Unit 04 Problem Set Submission Form

Overview

Your Name	Hendi Kushta
Your SU Email	hkushta@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.

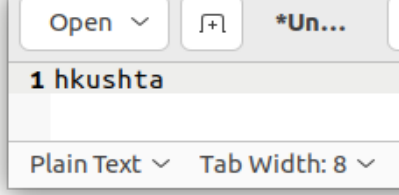This how you receive credit for answering questions which might not be correct.

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 games and justify your reasoning. For each, include the SQL as a screenshot with the output of the query.

1. Sales would like to send mailings to users who live in a zip code that starts with "13" for example 13244 so that can be notified of their new contact in that region.

	zip_code	zip_city	zip_state	user_email	user_firstname	user_lastname	
1	13244	SYRACUSE	NY	meveyzing@mail.org	Martin	Eyezing	
2	13607	ALEXANDRIA BAY	NY	rovlight@mail.org	Ray	Ovlight	Open ⌄
3	13244	SYRACUSE	NY	tanott@mail.org	Ty	Anott	1 hkushta
4	13212	SYRACUSE	NY	ppincher@mail.org	Penny	Pincher	
5	13219	SYRACUSE	NY	ostuff@mail.org	Oliver	Stuffismission	Plain Text ⌄
6	13290	SYRACUSE	NY	herchief@mail.org	Hank	Erchief	

2. Find all the users from the state of New York. print their names and emails along with their city, state and zip code. Sort by city, then user's last /first name.

```sql
SELECT z.zip_code,
    z.zip_city,
    z.zip_state,
    u.user_email,
    u.user_firstname,
    u.user_lastname
FROM vb_zip_codes z
    JOIN vb_users u ON z.zip_code = u.user_zip_code
WHERE zip_state = 'NY'
ORDER BY z.zip_city, u.user_lastname,u.user_firstname
```

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	zip_code	zip_city	zip_state	user_email	user_firstname	user_lastname	
1	13607	ALEXANDRIA BAY	NY	rovlight@mail.org	Ray	Ovlight	
2	14802	ALFRED	NY	pmoss@mail.org	Pete	Moss	
3	14264	BUFFALO	NY	cdababbi@mail.org	Carrie	Dababbi	
4	12946	LAKE PLACID	NY	vrhee@mail.org	Victor	Rhee	
5	10027	NEW YORK	NY	rabovdu@mail.org	Rose	Abov-Duresst	
6	10017	NEW YORK	NY	omoni@mail.org	Otto	Moni	
7	10006	NEW YORK	NY	sofewe@mail.org	Seymour	Ofewe	
8	13244	SYRACUSE	NY	tanott@mail.org	Ty	Anott	
9	13290	SYRACUSE	NY	herchief@mail.org	Hank	Erchief	Open ⌄
10	13244	SYRACUSE	NY	meveyzing@mail.o…	Martin	Eyezing	1 hkushta
11	13212	SYRACUSE	NY	ppincher@mail.org	Penny	Pincher	
12	13219	SYRACUSE	NY	ostuff@mail.org	Oliver	Stuffismission	Plain Text ⌄

3. High Priced Items. Return the id, name, type, and reserve of items which have not been sold and have a reserve of 250 or higher. Sort the output so that the largest reserve items are first.

```
SELECT i.item_id, i.item_name, i.item_type, i.item_reserve
    FROM vb_items i
    WHERE i.item_sold = 0 AND i.item_reserve >= 250
    ORDER BY i.item_reserve DESC
```

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Results   Messages

	item_id ∨	item_name ∨	item_type ∨	item_reserve ∨
1	27	Ark of the Covenant	All Other	10000000.00
2	28	Superbowl XLIV tickets	Tickets	750.00
3	24	Old Diamond Ring	Jewelry	599.99
4	14	Kleenex used by Dr. Dre	Collectables	500.00
5	18	Antique Desk	Antiques	250.00

