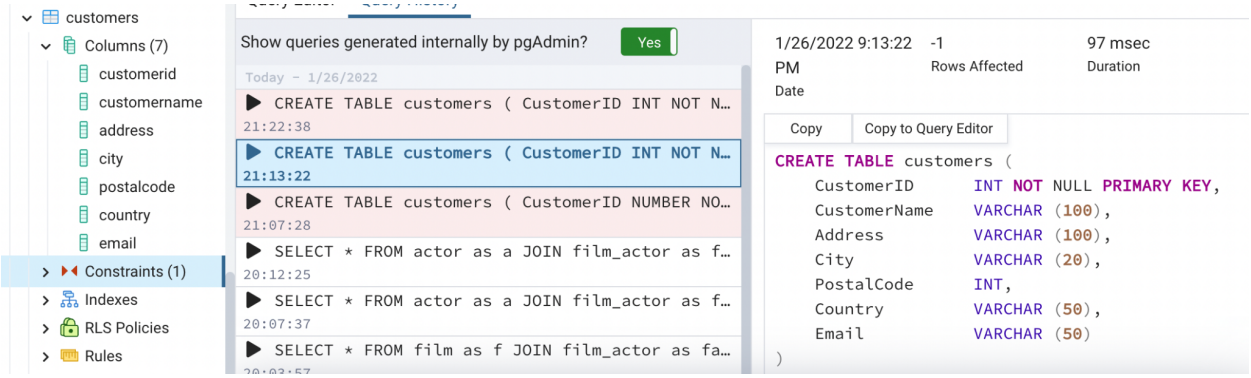
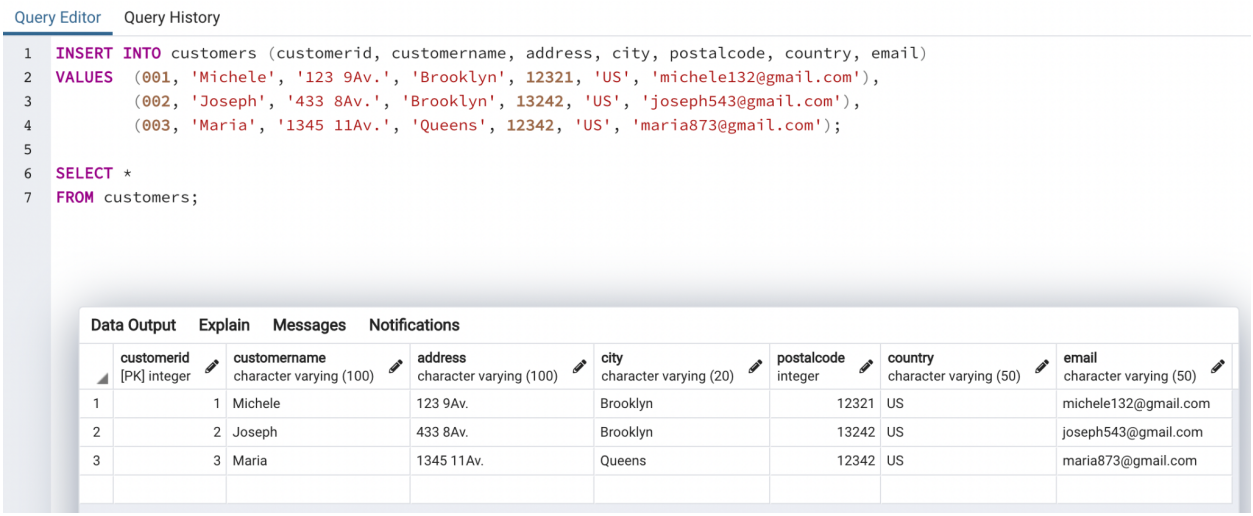
Name: _____Siming Deng_____

Lesson 9: Insert and Update

1. **Create** a table with the following parameters:
    - CustomerID
    - CustomerName
    - Address
    - City
    - PostalCode
    - Country
    - Email



2. Insert 3 rows of data into these columns using **INSERT**. The data you insert should make sense for the column.



3. Use an **UPDATE** to modify any portion of the data

Query Editor | Query History

```
1  UPDATE customers
2  SET address = '5342 Bay Parkway', postalcode = 12875
3  WHERE customername = 'Maria';
4
5  SELECT *
6  FROM customers;
```

