

# Lab\_12A

## Step 1: Design SQL Tables

### 1.1 Create the Voters Table

Data Output

Messages

Notifications

CREATE TYPE

Query returned successfully in 89 msec.

Data Output

Messages

Notifications

CREATE TABLE

Query returned successfully in 219 msec.

### Importing CSV Files

Data Output

Messages

Notifications

COPY 10000

Query returned successfully in 273 msec.

### Create the Regions and StateStatus Tables

26

Data Output

Messages

Notifications

CREATE TABLE

Query returned successfully in 301 msec.

Data Output

Messages

Notifications

INSERT 0 49

Query returned successfully in 314 msec.

Data Output **Messages** Notifications

CREATE TABLE

Query returned successfully in 301 msec.

Data Output **Messages** Notifications

INSERT 0 51

Query returned successfully in 146 msec.

1. How many voters are in the data set? How many are registered for each of the three categories: U, R, and D?

Data Output **Messages** Notifications



	party party_enum	votercount bigint
1	R	3340
2	U	3461
3	D	3199

2. Which region has the most U, R, & D voters?

Data Output **Messages** Notifications



region character varying (20)	party party_enum	votercount bigint
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### 3. How many voters share the same first and last names? What are these names?

```
L46 -- Number of voters by party
L47 v SELECT Party, COUNT(*) AS VoterCount
L48 FROM Voters
L49 GROUP BY Party;
L50 --How many voters share the same first and last names?
```

Data Output Messages Notifications

region	party	votercount
character varying (20)	party_enum	bigint

### 4. How many voters have a last name that starts with the letter “Z”?

Lab\_12/postgres@PostgreSQL 16\* X

Lab\_12/postgres@PostgreSQL 16

Query

Query History

155 GROUP BY r.Region, v.Party

156 ORDER BY VoterCount DESC;

157 --How many voters have a last name that starts with the letter “Z”?

158 v SELECT FirstName, LastName, COUNT(\*) AS NameCount

159 FROM Voters

160 GROUP BY FirstName, LastName

Data Output Messages Notifications

	firstname	lastname	namecount
	character varying (30)	character varying (30)	bigint
1	John	Jackson	2
2	Jeffrey	Perry	2
3	John	Hunter	2
4	Sara	Lopez	3
5	James	Smith	5
6	Lisa	Vargas	2
7	Courtney	Johnson	2
8	Joshua	Collins	2
9	Mark	Campbell	2
10	Michael	Foley	2
11	Sarah	Martinez	2
12	Heather	Brewer	2

Total rows: 520 of 520 Query complete 00:00:00.258

5. Show the voters with the last names that start with Z by region.

```
SELECT v.FirstName, v.LastName, r.Region
FROM Voters v
JOIN Regions r ON SUBSTRING(v.Address FROM '.*', ([A-Z]{2}) .*) = r.State
WHERE v.LastName LIKE 'Z%';
```

Output Messages Notifications



firstname	lastname	region
character varying (30)	character varying (30)	character varying (20)

6. Identify the voters who voted the same way in every primary election

Query Query History

```
169
170 SELECT FirstName, LastName, Address
171 FROM Voters
172 WHERE Party = PresidentialPrimaryParty16Party
173 AND Party = PrimaryParty16Party
174 AND Party = PrimaryParty14Party
175 AND Party = PresidentialPrimaryParty12Party
176 AND Party = PrimaryParty12Party;
177
```

Data Output Messages Notifications



	firstname character varying (30)	lastname character varying (30)	address character varying (255)
1	Sonia	Torres	8585 Michael Estate, South Mary, SD 65954
2	Mark	Clark	00261 Carlson Court Suite 003, New Shannon, FL 65136
3	Angela	Flowers	612 Mendoza Roads, Jessicamouth, MD 56639
4	Connor	Anderson	2672 Scott Gateway Apt. 968, North Adam, MD 94423
5	Rachel	Zimmerman	01386 Jonathan Expressway Suite 216, East Brian, AK 46180
6	James	Hunt	0263 Allison Port Apt. 623, Cynthiapor, NY 59455
7	Joshua	Smith	USNS Mejia, FPO AE 19590
8	Tyler	Burgess	21805 Davenport Wall, South Brian, KS 03284
9	Daniel	Robbins	USNV Bover. FPO AE 33053
Total rows: 209 of 209		Query complete 00:00:00.244	

## 7. Does Medicaid expansion show a relationship with voting change?

Data Output Messages Notifications

UPDATE 10000

Query returned successfully in 348 msec.

```
194 --Query Relationship with Medicaid Expansion
195 SELECT ss.Status, COUNT(v.VoterID) AS VoterCount, SUM(CASE WHEN v.VotingChange THEN 1 ELSE 0 END) AS ChangeCount
196 FROM Voters v
197 JOIN Regions r ON SUBSTRING(v.Address FROM '.*, ([A-Z]{2}) .*') = r.State
198 JOIN StateStatus ss ON r.State = ss.State
199 GROUP BY ss.Status;
```

Data Output Messages Notifications

status	votercount	changeCount
status_enum	bigint	bigint

## 8. Compare voting behavior (change/stay the same) by region

Data Output Messages Notifications

region	votercount	changeCount
character varying (20)	bigint	bigint

## 9. Is there a relationship between region and Medicaid expansion?

```
212
213 --Is there a relationship between region and Medicaid expansion?
214 SELECT r.Region, ss.Status, COUNT(tv.VoterID) AS VoterCount
215 FROM TempVoters tv
216 JOIN Regions r ON tv.State = r.State
```

Data Output Messages Notifications

region	status	votercount
character varying (20)	status_enum	bigint

10. Produce a query showing voting behavior by zip code

227 --Produce a query showing voting behavior by zip code  
228 SELECT ZipCode, COUNT(VoterID) AS VoterCount, SUM(CASE WHEN VotingChange THEN 1 ELSE 0 END) AS ChangeCount  
229 FROM TempVotersZip  
230 GROUP BY ZipCode;  
231  
232

Data Output Messages Notifications

	zipcode text	votercount bigint	changecount bigint
1	73013	1	1
2	41711	1	1
3	43567	1	1
4	21874	1	1
5	40442	1	1
6	26124	1	1
7	07617	1	1
8	59976	1	1
9	88332	1	1

Total rows: 1000 of 9472    Query complete 00:00:00.292

Activate Windows  
Go to Settings to activate