NYU Tandon School of Engineering
Computer Science and Engineering
CS-UY 3083
Professor Ratan Dey

Homework No. 01:
Total points: 100.
Due Date: 09/15/2025 11:59 pm. No Late Submission will be accepted. Please submit on Gradescope.
You need to complete this assignment individually.

DBMS Installation:

You will need access to a database management system (DBMS) and web server for some of the homework assignments and for the course project. You may use either Oracle or MySQL for the homework assignments and projects. I will occasionally demonstrate material using MySQL. With a little effort you'll be able to translate these examples to Oracle, but it will probably be slightly easier for you to use MySQL.

Installing database and web server software:
Choose ONE of the following two options. Option 1 is strongly recommended.

Option 1 (RECOMMENDED):
Download a free Apache/MySQL/PHP (xampp,wamp, lamp, mamp, etc. depending on whether you have windows, linux, max-os) package, such as

https://www.apachefriends.org/download.html

or

http://www.wampserver.com/en/download.php

This includes MySQL and the phpMyAdmin graphical user interface (GUI) and other software that you may want to use for the project (Web server and PHP interpreter). It's pretty easy to install. There is a tutorial that walks you through the installation process at http://teamtutorials.com/web-development-tutorials/setting-up-a-wamp-server.

If you're running Linux on your laptop, find and install XAMPP for Linux or LAMP software. If you're running Mac OS X , install XAMPP for Mac OS X or see http://www.mamp.info/en/mamp/index.html.

Option 2:

Get free versions of DBMS and GUI from Oracle
http://www.oracle.com/technology/software/index.html

or MySQL http://dev.mysql.com/downloads/ (Community Server and Workbench) and a web server.

Homework #1 description:

You may discuss this homework with 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. If you're having trouble, contact the TA for help.

Please install xammp (based on your operating system)/wampserver (or a lamp or mamp server if you're running Linux or Mac OS) on your laptop/desktop (or other software if you're using option 2). 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 NYU Brightspace. (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 name, dept_name FROM instructor WHERE salary > 60000

Take a screenshot of the result. This should demonstrate that you are using a GUI (not just executing the query from a terminal window.) Save the query results to a PDF file. (In phpMyAdmin, this can be done by clicking Export in the Query results operations list, below the query results.

Use Gradescope to hand in
1. A PDF/image file with the query results.
2. A PDF/image file having a screenshot showing how the GUI displays the query result.
Or A PDF file containing one image file having a screenshot showing the query results and one image file having a screenshot showing how the GUI displays the query result

You should also spend some time getting familiar with the University database , with MySQL, 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 58583? (note: it should fail and give an error message).
- What happens when you try to insert an instructor with dept name 'CS'? (note: it should fail and give an error message).
- 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 me know if you're having problems.)