WEEK 3

ADDING, MODIFYING AND DELETING RECORDS ON THE HARD DRIVE

STUDENT OBJECTIVES

- Upon completion of this video, you should be able to:
  - List at least 3 of the actions that are performed when working with databases and hard drives

TYPICAL OPERATIONS ON FILES

- **OPEN**: Readies the file for access, and associates a pointer that will refer to a current file record at each point in time.
- **FIND**: Searches for the first file record that satisfies a certain condition, and makes it the current file record.
- **FINDNEXT and FINDINARANGE:** Searches for the next file record (from the current record) that satisfies a certain condition, and makes it the current file record.
- **READ**: Reads the current file record into a program variable.
- **INSERT**: Inserts a new record into the file & makes it the current file record.
- **DELETE**: Removes the current file record from the file, usually by marking the record to indicate that it is no longer valid.
- **MODIFY**: Changes the values of some fields of the current file record.
- **CLOSE**: Terminates access to the file.
- **REORGANIZE**: Reorganizes the file records.
  - For example, the records marked deleted are physically removed from the file or a new organization of the file records is created.
- **READ_ORDERED:** Read the file blocks in order of a specific field of the file.

ASSUME WE HAVE RECORDS AND WE WANT TO:

- Add the new record: `HOMER SIMPSON, 03/03/1980 M 1234`
- Find and modify the record: `NED FLANDERS, 04/04/1982 M 4444`
- Delete the record: `MAGGIE SIMPSON, 03/03/1990 F 5555`

So what's the best way to design the table to make it easy to store files?