

Due: Today, at the end of the lab period.

The Tribonacci sequence is given by following series 0, 0, 1, 1, 2, 4, 7, 13, 24, 44, 81 ..., where the value of Tribonacci-0 is 0, Tribonacci-1 is 0, Tribonacci-2 is 1, and then for every position afterwards, the value is always the sum of its 3 previous ones. You are determined to write a program that would return you the Tribonacci number of a position.

Create a **Tribonacci** class that has a recursive methods called **tribonacciAtPosition()** with the following characteristics, which will write the entire Tribonacci sequence in series to a .txt file:

- a) Takes the Tribonacci position (int) as a parameter.
- b) Write the Tribonacci value of that position to a .txt file.
- c) Makes a recursive call to itself until the Tribonacci value of the desired position is reached.

Create a Driver class to test your program. Use a randomly generated integer (from 5 to 10) as the position to find the Tribonacci sequence up to that position.

Hints

- a) Note that the Tribonacci position index starts from 0 (not 1).
- b) You must ensure that you append to the output file instead of writing over the data.

Submission: Once you are done:

Upload your program here: <https://fis.encs.concordia.ca/eas/>

Please name your file following this convention:

Your file should be called lab4_studentID, where studentID is your student ID number