

# Rajalakshmi Engineering College

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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**

```
import java.util.InputMismatchException;
import java.util.Scanner;

// Custom Exception for age validation
class InvalidAgeException extends Exception {
    public InvalidAgeException(String message) {
        super(message);
    }
}

public class Main {

    // Validation method
    public static void validateAge(int age) throws InvalidAgeException {
        if (age < 18) {
            throw new InvalidAgeException("Age is not valid to vote");
        }
    }

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        try {
            int age = scanner.nextInt();
```

```
        validateAge(age);
        System.out.println("Eligible to vote");
    } catch (InvalidAgeException e) {
        System.out.println("Exception occurred: InvalidAgeException: " +
e.getMessage());
    } catch (InputMismatchException e) {
        // Catch InputMismatchException specifically for invalid input type (e.g.,
"XYZ")
        System.out.println("An error occurred: " + e.toString());
    } catch (Exception e) {
        // Catch any other unexpected exceptions
        System.out.println("An error occurred: " + e.toString());
    } finally {
        scanner.close();
    }
}
```

**Status :** Correct

**Marks :** 10/10