Module 2 Assignment 1 - Group By Queries

BY Randy Leon

Q1: What is the average altitude of the three major New York airports?

```
9   SELECT ROUND(AVG(alt) ,2)
10  FROM airports WHERE (faa LIKE 'EWR') or (faa LIKE 'JFK') or (faa LIKE 'LGA');
```

Data Output | Explain | Messages | Notifications

	round numeric
1	17.67

Q2: What is the average altitude for airports grouped by timezone. Which timezone has the highest altitude? Why?

```
21
22  SELECT ROUND(AVG(alt) ,2) AS "Average Altitude", tz
23  FROM airports
24  GROUP BY tz;
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```

-7 is Mountain Time Zone in the US, This is probably where Denver Airport is, as it is one of the cities with the highest overall elevation above sea le

Data Output

	Average Altitude numeric	tz integer
1	665.39	-4
2	115.50	8
3	94.00	7
4	3848.43	-7
5	981.95	-6
6	1688.00	5
7	486.15	-10
8	960.08	-8
9	210.34	-9
10	35.00	6
11	502.65	-5
12	94.00	-11

Q3: Order the below tailnums by number of flights out of the three NY airports, show the how many flights Plane tailnums: 'N125UW','N848MQ','N328AA','N247JB'

```
SELECT tailnum, COUNT(*) AS total
FROM flights
WHERE (tailnum LIKE 'N125UW')
or (tailnum LIKE 'N848MQ')
or (tailnum LIKE 'N328AA')
or (tailnum LIKE 'N247JB')
GROUP BY tailnum;
```

Data Output

	tailnum character (6)	total bigint
1	N125UW	35
2	N247JB	350
3	N328AA	393
4	N848MQ	175

Q4: For each of these four planes, show the corresponding meta-data (model, manufacturer, engines, etc.) about each plane? What is surprising about the information returned? How do you think this could happen?

```
43  SELECT * from planes
44  WHERE (tailnum LIKE 'N125UW')
45  or (tailnum LIKE 'N848MQ')
46  or (tailnum LIKE 'N328AA')
47  or (tailnum LIKE 'N247JB')
48  ORDER BY (tailnum);
```

Data Output

	tailnum character (6)	year integer	type character varying	manufacturer character varying	model character varying	engines integer	seats integer	speed integer	engine charac
1	N125UW	2009	Fixed wing multi engine	AIRBUS	A320-214	2	182	[null]	Turbo-
2	N247JB	2006	Fixed wing multi engine	EMBRAER	ERJ 190-100 IGW	2	20	[null]	Turbo-
3	N328AA	1986	Fixed wing multi engine	BOEING	767-223	2	255	[null]	Turbo-

All of this meta-data points to the idea that all of these tailnumbers are tied to similar planes. All of the planes were fixed-wing, dual turbo engine planes, which leads me to believe that they are probably the best fit for the flights assigned to these tailnums.

Q5: Show real ‘wedding’ meals and the number of guests getting them only if they are more than 25 guests order by most to least.

```
7  select * FROM meal, guest
8  WHERE code = ('B') or code = ('C') or code = ('S') or code = ('V')
9  ORDER by code;
10
```

Data Output

	code character varying (6)	Description Text character varying (50)	Number smallint	initials character varying (3)	Name character varying (50)	Last Name character varying (50)
1	B	Prime Rib of Beef	315	SWG	Suzanne West's Guest	West
2	B	Prime Rib of Beef	351	JH	Joanne Howell	Carr
3	B	Prime Rib of Beef	273	BD	Brian Durham	Durham
4	B	Prime Rib of Beef	114	HS	Harvey Strum	Strum
5	B	Prime Rib of Beef	314	SW	Suzanne West	West
6	B	Prime Rib of Beef	274	JD	Julie Durham	Durham
7	B	Prime Rib of Beef	275	JDL	Joseph Dallmeyer	Dallmeyer
8	B	Prime Rib of Beef	359	RF	Rudolph Fender	Fender

