Last Name: Jiaxin First Name: Li Student ID:19683688

1. Find the item ids of the item with the name 'Laptop' and limit your results to the top 5 costliest items. [10pts]

a) [7pts] SQL Query

```
SELECT I.item_id
FROM cs222p_interchange.item I
WHERE I.name='Laptop'
ORDER BY price DESC LIMIT 5
```

b) [3pts] Result

Data Output Messages Notifications

	item_id [PK] text
1	6MR70
2	P69NU
3	F8X32
4	XLEZP
5	SXTWL

2. List the email of the sellers whose last name was ‘Taylor’ [10pts]

a) [7pts] SQL Query

```
SELECT U.email
FROM cs222p_interchange.seller S, cs222p_interchange.user U
WHERE S.user_id=U.user_id AND U.last_name='Taylor'
```

b) [3pts] Result

Data Output Messages Notifications

	email text
1	ronald.Taylor432@gmail.co...

3. Select the first and last names of users who bought an item with the name 'Hoodie'. Sort the results in ascending order based on the first name [10pts].

a) [7pts] SQL Query

```
SELECT U.first_name, U.last_name
FROM cs222p_interchange.item I, cs222p_interchange.user U
WHERE I.name='Hoodie' AND I.buyer_user_id=U.user_id
ORDER BY first_name ASC
```

b) [3pts] Result

Data Output Messages Notifications

	first_name text	last_name text
1	Anthony	Rice
2	Brandon	Boyd
3	Jennifer	Nguyen
4	Jessica	Hurley
5	Juan	Bradley
6	Julie	Sanchez
7	Matthew	Davis
8	Paul	Solomon
9	Scott	Walker

4. List the user_id of the buyer who rated a seller who sells an item with item_id 'G9WMY'. Order the results in descending order of the seller's quality rating.[10pts].

a) [7pts] SQL Query

```
SELECT R.buyer_id
FROM cs222p_interchange.ratings R, cs222p_interchange.item I
WHERE I.item_id='G9WMY' AND I.seller_user_id=R.seller_id
ORDER BY -quality ASC
```

b) [3pts] Result

Data Output Messages Notifications

	buyer_id text
1	3R3CX
2	S86V6
3	53DXQ

5. List the user emails and first names of users who bought at least one item of the category "Clothing, Shoes & Jewelry" or "Toys & Games" on the platform and who live in the city "Josephstad". [15pts].

a) [12pts] SQL Query

SELECT U.email, U.first_name

FROM cs222p_interchange.item I, cs222p_interchange.user U

WHERE (I.category='Clothing, Shoes & Jewelry' OR I.category='Toys & Games') AND U.user_id=I.buyer_user_id AND U.city='Josephstad'

b) [3pts] Result

Data Output Messages Notifications

	email text	first_name text
1	robertson89@gmail.co...	Gregory
2	mckinney38@gmail.co...	Jorge

6. List the emails, first names, and last names of users who are both a buyer and a seller on the platform and who are a resident of the state 'West Virginia and order the results using zipcode in ascending order [15pts].

a) [12pts] SQL Query

```
SELECT U.email, U.first_name, U.last_name
FROM cs222p_interchange.user U, cs222p_interchange.seller S, cs222p_interchange.buyer B
WHERE U.user_id=S.user_id AND U.user_id=B.user_id AND U.state='West Virginia'
```

b) [3pts] Result

Data Output Messages Notifications

	email text	first_name text	last_name text
1	garcia98650@aol.com	Jeffrey	Garcia
2	Jermaine_Ponce713@yahoo.co...	Jermaine	Ponce

7. List the ad ids of advertisements that have a picture with a pic_num of '2' and are associated with an item of the category 'Electronics' with a price under 1000. Order the results by ad_id in ascending order and limit the results to 5 records [15pts].

a) [12pts] SQL Query

```
SELECT A.ad_id
FROM cs222p_interchange.ad A, cs222p_interchange.item I
WHERE A.pic_num='2' AND  I.category='Electronics' AND I.item_id=A.item_id AND I.price<1000
ORDER BY A.ad_id ASC LIMIT 5
```

b) [3pts] Result

Data Output Messages Notifications

	ad_id [PK] text
1	0HMGG
2	0KD2B
3	0NSU4
4	12Q6R
5	16JII

8. List the mobile phone numbers (i.e., of kind 'MOBILE') of all the sellers who listed items on the platform on the date "2022-07-17". Limit your output to 10 records [15pts].

a) [12pts] SQL Query

```
SELECT phone.number
FROM  cs222p_interchange.Item I, cs222p_interchange.user U,
cs222p_interchange.phone phone
WHERE I.list_date='2022-07-17' AND U.user_id=I.seller_user_id AND
phone.user_id=I.seller_user_id and phone.kind='mobile'
LIMIT 10
```

b) [3pts] Result

Data Output Messages Notifications

	number text
1	396-123-9381
2	001-219-656-4140x0...
3	(246)724-8457x825
4	+1-466-789-3896x657
5	(351)826-8868x69372
6	+1-064-660-6929x535
7	6175201435
8	+1-075-479-1461
9	0525350074
10	852.667.9845