

# Rajalakshmi Engineering College

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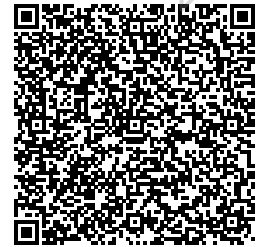
Branch: REC

Department: AI & DS - Section 3

Batch: 2028

Degree: B.E - AI & DS

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## 2024\_28\_III\_OOPS Using Java Lab

### 2028\_REC\_OOPS using Java\_Week 8\_Q4

Attempt : 1

Total Mark : 10

Marks Obtained : 10

### Section 1 : Coding

#### 1. Problem Statement

A local municipality is implementing an online voting system for a community event and wants to ensure that only eligible voters (those aged 18 or older) can participate.

Your task is to develop a program that validates the age of individuals attempting to vote online. If the user's age is below 18, the program should throw a custom exception, `InvalidAgeException`, preventing them from casting their vote. If the input is invalid, catch the appropriate `InputMismatchException` and print the in-built exception message.

#### ***Input Format***

The input consists of an integer representing the age.

#### ***Output Format***

If the age is 18 or older, print "Eligible to vote"

If the age is below 18, print "Exception occurred: InvalidAgeException: Age is not valid to vote"

If there is any other type of exception, print "An error occurred: " followed by the in-built exception message.

Refer to the sample output for formatting specifications.

### **Sample Test Case**

Input: 20

Output: Eligible to vote

### **Answer**

// You are using Java

import java.util.InputMismatchException;

import java.util.Scanner;

```
class InvalidAgeException extends Exception {  
    public InvalidAgeException(String message) {  
        super(message);  
    }  
}
```

```
class VotingSystem {  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        try {  
            int age = sc.nextInt();  
            validateAge(age);  
            System.out.println("Eligible to vote");  
        } catch (InvalidAgeException e) {  
            System.out.println("Exception occurred: InvalidAgeException: " +  
e.getMessage());  
        } catch (InputMismatchException e) {  
            System.out.println("An error occurred: " + e.getClass().getName());  
        } catch (Exception e) {  
            System.out.println("An error occurred: " + e.getMessage());  
        }  
    }  
}
```

```
    } finally {  
        sc.close();  
    }  
}  
  
public static void validateAge(int age) throws InvalidAgeException {  
    if (age < 18) {  
        throw new InvalidAgeException("Age is not valid to vote");  
    }  
}  
}
```

**Status :** Correct

**Marks :** 10/10