

CSCI 2020 Database Fundamentals

HW5

Submit Part A as an sql file called
LastnameFirstnameHW5PartA.sql to the drop box.

Submit Part B as an **sql file** called
LastnameFirstnameHW5PartB.sql to the drop box.

Print a hard copy of both Part A and Part B and submit to your instructor on the due date.

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

The code should look like:

```
/* 1 – list all contents of the Instructor 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

Part A

- 1) (40 pts) Write the code to **create the tables on the last page** in SQL. Be sure to include any constraints, FK's and PK's.
- 2) (20 pts) Write the code to populate the tables with the values as shown.

Part B

For the following questions, you may assume that there are more rows in the tables than shown. Therefore, keep this in mind when completing the following tasks.

- 1) (8 pts) Write the code to update the sales that took place on Dec 5, 2003 to Dec 5, 2004.
- 2) (8 pts) Write the code to update the salary for anybody named 'Doctor' to give them a 10% raise.
- 3) (8 pts) Write the code to remove salesperson SP-103 from the SalesPerson table.

For the following questions, you will answer them in the SQL document, but as comments. Be sure to include each in a comment block because it is not code that will be run, but rather an explanation as to what happens and why.

- 4) (8 pts) What happens when you try to delete item I-404 from the Item table? Explain **why** it happens.
- 5) (8 pts) What happens when you try to add an entry to the Detail table with order number O-304 and item number I-405? Explain **why** it happens.

Tables to be created

Item

<u>ItemID</u>	ItemName	Cost
I-401	Tardis	1000
I-402	Screwdriver	5
I-403	Celery	100
I-404	Scarf	50

Note: cost must be > 0

Sale

<u>OrderID</u>	SPID <i>FK to SalesPerson</i>	CustID <i>FK to Customer</i>	Taxable	SaleDate
O-301	SP-101	C-201	True	05-DEC-2003
O-302	SP-102	C-202	False	07-DEC-2003
O-303	SP-101	C-202	True	05-DEC-2003
O-304	SP-101	C-203	True	30-NOV-2003

Note: the only values allowed in the Taxable column are True and False

SalesPerson

<u>SPID</u>	PersonName	Salary
SP-101	Doctor	400
SP-102	Master	30
SP-103	Rani	500

Note: salary must be > 0

Customer

<u>CustID</u>	CustomerName	Budget
C-201	Borusa	200
C-202	Leela	300
C-203	Adric	10
C-204	Doctor	290

Note: budget must be > 0 and < 1000

Detail

<u>OrderID</u> <i>FK to Sale</i>	<u>ItemID</u> <i>FK to Item</i>
O-301	I-401
O-302	I-402
O-302	I-404
O-303	I-403
O-304	I-401
O-304	I-402
O-304	I-403
O-304	I-404