ⓘ This quiz has been regraded; your score was not affected.

Reading Homework 1 (Due Wed 1/31, 10 minutes before class)

Due Jan 31, 2018 at 3:20pm	**Points** 10	**Questions** 10	**Time Limit** None

Instructions

Reading homeworks are intended to ensure that you have read the assigned material. They are mandatory; you can miss at most 2.

The questions below are based on the reading in the following sections: Chapters 2.6 (Relational Operators), 3.1, 3.2, 3.3.1

Project 0 included two Jupyter Notebooks that cover this material interactively.

- **Basics of SQL Notebook: (https://github.com/abadid/cmsc424-spring2018/blob/master/project0/Basics-SQL.ipynb)** Covers basic SQL commands (going beyond what is part of the reading assignment).
- **Basic Relational Algebra Notebook (https://github.com/abadid/cmsc424-spring2018/blob/master/project0/Basic%20Relational%20Algebra.ipynb)** : Covers the 5 basic relational algebra operators.

As before: if you open these in Jupyter (on your VM), then you can try out different queries and/or see how the relational algebra operations behave on different inputs.

Attempt History

	Attempt	Time	Score	Regraded
LATEST	Attempt 1	15 minutes	6 out of 10	6 out of 10

ⓘ Correct answers are no longer available.

Score for this quiz: **6** out of 10
Submitted Jan 31, 2018 at 2:41am
This attempt took 15 minutes.

Incorrect

Question 1 — 0 / 1 pts

On the large university dataset, what is the output of the following query?
select count(*) from instructor, advisor where id = i_id and dept_name = 'Physics';

- 70
- 75
- 80
- 65

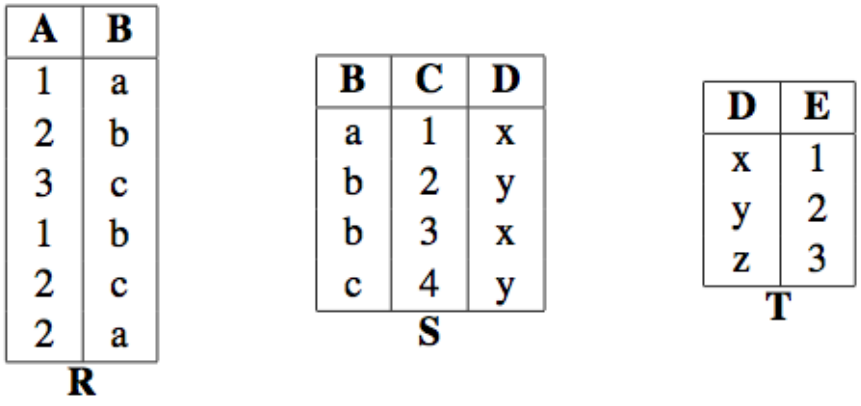
Incorrect

Question 2

0 / 1 pts

Following few questions refer to the relations listed below. Feel free to use the Relational Algebra Notebook to verify your answers.

What is the result of applying "select" operation with predicate "B = 'c'" to R ? The output options are shown as a list of tuples.



R

A	B
1	a
2	b
3	c
1	b
2	c
2	a

S

B	C	D
a	1	x
b	2	y
b	3	x
c	4	y

T

D	E
x	1
y	2
z	3

- { (c, 4, y) }
- { (3), (2) }
- { (3, c), (2, c) }

Incorrect

Question 3

0 / 1 pts

On the same set of relations, what is the output of applying a "select" (sigma) with predicate "B = 'a'", followed by a "projection" on B ?

- { (1), (2) }
- { (a) }
- { (a), (a) }
- { (1, a), (2, a) }

Question 4

1 / 1 pts

On the same set of relations, what is the output of a "natural join" operation on S and T?

- { (a, 1, x, 1), (b, 2, y, 2), (b, 3, x, 1), (c, 4, y, 2) }
- There are too many output tuples to list.
- { (a, 1, x, 2), (b, 2, y, 3), (b, 3, x, 2), (c, 4, y, 1)}

Incorrect

Question 5

0 / 1 pts

The ability to delete tuples is usually considered to be part of DDL.

- True
- False

Question 6

1 / 1 pts

Updates that violate integrity constraints are allowed, but a warning is raised.

- True
- False

Question 7

1 / 1 pts

A primary key attribute is required to be unique, and is never allowed to be "null".

- True
- False

Question 8

Original Score: 1 / 1 pts Regraded Score: 1 / 1 pts

⚠ This question has been regraded.

Consider the banking database depicted in Figure 2.15. What is the primary key for the borrower table?

- customer_name, loan_number
- customer_name
- loan_number
- No primary key for the table.

Question 9

1 / 1 pts

Assume branch_name is the primary key for the branch table. Fill in the blank. See the University databaes DDL file for some examples.

create table account (account_number varchar(15), branch_name varchar(15), balance numeric(12,2), foreign key (branch_name) references branch);

Answer 1:

branch_name

Answer 2:

branch

Question 10

1 / 1 pts

In SQL, "drop table R" is synonymous with "delete from R".

- ○ True
- ◉ False

Quiz Score: **6** out of 10