```
7  select * FROM meal, guest
8  WHERE code = ('B') or code = ('C') or code = ('S') or code = ('V')
9  ORDER by code;
10
```

Data Output

	code character varying (6)	Description Text character varying (50)	Number smallint	initials character varying (3)	Name character varying (50)	Last Name character varying (50)
172	B	Prime Rib of Beef	272	KBG	Karen Bird's Guest	Bird
173	C	Fabulous Georgia Peach Chi...	106	KG	Kenneth Goldberg	Goldberg
174	C	Fabulous Georgia Peach Chi...	272	KBG	Karen Bird's Guest	Bird
175	C	Fabulous Georgia Peach Chi...	206	DFG	Dan Fremont's Guest	Fremont
176	C	Fabulous Georgia Peach Chi...	314	SW	Suzanne West	West
177	C	Fabulous Georgia Peach Chi...	329	DM	Derek Miller	Miller
178	C	Fabulous Georgia Peach Chi...	273	BD	Brian Durham	Durham
179	C	Fabulous Georgia Peach Chi...	267	JFL	John Flynn	Flynn

```
7  select * FROM meal, guest
8  WHERE code = ('B') or code = ('C') or code = ('S') or code = ('V')
9  ORDER by code;
10
```

Data Output

	code character varying (6)	Description Text character varying (50)	Number smallint	initials character varying (3)	Name character varying (50)	Last Name character varying (50)
343	C	Fabulous Georgia Peach Chi...	356	VG	Vanessa Gaby	Gaby
344	C	Fabulous Georgia Peach Chi...	340	NN	Norbert Nemon	Nemon
345	S	Delectable Salmon with Dill ...	293	RM	Ronald Miller	Miller
346	S	Delectable Salmon with Dill ...	34	GM	Gerard McGrath	McGrath
347	S	Delectable Salmon with Dill ...	37	JTP	Jennifer T. Porter	Porter
348	S	Delectable Salmon with Dill ...	39	AC	Albert Cecere	Cecere
349	S	Delectable Salmon with Dill ...	40	JCR	Jacob Cecere	Cecere
350	S	Delectable Salmon with Dill ...	42	DS	Daniel Strum	Strum

