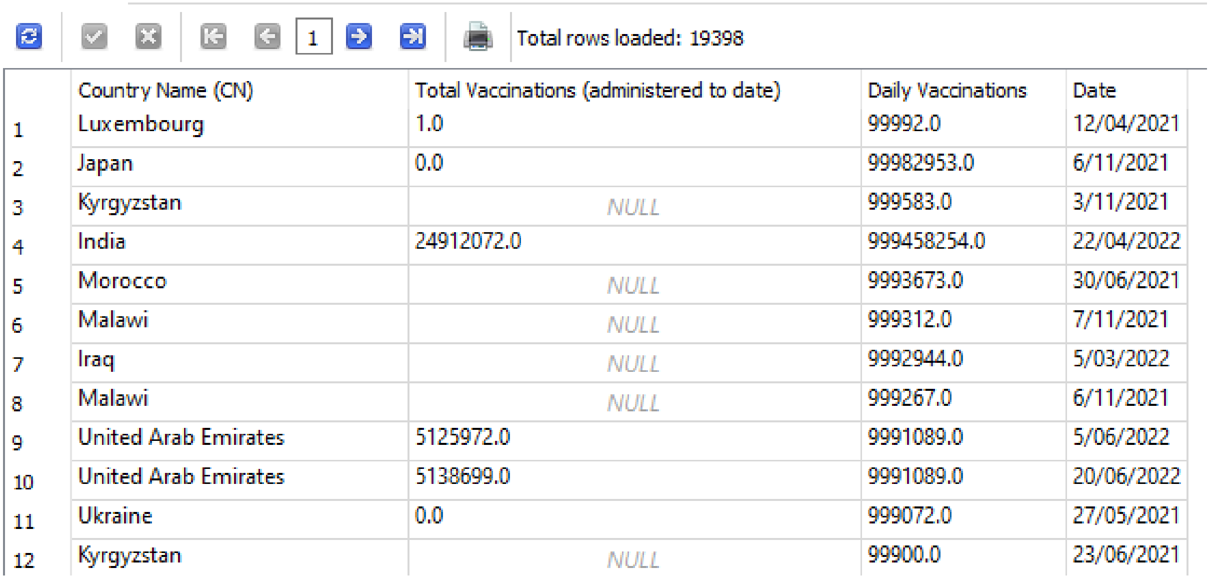
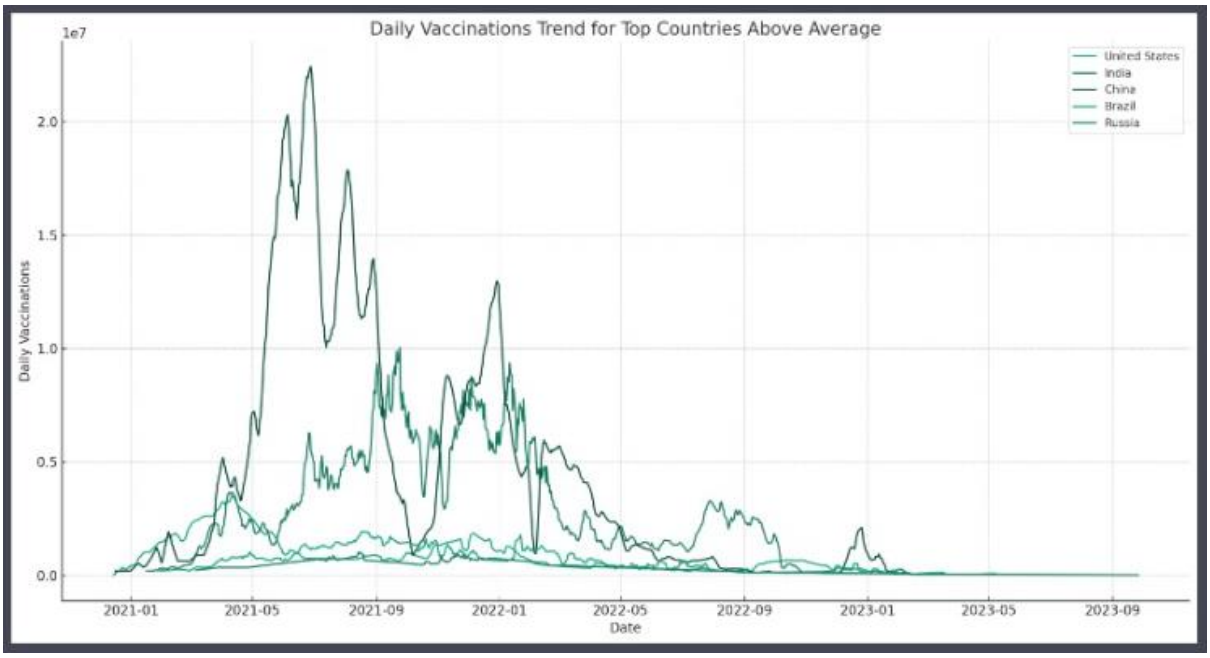
Task D.1 List the country that has more than average number of people taking vaccines in each observation day recorded in the dataset among all countries. Each row in the result set must have the following structure.

```
SELECT DISTINCT
l.location_name AS "Country Name (CN)",
c.total_boosters AS "Total Vaccinations (administered to date)",
c.people_vaccinated AS "Daily Vaccinations",
c.date AS "Date"
FROM
country_vaccinations_total c
JOIN
locations l ON c.iso_code = l.iso_code
WHERE
c.people_vaccinated > (SELECT AVG(people_vaccinated) FROM
country_vaccinations_total)
ORDER BY
"Daily Vaccinations" DESC;
```



