Lab XX
Sorting (Optional)

None of this exercise counts towards your final coursework mark for CS1022. Submit your solutions (.s files) using Blackboard whenever (or not).

1 Sorting

Write an ARM Assembly Language program that sort an array of word-size values into ascending order (low to high). You should only work in the subroutine fastSORT according to the interface provided. You can use any sorting algorithm you like. You can use other subroutines if you'd like (as long as you write them yourself). You should work on the numbers provided without changing them.

Periodically I will look at the solutions and see whose is fastest and update a table (here). To facilitate this please calculate the call time. To do this put a breakpoint on the BL fastSORT line and the stop B stop line. Run to the first one and note the time in the Sec field in the register window under internal. Then click run again, it will stop on the stop breakpoint, calculate the difference, this is your time. When you submit, put this time in the comments section along with a one sentence description of your approach. Also submit your code, I may need to check if you cheated! If you want to be in the high score list anonymously, supply an alias (one I can publish) in the comments too.

To see where your time is being spent you can look at individual line time, to do this, go into debug mode, right click inside the source window, in the menu hover over execution profiling and select show time. Run your code right though, click stop and click in the source window and timings should appear.