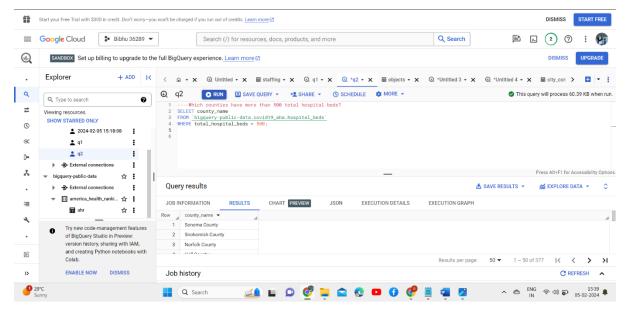# SQL Assignment_2337014

Q1: Find the total number of hospital beds in each state.

```sql
---Find the total number of hospital beds in each state.
SELECT state_name, SUM(total_hospital_beds) AS total_beds
FROM `bigquery-public-data.covid19_aha.hospital_beds`
GROUP BY state_name;
```
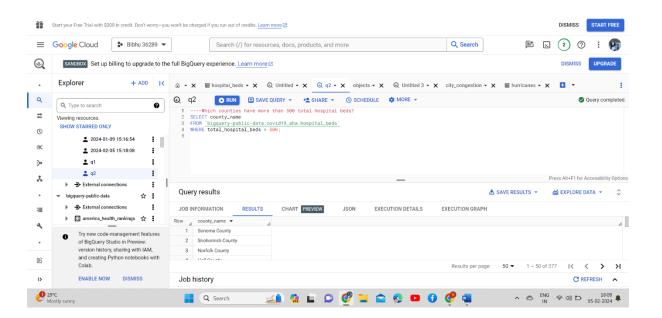

Q.2) ----Which counties have more than 500 total hospital beds?

```sql
---Which counties have more than 500 total hospital beds?
SELECT county_name
FROM `bigquery-public-data.covid19_aha.hospital_beds`
WHERE total_hospital_beds > 500;
```
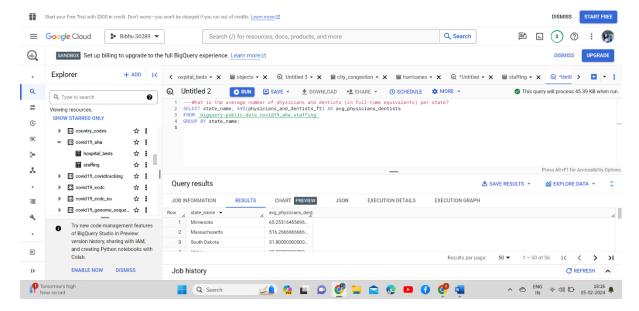
Q.3) **What is the average number of physicians and dentists (in full-time equivalents) per state?**

```sql
---What is the average number of physicians and dentists (in full-time equivalents)
per state?
SELECT state_name, AVG(physicians_and_dentists_ft) AS avg_physicians_dentists
FROM `bigquery-public-data.covid19_aha.staffing`
GROUP BY state_name;
```
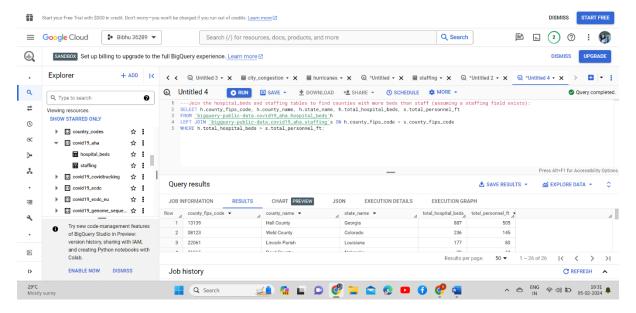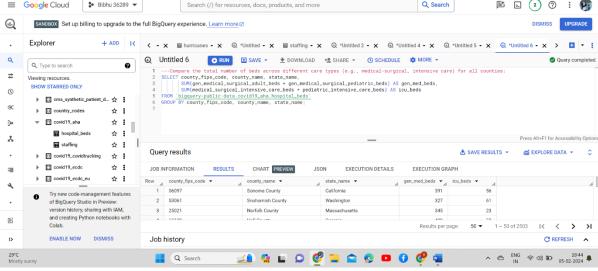

Q.4) **Join the hospital_beds and staffing tables to find counties with more beds than staff (assuming a staffing field exists):**

```sql
---Join the hospital_beds and staffing tables to find counties with more beds than
staff (assuming a staffing field exists):
SELECT h.county_fips_code, h.county_name, h.state_name, h.total_hospital_beds,
s.total_personnel_ft
FROM `bigquery-public-data.covid19_aha.hospital_beds`h
LEFT JOIN `bigquery-public-data.covid19_aha.staffing`s ON h.county_fips_code =
s.county_fips_code
WHERE h.total_hospital_beds > s.total_personnel_ft;
```

Q.5) **Compare the total number of beds across different care types (e.g., medical-surgical, intensive care) for all counties:**

```
---Compare the total number of beds across different care types (e.g., medical-
surgical, intensive care) for all counties:
SELECT county_fips_code, county_name, state_name,
       SUM(gen_medical_surgical_adult_beds + gen_medical_surgical_pediatric_beds)
AS gen_med_beds,
       SUM(medical_surgical_intensive_care_beds + pediatric_intensive_care_beds) AS
icu_beds
FROM `bigquery-public-data.covid19_aha.hospital_beds`
GROUP BY county_fips_code, county_name, state_name;
```
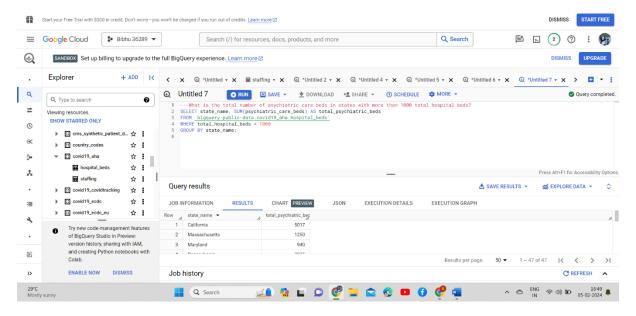