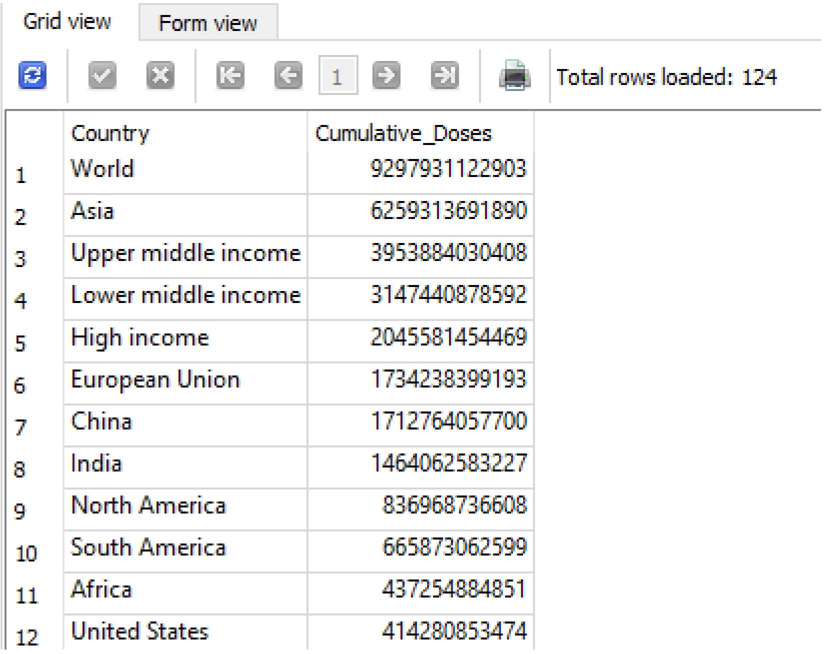
Total rows loaded: 19398

	Country Name (CN)	Total Vaccinations (administered to date)	Daily Vaccinations	Date
1	Luxembourg	1.0	99992.0	12/04/2021
2	Japan	0.0	99982953.0	6/11/2021
3	Kyrgyzstan	NULL	999583.0	3/11/2021
4	India	24912072.0	999458254.0	22/04/2022
5	Morocco	NULL	9993673.0	30/06/2021
6	Malawi	NULL	999312.0	7/11/2021
7	Iraq	NULL	9992944.0	5/03/2022
8	Malawi	NULL	999267.0	6/11/2021
9	United Arab Emirates	5125972.0	9991089.0	5/06/2022
10	United Arab Emirates	5138699.0	9991089.0	20/06/2022
11	Ukraine	0.0	999072.0	27/05/2021
12	Kyrgyzstan	NULL	99900.0	23/06/2021

