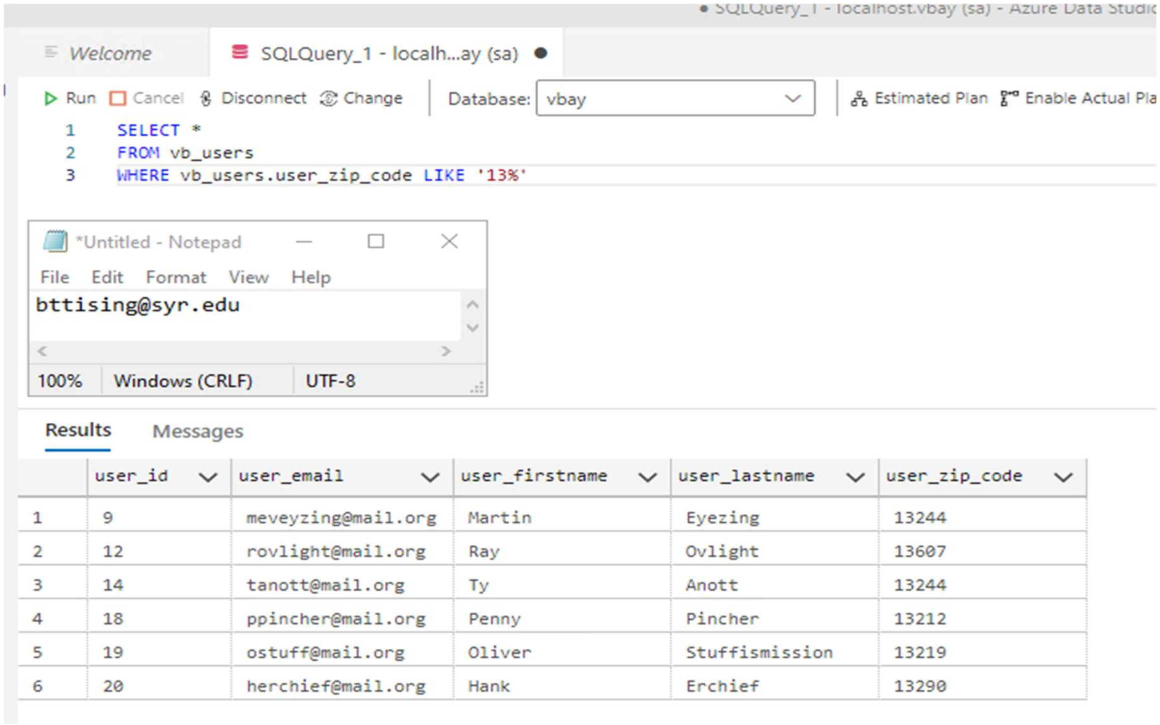
Benjamin Tisinger IST659
Homework 4
11/5/2023

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 screen shots provided, please follow the guidelines for submitting a screen shot.
Write the following as SQL queries. If the query is ambiguous, fill in the gaps and justify your reasoning. For each, include the SQL as a screen shot 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 they can be notified of their new contact in that region.



Database: vbay

```sql
SELECT *
FROM vb_users
WHERE vb_users.user_zip_code LIKE '13%'
```

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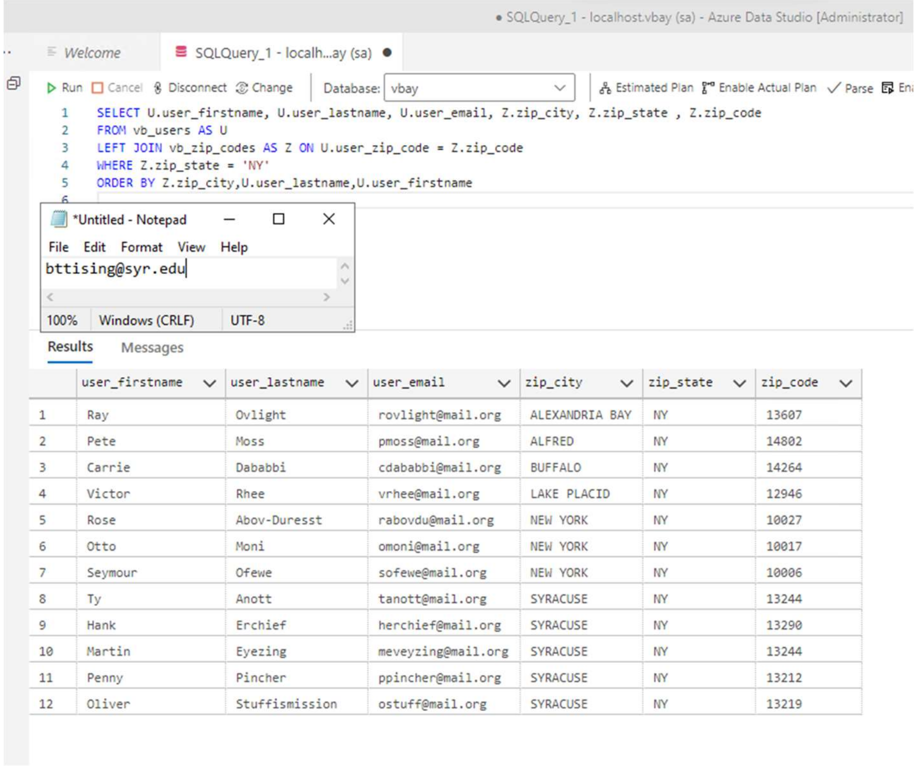
	user_id	user_email	user_firstname	user_lastname	user_zip_code
1	9	meveyzing@mail.org	Martin	Eyezing	13244
2	12	rovlight@mail.org	Ray	Ovlight	13607
3	14	tanott@mail.org	Ty	Anott	13244
4	18	ppincher@mail.org	Penny	Pincher	13212
5	19	ostuff@mail.org	Oliver	Stuffismission	13219
6	20	herchief@mail.org	Hank	Erchief	13290

