CS615: Assignment 1

Total Marks: 100

Due on: 30th September, 2015, 11:00pm

This assignment is to help understand the basics of non-indexed skyline algorithms.

Implement the *BNL* algorithm.

Use the file `sample1.txt` as a sample data file. It has the following format for each line:
`id  dim-1  ...  dim-d`

Use the file `query1.txt` as a sample query file. It will contain two lines.
The first line will mention the dimensions for which the skyline has to be retrieved.
The second line will contain the number of objects that will fit into the window.
You can assume that the preferences are always *lesser than*.

Thus, ensure that the implementation can simulate the *disk* behavior.

Enable the program to output the following: (i) total running time, (ii) number of object-to-object comparisons, and (iii) size of skyline set. Do *not* include the time to print the results.

If wanted, ensure that the program can also print the list of ids of the skyline objects.

Repeat the whole exercise for the *SFS* algorithm.

Compare the two structures.

What do you conclude?

Submit the program and the answers through the submission portal only. You *must* name your submission `studentno_assgn1.zip`. The student numbers (which are *not* the roll numbers) are 2-digit codes and are available from the course website.

We will evaluate the program by running a query file with the same format as the sample one. Marks will be deducted for wrong answers.