Data Output | Explain | Messages | Notifications

	customerid [PK] integer	customername character varying (100)	address character varying (100)	city character varying (20)	postalcode integer	country character varying (50)	email character varying (50)
1	1	Michele	123 9Av.	Brooklyn	12321	US	michele132@gmail.com
2	2	Joseph	433 8Av.	Brooklyn	13242	US	joseph543@gmail.com
3	3	Maria	5342 Bay Parkway	Queens	12875	US	maria873@gmail.com

4. Finally, write a statement to **delete** one row of data.

Query Editor | Query History

```
1  DELETE
2  FROM customers
3  WHERE customername = 'Maria';
4
5  SELECT *
6  FROM customers;
```

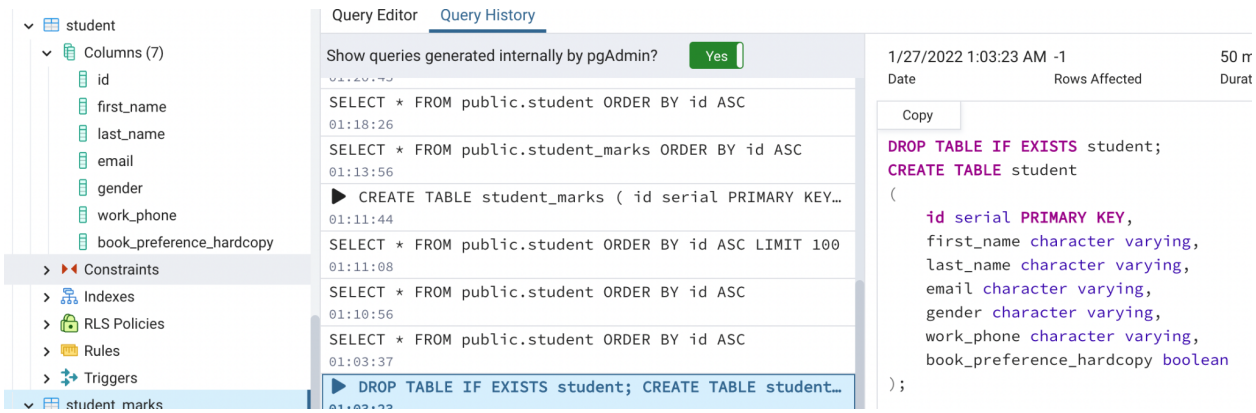
Data Output | Explain | Messages | Notifications

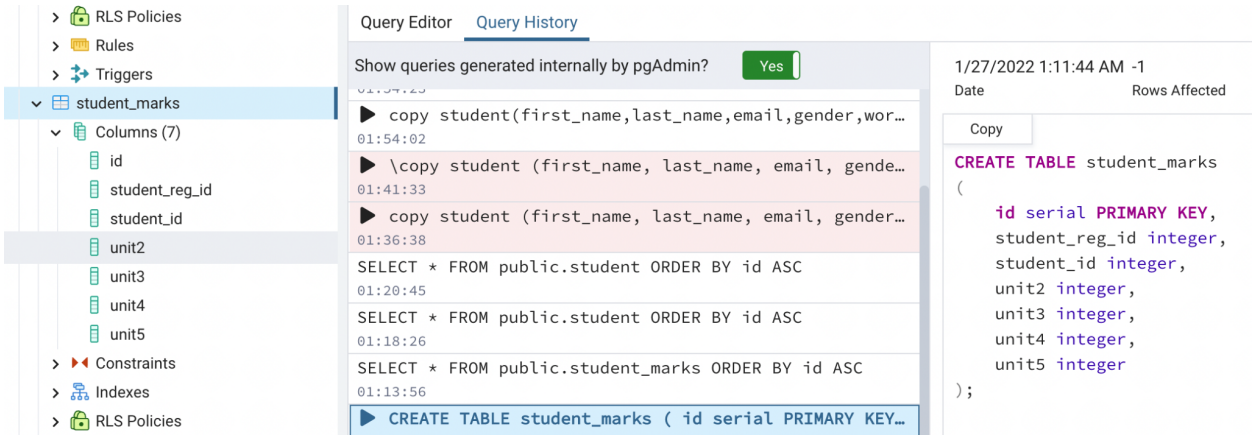
	customerid [PK] integer	customername character varying (100)	address character varying (100)	city character varying (20)	postalcode integer	country character varying (50)	email character varying (50)
1	1	Michele	123 9Av.	Brooklyn	12321	US	michele132@gmail.com
2	2	Joseph	433 8Av.	Brooklyn	13242	US	joseph543@gmail.com

