

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

DotException AtTheRateException DomainException

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 s){
        System.out.println(s);
    }
}
class AtTheRateException extends Exception{
    public AtTheRateException (String s){
        System.out.println(s);
    }
}
class DomainException extends Exception{
    public DomainException (String s){
        System.out.println(s);
    }
}
class main{
    public static void main(String [] args){
        try{
            String [] domains={"in","com","net","biz"};
            int flag=0;
            Scanner scan=new Scanner(System.in);
            String mail=scan.nextLine();
            int count_dots=0;
            int count_atrate=0;
            for(char i:mail.toCharArray()){
                if(i=='.'){
                    count_dots+=1;
                }
            }
        }
    }
}
```

```
for(char i:mail.toCharArray()){
    if(i=='@'){
        count_atrate+=1;
    }
}
if(count_dots>1){
    throw new DotException("DotException: Invalid Dot usage");
}
if(count_atrate!=1){
    throw new AtTheRateException("AtTheRateException: Invalid @ usage");
}
for(String domain:domains){
    if(mail.contains(domain)){
        flag=1;
        System.out.println("Valid email address");
        break;
    }
}
if(flag==0){
    throw new DomainException("DomainException: Invalid Domain");
}
}
catch (Exception e){
    System.out.println("Invalid email address");
}
}
```

Status : Correct

Marks : 10/10