Computer Science 4433/5413-WA: Algorithm Design Analysis
Winter 2018 - Assignment 2

Name

Points: 50

Due Date: Mar. 19, 2018

Q1: **(15 points)** Using the given dataset (docTweet.csv), write an efficient algorithm to find the top five active Twitter users:

Table 1: Top Five Users

Twitter user	Frequency
@DocSandyB	f_1
@yipengGe	f_2
@DennisKendel	f_3
...	...
...	...

Note that the dataset shown in the table is just for reference, i.e., @DocSandyB, f_1, ...are supposed to be replaced with actual data from the dataset. Report the time complexity of the code.

Q2: **(35 points)** Create five **data stores** to store all the tweets from the top Twitter Users. Use appropriate data structures for maintaining the data stores for easy management tasks, such as adding new data, searching, sorting or deletion. Justify, why you selected a particular data structure for implementation. Also, report the time complexity of your code.

NOTES:

1. Use either Java or C++. Attach output of your code (screen shots).
2. Submit the complete package (code) by the due deadline.
3. Follow Code of Student Behaviour and Disciplinary Procedures (https://www.lakeheadu.ca/faculty-and-staff/policies/student-related/code-of-student-behaviour-and-disciplinary-procedures)