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4. Reserve item categories. Include the id, name, type and reserve price of the item. Do not include items of type "All Other". Create a category column based on item reserve price.
When the item is 250 or more it is a high priced item.
When the item is 50 or less it is a low priced item.
Everything else is an average priced item.

```
SELECT i.item_id, i.item_name, i.item_type, i.item_reserve,
    CASE
        WHEN i.item_reserve >= 250 THEN 'high priced item'
        WHEN i.item_reserve <= 50 THEN 'low priced item'
        ELSE 'average priced item'
    END AS item_reserve_price_category
    FROM vb_items i
    WHERE i.item_type != 'All Other'
```

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	item_id	item_name	item_type	item_reserve	item_reserve_price_category
1	2	Rare Mint Snow Globe	Collectables	30.50	low priced item
2	3	Smurf TV Tray	Collectables	25.00	low priced item
3	5	Alf Alarm Clock	Collectables	5.00	low priced item
4	6	Shatner's old Toupee	Collectables	199.99	average priced item
5	7	Slightly-damaged Golf Bag	Sporting Goods	12.75	low priced item
6	8	Some Beanie Babies, New w…	Collectables	99.99	average priced item
7	10	Your Watch, Please?	Jewelry	6.95	low priced item
8	11	Dukes Of Hazard ashtray	Collectables	149.99	average priced item
9	12	PacMan Fever lunchbox	Collectables	29.99	low priced item
10	13	case of vintage tube socks	Antiques	9.00	low priced item
11	14	Kleenex used by Dr. Dre	Collectables	500.00	high priced item
12	15	Farrah Fawcet poster	Collectables	50.00	low priced item
13	16	Pez dispensers	Collectables	10.00	low priced item
14	17	a Toaster	Antiques	20.00	low priced item
15	18	Antique Desk	Antiques	250.00	high priced item
16	19	SQL for Dummies	Books	10.99	low priced item
17	20	Mike Fudge BobbleHead	Collectables	49.95	low priced item
18	21	Carlos Villalba BobbleHead	Collectables	49.95	low priced item
19	22	Fuzzy Logic	Books	4.50	low priced item
20	23	Dusty Vase	Antiques	100.00	average priced item
21	24	Old Diamond Ring	Jewelry	599.99	high priced item
22	25	Betamax Player	Electronics	15.00	low priced item
23	26	Joe Montanna Figurine	Collectables	200.00	average priced item
24	28	Superbowl XLIV tickets	Tickets	750.00	high priced item
25	30	Avatar 3D Two Tickets	Tickets	5.00	low priced item
26	32	Ten Speed Bike	Sporting Goods	12.50	low priced item
27	33	Original Coke Bottle from…	Antiques	65.00	average priced item
28	34	Client/Server Survival Gu…	Books	9.95	low priced item
29	35	Brass French Press	Antiques	45.50	low priced item
30	36	Autographed Mik Jagger Po…	Collectables	75.00	average priced item

5. Bidder list. Write a query which displays the valid user bids (bid status of 'ok') for a given item_id. This would commonly be displayed on the website for the chosen item. You select the item id to display and show the bid id, bid user's name, bid user email, bid date, and bid amount. Put the most recent bids at the top.

```sql
SELECT
    i.item_id,
    b.bid_id,
    u.user_firstname + ' ' + u.user_lastname AS bid_user_name,
    u.user_email AS bid_user_email,
    CAST(b.bid_datetime AS date) AS bid_date, -- Did not know which to take date or datetime
    b.bid_datetime,                           -- since the questions states bid date. all the bids are on the same
                                              -- date so when order, used bid_datetime
                                              -- to show the most recent bids are first
    b.bid_amount
FROM vb_bids b
    JOIN vb_items i ON b.bid_item_id = i.item_id
    JOIN vb_users u ON u.user_id = b.bid_user_id
WHERE lower(b.bid_status) = 'ok'
ORDER by b.bid_datetime DESC
```