Q.6) **What is the total number of psychiatric care beds in states with more than 1000 total hospital beds?**

```
---What is the total number of psychiatric care beds in states with more than 1000
total hospital beds?
SELECT state_name, SUM(psychiatric_care_beds) AS total_psychiatric_beds
```

```
FROM `bigquery-public-data.covid19_aha.hospital_beds`
WHERE total_hospital_beds > 1000
GROUP BY state_name;
```
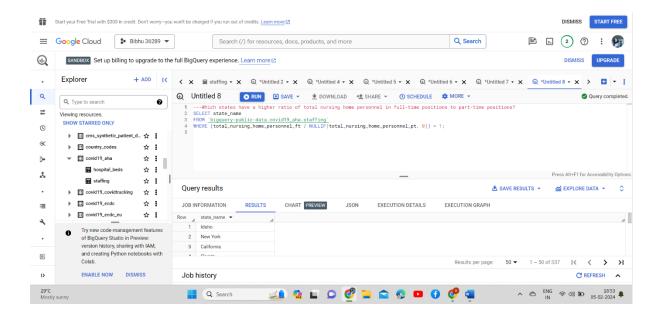

Q.7) **Which states have a higher ratio of total nursing home personnel in full-time positions to part-time positions?**

```
---Which states have a higher ratio of total nursing home personnel in full-time
positions to part-time positions?
SELECT state_name
FROM `bigquery-public-data.covid19_aha.staffing`
WHERE (total_nursing_home_personnel_ft / NULLIF(total_nursing_home_personnel_pt,
0)) > 1;
```
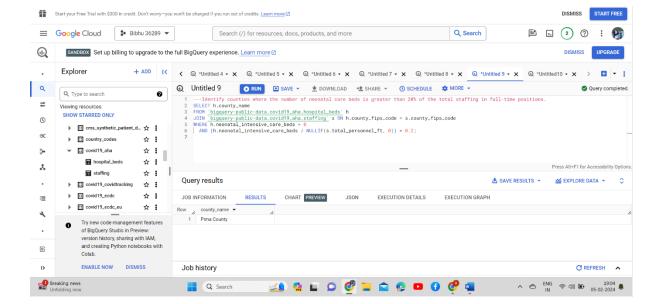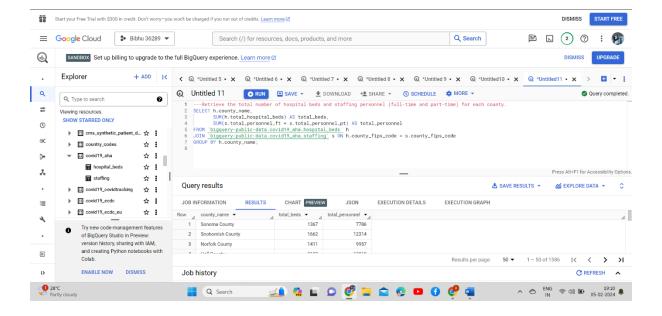
Q.8) Identify counties where the number of neonatal care beds is greater than 20% of the total staffing in full-time positions.

```
---Identify counties where the number of neonatal care beds is greater than 20% of
the total staffing in full-time positions.
SELECT h.county_name
FROM `bigquery-public-data.covid19_aha.hospital_beds` h
JOIN `bigquery-public-data.covid19_aha.staffing` s ON h.county_fips_code =
s.county_fips_code
WHERE h.neonatal_intensive_care_beds > 0
  AND (h.neonatal_intensive_care_beds / NULLIF(s.total_personnel_ft, 0)) > 0.2;
```


Q.9) Retrieve the total number of hospital beds and staffing personnel (full-time and part-time) for each county.

```
---Retrieve the total number of hospital beds and staffing personnel (full-time and
part-time) for each county.
SELECT h.county_name,
       SUM(h.total_hospital_beds) AS total_beds,
       SUM(s.total_personnel_ft + s.total_personnel_pt) AS total_personnel
FROM `bigquery-public-data.covid19_aha.hospital_beds` h
JOIN `bigquery-public-data.covid19_aha.staffing` s ON h.county_fips_code =
s.county_fips_code
GROUP BY h.county_name;
```

Q.10) Identify counties with the highest ratio of specific care type beds to staff (e.g., medical-surgical beds per nurse):

```
---Identify counties with the highest ratio of specific care type beds to staff
(e.g., medical-surgical beds per nurse):
SELECT h.county_fips_code, h.county_name, h.state_name,
h.gen_medical_surgical_adult_beds + h.gen_medical_surgical_pediatric_beds AS
gen_med_beds,
        s.medical_surgical_intensive_care_fte
FROM `bigquery-public-data.covid19_aha.hospital_beds` h
INNER JOIN `bigquery-public-data.covid19_aha.staffing` s ON h.county_fips_code =
s.county_fips_code
WHERE s.medical_surgical_intensive_care_fte > 0
ORDER BY (gen_med_beds / s.medical_surgical_intensive_care_fte) DESC;
```