Query Optimization   Exercise sheet 6

Exercise 1

Exercise 1 a)

Implement `DPsize`. Referring to the script, your implementation may either follow the pseudocode or you can take the improvement described in the text into account. You may use the helper classes provided in the solution code.

Exercise 1 b)

Include a counter variable in the innermost for loop. What counter values do you observe for query graphs with different shapes and number of relations?
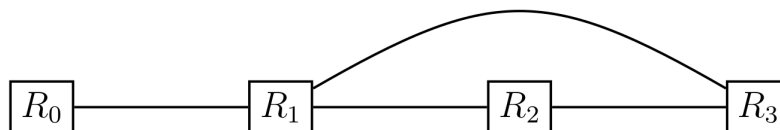

Exercise 2

Exercise 2 a)

What is the sequence of subgraphs created by the function `EnumerateCsg` for the following query graph?
Create a table similar to the one discussed in the lecture (see script).
Mark recursive calls to the function `EnumerateCsgRec`.
Index numbers in relation names denote the order in which BFS (breadth-first search) visits the nodes.

Exercise 2 b)

Recall the query graph from the last exercise. Note down all subgraphs generated by the function `EnumerateCmp` for $S_1 = \{1\}$.

Exercise 3

Bonus

Query optimization is not rocket science.
When you flunk out of query optimization, we make you go build rockets.

Look through this presentation:
https://www.slideshare.net/GraySystemsLab/pass-summit-2010-keynote-david-dewitt