Results | Messages

	item_id	bid_id	bid_user_name	bid_user_email	bid_date	bid_datetime	bid_amount
1	36	75	Abby Kuss	abuss@mail.org	2022-09-04	2022-09-04 04:54:40.193	100.00
2	36	73	Anne Dewey	adwewy@mail.org	2022-09-04	2022-09-04 04:54:40.177	95.00
3	36	72	Abby Kuss	abuss@mail.org	2022-09-04	2022-09-04 04:54:40.167	90.00
4	36	71	Anne Dewey	adwewy@mail.org	2022-09-04	2022-09-04 04:54:40.157	85.00
5	36	70	Abby Kuss	abuss@mail.org	2022-09-04	2022-09-04 04:54:40.147	80.00
6	34	69	Al Fresco	afresco@mail.org	2022-09-04	2022-09-04 04:54:40.137	11.00
7	33	68	Gus Toffwind	gtoffwind@mail.org	2022-09-04	2022-09-04 04:54:40.127	70.00
8	32	67	Isabelle Gunnering	igunner@mail.org	2022-09-04	2022-09-04 04:54:40.120	22.00
9	32	66	Barry DeHatchett	bdehatchett@mail…	2022-09-04	2022-09-04 04:54:40.110	21.00
1…	32	65	Isabelle Gunnering	igunner@mail.org	2022-09-04	2022-09-04 04:54:40.100	20.00
1…	32	64	Barry DeHatchett	bdehatchett@mail…	2022-09-04	2022-09-04 04:54:40.090	19.00
1…	32	63	Isabelle Gunnering	igunner@mail.org	2022-09-04	2022-09-04 04:54:40.080	18.00
1…	32	62	Barry DeHatchett	bdehatchett@mail…	2022-09-04	2022-09-04 04:54:40.073	17.00
1	32	61	Isabelle Gunnering	igunner@mail.org	2022-09-04	2022-09-04 04:54:40.063	16.00

There are 63 row printed, but I couldn't make a visible screenshot for the whole result.

6. The bad bidder list. Write query to help the security audit team find fraudulent activity. For any bid that does not have a status of 'ok', include the date of the bid, name, email and id of the bidder and the name and id of the item bid upon. Also include the amount of the bid and bid status. Sort the output by the user name (last, then first) and then by bid date for users with multiple bad bids.

```sql
SELECT
    i.item_id,
    i.item_name,
    b.bid_id,
    u.user_firstname + ' ' + u.user_lastname AS bid_user_name,
    u.user_email AS bid_user_email,
    CAST(b.bid_datetime AS date) AS bid_date, -- Did not know which to take date or datetime
    b.bid_datetime,                           -- since the questions states bid date. all the bids are on the same
                                              -- date so when order, used bid_datetime
                                              -- to show the most recent bids are first
    b.bid_amount,
    b.bid_status
FROM vb_bids b
    JOIN vb_items i ON b.bid_item_id = i.item_id
    JOIN vb_users u ON u.user_id = b.bid_user_id
WHERE lower(b.bid_status) != 'ok'
ORDER by u.user_lastname, u.user_firstname, b.bid_datetime
```

