```
import java.util.Scanner;

class DotException extends Exception {
    public DotException(String msg) {
        super(msg);
    }
}

class AtTheRateException extends Exception {
    public AtTheRateException(String msg) {
        super(msg);
    }
}

class DomainException extends Exception {
    public DomainException(String msg) {
        super(msg);
    }
}

class SimpleEmailValidator {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String email = sc.nextLine();

        try {
            if (email.startsWith(".") || email.endsWith(".") || !email.contains(".")) ||
email.contains("..")) {
                throw new DotException("DotException: Invalid Dot usage");
            }

            if (email.startsWith("@") || email.endsWith("@") || email.indexOf "@" !=
```

```
email.lastIndexOf("@") || !email.contains "@" || email.contains "@@")) {  
    throw new AtTheRateException("AtTheRateException: Invalid @  
usage");  
}  
  
String domain = email.substring(email.lastIndexOf('.') + 1);  
if (!(domain.equals("com") || domain.equals("in") || domain.equals("net") ||  
domain.equals("biz"))){  
    throw new DomainException("DomainException: Invalid Domain");  
}  
  
System.out.println("Valid email address");  
  
} catch (DotException | AtTheRateException | DomainException e) {  
    System.out.println(e.getMessage());  
    System.out.println("Invalid email address");  
}  
}  
}
```

Status : Correct

Marks : 10/10