Chapter 17:

- 17.3:
  - Primary index and clustering index can both use a single key field such that both or more than one of them cannot be on the same file. However, a secondary index can take a unique value as either a key field in each record, or a non key field with repeated values with pointers that point to another block indicating repeated value(s).
- 17.4:
  - Multilevel indexing improved the efficiency of searching an index file because remaining search space is reduced as search is conducted, which occurs when a primary index doesn't fit in memory. Therefore, search space is shrinked, meaning less and less values to traverse per search iteration.
- 17.7:
  - A B-tree is a search tree that self balances, in which the nodes are sorted in inorder traversal, and keys are not available at leaf nodes. A B+-tree is a where all keys are at leaf nodes. A B+-tree is preferred over a B-tree because a search for a record is generally faster, as search space can be shrinked.

Chapter 18

- 18.12:
  - Pipelined parallel execution of sequence of operations are prevented under conditions including for operations that don't produce output until all inputs are used, operations that don't produce tuple by tuple output not able to be passed into another operator, operations producing temporary files, and operations that don't operate on a single result file.