EC 504 – Fall 2019 – Homework 2 Code Exercise

Due Thursday, Oct 3, 2019 in the beginning of class. Coding problems submitted in the directory `/projectnb/alg504/yourname/HW2` on your SCC account by Friday Octo 3, 11:59PM.

Reading Assigned in CLRS Chapters 6, 7, 9, 10 and 12

- (20 pts) Suppose you are given two sorted arrays A, B of integer values, in increasing order, sizes n and m respectively, and $m + n$ is an odd value (so we can define the median value uniquely). Develop an algorithm for finding the median of the combined sorted arrays, and analyze the complexity of your algorithm. It is straight forward to develop an algorithm that is $O(min(n, m))$. Explain in words. You should attempt to construct a code that is worst case complexity is $O(min(n, m))$ to get good performance.

  Implement your algorithm as a C/C++ function. Put final code with Makefile on your top level CCS account in dirctory (e.g. folder!)

  `/projectnb/alg504/username/HW2`