

## Midterm Exam Clarification

This pinned post will contain a list of corrections to the midterm. I do not want to modify the original document. If you download a changed version, you would have to copy answers that you have done from the current notebook to the new version.

### Correction 1: Relational Algebra Question (section 3.3)

The first two expressions should be changed to the following.

$$1. \sigma_{Month="September"}(BirthInfo) \bowtie \pi_{Sign}(\sigma_{Month<"September"}(AstrologicalInfo))$$

### Answer

Type *Markdown* and LaTeX:  $\alpha^2$

$$2. \pi_{Name}(\sigma_{Month="December"}(AstrologicalInfo))$$

### Correction 2: Question 4.2 Set Membership

I made a mistake. I believe the sample answer should be:

**Out[6]:**

playerid	nameFirst	nameLast
youngcy01	Cy	Young
wrighha01	Harry	Wright
wrighge01	George	Wright
willite01	Ted	Williams
whitewi01	Will	White
whitede01	Deacon	White
wardjo01	John	Ward
waltebu01	Bucky	Walters
walshed01	Ed	Walsh
wallabo01	Bobby	Wallace

Also, you only need to return 10 or so answers and not the whole list.

if you are struggling to perfectly reproduce my answer for any question, please send me an email. I sometimes make mistakes.

### Correction 3: OBP Formula (Question 4.1)

The formula for OBP is  $(H + BB)/(BB + AB)$ .

### Correction 4: Relational algebra questions:

- Question 3: There is a misspelling. The second table is AstrologicalInfo.
- Question 4:  $\wedge$  mean intersection, not boolean `_and_`.

### Correction 5: Graph Query/Game of Thrones

- You do not need to consider weights.

### Correction 6: Complex Query (section 4.4)

- `g_p` is the total number of games pitched in the season, e.g. "G."
- You do not need to include since the questions does not ask for it.

### Correction 7: Complex Insert (section 4.3)

- Change "null" to None to use in Python.
- Also, note that the example data has an order ID in it, but the application doing the insert does not know if the orderNumber is already in use. You need to handle

somehow.

- **You must do the insert, which may require computing a new ID.**
- You will need a connection to execute queries. You do not need to pass as a parameters (e.g. cnx).

Clarification 8: Complex Query (section 4.3):

- Your views should include player:D

Clarification 9: Inheritance (section 5.4):

- The column student in the student table represents the UNI. You can rename it if you want.

#pin

exam

Updated 1 day ago by Donald F. Ferguson

#### followup discussions for lingering questions and comments

☒ Resolved ☐ Unresolved



**Anonymous** 6 days ago

For Correction 2: Question 4.2 Set Membership, how many rows are affected? I am asking because the rows affected are usually provided.



**Donald F. Ferguson** 6 days ago Just match the results returned.

☒ Resolved ☐ Unresolved



**Anonymous** 5 days ago

Is the \pi equivalent to projection \Pi in the lecture?



**Donald F. Ferguson** 5 days ago Yes

☒ Resolved ☐ Unresolved



**Anonymous** 4 days ago

For correction 7, if it is already in Use, do you want us to update it or ignore it? I am assuming you would want us to ignore it, but want to clarify.



**Donald F. Ferguson** 4 days ago Clarified.

☒ Resolved ☐ Unresolved



**Chenghao Yang** 4 days ago

1. "You mist do **the insert, which may require computing a new ID.**"

--Sorry, I do not quite understand this clarification. Maybe there are some typos? Does that mean if we insist to insert the data somehow, we need to compute a new ID by our own? Is computing a new ID a necessary part of this problem?

2. If I pass a param "cnx" to "complex\_insert", will I suffer a point deduction?



**Donald F. Ferguson** 3 days ago I corrected the typo.

Your insert must work if the data is valid. The calling application has no way of knowing a prior what order numbers are in use. An orderNumber in use must be handled and dealt with.

You will not lose points if you pass a connection.



