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 DomainException extends Exception{
    public DomainException(String l){
        super(l);
    }
}
class AtTheRateException extends Exception{
    public AtTheRateException(String u){
        super(u);
    }
}
class Main{
    public static void main(String[] args){
        Scanner sc=new  Scanner(System.in);
        String a=sc.nextLine();
        int h=0;
        try{
            int g=0;
            int j=0;
            for(int i=0;i<a.length();i++){
                if(a.charAt(i)=='.'){
                    g++;
                }
                if(a.charAt(i)=='@'){
                    j++;
                }
```

```
        }
        String[] f=a.split("\\.");
        int o=f.length-1;

        if(g>1 || a.charAt(a.length()-1)=='.'){
           throw new DotException("Invalid Dot usage");
        }else if(!(f[o].equals("com") || f[o].equals("in") || f[o].equals("net") ||
f[o].equals("biz"))){
           throw new DomainException("Invalid Domain");
        }else if(j>1){
           throw new AtTheRateException("Invalid @ usage");
        }
      }catch(DotException e){
        System.out.println(e);
        System.out.println("Invalid email address");
        h++;
      }catch(DomainException e){
        System.out.println(e);
        System.out.println("Invalid email address");
        h++;
      }catch(AtTheRateException e){
        System.out.println(e);
        System.out.println("Invalid email address");
        h++;
      }
      if(h==0){
        System.out.print("Valid email address");
      }
   }
}
```

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