Rajalakshmi Engineering College

Name: Divya s
Email: 240701128@rajalakshmi.edu.in
Roll no: 240701128
Phone: 9361309467
Branch: REC
Department: CSE - Section 7
Batch: 2028
Degree: B.E - CSE

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

```java
// You are using Java
import java.util.*;
class DotException extends Exception{
    public DotException(String e){
        super(e);
    }
}
class AtTheRateException   extends Exception{
    public AtTheRateException(String e){
        super(e);
    }
}
class DomainException  extends Exception{
    public DomainException(String e){
        super(e);
    }
}

class main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String e=sc.nextLine();
        try{
          if(e.indexOf('@')==-1||e.lastIndexOf('@')!=e.indexOf('@')){
            throw new AtTheRateException("Invalid @ usage");
          }
            int u=e.indexOf('@');
            int uu=e.lastIndexOf('.');
            if(u>uu||e.endsWith(".")){
                throw new DotException("Invalid Dot usage");
            }
            String r=e.substring(uu+1);
```

```java
            if(!(r.equals("in")||r.equals("com")||r.equals("net")||r.equals("biz"))){
                throw new DomainException("Invalid Domain");
            }
            else{
                System.out.print("Valid email address");
            }
        }
        catch(DotException s){
            System.out.println("DotException:"+s.getMessage());
            System.out.println("Invalid email address");
        }

        catch(AtTheRateException s){
            System.out.println("AtTheRateException:"+s.getMessage());
            System.out.println("Invalid email address");
        }
        catch(DomainException s){
            System.out.println("DomainException:"+s.getMessage());
            System.out.println("Invalid email address");
        }

    }
}
```

Status : Correct   *Marks : 10/10*