

CS 325 - Week 3 Lab Exercise

Deadline

Due by the end of lab on 2021-09-10.

Purpose

To practice writing some tables given in tabular form in relation-structure form and create-table statement form, and to practice inserting some rows into tables taking into account column constraints and foreign keys.

How to submit

JUST this "driver" for each pair should use `~st10/325submit` to submit the pair's copy of this lab exercise's files, with a lab number of **83**

Important notes

- You may find the following useful for this lab exercise:
 - NOTE that on the course Canvas site, under Modules, in the "Class Recordings" section, the FIRST link in that section leads to the public course web site's "In-class Examples" section.
 - DB Reading Packet 2 - More database fundamentals
 - SQL Reading Packet 1 - Intro to Oracle SQL at HSU
- You are required to work in **pairs** for this lab exercise. If you are not pair-programming, then you may not receive full credit for your lab exercise.
 - If there are an odd number of students attending lab, or too many students with connectivity issues, some teams may have 3 students.

To start:

- On nrs-projects, CREATE a directory 325lab3, protect it, and go to it:

```
mkdir 325lab3
chmod 700 325lab3
cd 325lab3
```

(lab exercise problems start on the next page!)

for Problems 1 and 2:

Consider the following tables written in **tabular form**:

Painter

ptr_num	ptr_lname	ptr_fname	ptr_dob	ptr_dod
0001	Van Gogh	Vincent	30-Mar-1853	29-Jul-1890
0002	Kahlo	Frida	06-Jul-1907	13-Jul-1954
0003	Basquiat	Jean-Michel	22-Dec-1960	12-Aug-1988

Painting

painting_num	painting_title	ptg_year	ptr_num
000001	Hollywood Africans	1983	0003
000002	In Italian	1983	0003
000003	The Two Fridas	1939	0002
000004	The Broken Column	1944	0002
000005	Henry Ford Hospital	1932	0002
000006	The Starry Night	1889	0001
000007	Irises	1889	0001

Problem 1

- Create a file **3251ab3-1.txt** (using nano)
- FIRST type BOTH (all) of your names in this file, followed by:
CS 325 - Lab 3 - Problem 1
- Then, write these above tables Painter and Painting in **relation structure form**, using the notation given in DB Reading Packet 2.

Problem 2

- Create a file **3251ab3-2.txt** (using nano)
- FIRST type BOTH (all) of your names in this file, followed by:
CS 325 - Lab 3 - Problem 2
- Then, write these above tables Painter and Painting in **create-table statement form**.
 - (Choose reasonable column types based on the values shown -- there is more than one acceptable choice for some of these columns!)

Problem 3

- Make a copy of the Week 2 Asynchronous Material's SQL script `325lect02-2.sql` by typing the following command to your current directory `325lab3` on `nrs-projects`:

```
cp ~st10/325lect02-2.sql . # notice the SPACE and PERIOD at the end of this!
```

- Then, begin a SQL script `325lab3.sql` with comment(s) including at least **BOTH (all)** of your **names** and **today's date**. Add commands for the following into this SQL script.
- FUN FACT: you can RUN a SQL script from ANOTHER SQL script! (`start` is a SQL*Plus command, after all!)

You'll try this here: add this command to your script:

```
start 325lect02-2.sql
```

- Now start spooling to a file `325lab3-out.txt`.
 - (You are starting spooling *after* running `325lect02-2.sql` because I **do not want** `325lect02-2.sql`'s results in your `325lab3-out.txt` file.)
- Use one or more **prompt** commands to print a message to the screen containing **both (all)** of your names
- Carefully considering the `create table` statement for `parts`, write at least **ONE insert** statement that successfully inserts another row into table `parts`.
- Carefully considering the `create table` statement for `part_orders`, write **at least THREE insert** statements that successfully insert three more rows into table `part_orders`.
- Write **two select** statements that will display `parts`' and `part_orders`' resulting contents
- Turn **off** spooling.

When you are done with the three problems above (or at the end of lab, whichever comes first), submit your files using `~st10/325submit` with a lab number of **83**:

- `325lab3-1.txt`
- `325lab3-2.txt`
- `325lab3.sql`
- `325lab3-out.txt`
- (and note that `~st10/325submit` will also grab your copy of `325lect02-2.sql`, and the file `325lect02-2-out.txt` that it creates when it is run, and that's fine!)
 - (Once your pair's/trio's lab exercise files have been submitted, you may leave lab if you wish. Or, you can ask questions, work on the CS 325 homework, etc. But note that questions about today's lab exercise will get first priority.)