**Yuncong Yang** 3 days ago Nevermind.

☒ Resolved ☐ Unresolved



**Yuncong Yang** 3 days ago

Nevermind

☒ Resolved ☐ Unresolved



**Anonymous** 3 days ago

Does uni need to in "letter\_letter\_number" form or can it be a unique number? For stored procedures when we create new unis



**Donald F. Ferguson** 2 days ago initials and number.

☒ Resolved ☐ Unresolved



**Sujay Khandagale** 2 days ago

Do the queries/views in Complex Query have to be "Player Performance Statistics by Year by Team" or just "Player Performance Statistics by Year" because if it is the latter, shouldn't there also be an aggregation on the teamID? Since one player can play for two or more teams in a single year.



**Donald F. Ferguson** 2 days ago By team and year.



**Anonymous** 22 hours ago So we do not need to concatenate teamID just like we do so in position?

☒ Resolved ☐ Unresolved



**Grisam Shah** 2 days ago

For set membership, are we writing our answer in SQL or Python?



**Grisam Shah** 2 days ago nevermind, I see that it's SQL (unless I'm misreading in which case let me know!)

☒ Resolved ☐ Unresolved



**Anonymous** 1 day ago

For 5.5 (the second to last problem), do we need to include test cases? like running some updates or inserts that violates the constraints?



**Donald F. Ferguson** 1 day ago Yes.

☒ Resolved ☐ Unresolved



**Anonymous** 1 day ago

For correction 7 complex update, I wonder does that refer to the question "Write a single **UPDATE** statement that sets the status of all orders for customers to 'EMBARGOED' "? I don't think this question needs an insert function so I think maybe this correction is for a different question?



**Donald F. Ferguson** 1 day ago That is a mistake and should be complex insert.

☒ Resolved ☐ Unresolved



**Anonymous** 1 day ago

For inheritance and stored procedure, the professor said in the on-line office hour that the insert should be logically on a person, does that mean we need to perform an insert on "people"? or can we just call the procedure that either inserts into the student table or the faculty table?



**Anonymous** 1 day ago On this question, I am confused about what parameters the insert\_person procedure should take? I am assuming not a uni since we are supposed to generate that. So should it take as parameters the following: firstName, lastName, type, graduationYear, title?



**Donald F. Ferguson** 1 day ago This is awesome. Let's use Piazza to collaboratively produce answers to midterm questions.

The purpose of this thread is to correct errors and ambiguities in the exam, not discuss potential answers and approaches.

This is a clear and direct violation of the exam guidelines and academic integrity guidelines.

☒ Resolved ☐ Unresolved



**Anonymous** 1 day ago

For 3.3 Relational Algebra Q2, can we assume "name" refers to "sign"?

$\pi_{Name}(\sigma_{Month="December"}(AstrologicalInfo))$



**Bennington Li** 1 day ago I believe that the 'name' here refers to the attribute 'name,' and I can see why you were baffled here, but I guess that is the point of this question.



**Donald F. Ferguson** 1 day ago No.

☒ Resolved ☐ Unresolved



**Anonymous** 1 day ago

In 5.3 ER-graph, what is the format of course\_id, does it only consist the course name or other info that can distinct it? I assume it only has the course name, but since it is called 'id', I may ask this question.



**Donald F. Ferguson** 1 day ago I will accept just a course\_id

☒ Resolved ☐ Unresolved



**Anonymous** 22 hours ago

Instructors,

Can you confirm we should leave our "midterm\_conn" credentials as "dbuser" and "dbuserdbuser" when we submit our midterm notebooks?

```
midterm_conn = pymysql.connect( host="localhost",  
user="dbuser",  
password="dbuserdbuser",  
cursorclass=pymysql.cursors.DictCursor)
```

>>Environment Test This section tests the environment. You must change the "userid:pw" to the correct user ID and password for your MySQL instance. Please change back to "userid:pw" before submitting your exam. Unless you have received an exception, you MUST USE dbuser:dbuserdbuser.

I am unsure whether this below line - >> *Please change back to "userid:pw" before submitting your exam* - means we should

a) leave our pymysql credentials as "dbuser" and "dbuserdbuser"

or

b) change it back to "userid" "pw" - if so, in which line should we do this?

or

c) something else.