

## Fibonacci Program Run Instructions

**Purpose:** This program will output Fibonacci values to the console obtained by two different approaches: one by using a recursive algorithm, and the other by using an iterative algorithm. A bar chart is also produced that compares the runtime of each method. The user can specify which algorithm to implement (or both) and specify how many values of the Fibonacci series they would like to see (up to a predetermined limit). Warning: This program uses JavaFX.

### How to run:

After importing the project into Eclipse and making sure that all the appropriate JavaFX configurations have been set, run the program. The console will produce some text prompting the user for input. The input options are either "R" or "I", for the recursive algorithm and the iterative algorithm, respectively. Entering any other value will cause the program to use the default setting, which runs both algorithms and compares the runtime of each. After entering some text, the console will now prompt the user for the number of Fibonacci values that will be printed to console, up to a predetermined maximum. Once these two pieces of information have been entered, the program will execute. The result should be some Fibonacci values in the console window, along with the number of nanoseconds that each algorithm ran for. A bar chart in a separate window will also pop up, showing the user the same runtime in nanoseconds for the two algorithms.