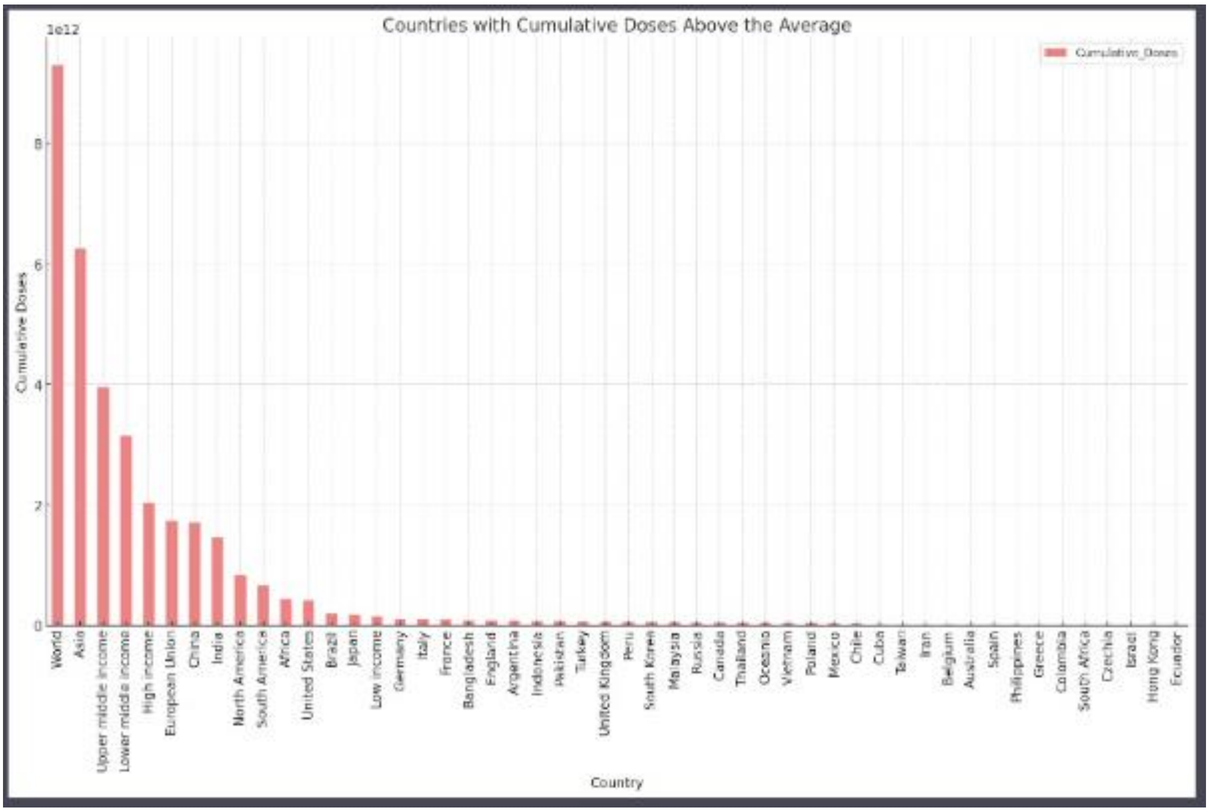


Task D.2 Find the countries with more than the average cumulative numbers of COVID-19 doses administered by each country (Note: the result may include multiple countries or a single country). Produces a result set containing the name of each country and the cumulative number of doses administered in that country. Each row in the result set must have the following structure.

```
SELECT l.location_name AS Country, SUM(v.totalVaccinations) AS Cumulative_Doses
FROM vaccination v
JOIN locations l ON v.iso_code = l.iso_code
GROUP BY l.location_name
HAVING SUM(v.totalVaccinations) > (
SELECT AVG(totalVaccinations) FROM vaccination
)
ORDER BY Cumulative_Doses DESC;
```