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 by user's last /first name.



```
SELECT U.user_firstname, U.user_lastname, U.user_email, Z.zip_city, Z.zip_state , Z.zip_code
FROM vb_users AS U
LEFT JOIN vb_zip_codes AS Z ON U.user_zip_code = Z.zip_code
WHERE Z.zip_state = 'NY'
ORDER BY Z.zip_city,U.user_lastname,U.user_firstname
```

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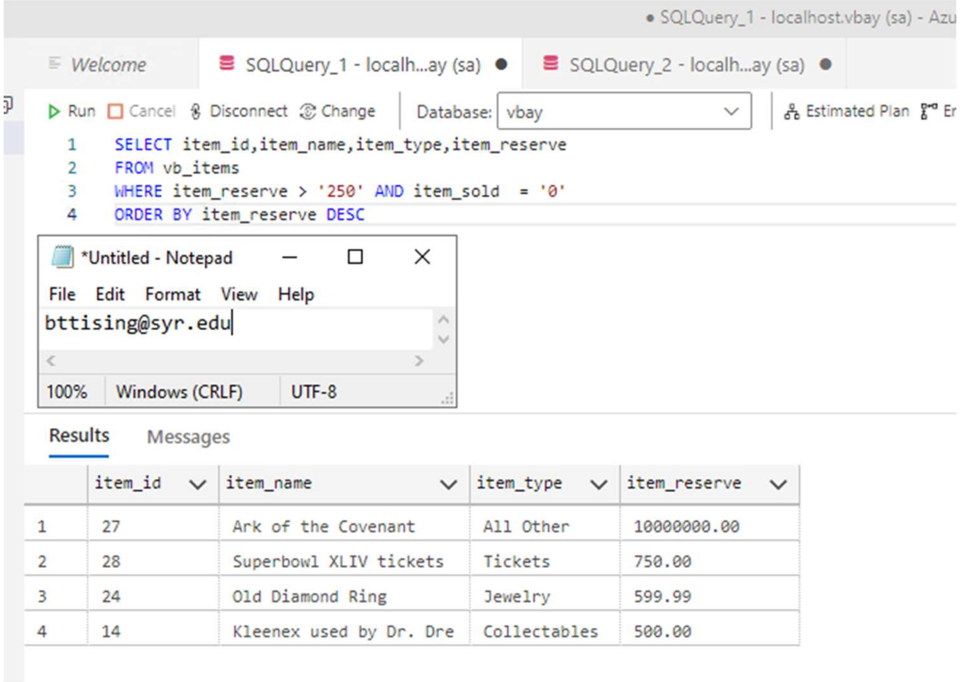
	user_firstname	user_lastname	user_email	zip_city	zip_state	zip_code
1	Ray	Ovlight	rovlight@mail.org	ALEXANDRIA BAY	NY	13607
2	Pete	Moss	pmoss@mail.org	ALFRED	NY	14802
3	Carrie	Dababbi	cdababbi@mail.org	BUFFALO	NY	14264
4	Victor	Rhee	vrhee@mail.org	LAKE PLACID	NY	12946
5	Rose	Abov-Duresst	rabovdu@mail.org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

3. High-priced items: Return the ID, name, type, and reserve of items that have not been sold and have a reserve of 250 or higher. Sort the output so that the largest reserve items are first.


• SQLQuery_1 - localhost.vbay (sa) - Azu
Welcome
SQLQuery_1 - localh...ay (sa)
SQLQuery_2 - localh...ay (sa)
Run
Cancel
Disconnect
Change
Database: vbay
Estimated Plan
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File Edit Format View Help
100%
Windows (CRLF)
UTF-8
Results
Messages

