



Homework 7

CS386D Database Systems
Created on 3/12/20
Version: 1.0

Assigned: 3/12/20

Due: Originally intended to be due 3/27, the Friday after the original spring break. It will actually be due as close to that date as the new rules allow, (when the new rules are announced)

Objectives:

Part A) Understanding the cost of individual operators

Part B) More practice with the text book's simplified logical cost model

Part C) the dynamic programming algorithm for query optimization, as applied to join order

The Assignment:

Part A) Text problems: 15.3.2, 15.3.3 a, 15.4.2 a, b, c, 15.4.3

Part B) Text problems, 16.4.1 a, d, i

Part C)

1. Text problem 16.6.1a, (which concerns precisely part a of 16.4.1). In addition to answering the text question, show the entries in the dynamic programming matrix,
2. Repeat 16.6.1a, this time.
 - a) draw the query graph.
 - b) leveraging the query graph to avoid Cartesian products, limit the amount of work and number of entries you create in the dynamic programming matrix.