NAME: Nicholas Jacob STUDENT ID: # 113578513 GRADED HOMEWORK NUMBER: 3 COURSE: CS/DSA 4513 DATABASE MANAGEMENT SECTION: ONLINE

SEMESTER: FALL 2023 INSTRUCTOR: DR. LE GRUENWALD

SCORE:

1. First I will consider that the records have freshly been inserted and no reordering on the physical system has been re-done. This will require pointers going every which way... The first pointer goes to Black...

| Johnson | 11 | Yukon | \$29 |
|---------|----|--------|----------|
| Black | 33 | OKC | \$20\ |
| Grant | 22 | Norman | \$15\ |
| White | 77 | OKC | \$200 |
| Chapman | 44 | Edmond | \$200 |
| Ford | 66 | Enid | \$25 |
| Haas | 99 | OKC | \$20 |
| Hougen | 88 | Yukon | \$25 |
| Clinton | 55 | Tulsa | \$25 |
| | | | \ |

I could not find the exact arrow

used in notes for the last pointer. I am terminating by having a null pointer.

So clearly this is the result of all those inserts in a row. We know that the system will rearrange sequential files periodically so let's do that and have the last file be an insert.

| Black | 33 | OKC | \$20\ |
|---------|----|--------|-------|
| Chapman | 44 | Edmond | \$20 |
| Ford | 66 | Enid | \$25 |
| Grant | 22 | Norman | \$1/5 |
| Haas | 99 | OKC | \$20 |
| Hougen | 88 | Yukon | \$25 |
| Johnson | 11 | Yukon | \$20 |
| White | 77 | OKC | \$204 |
| Clinton | 55 | Tulsa | \$25 |
| | | | |

That is somewhat less of a mess...