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

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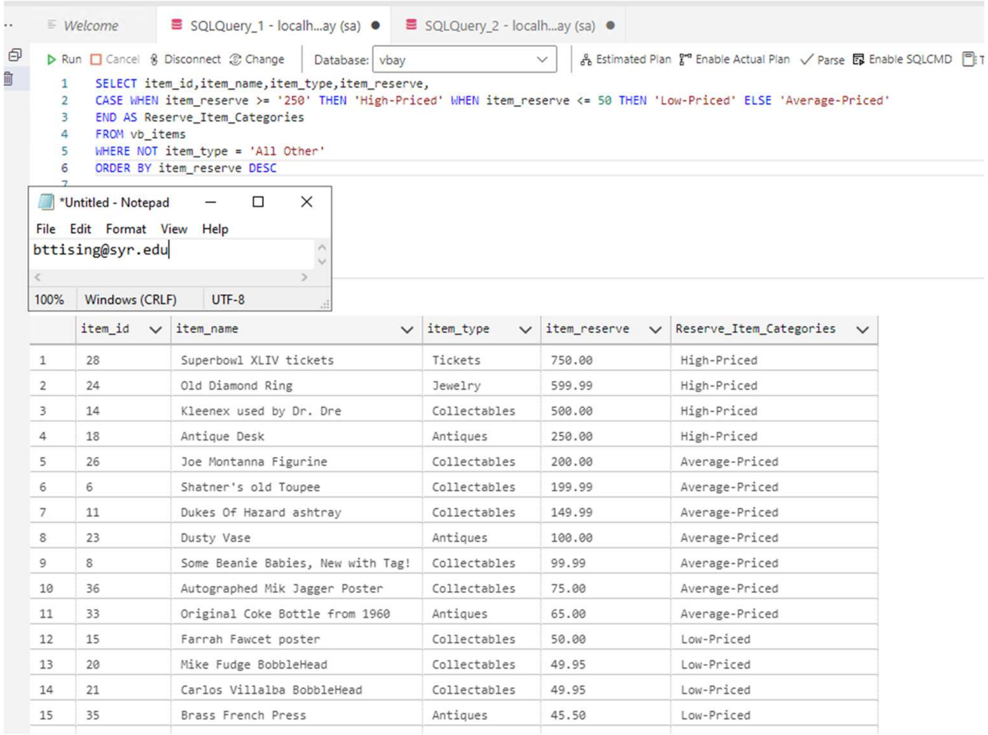
	item_id	item_name	item_type	item_reserve
1	27	Ark of the Covenant	All Other	10000000.00
2	28	Superbowl XLIV tickets	Tickets	750.00
3	24	Old Diamond Ring	Jewelry	599.99
4	14	Kleenex used by Dr. Dre	Collectables	500.00

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 item_id,item_name,item_type,item_reserve,
CASE WHEN item_reserve >= '250' THEN 'High-Priced' WHEN item_reserve <= 50 THEN 'Low-Priced' ELSE 'Average-Priced'
END AS Reserve_Item_Categories
FROM vb_items
WHERE NOT item_type = 'All Other'
ORDER BY item_reserve DESC
```

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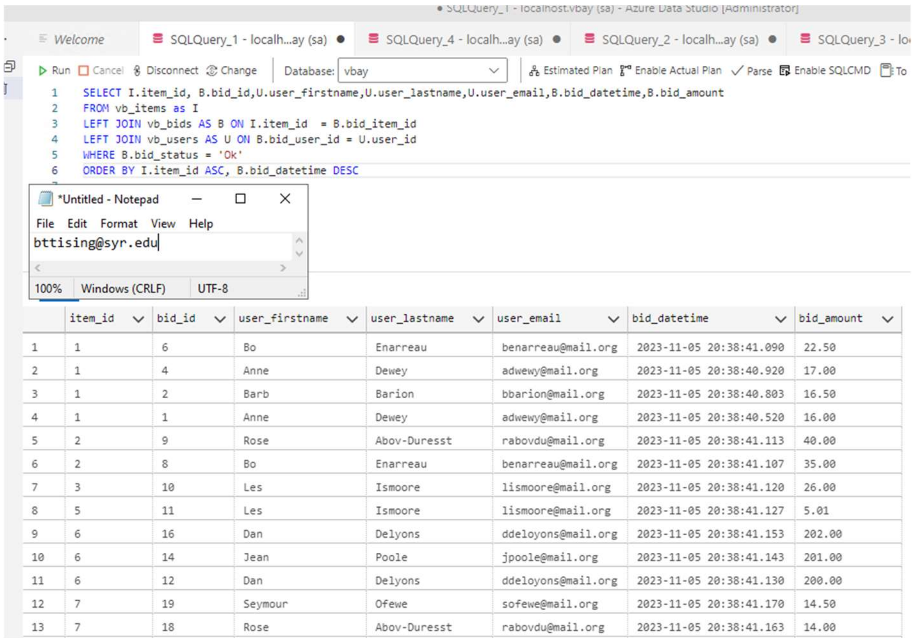
	item_id	item_name	item_type	item_reserve	Reserve_Item_Categories
1	28	Superbowl XLIV tickets	Tickets	750.00	High-Priced
2	24	Old Diamond Ring	Jewelry	599.99	High-Priced
3	14	Kleenex used by Dr. Dre	Collectables	500.00	High-Priced
4	18	Antique Desk	Antiques	250.00	High-Priced
5	26	Joe Montanna Figurine	Collectables	200.00	Average-Priced
6	6	Shatner's old Toupee	Collectables	199.99	Average-Priced
7	11	Dukes Of Hazard ashtray	Collectables	149.99	Average-Priced
8	23	Dusty Vase	Antiques	100.00	Average-Priced
9	8	Some Beanie Babies, New with Tag!	Collectables	99.99	Average-Priced
10	36	Autographed Mik Jagger Poster	Collectables	75.00	Average-Priced
11	33	Original Coke Bottle from 1960	Antiques	65.00	Average-Priced
12	15	Farrah Fawcet poster	Collectables	50.00	Low-Priced
13	20	Mike Fudge BobbleHead	Collectables	49.95	Low-Priced
14	21	Carlos Villalba BobbleHead	Collectables	49.95	Low-Priced
15	35	Brass French Press	Antiques	45.50	Low-Priced

5. Bidder list. Write a query that 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.

Decided to Order by Item_ID and Time that way you could see each item consecutively and the top row for each item is the highest and recent bid. Also for Bid Username used First/Last Name



