Rajalakshmi Engineering College

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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

```
// You are using Java

import java.util.*;

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

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

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


class CheckEmail{
    public static void validMail(String em) throws
DotException,AtTheRateException,DomainException{
        int at=em.length()-em.replace("@","").length();
        if(at!=1 || em.startsWith("@") || em.endsWith("@")){
            throw new AtTheRateException("AtTheRateException: Invalid @ usage");
        }

        int dot=em.indexOf(".");
```

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

        String dom=em.substring(dot+1);
        if(!(dom.equals("com") ||dom.equals("net") || dom.equals("in") ||
dom.equals("biz"))){
            throw new DomainException("DomainException: Invalid Domain");
        }
    }

    public static void main(String[] arg){
        Scanner s=new Scanner(System.in);

        try{
            String em=s.nextLine();
            validMail(em);
            System.out.print("Valid Email Address");
        }
        catch (DotException e){
            System.out.print(e.getMessage());
            System.out.print("\nInvalid email address");
        }
        catch (AtTheRateException e){
            System.out.print(e.getMessage());
            System.out.print("\nInvalid email address");
        }
        catch (DomainException e){
            System.out.print(e.getMessage());
            System.out.print("\nInvalid email address");
        }
        finally{
            s.close();
        }
    }

}
```

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