**Homework 4**

1. Use Java Swing GUI for the following 3 problems:

Please use the following syntax for this homework:

1. Use Enhanced for statement for the array process
2. Use JPanel for displaying area.
3. Use E**vent handling : Provide JButton or JTextField for the I/O process** .

II. Problem 4 Use JavaFX

**Problem 1**:

Write a Java Application program that creates a two-dimensional matrix representing the Pascal triangle. Your program must be able to create a Pascal triangle of **any size**.

**Input the size from the user.**

A Pascal triangle of size 7 is shown as the following:

1

1 1

1 2 1

1 3 3 1

1 4 6 4 1

1 5 10 10 5 1

1 6 15 20 15 6 1

or

1

1. 1

1 2 1

1 3 3 1

1 4 6 4 1

1 5 10 10 5 1

1 6 15 20 15 6 1

Note: In a Pascal triangle, each element is the sum of the element directly above it

and the element to the left of the element directly above it.

**Problem 2** : Textbook Chapter 7

Exercise 7.19 Airline Reservations System

**Problem 3** : Textbook Chapter 7

Exercise 7.21 Turtle Graphics

**Problem 4**: Textbook p199:

JavaFX GUI and Graphics Case Study Exercises: 4.1 4.2