Unit 05 Problem Set Submission Form

# Overview

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| --- | --- |
| Your Name | Rayanna Harduarsingh |
| Your SU Email | rharduar@syr.edu |

# Instructions

Put your name and SU email at the top. Answer these questions all from the lab. When asked to include screenshots, please follow the screen shot guidelines from the first lab.

Remember as you complete the problem sets it is not only about getting it right / correct. We will discuss the answers in class so it’s important to articulate anything you would like to contribute to the discussion in your answer:

* If you feel the question is vague, include any assumptions you've made.
* If you feel the answer requires interpretation or justification provide it.
* If you do not know the answer to the question, articulate what you tried and how you are stuck.

This how you receive credit for answering questions which might not be correct.

# Questions

Answer these questions using the problem set submission template. You will need to consult the logical model in the overview section for details. For any screenshots provided, please follow the guidelines for submitting a screenshot.

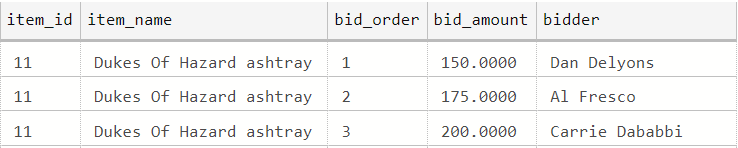
Write the following as SQL queries. If the query is ambiguous, fill in the gaps yourself and justify your reasoning. For each, include the SQL as a screenshot with the output of the query.

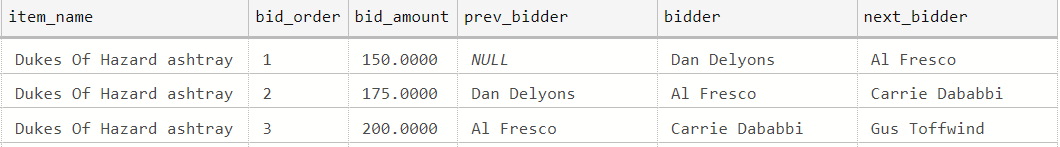
1. How many item types are there? Perform an analysis of each item type. For each item type, provide the count of items in that type, the minimum, average, and maximum item reserve prices for that type. Sort the output by item type.   
   A screenshot of a cell phone

   Description automatically generated
2. Perform an analysis of each item in the “Antiques” and “Collectables” item types. For each item display the name, item type and item reserve. Include the min, max and average item reserve over each item type so that the current item reserve can be compared to these values.  
   A screenshot of a social media post

   Description automatically generated
3. Write a query to include the names, counts (number of ratings) and average seller ratings (as a decimal) of users. For reference, User Carrie Dababbbi has 4 seller ratings and an average rating of 4.75.   
   A screenshot of a cell phone

   Description automatically generated
4. Create a list of “Collectable” item types with more than 1 bid. Include the name of the item and the number of bids making sure the item with the most bids appear first.  
   A screenshot of a cell phone

   Description automatically generated
5. Generate a valid bidding history for any given item of your choice. Display the item id, item name a number representing the order the bid was placed, the bid amount and the bidder’s name. Here’s an example showing the first 3 bids on item 11.   
     
   A screenshot of a cell phone

   Description automatically generated
6. Re-Write your query in the previous question to include the names of the next and previous bidders, like this example again showing the first 3 bids for item 11.  
     
   A screenshot of a cell phone

   Description automatically generated
7. Find the names and emails of the users who give out the worst ratings (lower than the overall average rating) to either buyers or sellers (no need to differentiate whether the user rated a buyer or seller), and only include those users who have submitted more than 1 rating.  
   Graphical user interface, text, application, email

   Description automatically generated
8. Produce a report of the KPI (key performance indicator) user bids per item. Show the user’s name and email total number of valid bids, total count of items bid upon and then the ratio of bids to items. As a check, Anne Dewey’s bids per item ratio is 1.666666  
   Table

   Description automatically generated
9. Among items not sold, show highest bidder name and the highest bid for each item. Make sure to include only valid bids.   
   Table

   Description automatically generated
10. Write a query with output similar to question 3, but also includes the overall average seller rating, and the difference between each user’s average rating and the overall average. For reference, the overall average seller rating should be 3.2.

Table

Description automatically generated

# Reflection

Use this section to reflect on your learning. To achieve the highest grade on the assignment you must be as descriptive and personal as possible with your reflection.

1. What are the key things you learned through the process of completing this assignment?  
   I finally understood how to table aliasing to combine more than one column from a table or to rename columns when you want to use the same table twice. I also learned how to compute statistics in the select statement as well as utilize the group by and having clause for easier organization.
2. What were the challenges or roadblocks (if any) you encountered on the way to completing it?  
   Some challenges were using the window functions and how to write them by choosing which columns you want to pull from or which function to use. I am not sure I used them properly in the last couple of questions, but I definitely understand their purpose. With more practice, I can further develop my understanding.
3. Were you prepared for this assignment? What can you do to be better prepared?  
   I was prepared by watching the lecture beforehand, reading the textbook chapter, as well as watching a couple YouTube videos for more demonstrations and further my understanding. I could have spent more time doing a little more research and watching more videos.
4. Now that you have completed the assignment rate your comfort level with this week’s material. This should be an honest assessment: (choose one)  
     
   4 ==> I understand this material and can explain it to others.  
   **3 ==> I understand this material.**  
   2 ==> I somewhat understand the material but sometimes need guidance from others.  
   1 ==> I understand very little of this material and need extra help.