CSC-421 Applied Algorithms and Structures
Fall 2018-19

Instructor: Iyad Kanj
Office: CDM 832
Phone: (312) 362-5558
Email: ikanj@cs.depaul.edu
Office Hours: Monday & Wednesday 4:00-5:30
Course Website: https://d2l.depaul.edu/

Programming Assignment
(Due October 5)

Write a program that implements Graham's algorithm for computing the convex hull of a set of points S in the plane. Your algorithm should take as input the coordinates of the points in S (following the format in the input files on D2L), and should output the coordinates of the points on the convex hull of S. You can assume that the points in S are distinct. For sorting the points, you need to code an $O(n \lg n)$-time sorting algorithm.

You can use any of the *standard* programming languages, such as C, Java, or Python. Please test your code on the test files that are uploaded on D2L (in the same folder as the assignment), and compare them to the posted solutions.

Material to be submitted on D2L

1. The files containing your source code. Make sure that the files compile and run.
2. The grader will test your programs on the uploaded test files (text files). So make sure that your programs run on the uploaded files.

Please create a single ".zip" file containing all the above material and upload it on D2L.