```
SELECT I.item_id, B.bid_id,U.user_firstname,U.user_lastname,U.user_email,B.bid_datetime,B.bid_amount
FROM vb_items as I
LEFT JOIN vb_bids AS B ON I.item_id  = B.bid_item_id
LEFT JOIN vb_users AS U ON B.bid_user_id = U.user_id
WHERE B.bid_status = 'Ok'
ORDER BY I.item_id ASC, B.bid_datetime DESC
```

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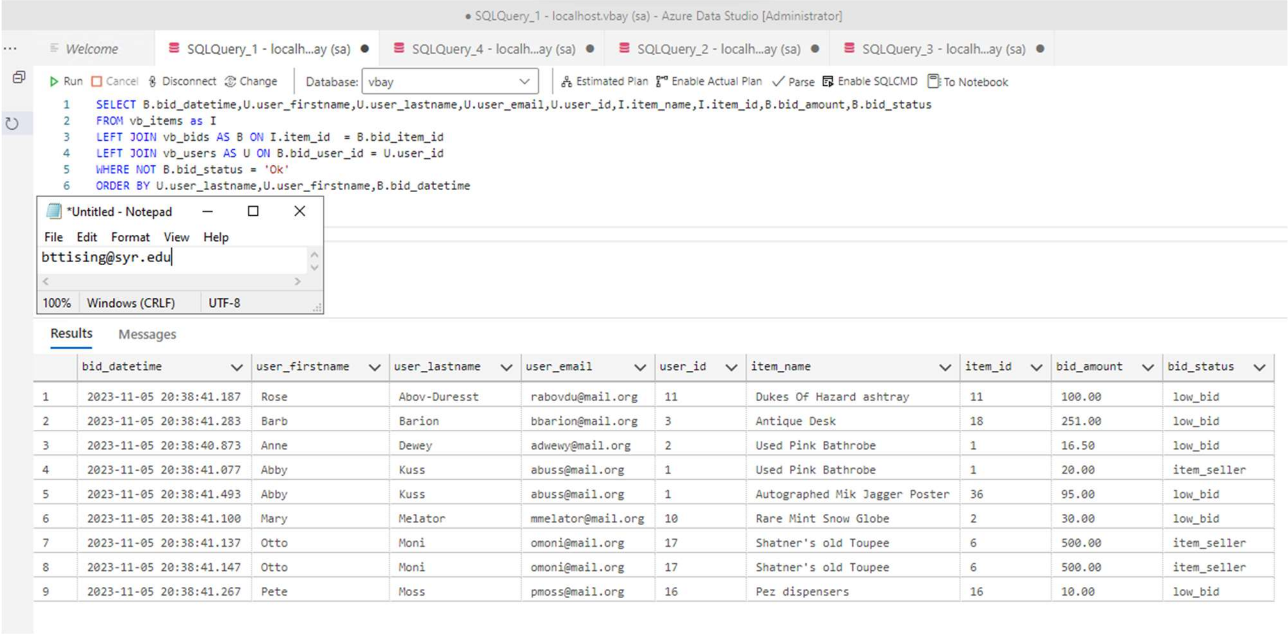
	item_id	bid_id	user_firstname	user_lastname	user_email	bid_datetime	bid_amount
1	1	6	Bo	Enarreau	benarreau@mail.org	2023-11-05 20:38:41.090	22.50
2	1	4	Anne	Dewey	adwewy@mail.org	2023-11-05 20:38:40.920	17.00
3	1	2	Barb	Barion	bbarion@mail.org	2023-11-05 20:38:40.803	16.50
4	1	1	Anne	Dewey	adwewy@mail.org	2023-11-05 20:38:40.520	16.00
5	2	9	Rose	Abov-Duresst	rabovdu@mail.org	2023-11-05 20:38:41.113	40.00
6	2	8	Bo	Enarreau	benarreau@mail.org	2023-11-05 20:38:41.107	35.00
7	3	10	Les	Ismoore	lismoore@mail.org	2023-11-05 20:38:41.120	26.00
8	5	11	Les	Ismoore	lismoore@mail.org	2023-11-05 20:38:41.127	5.01
9	6	16	Dan	Delyons	ddeloyons@mail.org	2023-11-05 20:38:41.153	202.00
10	6	14	Jean	Poole	jpoole@mail.org	2023-11-05 20:38:41.143	201.00
11	6	12	Dan	Delyons	ddeloyons@mail.org	2023-11-05 20:38:41.130	200.00
12	7	19	Seymour	Ofewe	sofewe@mail.org	2023-11-05 20:38:41.170	14.50
13	7	18	Rose	Abov-Duresst	rabovdu@mail.org	2023-11-05 20:38:41.163	14.00

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.


• SQLQuery_1 - localhost.vbay (sa) - Azure Data Studio [Administrator]
Welcome
SQLQuery_1 - localh...ay (sa)
SQLQuery_4 - localh...ay (sa)
SQLQuery_2 - localh...ay (sa)
SQLQuery_3 - localh...ay (sa)
Run
Cancel
Disconnect
Change
Estimated Plan
Enable Actual Plan
Parse
Enable SQLCMD
To Notebook
*Untitled - Notepad
File
Edit
Format
View
Help
100%
Windows (CRLF)
UTF-8
Results
Messages

Database: vbay