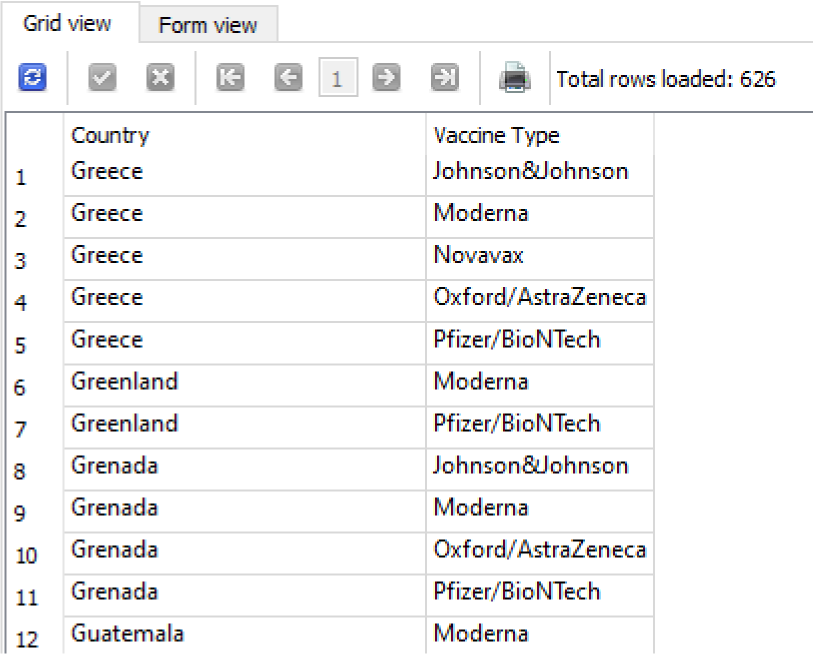


	Country	Cumulative_Doses
1	World	9297931122903
2	Asia	6259313691890
3	Upper middle income	3953884030408
4	Lower middle income	3147440878592
5	High income	2045581454469
6	European Union	1734238399193
7	China	1712764057700
8	India	1464062583227
9	North America	836968736608
10	South America	665873062599
11	Africa	437254884851
12	United States	414280853474



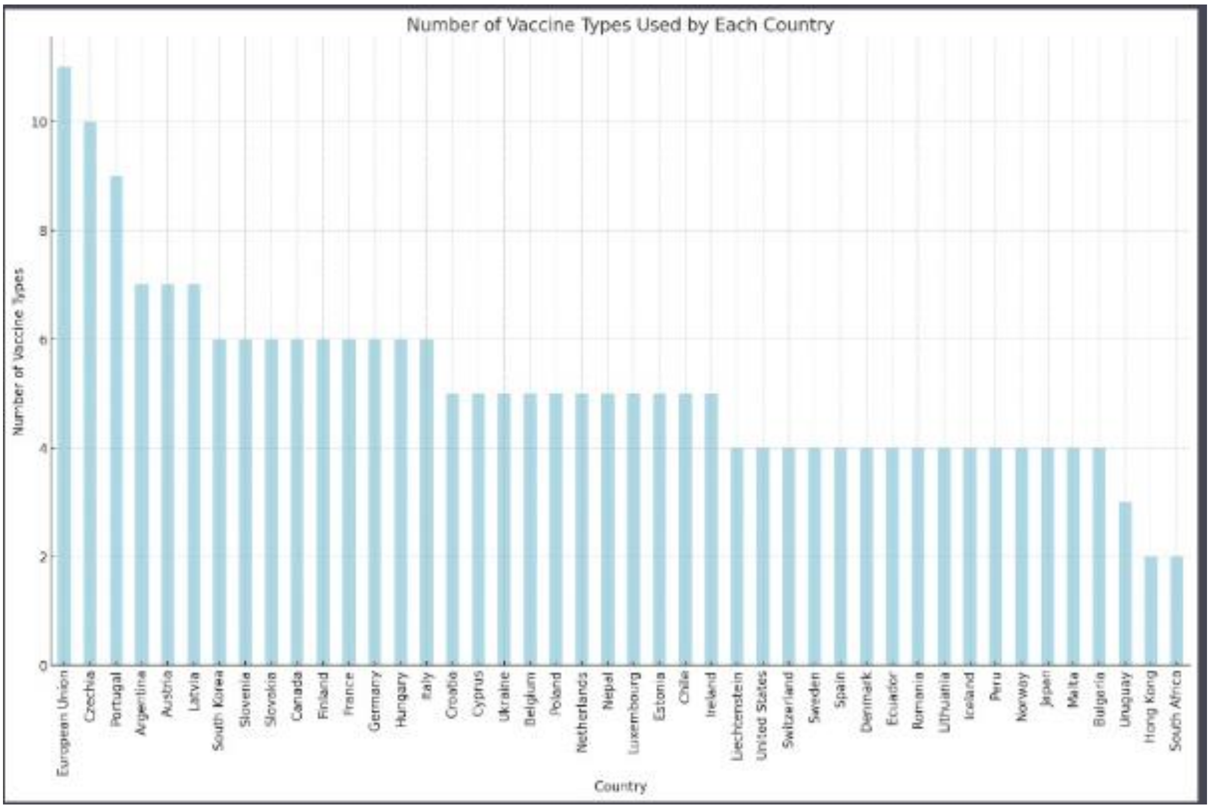
Task D.3 Produce a list of countries with the vaccine types being taken in each country. For a country that has taken in multiple vaccine types, the result set is required to show several tuples reporting each vaccine types in a separate tuple. Each row in the result set must have the following structure.

```
SELECT
l.location_name AS "Country",
c.vaccine_name AS "Vaccine Type"
FROM
country_vaccinations_total c
JOIN
locations l ON c.iso_code = l.iso_code
GROUP BY
l.location_name, c.vaccine_name
ORDER BY
"Country", "Vaccine Type";
```



