

# Rajalakshmi Engineering College

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Batch: 2028

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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***

```
import java.util.*;
class DotException extends Exception{
    DotException(String m){
        super(m);
    }
}
class AtTheRateException extends Exception{
    AtTheRateException(String m){
        super(m);
    }
}
class DomainException extends Exception{
    DomainException(String m){
        super(m);
    }
}
class main{
    public static void mail(String a) throws
    DotException,AtTheRateException,DomainException{
        int at=0,d=0;
        char[] arr=a.toCharArray();
        for(int i=0; i<arr.length; i++){
            if(arr[i]=='.'){
                d++;
            }
            if(arr[i]=='@'){
                at++;
            }
        }
        if(at>1){
            throw new AtTheRateException("AtTheRateException: Invalid @ usage");
        }
    }
}
```

```
if(d>1){
    throw new DotException("DotException: Invalid Dot usage");
}
if(!(a.endsWith("in")||a.endsWith("com")||a.endsWith("net")||a.endsWith("biz"))){
    throw new DomainException("DomainException: Invalid Domain");
}
System.out.print("Valid email address");
}

public static void main(String args[]){
    Scanner scan= new Scanner(System.in);
    String a=scan.nextLine();
    try{
        mail(a);
    }
    catch(DotException e){
        System.out.println(e.getMessage());
        System.out.println("Invalid email address");
    }
    catch(AtTheRateException e){
        System.out.println(e.getMessage());
        System.out.println("Invalid email address");
    }
    catch(DomainException e){
        System.out.println(e.getMessage());
        System.out.println("Invalid email address");
    }
}
}
```

**Status :** Correct

**Marks :** 10/10