```sql
SELECT B.bid_datetime,U.user_firstname,U.user_lastname,U.user_email,U.user_id,I.item_name,I.item_id,B.bid_amount,B.bid_status
FROM vb_items as I
LEFT JOIN vb_bids AS B ON I.item_id  = B.bid_item_id
LEFT JOIN vb_users AS U ON B.bid_user_id = U.user_id
WHERE NOT B.bid_status = 'Ok'
ORDER BY U.user_lastname,U.user_firstname,B.bid_datetime
```

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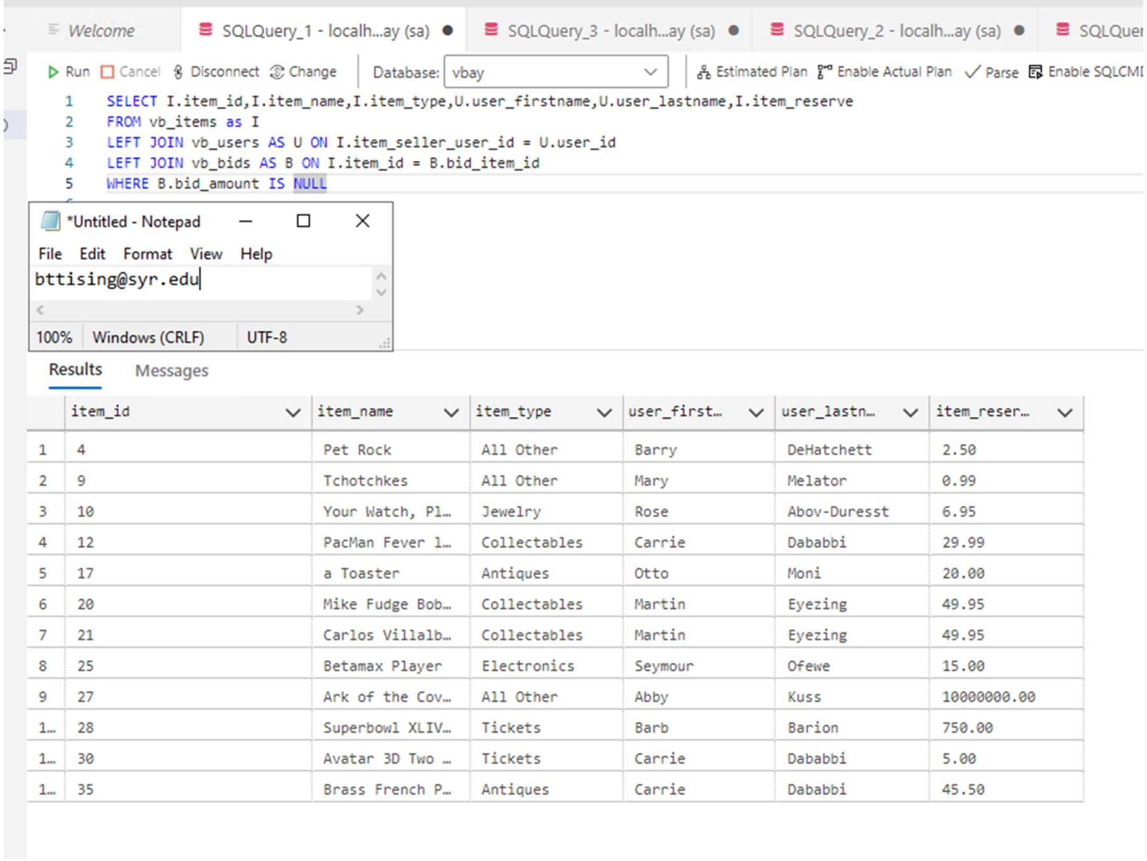
	bid_datetime	user_firstname	user_lastname	user_email	user_id	item_name	item_id	bid_amount	bid_status
1	2023-11-05 20:38:41.187	Rose	Abov-Duresst	rabovdu@mail.org	11	Dukes Of Hazard ashtray	11	100.00	low_bid
2	2023-11-05 20:38:41.283	Barb	Barion	bbarion@mail.org	3	Antique Desk	18	251.00	low_bid
3	2023-11-05 20:38:40.873	Anne	Dewey	adwewy@mail.org	2	Used Pink Bathrobe	1	16.50	low_bid
4	2023-11-05 20:38:41.077	Abby	Kuss	abuss@mail.org	1	Used Pink Bathrobe	1	20.00	item_seller
5	2023-11-05 20:38:41.493	Abby	Kuss	abuss@mail.org	1	Autographed Mik Jagger Poster	36	95.00	low_bid
6	2023-11-05 20:38:41.100	Mary	Melator	mmelator@mail.org	10	Rare Mint Snow Globe	2	30.00	low_bid
7	2023-11-05 20:38:41.137	Otto	Moni	omoni@mail.org	17	Shatner's old Toupee	6	500.00	item_seller
8	2023-11-05 20:38:41.147	Otto	Moni	omoni@mail.org	17	Shatner's old Toupee	6	500.00	item_seller
9	2023-11-05 20:38:41.267	Pete	Moss	pmoss@mail.org	16	Pez dispensers	16	10.00	low_bid

7. Produce a report of items that do not contain a bid. Include the item ID, item name, item type, seller’s name, and item reserve.



Database: vbay

