

# Week 12 Lab: Database

In this lab, you will be creating the database system from last week using files. The files: db.h, main.c, and test.c are the same. db.c is slightly different: you will need to delete the entire database, there is another item in the backlog that cover clearing the database and a call to clear\_db in execute\_command.

If you need this week to complete db1.zip, do so; otherwise continue with it. Otherwise start with db2.zip. There are only three weeks of class left; one of which is Diwali. Make sure that you have enough time to complete all of your programs.

## Get Backlog and Files

1. From your Unix account, get the files using:
  - `wget sp.nathanielgmartin.com/db2.zip`
  - If you are on campus remember to log in to the Internet first.
2. Unzip the files in db2.zip using:
  - `unzip db2.zip`,
3. You will find a Makefile, a completed db.h, a complete test.c, and a partially complete db.c that will guide you through the process of writing the files. Your task is to complete the files in db.c

## Tips

- Much of the code for the first story can be copied from calc.c

## Demo

Today you will be demoing the entire database implemented using files. The team will demonstrate one program.

## Marks

- Story 1 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - UI works (10 marks)
- Story 2 (15 marks)
  - Proper formatting and clean compilation (5 marks)

- Adds a record. (10 marks)
- Story 3 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - Print all records. (10 marks)
- Story 4 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - Correctly adds multiple records (10 marks)
- Story 5 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - Correctly adds a set of student records. (10 marks)
- Story 6 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - Correctly finds a student record. (10 marks)
- Story 7 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - Correctly modifies a student record. (10 marks)
- Story 8 (15 marks)
  - Proper formatting and clean compilation (5 marks)
  - Correctly deletes a student record. (10 marks)