

NYU Tandon School of Engineering
Computer Science and Engineering
CS-UY 3083, Introduction to Database Systems, Fall 2019 Prof Frankl

HOMEWORK #0

You may discuss this homework with and get help from other students, but you should install the software on your own laptop, execute the SQL statements on your own installation, and hand in your own results. **Do not spend hours and hours working on this. If you're having trouble, contact the TAs to set up a time when you can get help.**

Follow the instructions in the database.installation.pdf file in the Resources section on NYU Classes to install a database management system (MySQL or Oracle) and a GUI (graphical user interface) on your computer.

NOTE: If you're using the latest version of MySQL the default storage engine will be InnoDB. If not, either upgrade to the latest MySQL version or set MySQL's default engine to InnoDB. (See <http://dev.mysql.com/doc/refman/5.5/en/storage-engine-setting.html>) Note: In the past, people who had older versions have had some problems with the installation. Might be safer to uninstall the old one first.)

Use phpMyAdmin (or some other GUI) to create a database called university and use the GUI or execute "use university" to make that the current database. Download the university_ddl.sql and university_inserts.sql files from the Resources section of NYU-Classes. (These files are from the sample data section of the textbook's web site <http://www.db-book.com/>. The DDL file has been modified so that it works with MySQL running InnoDB. If you're using Oracle, you can use the DDL file from the book's web page.) Using phpMyAdmin or some other GUI, import the files into MySQL in order to create and populate the university database.

Execute

```
SELECT course_id, title FROM course WHERE dept_name='Comp. Sci.'
```

Take a screenshot of the result. This should demonstrate that you are using a GUI (not just executing the query from a terminal window.)

Use GradeScope to hand in either

1. a screenshot showing how the GUI displays the query result, or

2. a request for help from a TA, including information about when you're available to meet (if you're not able to go to TA office hours, list several other times when you can meet) and a description of the problem you're having.

You should also spend some time getting familiar with the University database and, with MySQL (or Oracle), and with the GUI:

- Try inserting additional rows into the courses table,
- Try executing some of the queries from the book,
- Try creating another table.
- What happens when you try to insert another instructor with the ID 22222? (note: it should fail and give an error message; if it does not fail, your DBMS is probably not configured correctly. Be sure that your tables are using the InnoDB engine)
- What happens when you try to insert an instructor with dept_name 'CS'? (note: it should fail and give an error message; if it does not fail, your DBMS is probably not configured correctly. Be sure that your tables are using the InnoDB engine)
- What happens when you try to execute a query with a syntax error? (note: it should fail and give an error message)

(No need to hand in the results of playing around with the system, but let the TAs know if you're having problems.)