```sql
SELECT I.item_id,I.item_name,I.item_type,U.user_firstname,U.user_lastname,I.item_reserve
FROM vb_items as I
LEFT JOIN vb_users AS U ON I.item_seller_user_id = U.user_id
LEFT JOIN vb_bids AS B ON I.item_id = B.bid_item_id
WHERE B.bid_amount IS NULL
```

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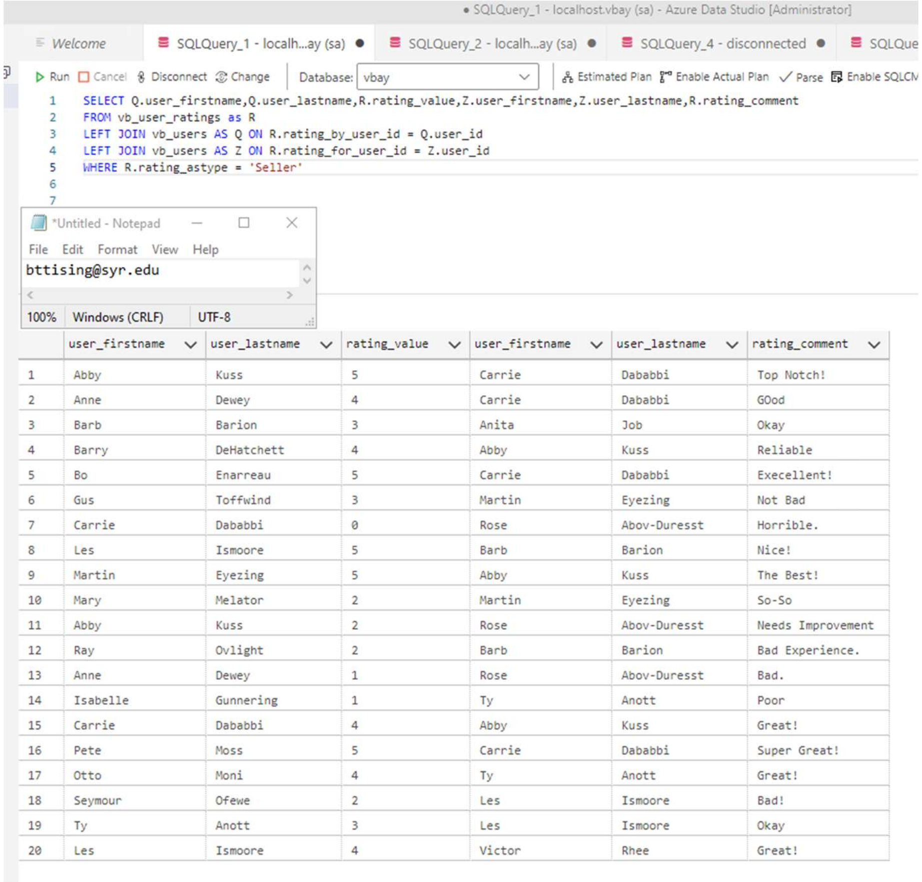
	item_id	item_name	item_type	user_first...	user_lastn...	item_reser...
1	4	Pet Rock	All Other	Barry	DeHatchett	2.50
2	9	Tchotchkes	All Other	Mary	Melator	0.99
3	10	Your Watch, Pl...	Jewelry	Rose	Abov-Duresst	6.95
4	12	PacMan Fever 1...	Collectables	Carrie	Dababbi	29.99
5	17	a Toaster	Antiques	Otto	Moni	20.00
6	20	Mike Fudge Bob...	Collectables	Martin	Eyezing	49.95
7	21	Carlos Villalb...	Collectables	Martin	Eyezing	49.95
8	25	Betamax Player	Electronics	Seymour	Ofewe	15.00
9	27	Ark of the Cov...	All Other	Abby	Kuss	10000000.00
1...	28	Superbowl XLIV...	Tickets	Barb	Barion	750.00
1...	30	Avatar 3D Two ...	Tickets	Carrie	Dababbi	5.00
1...	35	Brass French P...	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 ratings of only sellers.


• SQLQuery_1 - localhost.vbay (sa) - Azure Data Studio [Administrator]
Welcome
SQLQuery_1 - localh...ay (sa)
SQLQuery_2 - localh...ay (sa)
SQLQuery_4 - disconnected
SQLQue
Run
Cancel
Disconnect
Change
Estimated Plan
Enable Actual Plan
Parse
Enable SQLCM
*Untitled - Notepad
File
Edit
Format
View
Help
100%
Windows (CRLF)
UTF-8

Database: vbay

