

SQL Homework Guidelines

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Abstract

This document provides instructions for submitting lab assignments for GEP 664. Please follow these guidelines when submitting homework; if you don't I will deduct points from the assignment's total grade.

1 SQL Statement Conventions

For all SQL statements:

- SQL commands must be in uppercase
- Put individual SQL clauses on separate lines (you may break longer clauses across multiple lines)
- Provide aliases (AS) for calculated fields
- End each statement with a ; (semicolon)

Correct:

```
SELECT col1, col2, (col1/col2) AS col3
FROM tablename
WHERE criteria is met
ORDER BY col1 DESC;
```

Incorrect:

```
select col1, col2, (col1/col2)
from tablename where criteria is met order by col1
desc
```

For table creation statements:

- Place each element (column or constraint) on a separate line
- For text values avoid using char(n); use varchar(n) or text instead
- For decimal values avoid using real or double unless the numbers are really big; use numeric(p,s) instead
- When naming elements: do not use punctuation or spaces (use _ underscores instead), do not begin names with numbers, and do not use reserved keywords like table, key, integer, etc.

Correct:

```
CREATE TABLE schema.tabname (
uid varchar(2) PRIMARY KEY,
name text,
val1 integer,
val2 numeric (5,2),
CONSTRAINT lessval CHECK val1 < 0
);
```

Incorrect

```
create table schema.table (uid char(2) primary key,
name text, 1val integer, 2val real,
constraint lessval check 1val < 0)
```

2 SQL template

You will submit most homework assignments as plain text files that you can create using a text editor. Examples of basic text editors included with your computer's operating system are: Notepad (MS Windows), TextEdit (Mac), and gedit (Linux). Do NOT submit word processor files (.doc or .docx). If you must use a word processor to complete an assignment, use the Save As option and save the file as a plain text file (.txt).

Some text editors are capable of highlighting the syntax of different programming languages to make the code more readable; you just have to change the highlighting settings to SQL. Examples of free text editors that offer this feature include: gedit, Notepad++, and Bluefish.

When doing SQL assignments use the homework template (homework_template.txt) that's available on the course website (<https://spatdb.common.gc.cuny.edu/>). It's a text file that can be loaded and run in PostgreSQL. You can use and modify this template to fill in your details and responses to questions.

In the template, anything that is not SQL code MUST be commented out in order for the commands to run. To comment out an individual line, begin the line with two dashes:

```
-- This is a single line that's commented out
```

```
SELECT columns  
FROM tables;
```

To comment out a block of text that contains no code, begin the block with a forward slash and asterisk /* and end it with an asterisk and forward slash */ :

```
/*  
This is a block of text  
that spans multiple lines  
and is commented out.  
*/
```

In the template, header information (assignment number, name and date) and questions that require written responses are block commented out. Question numbers and row counts are line commented out. For many questions I will ask you to provide the statement and the number of rows returned.

3 Homework Submission

You will submit most of your homework assignments electronically. I will return a paper copy with feedback to you.

- At the beginning of the course I will send an email to the entire class that contains an email address for my Box account; Box is a Dropbox-like service. To submit an assignment you send an email to the Box account with the assignment as an attachment. If the submission is successful you'll get a return-receipt email from Box.
- Do not include messages in the body of the Box email submission; I will *never* see the message because it's addressed to the Box and not me.
- Do not send homework to my personal email address, unless you encounter problems with Box.
- When you complete an assignment using the template, change the name of the file from the generic "homework_template.txt" to something that includes your name or initials, and the assignment number.
- Assignments are always due at the beginning of the following class. Homework must be submitted before class begins, otherwise the assignment will be considered late and I will deduct points as outlined in the syllabus. All files submitted to the Box are timestamped, so I can see exactly when they were submitted.