1. Using the following Link
   https://github.com/niteen11/cuny_lagcc_micro_credential_data_analytics/tree/main/Track%20A/Unit%205%20-%20SQL_%20Relational%20Databases/guided%20exercise

First, you have to create a table then upload the data, save the table into your Laptop and change the path accordingly. Use the following link for creating a table:

https://github.com/niteen11/cuny_lagcc_micro_credential_data_analytics/blob/main/Track%20A/Unit%205%20-%20SQL_%20Relational%20Databases/guided%20exercise/student.sql





1/27/2022 1:55:10 AM	1,000	46 msec
Date	Rows Affected	Duration

Copy

```
copy student_marks(student_reg_id,student_id,unit2,unit3,unit4,unit5)
--set the path for file location of student_marks.csv
from '/Users/Shared/student_marks.csv'
delimiter ',' CSV header
```

Copy

```
copy student(first_name,last_name,email,gender,work_phone,book_preference_ha
--set the path for file location of student_data.csv
from '/Users/Shared/Student_data.csv'
delimiter ',' CSV header
```

Query Editor | Query History

```
SELECT *
FROM student;
```

Data Output | Explain | Messages | Notifications

	id [PK] integer	first_name character varying	last_name character varying	email character varying	gender character varying	work_phone character varying	book_preference_ha boolean
1	1	Tiebold	Steers	tsteers0@a8.net	Male	258-553-5054	true
2	2	Pippo	Mougeot	pmougeot1@apache.org	Male	108-209-3414	true
3	3	Ree	Cornish	rcornish2@jugem.jp	Female	968-480-8790	true
4	4	Shina	Freund	sfreund3@sbwire.com	Female	860-203-9233	true
5	5	Darby	Winley	dwinley4@businesswire.com	Male	540-609-8343	false
6	6	Nero	Vigours	nvigours5@digg.com	Male	431-510-3535	true
7	7	Emmet	Valencia	evalencia6@angelfire.com	Male	597-265-3781	true
8	8	Koenraad	Dugdale	kdugdale7@ezinearticles.com	Male	527-450-6922	true
9	9	Susy	Widdison	swiddison8@mac.com	Female	377-378-2222	false
10	10	Kenneth	Frankish	kfrankish9@google.pl	Male	958-128-3229	true
11	11	Naoma	Truin	ntruina@smugmug.com	Female	139-391-1262	true
12	12	Luise	Light	llightb@dropbox.com	Female	734-359-5678	false
13	13	Elijah	Helgass	ehelgassc@harvard.edu	Male	188-597-8889	false

Query Editor | Query History

```
SELECT *
FROM student_marks;
```

Data Output | Explain | Messages | Notifications

	id [PK] integer	student_reg_id integer	student_id integer	unit2 integer	unit3 integer	unit4 integer	unit5 integer
1	1	853	1	88	96	87	92
2	2	854	2	86	99	82	95
3	3	855	3	86	95	99	95
4	4	856	4	98	98	89	100
5	5	857	5	100	94	83	95
6	6	858	6	97	91	93	88
7	7	859	7	92	97	97	98
8	8	860	8	86	97	92	88
9	9	861	9	89	97	82	97
10	10	862	10	96	96	96	90
11	11	863	11	85	95	97	99
12	12	864	12	92	93	92	93
13	13	865	13	98	93	98	90