```sql
SELECT Q.user_firstname,Q.user_lastname,R.rating_value,Z.user_firstname,Z.user_lastname,R.rating_comment
FROM vb_user_ratings as R
LEFT JOIN vb_users AS Q ON R.rating_by_user_id = Q.user_id
LEFT JOIN vb_users AS Z ON R.rating_for_user_id = Z.user_id
WHERE R.rating_astype = 'Seller'
```

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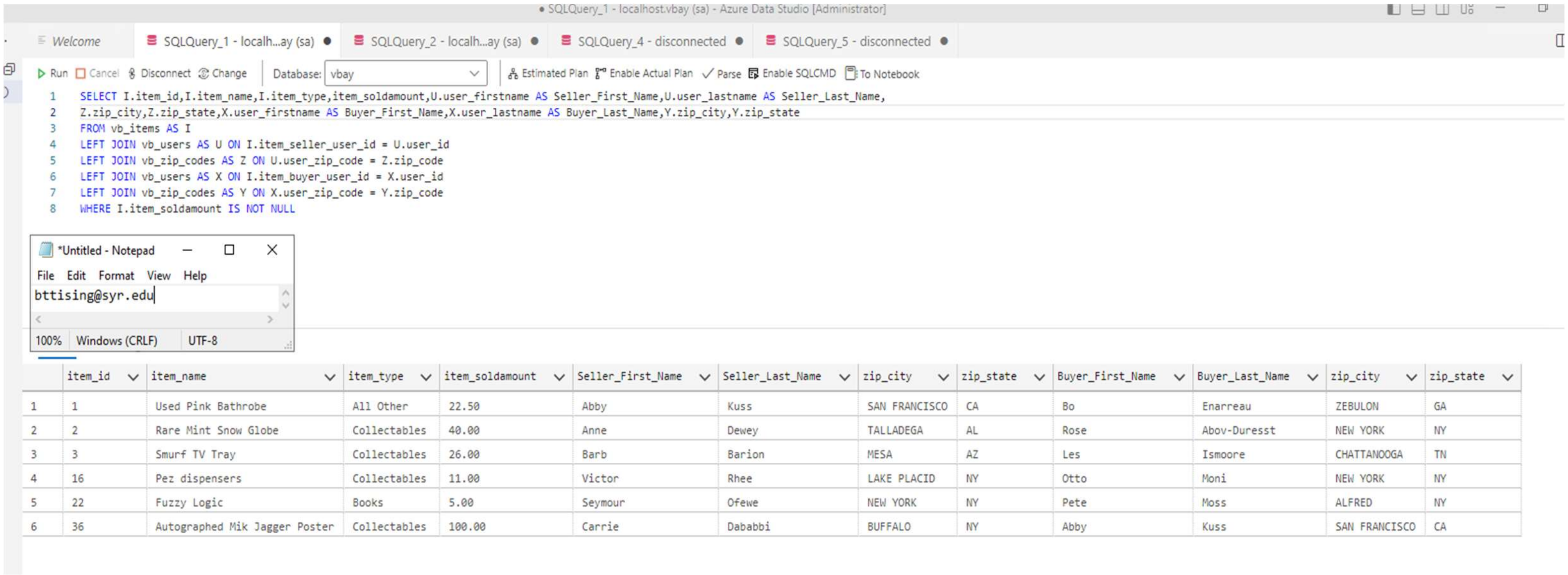
	user_firstname	user_lastname	rating_value	user_firstname	user_lastname	rating_comment
1	Abby	Kuss	5	Carrie	Dababbi	Top Notch!
2	Anne	Dewey	4	Carrie	Dababbi	GOod
3	Barb	Barion	3	Anita	Job	Okay
4	Barry	DeHatchett	4	Abby	Kuss	Reliable
5	Bo	Enarreau	5	Carrie	Dababbi	Execellent!
6	Gus	Toffwind	3	Martin	Eyezing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

9. For items that were sold, generate a report that 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.


• SQLQuery_1 - localhost.vbay (sa) - Azure Data Studio [Administrator]
Welcome
SQLQuery_1 - localh...ay (sa)
SQLQuery_2 - localh...ay (sa)
SQLQuery_4 - disconnected
SQLQuery_5 - disconnected
Run
Cancel
Disconnect
Change
Estimated Plan
Enable Actual Plan
Parse
Enable SQLCMD
To Notebook
*Untitled - Notepad
File
Edit
Format
View
Help
100%
Windows (CRLF)
UTF-8

Database: vbay

