

## OBJECT ORIENTED PROGRAMMING LAB (CSE 2163)

### End Semester Examination

Date: 11-01-2022

Time: 10.00-11.00 AM

#### Instructions to students:

- Write your Name, Section, Semester, Roll No, Register number and signature in the first page, and your Register number and signature in the remaining pages without fail.
- File name format: RegNo\_YourName.pdf
- Write-up: 45 mins Scan and upload : 15 mins

*Write a JavaFX application to define a class called PrimeSeries to do the following.*

#### Part A.

GUI creation with 4 labels and 2 text fields and a canvas. ( Refer figures Fig 1-3)  
Use Flowpane. Set the title as shown in figures.

#### Part B.

- Define *InvalidRangeException* class with 2 private data members and a parameterized constructor and also override toString method.
- Get the lower limit and upper limit from the 2 text fields when the enter key is pressed from being in the second text field.
- Throw a user defined exception called *InvalidRangeException* in the following cases.
  - Case 1. Any one or both the limits are negative
  - Case 2. When the upper limit is smaller than the lower limit

Display the appropriate messages (returned by toString method) on a label for different cases mentioned above. ( Refer Fig. 1 and 2)

#### Part C.

When both the limits are positive and lower limit is smaller than the upper limit, generate prime series and display it on Canvas ( Refer Fig. 3)

#### Sample Input/ Output:

	GUI Part A	Exception (All possible cases) Part B	Prime series generation and display on the Canvas Part C	Remarks
Write-up	5M	7M	8 M	
Marks obtained				

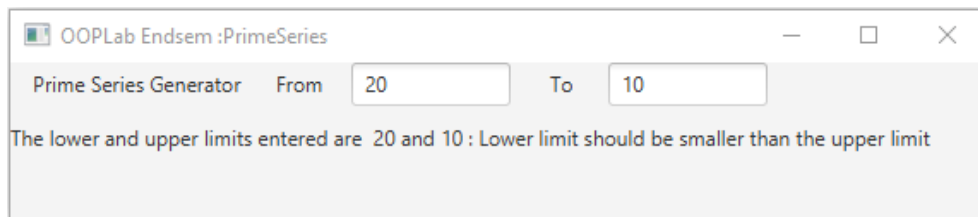


Fig.1

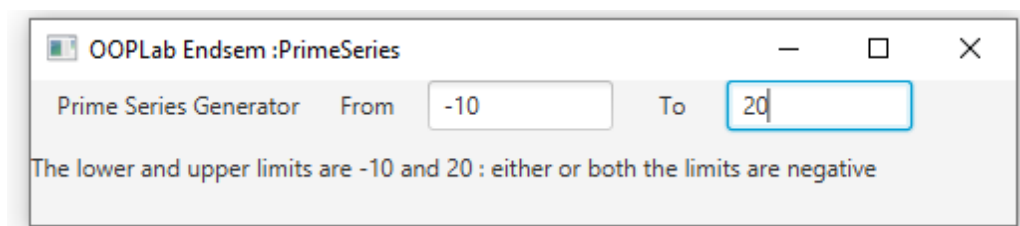


Fig.2

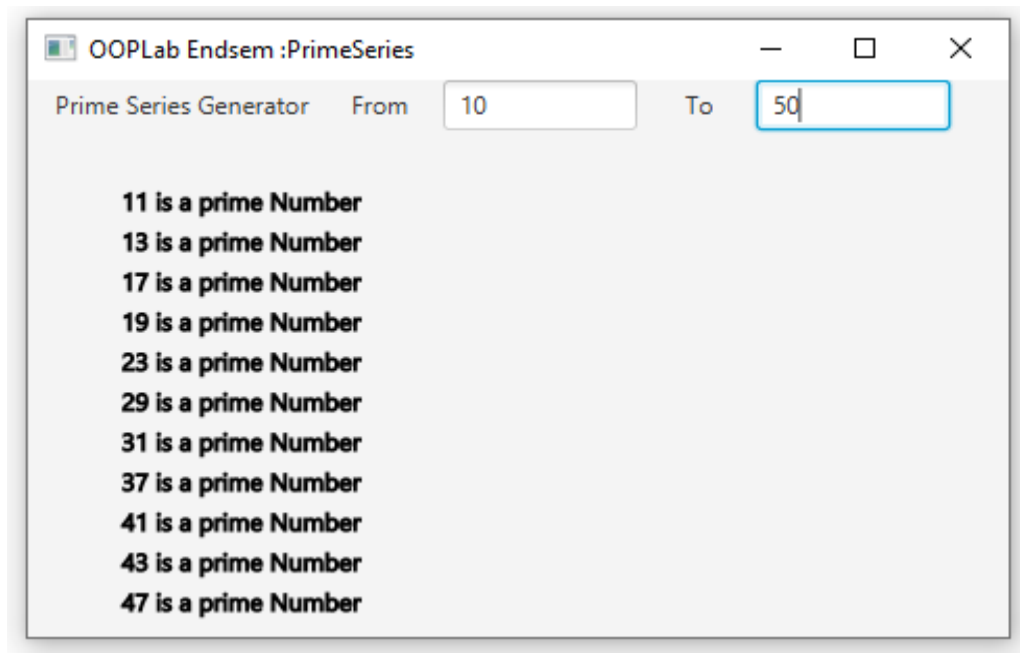


Fig.3

\*\*\*\*\*All the best\*\*\*\*\*