Results | Messages

	item_id	item_name	bid_id	bid_user_name	bid_user_email	bid_date	bid_datetime	bid_amount	bid_status
1	11	Dukes Of Hazard ashtray	22	Rose Abov-Duresst	rabovdu@mail.org	2022-09-04	2022-09-04 04:54:39.697	100.00	low_bid
2	18	Antique Desk	39	Barb Barion	bbarion@mail.org	2022-09-04	2022-09-04 04:54:39.860	251.00	low_bid
3	1	Used Pink Bathrobe	3	Anne Dewey	adwewy@mail.org	2022-09-04	2022-09-04 04:54:39.523	16.50	low_bid
4	1	Used Pink Bathrobe	5	Abby Kuss	abuss@mail.org	2022-09-04	2022-09-04 04:54:39.537	20.00	item_seller
5	36	Autographed Mik Jagger Po…	74	Abby Kuss	abuss@mail.org	2022-09-04	2022-09-04 04:54:40.183	95.00	low_bid
6	2	Rare Mint Snow Globe	7	Mary Melator	mmelator@mail.org	2022-09-04	2022-09-04 04:54:39.547	30.00	low_bid
7	6	Shatner's old Toupee	13	Otto Moni	omoni@mail.org	2022-09-04	2022-09-04 04:54:39.607	500.00	item_seller
8	6	Shatner's old Toupee	15	Otto Moni	omoni@mail.org	2022-09-04	2022-09-04 04:54:39.623	500.00	item_seller
9	16	Pez dispensers	36	Pete Moss	pmoss@mail.org	2022-09-04	2022-09-04 04:54:39.830	10.00	low_bid

7. Produce a report of items which do not contain a bid. Include the item id, item name, item type, sellers name item reserve.

```sql
SELECT
      i.item_id,
      i.item_name,
      i.item_type,
      (u.user_firstname + ' ' + u.user_lastname) as sellers_name,
      i.item_reserve

   FROM vb_items i
       INNER JOIN vb_users u ON u.user_id = i.item_seller_user_id
       LEFT JOIN vb_bids b ON i.item_id = b.bid_item_id
   WHERE b.bid_id IS NULL
```

Results   Messages

	item_id	item_name	item_type	sellers_name	item_reserve
1	4	Pet Rock	All Other	Barry DeHatchett	2.50
2	9	Tchotchkes	All Other	Mary Melator	0.99
3	10	Your Watch, Please?	Jewelry	Rose Abov-Duresst	6.95
4	12	PacMan Fever lunchbox	Collectables	Carrie Dababbi	29.99
5	17	a Toaster	Antiques	Otto Moni	20.00
6	20	Mike Fudge BobbleHead	Collectables	Martin Eyezing	49.95
7	21	Carlos Villalba BobbleHead	Collectables	Martin Eyezing	49.95
8	25	Betamax Player	Electronics	Seymour Ofewe	15.00
9	27	Ark of the Covenant	All Other	Abby Kuss	10000000.00
10	28	Superbowl XLIV tickets	Tickets	Barb Barion	750.00
11	30	Avatar 3D Two Tickets	Tickets	Carrie Dababbi	5.00
12	35	Brass French Press	Antiques	Carrie Dababbi	45.50

8. Produce a list of seller ratings. Include the name of the user who gave the rating, the name of the user the rating was for, the rating value, and rating comment. Include only ratings of sellers.

```sql
SELECT
      (b.user_firstname + ' ' + b.user_lastname) AS name_of_usr_who_gave_rating,
      (s.user_firstname + ' ' + s.user_lastname) AS name_of_usr_who_rating_was_given_for,
      ur.rating_value,
      ur.rating_comment
   FROM vb_user_ratings ur
       JOIN vb_users s ON ur.rating_for_user_id = s.user_id
       JOIN vb_users b ON ur.rating_by_user_id = b.user_id
   WHERE rating_astype = 'Seller'
```