```sql
SELECT I.item_id,I.item_name,I.item_type,item_soldamount,U.user_firstname AS Seller_First_Name,U.user_lastname AS Seller_Last_Name,
Z.zip_city,Z.zip_state,X.user_firstname AS Buyer_First_Name,X.user_lastname AS Buyer_Last_Name,Y.zip_city,Y.zip_state
FROM vb_items AS I
LEFT JOIN vb_users AS U ON I.item_seller_user_id = U.user_id
LEFT JOIN vb_zip_codes AS Z ON U.user_zip_code = Z.zip_code
LEFT JOIN vb_users AS X ON I.item_buyer_user_id = X.user_id
LEFT JOIN vb_zip_codes AS Y ON X.user_zip_code = Y.zip_code
WHERE I.item_soldamount IS NOT NULL
```

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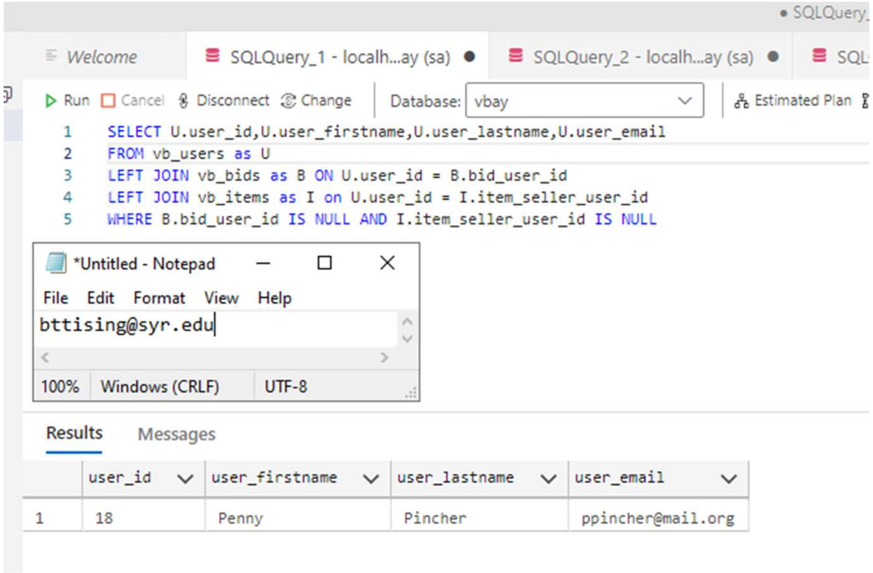
	item_id	item_name	item_type	item_soldamount	Seller_First_Name	Seller_Last_Name	zip_city	zip_state	Buyer_First_Name	Buyer_Last_Name	zip_city	zip_state
1	1	Used Pink Bathrobe	All Other	22.50	Abby	Kuss	SAN FRANCISCO	CA	Bo	Enarreau	ZEBULON	GA
2	2	Rare Mint Snow Globe	Collectables	40.00	Anne	Dewey	TALLADEGA	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 Poster	Collectables	100.00	Carrie	Dababbi	BUFFALO	NY	Abby	Kuss	SAN FRANCISCO	CA

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.



```sql
SELECT U.user_id,U.user_firstname,U.user_lastname,U.user_email
FROM vb_users as U
LEFT JOIN vb_bids as B ON U.user_id = B.bid_user_id
LEFT JOIN vb_items as I on U.user_id = I.item_seller_user_id
WHERE B.bid_user_id IS NULL AND I.item_seller_user_id IS NULL
```

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	user_id	user_firstname	user_lastname	user_email
1	18	Penny	Pincher	ppincher@mail.org

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. Take time to consider these questions before you answer them. Your reflection should be personal. I consider it just as important as the work itself.

1. Reflect upon 3 things you learned this week.

   - **Learned more about Aggregates such as Min, Max, Count Distinct**
   - **Always Double check quiz questions. Missed one question twice this week and I knew the correct answer just didn't double check.**
   - **Learned more about Windows Functions such as row_number and Percent_rank**

2. What do you feel is still unclear about the topics covered this week?

Not Much is unclear just flagging this week to review the material and homework again as it was heavy.

3. Do you feel you were prepared for this assignment? What can you do to be better prepared?

Yep, felt prepared for this assignment. I hope I did it correctly. I used lots of joins and simple functions and filtering. I didn't use any aggregations or window functions.

4. Now that you have completed this topic, 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.

5. Please provide any additional thoughts you have regarding your learning journey in this course to date.

Enjoying it so far!