CSE1007 – JAVA PROGRAMMING

ASSESSMENT NO.03

DEADLINE: -20/10/2022

1. Write a Java program to copy the contents of one file into another file using File I/O Steams.

2. Write a program that meets the following requirements:

- Create an array with **100** randomly chosen integers.

- Prompt the user to enter the index of the array, then display the corresponding element value. If the specified index is out of bounds, display the message **Out of Bounds**.

3. In a triangle, the sum of any two sides is greater than the other side. The **Triangle** class must adhere to this rule. Create the **IllegalTriangleException** class, and modify the constructor of the **Triangle** class to throw an **IllegalTriangleException** object if a triangle is created with sides that violate the rule, as follows:

/** Construct a triangle with the specified sides */

public Triangle(**double** side1, **double** side2, **double** side3)

throws IllegalTriangleException

{

// Implement it

}

4. Write a program to compute the following equation using 3 individual threads and add their result.

$$P = \sin(x) + \cos(y) + \tan(z)$$

5. Implement Producer Consumer problem for the bounded buffer of size 'n' (Ensure n>5)