

Scott Heinrich
Database Management Lab 4

#1

Query - CAP3 on postgres@localhost:5433 *

SQL Editor Graphical Query Builder

Previous queries [dropdown] [Delete] [Delete All]

```
Select city
from agents
where aid in (select aid
              from orders
              where cid in (select cid
                           from customers
                           where cid = 'c006'
                           )
              )
```

Output pane

Data Output Explain Messages History

	city text
1	Tokyo
2	Dallas
3	New York

#2

Query - CAP3 on postgres@localhost:5433 *

SQL Editor Graphical Query Builder

Previous queries [dropdown] [Delete] [Delete All]

```
Select pid
from orders
where aid in (select aid
              from agents
              where cid in (select cid
                           from customers
                           where city= 'Kyoto'
                           )
              )
```

Output pane

Data Output Explain Messages History

	pid character(3)
1	p01
2	p07
3	p01

#3

The screenshot shows a PostgreSQL SQL Editor window titled "Query - CAP3 on postgres@localhost:5433 *". The window has a menu bar with "SQL Editor" and "Graphical Query Builder" tabs. Below the menu bar is a "Previous queries" section with a search box, a "Delete" button, and a "Delete All" button. The main text area contains the following SQL query:

```
Select cid, name
from customers
where cid in (select cid
              from orders
              where aid in (select aid
                           from agents
                           where aid != 'a03'
                           )
              )
```

Below the query editor is an "Output pane" with tabs for "Data Output", "Explain", "Messages", and "History". The "Data Output" tab is selected, showing a table with the following data:

	cid character(4)	name text
1	c001	Tiptop
2	c002	Tyrell
3	c004	ACME
4	c006	ACME

#4

The screenshot shows a PostgreSQL SQL Editor window titled "Query - CAP3 on postgres@localhost:5433 *". The window has a menu bar with "SQL Editor" and "Graphical Query Builder" tabs. Below the menu bar is a "Previous queries" section with a search box, a "Delete" button, and a "Delete All" button. The main text area contains the following SQL query:

```
Select cid
from customers
where cid in (select cid
              from orders
              where pid in (select pid
                           from products
                           where pid = 'p01'
                           AND pid = 'p07'
                           )
              )
```

Below the query editor is an "Output pane" with tabs for "Data Output", "Explain", "Messages", and "History". The "Data Output" tab is selected, showing a table with the following data:

	cid character(4)
1	c006
2	c001

#5

The screenshot shows a SQL Editor window titled "Query - CAP3 on postgres@localhost:5433 *". The SQL Editor tab is active, displaying a query with a graphical query builder on the left. The query is as follows:

```
Select pid
from products
where pid in (select pid
              from orders
              where cid in (select cid
                            from orders
                            where aid in (select aid
                                          from agents
                                          where aid != 'a08'
                                          )
                            )
              )
ORDER BY pid DESC
```

The Output pane at the bottom shows the "Data Output" tab with a table of results:

	pid character(3)
1	p07
2	p06
3	p05
4	p04
5	p03
6	p02
7	p01

#6

The screenshot shows a SQL Editor window titled "Query - CAP3 on postgres@localhost:5433 *". The SQL Editor tab is active, displaying a query with a graphical query builder on the left. The query is as follows:

```
Select name, city, discount
from customers
where cid in (select cid
              from orders
              where aid in (select aid
                            from agents
                            where city = 'Dallas'
                            OR city = 'New York'
                            )
              )
```

The Output pane at the bottom shows the "Data Output" tab with a table of results:

	name text	city text	discount numeric(5,2)
1	Tiptop	Duluth	10.00
2	ACME	Duluth	8.50
3	ACME	Kyoto	0.00

#7

The screenshot shows a PostgreSQL SQL Editor window titled "Query - CAP3 on postgres@localhost:5433 *". The window has two tabs: "SQL Editor" and "Graphical Query Builder". The "SQL Editor" tab is active, displaying the following SQL query:

```
Select *  
from customers  
where discount in (select discount  
                   from customers  
                   where city = 'Dallas'  
                   OR city = 'London'  
                   )
```

Below the query editor is an "Output pane" with four tabs: "Data Output", "Explain", "Messages", and "History". The "Data Output" tab is selected, showing the results of the query in a table format:

	cid character(4)	name text	city text	discount numeric(5,2)
1	c002	Tyrell	Dallas	12.00
2	c003	Allied	Dallas	8.00

#8) Check constraints can be really useful when creating a database because it allows you to set limits. A check restraint is used to limit value ranges that can be used. If placed in a column, only certain values can be used in the column. If used on the table, only certain values can be used on the table. Etc. A simple use of check constraint is a limit on age. Let's say you own a liquor store and want to give people rewards points for buying liquor and wine. When creating your database, you could set a constraint on the age column in a customer table in your database. Obviously if you are selling alcohol you would want to ensure no one under the age of 21 is on there.