```
7  select * FROM meal, guest
8  WHERE code = ('B') or code = ('C') or code = ('S') or code = ('V')
9  ORDER by code;
10
```

Data Output

	code character varying (6)	Description Text character varying (50)	Number smallint	initials character varying (3)	Name character varying (50)	Last Name character varying (50)
513	S	Delectable Salmon with Dill ...	358	NF	Nancy Fender	Fender
514	S	Delectable Salmon with Dill ...	359	RF	Rudolph Fender	Fender
515	S	Delectable Salmon with Dill ...	360	TS	Teddy Strum	Strum
516	S	Delectable Salmon with Dill ...	1000	TSG	Renata	Strum
517	V	Unique Pasta Primavera	271	KB	Karen Bird	Bird
518	V	Unique Pasta Primavera	270	TZG	Tracy's Zawacki's Guest	Zawacki
519	V	Unique Pasta Primavera	112	JR	Joe Ritcher	Ritcher
520	V	Unique Pasta Primavera	315	SWG	Suzanne West's Guest	West

Q5: continued..

I had a tough time coding this one only showing 25 records for each meal. However, according to the screenshots/query, every meal had at least 25 guests ordering it. My query was also without the “N”, which meant no meal for that guest.

Q6: What is the average of the probability of guest coming to the wedding?

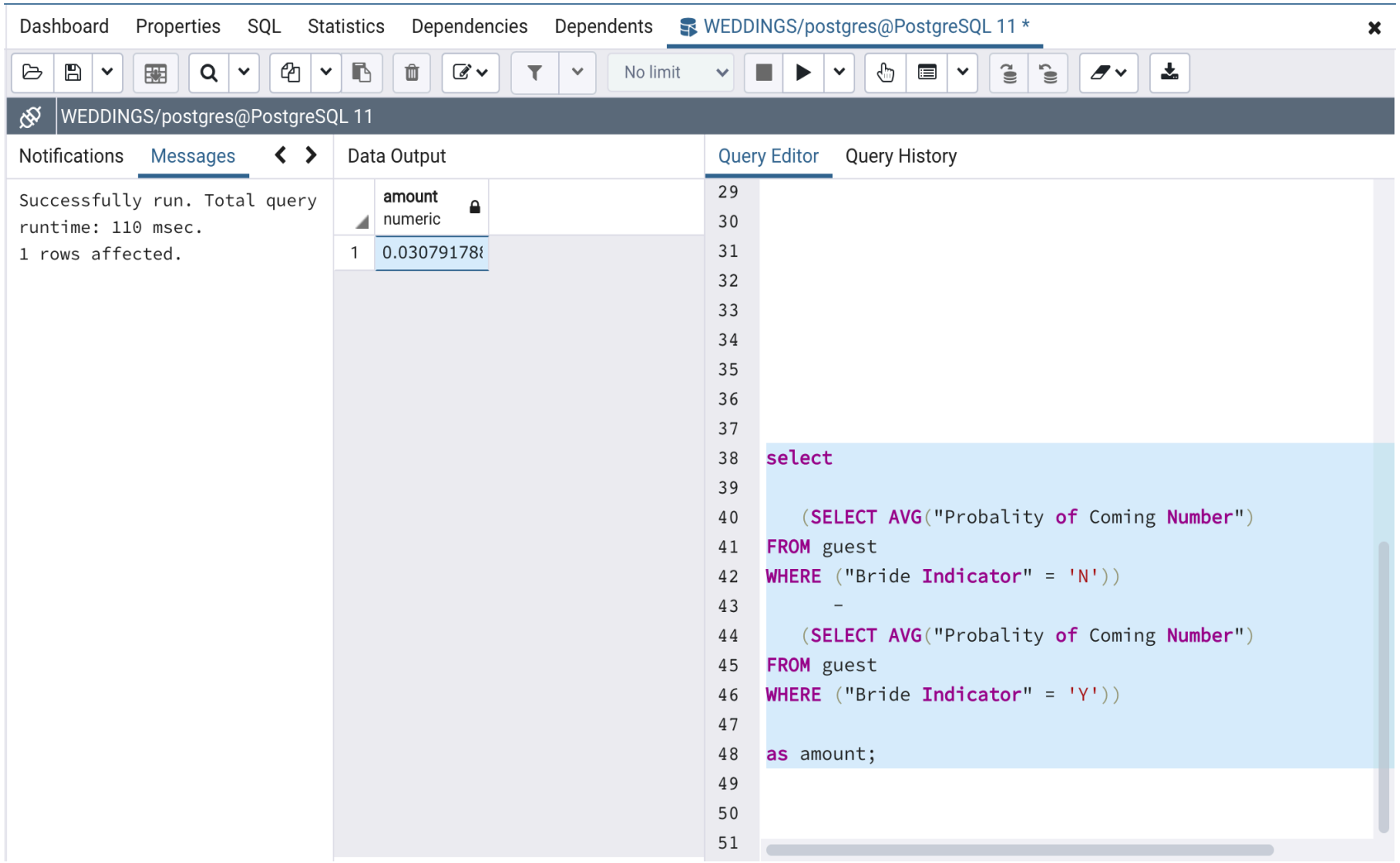
```
11  SELECT AVG("Probality of Coming Number")
12  FROM guest;
```

Data Output

	avg numeric
1	0.76162790(

The average probability of a guest coming to the wedding is roughly 0.7616.

Q7: Do the Bride or Grooms guest have a better chance of coming? By how much?



In this query, I took the averages in a subquery and subtracted groom guests from brides' guests and received a positive answer in my output. Therefore, Grooms' guests have roughly a 3% higher chance of showing up to this wedding.