

Phoebe Chang (pchang6)  
Sean Dunston (seanmd)

## BigQ, Functions

### BigQ(Pipe &inPipe, Pipe &outPipe, OrderMaker &sortOrder, int runLen)

- Type: constructor
- Purpose: Initialize BigQ obj to create thread that gets all records from pipe, then sorts records and groups them into a file
- Return: none
- &inPipe:
  - Type: pointer to initial Pipe obj
  - Purpose: feeds in/contains records (from producer) to be sorted then fed to the &outPipe
- &outPipe:
  - Type: pointer to &outPipe obj
  - Purpose: takes sorted records originally from &inPipe and feeds them out by one to the consumer
- &sortOrder:
  - Type: pointer to OrderMaker obj
  - Purpose: keeps track of an order in which records were sorted
- runLen:
  - Type: int
  - Purpose: part of the threads to keep track of where pages are located during the jobs/processes

### sortWorker()

- Return: none, void type
- Purpose: sorts records coming from inPipe and stores them into files

### runSecondPhaseTPMMS(Pipe& outputPipe, OrderMaker& sortOrder, int runLength, int numRuns)

- Return: none, void type
- Purpose: applies merge sort to pages being read from a file, and extracts records from the pages
- outputPipe:
- sortOrder:
- runLength:
- file:
  - Type: pointer to File obj
  - Purpose: file where records are being extracted from its pages
- numRuns

### sort(std::vector<Record\*> &records)

- Return: int
- &records:
  - Type: pointer in Record\* vector