And attached data set (Student_data and Student_marks) answer the following questions :

student with the highest marks in unit4

Query Editor | Query History

```
1  SELECT first_name, last_name, unit4
2  FROM student_marks as sm
3  JOIN student as s on s.id = sm.student_id
4  WHERE unit4 = 100;
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit4 integer
1	Mollie	Maccrie	100
2	Thomasin	Melmoth	100
3	Boothe	Vonderdell	100
4	Kacie	Kiddle	100
5	Caritta	Janek	100
6	Ellerey	Colerick	100
7	Cathryn	Bolver	100
8	Anette	Polding	100
9	Vaughan	Liversage	100
10	Siward	Geke	100
11	Huntlee	Clopton	100
12	Judas	Dybell	100
13	Brion	Gehrtz	100

-- Find students scored between 89 and 100 unit4

```
SELECT first_name, last_name, unit4
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit4 BETWEEN 89 AND 100;
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit4 integer
1	Ree	Cornish	99
2	Shina	Freund	89
3	Nero	Vigours	93
4	Emmet	Valencia	97
5	Koenraad	Dugdale	92
6	Kenneth	Frankish	96
7	Naoma	Truin	97
8	Luise	Light	92

Open ended questions:
-- Take a closer look at the tables that you created and come up with 10 different scenarios/ questions and form SQL
-- Ask your colleagues

1. students who preferred hardcopy for books

Query Editor | Query History

```
1  SELECT first_name, last_name, book_preference_hardcopy
2  FROM student_marks as sm
3  JOIN student as s on s.id = sm.student_id
4  WHERE book_preference_hardcopy = 'true';
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	book_preference_hardcopy boolean
1	Tiebold	Steers	true
2	Pippo	Mougeot	true
3	Ree	Cornish	true
4	Shina	Freund	true
5	Nero	Vigours	true
6	Emmet	Valencia	true
7	Koenraad	Dugdale	true
8	Kenneth	Frankish	true
9	Naoma	Truin	true
10	Gian	Jaskowicz	true
11	Friederike	Izakov	true
12	Millisent	McCaster	true
13	Roobbie	Thomas	true

2. students who don’t preferred hardcopy for books

Query Editor | Query History

```
1 SELECT first_name, last_name, book_preference_hardcopy
2 FROM student_marks as sm
3 JOIN student as s on s.id = sm.student_id
4 WHERE book_preference_hardcopy = 'false';
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	book_preference_hardcopy boolean
1	Darby	Winley	false
2	Susy	Widdison	false
3	Luise	Light	false
4	Elijah	Helgass	false
5	Philip	Butterly	false
6	Blaine	Pesterfield	false
7	Norry	Sprake	false
8	Fionnula	Bagnell	false
9	Averill	Eveque	false
10	Mead	Kyneton	false
11	Ally	Filipovic	false
12	Rivy	Shorland	false
13	Weber	Trevithick	false

3. students who scored 100 in unit2

Query Editor | Query History

```
1 SELECT first_name, last_name, unit2
2 FROM student_marks as sm
3 JOIN student as s on s.id = sm.student_id
4 WHERE unit2 = 100;
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit2 integer
1	Darby	Winley	100
2	Gian	Jaskowicz	100
3	Millisent	McCaster	100
4	Norry	Sprake	100
5	Abel	Beeching	100
6	Salvidor	Knutsen	100
7	Madonna	Hedaux	100
8	Tedman	Endersby	100
9	Walden	Landreth	100
10	Devin	Simoni	100
11	Sheela	Mantrup	100
12	Hobie	Rainton	100
13	Douglass	Joire	100

4. students with the lowest marks in unit2

Query Editor | Query History

```
SELECT first_name, last_name, unit2
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit2 = ( SELECT unit2
        FROM student_marks as sm
        JOIN student as s on s.id = sm.student_id
        ORDER BY unit2 ASC
        LIMIT 1);
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit2 integer
1	Naoma	Truin	85
2	Philip	Butterly	85
3	Blaine	Pesterfield	85
4	Luise	Crumpe	85
5	Franklyn	MacGuffog	85
6	Raimondo	Furmage	85
7	Harriet	Gebbe	85
8	Roxie	Gilyatt	85
9	Harvey	Kinzel	85
10	Orion	Taylder	85
11	Querida	Corton	85

