Lab: On-disk search

1. Without referring to class notes, define "sequential file organization" in your own words. After you have tried, refer to the class notes, and fix your definition if needed.

2. Do the same as 1, but for "search key".

3. Is a search key a superkey?

4. What is the average cost for linear search on equality on a primary key field? Assume 100,000 records, 10 records/block, 5 ms access time, 100 MB/s transfer rate, and 4 KB block size. Assume sequential access.

5. What takes longer: reading 10,000 blocks in a sequential access pattern, or 100 blocks in a random access pattern (no two blocks are adjacent)? Assume 4K bytes/block, 5 ms access time, and 120 MB/s transfer rate.