	name_of_usr_who_gave_rating	name_of_usr_who_rating_was_given_for	rating_value	rating_comment
1	Abby Kuss	Carrie Dababbi	5	Top Notch!
2	Anne Dewey	Carrie Dababbi	4	GOod
3	Barb Barion	Anita Job	3	Okay
4	Barry DeHatchett	Abby Kuss	4	Reliable
5	Bo Enarreau	Carrie Dababbi	5	Execellent!
6	Gus Toffwind	Martin Eyezing	3	Not Bad
7	Carrie Dababbi	Rose Abov-Duresst	0	Horrible.
8	Les Ismoore	Barb Barion	5	Nice!
9	Martin Eyezing	Abby Kuss	5	The Best!
10	Mary Melator	Martin Eyezing	2	So-So
11	Abby Kuss	Rose Abov-Duresst	2	Needs Improvement
12	Ray Ovlight	Barb Barion	2	Bad Experience.
13	Anne Dewey	Rose Abov-Duresst	1	Bad.
14	Isabelle Gunnering	Ty Anott	1	Poor
15	Carrie Dababbi	Abby Kuss	4	Great!
16	Pete Moss	Carrie Dababbi	5	Super Great!
17	Otto Moni	Ty Anott	4	Great!
18	Seymour Ofewe	Les Ismoore	2	Bad!
19	Ty Anott	Les Ismoore	3	Okay
20	Les Ismoore	Victor Rhee	4	Great!

9. For items that were sold, generate a report which includes the locations (City and state) of the buyer and seller. Include item id, item name, item type item sold amount name of seller, seller's city/state, name of buyer, and the buyer's city /state

```sql
SELECT
    i.item_id,
    i.item_name,
    i.item_type,
    i.item_soldamount,
    (s.user_firstname +' '+s.user_lastname) AS seller_name,
    zs.zip_city AS sellers_city,
    zs.zip_state AS sellers_state,
    (b.user_firstname +' '+b.user_lastname) AS buyer_name,
    zb.zip_city AS buyers_city,
    zb.zip_state AS buyers_state

FROM vb_items i
    JOIN vb_users s ON s.user_id = i.item_seller_user_id
    JOIN vb_users b ON b.user_id = i.item_buyer_user_id
    JOIN vb_zip_codes zs ON zs.zip_code = s.user_zip_code
    JOIN vb_zip_codes zb ON zb.zip_code = b.user_zip_code
WHERE i.item_sold = 1
```

	item_id	item_name	item_type	item_soldamount	seller_name	sellers_city	sellers_state	buyer_name	buyers_city	buyers_state
1	1	Used Pink Bathrobe	All Other	22.50	Abby Kuss	SAN FRANCISCO	CA	Bo Enarreau	ZEBULON	GA
2	2	Rare Mint Snow Globe	Collectables	40.00	Anne Dewey	TALLADEGA	AL	Rose Abov-Duresst	NEW YORK	NY
3	3	Smurf TV Tray	Collectables	26.00	Barb Barion	MESA	AZ	Les Ismoore	CHATTANOOGA	TN
4	16	Pez dispensers	Collectables	11.00	Victor Rhee	LAKE PLACID	NY	Otto Moni	NEW YORK	NY
5	22	Fuzzy Logic	Books	5.00	Seymour Ofewe	NEW YORK	NY	Pete Moss	ALFRED	NY
6	36	Autographed Mik Jagger Po…	Collectables	100.00	Carrie Dababbi	BUFFALO	NY	Abby Kuss	SAN FRANCISCO	CA

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10. Users with no activity. Find the names and emails of any users who have never posted an item for bid or have never bought the item or have never placed a bid.

```
SELECT
    (u.user_firstname + ' ' + u.user_lastname) AS usr_name,
    u.user_email
FROM vb_users u
    LEFT JOIN vb_items i ON i.item_seller_user_id = u.user_id
    LEFT JOIN vb_items ib ON ib.item_buyer_user_id = u.user_id
    LEFT JOIN vb_bids b ON b.bid_user_id = u.user_id
WHERE
    i.item_id IS NULL AND
    ib.item_id IS NULL AND
    b.bid_id IS NULL
```

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Results   Messages

	usr_name	user_email
1	Penny Pincher	ppincher@mail.org

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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?

2. What were the challenges or roadblocks (if any) you encountered on the way to completing it?

It would have been better to have buyers and sellers in different tables rather than in the same one. It is easier to build the logic on how to build the required queries.

3. Were you prepared for this assignment? What can you do to be better prepared?

   Yes, I was

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.