

CSCI 2020 Database Fundamentals

Lab6

Submit as a text document called *LastnameFirstnameLab6.sql* to the drop box.
Print out a hard copy, staple this sheet to the front, and submit to your instructor before leaving the lab.

Notes:

- **Be sure all style guidelines are complied with.** (SQL style guidelines are available in the Additional Material section of Content in D2L).
- Your file should include a **header block of comments** as shown in the SQL Style Guidelines.
- **Be sure to add a comment above the solution to each task.** The comment should include the task number and the task itself, and should also explain in common language how your solution accomplishes the task.

Ex. 1) List all contents of the Instructor table.

The code should look like:

```
/* 1 – list all contents of the Instructor table --  
    The * operator in the select clause will  
    select all columns from the specified table.  
*/  
select * from INSTRUCTOR;
```

- To make your code more readable, I would prefer that you **format your select statements as follows:** (note the from, where and order by are all on separate lines indented under the select)

```
select COLUMNS_HERE  
    from TABLE_HERE  
    where CONDITION1_HERE  
        or CONDITION2_HERE  
    order by COLUMN_HERE;
```

You are submitting a file that has the sql code in it, not the results. I must be able to run your .sql file in its entirety. Make sure that comments are added properly.

TASKS

1. List the course ID (ex. CSCI 1250) and classroom for all sections that meet on the third floor of Nicks Hall. *(14 rows returned)*
2. List the start times for TR classes in the 083 semester. Don't list any start time more than once. *(6 rows returned)*
3. List the family name and school of the instructors who received PhD's after they were hired. *(3 rows returned)*

4. For all sections in the 083 term offered by departments **other than** CSCI, list the course name (ex. Calculus II), section code and instructor's family name. *(20 rows returned)*
5. For all 4 credit hour courses, print out a two column list; the id code (ex. CSCI 1250) and a description
- If this is a CSCI Department course, the description is Comp-Sci
 - If this is a MATH Department course, the description is Mathematics
 - For any other department, the description is Something Else
- (10 rows returned)*

6. List the family name and id of the instructors whose last digit in their id number is twice the first digit.

ID	FAMILY_NAME
4008	Chewbacca
1942	Calrissian

(2 rows returned)

7. List the full names and id's of students whose family names begin or end with a vowel (including Y) *(13 rows returned)*
8. For all students whose ACT score exceeds ten times their GPA, print their id, family name, ACT score, GPA, and the difference between the ACT score and ten times the GPA. *(9 rows returned)*
9. Lando Calrissian (ID number 1942) wants to know which instructors make at least twice his salary. Find their names and salaries for him. *(6 rows returned)*
10. Find the names (ex. Calculus II) of the courses that are required in the CSCS major but not in the CSIT major. *(6 rows returned)*
11. Find out in which semesters students have taken upper-level (3000 and 4000 level) classes. Give your answers in the following form:
- Geordi La Forge took CSCI3250(Software Engineering I) in Fall of 2007**
- Hikaru Sulu took CSCI3250(Software Engineering I) in Fall of 2007**
- ...etc. *(32 rows returned)*

12. Find the ID (ex. CSCI 1250) and average grade (rounded to two decimal places) of the toughest course. To qualify as the toughest course, the course must have been taught, and it must have the lowest average grades of any course that has been taught. *(1 row returned)*