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Lesson 9: Insert and Update

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

```
create table customers2 (
customer_id serial primary key, customer_name varchar(50) not null,
address varchar(50) not null, city varchar(50) not null,
postalcode integer not null, country varchar(50),
email varchar(50)
)
```

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

```
insert into customers2(customer_name, address, city, postalcode, country, email)
values ('Jerry Seinfeld','129 West 81st St','New York', 10024, 'US',
'jseinfeld@gmail.com')

insert into customers2(customer_name, address, city, postalcode, country, email)
values ('Monica Geller', '90 Bedford St', 'New York', 10014, 'US',
 'monicageller@gmail.com')

insert into customers2(customer_name, address, city, postalcode, country, email)
values ('Walter White', '308 Negra Arroyo Lane', 'Albuquerque', 87104, 'US',
  'wwhite@gmail.com')
```

select * from customers2

	customer_id [PK] integer	customer_name character varying (50)	address character varying (50)	city character varying (50)	postalcode integer	country character varying (50)	email character varying (50)
1	1	Jerry Seinfeld	129 West 81st St	New York	10024	US	jseinfeld@gmail.com
2	2	Monica Geller	90 Bedford St	New York	10014	US	monicageller@gmail.co…
3	3	Walter White	308 Negra Arroyo Lane	Albuquerque	87104	US	wwhite@gmail.com

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

update customers2 set email = 'mgeller@gmail.com' where customer_name = 'Monica Geller'

select * from customers2 order by customer_id

	customer_id [PK] integer	customer_name character varying (50)	address character varying (50)	city character varying (50)	postalcode integer	country character varying (50)	email character varying (50)
1	1	Jerry Seinfeld	129 West 81st St	New York	10024	US	jseinfeld@gmail.com
2	2	Monica Geller	90 Bedford St	New York	10014	US	mgeller@gmail.com
3	3	Walter White	308 Negra Arroyo Lane	Albuquerque	87104	US	wwhite@gmail.com

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

delete from customers2 where customer_id = 3

select * from customers2

	customer_id [PK] integer	customer_name character varying (50)	address character varying (50)	city character varying (50)	postalcode integer	country character varying (50)	email character varying (50)
1	1	Jerry Seinfeld	129 West 81st St	New York	10024	US	jseinfeld@gmail.com
2	2	Monica Geller	90 Bedford St	New York	10014	US	mgeller@gmail.com

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 than upload the data ,safe the table in to your Laptop and change the path accordingly.usr the following link for creating 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

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

5. Students with the highest marks in Unit 4

select student_id, first_name, last_name, unit4 from student_marks m

left join student s on m.student_id = s.id

where unit4 = 100

	student_id integer	first_name character varying	last_name character varying	unit4 integer
1	31	Mollie	Maccrie	100
2	48	Thomasin	Melmoth	100
3	49	Boothe	Vonderdell	100
4	109	Kacie	Kiddle	100
5	129	Caritta	Janek	100
6	134	Ellerey	Colerick	100
7	153	Cathryn	Bolver	100
8	159	Anette	Polding	100

6. Find students who scored between 89 and 100 in unit 5

select student_id, first_name, last_name, unit5 from student_marks m

left join student s on m.student_id = s.id

where unit5 between 89 and 100

	student_id integer	first_name character varying	last_name character varying	unit5 integer
1	1	Tiebold	Steers	92
2	2	Pippo	Mougeot	95
3	3	Ree	Cornish	95
4	4	Shina	Freund	100
5	5	Darby	Winley	95
6	7	Emmet	Valencia	98
7	9	Susy	Widdison	97
8	10	Kenneth	Frankish	90

7. Take a closer look at the tables that you created and come up with 5 different scenarios/ questions and form SQL

- *List students scored a perfect score in unit 2 and unit 3*

  select student_id, first_name, last_name, unit2, unit3 from student_marks m

  left join student s

  on m.student_id = s.id

  where unit2 = 100 and unit3 = 100

	student_id integer	first_name character varying	last_name character varying	unit2 integer	unit3 integer
1	14	Gian	Jaskowicz	100	100
2	121	Hobie	Rainton	100	100
3	328	Pierre	Nise	100	100
4	453	Joseph	Tourner	100	100
5	583	Annabelle	Stenhouse	100	100
6	617	Lukas	Dies	100	100
7	771	Clari	MacCartan	100	100
8	861	Thorn	Frossell	100	100
9	914	Franklyn	Donne	100	100

- *How many students scored a perfect score in unit 2 and unit 3*

  select count(distinct student_id) from student_marks

  where unit2 = 100 and unit3 = 100

	count bigint
1	9

- *Order the students name in alphabetical order*

  select first_name, last_name from student

  order by 2,1

	first_name character varying	last_name character varying
1	Joelie	Abazi
2	Martica	Abrahim
3	Nobe	Abrashkin
4	Alleyn	Achrameev
5	Benjy	Adamov
6	Blayne	Adiscot
7	Dillie	Adshad
8	Winfield	Aers

- *How many students prefer hard copy books*

  select count(book_preference_hardcopy) from student where book_preference_hardcopy is true

	count bigint
1	513

- *What is the difference between students who prefer and don't prefer hard copy books*

```
with sub as
(
select
case when book_preference_hardcopy is true then 1 else 0 end as like_hardcopy,
case when book_preference_hardcopy is false then 1 else 0 end as dislike_hardcopy
from student
)
select sum(like_hardcopy) - sum(dislike_hardcopy) as difference
from sub
```

	difference bigint
1	26