5. students who scored 100 in unit3

```
SELECT first_name, last_name, unit3
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit3 = 100;
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit3 integer
1	Gian	Jaskowicz	100
2	Arline	Meneghi	100
3	Jehanna	Simonsson	100
4	Boony	Pote	100
5	Julian	Mugleston	100
6	Nikolaos	Lutz	100
7	Hobie	Rainton	100
8	Merle	Eschalotte	100

6. students with the lowest marks in unit3

Query Editor | Query History

```
SELECT first_name, last_name, unit3
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit3 = ( SELECT unit3
        FROM student_marks as sm
        JOIN student as s on s.id = sm.student_id
        ORDER BY unit3 ASC
        LIMIT 1);
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit3 integer
1	Averill	Eveque	90
2	Rori	Bridger	90
3	Ely	Spurrier	90
4	Clio	Whartonby	90
5	Regen	Fownes	90
6	Joelie	Abazi	90
7	Sigismundo	Axe	90
8	Mateo	Coxhead	90
9	Iago	Van Leeuwen	90
10	Mead	Carmel	90
11	Alon	Kivits	90
12	Eugenius	Goalley	90

7. students with the lowest marks in unit4

Query Editor | Query History

```
SELECT first_name, last_name, unit4
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit4 = ( SELECT unit4
        FROM student_marks as sm
        JOIN student as s on s.id = sm.student_id
        ORDER BY unit4 ASC
        LIMIT 1);
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit4 integer
1	Pippo	Mougeot	82
2	Susy	Widdison	82
3	Montague	Dunkley	82
4	Cointon	Brownell	82
5	Catina	Rysdale	82
6	Meredeth	Cavil	82
7	Charlena	Lethebridge	82
8	Abby	Shone	82
9	Merle	Eschalotte	82
10	Rockie	Spires	82
11	Joellen	Verrechia	82
12	Nelli	Fannin	82

8. students who scored 100 in unit5

Query Editor | Query History

```
SELECT first_name, last_name, unit5
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit5 = 100;
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit5 integer
1	Shina	Freund	100
2	Gian	Jaskowicz	100
3	Ki	Kavanagh	100
4	Rori	Bridger	100
5	Ely	Spurrier	100
6	Catina	Rysdale	100
7	Tedman	Endersby	100
8	Dyanna	Gaither	100
9	Regen	Fownes	100
10	Celesta	McLeary	100
11	Joelie	Abazi	100
12	Malinda	Kielt	100
13	Iago	Van Leeuwen	100
14	Kacie	Kiddle	100
15	Eugenius	Goalley	100

9. students with the lowest marks in unit5

Query Editor | Query History

```
SELECT first_name, last_name, unit5
FROM student_marks as sm
JOIN student as s on s.id = sm.student_id
WHERE unit5 = ( SELECT unit5
        FROM student_marks as sm
        JOIN student as s on s.id = sm.student_id
        ORDER BY unit5 ASC
        LIMIT 1);
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	unit5 integer
1	Nero	Vigours	88
2	Koenraad	Dugdale	88
3	Lucien	Slidders	88
4	Kayla	Cline	88
5	Mead	Kyneton	88
6	Thomasin	Melmoth	88
7	Jacquelin	Larive	88
8	Franklyn	MacGuffog	88
9	Peirce	Giraudeau	88
10	Remy	Ortes	88
11	Nadine	Conachy	88
12	Hurleigh	Kohrsen	88

10. find the total average for unit2, unit3, unit4, and unit5 for each students

Query Editor | Query History

```
1  SELECT s.first_name, s.last_name, (sm.unit2+sm.unit3+sm.unit4+sm.unit5)/4 AS total_average
2  FROM student_marks as sm
3  JOIN student as s on s.id = sm.student_id
4  GROUP BY s.first_name, s.last_name, total_average;
```

Data Output | Explain | Messages | Notifications

	first_name character varying	last_name character varying	total_average integer
1	Regen	Fownes	95
2	Langsdon	Stonnell	96
3	Thalia	Antrim	93
4	Armando	de Aguirre	90
5	Dorothee	Hoble	96
6	Naoma	Truin	94
7	Petey	Havock	95
8	Hazel	Girodier	91
9	Kacie	Kiddle	98
10	Dudley	Stairs	95
11	Meridel	Looker	93
12	Celle	Simonian	93
13	Georgena	Bolley	97
14	Blondie	Logesdale	93
15	Bryant	Churches	93