CS225 Computing Assignment 2
Group22

Introduction:

Ex1 & 3(i)~(iii)

Our database structure is written in *Relations.py*, where the class *MainData* is our database, which have a number of relations based on B+-trees. All the insertion, deletion, merging, reorganization and sorting, and retrieval are all written in *BpTree.py.*

The B+-tree written in *BpTree.py* is block based, so each leaf nodes of it consists a main block and an overflow block. You can check the functions in *BpTree.py*, where some test cases are provided.

The input data for MainData is in such files:
ActorAwards.py, appearance.py, awards.py, crew_awards.py, crews.py, director_awards.py, directors.py, movie_awards.py, movies.py, persons.py, restriction_categories.py, restrictions.py, roles.py, scenes.py, writer_awards.py, writers.py.
We input 10 relations that are needed for our assignment.

Ex2 & 3(iv)~(v) &4

All our code for final tests are written in *main.py*.
We have done the Ex2(ii), Ex2(iii) and Ex4.

We write B- tree in *BTree.py* and hash set in *AssociativeArray.py* for secondary key searching.

We have modified our 2-SAM to be better use for this assignment in *TSAM.py.*

For Ex4, we use undirected graph in *Undirected_Graph.py* and directed graph in *Directed_Graph.py.*

Detailed descriptions are written in the code file.

Thank you!