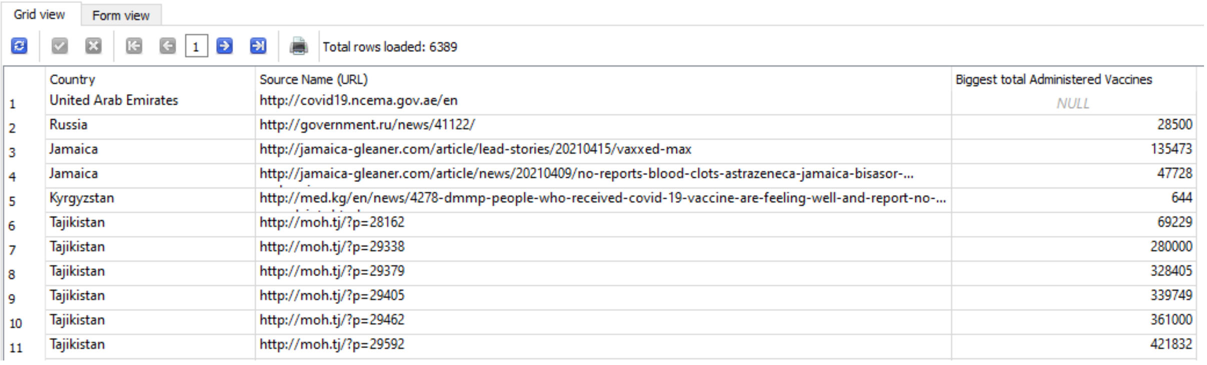
Total rows loaded: 626

	Country	Vaccine Type
1	Greece	Johnson&Johnson
2	Greece	Moderna
3	Greece	Novavax
4	Greece	Oxford/AstraZeneca
5	Greece	Pfizer/BioNTech
6	Greenland	Moderna
7	Greenland	Pfizer/BioNTech
8	Grenada	Johnson&Johnson
9	Grenada	Moderna
10	Grenada	Oxford/AstraZeneca
11	Grenada	Pfizer/BioNTech
12	Guatemala	Moderna



Task D.4 There are different data sources used to produce the dataset. Produce a report showing the biggest total number of vaccines administered in each country according to each data source (i.e., each unique URL). Order the result set by source name (URL). Each row in the result set must have the following structure.

```
SELECT l.location_name AS Country,
cvt.source_url AS "Source Name (URL)",
MAX(CAST(cvt.people_vaccinated AS INTEGER)) AS "Biggest total Administered
Vaccines"
FROM country_vaccinations_total cvt
JOIN locations l ON cvt.iso_code = l.iso_code
GROUP BY cvt.iso_code, cvt.source_url
ORDER BY cvt.source_url, l.location_name;
```



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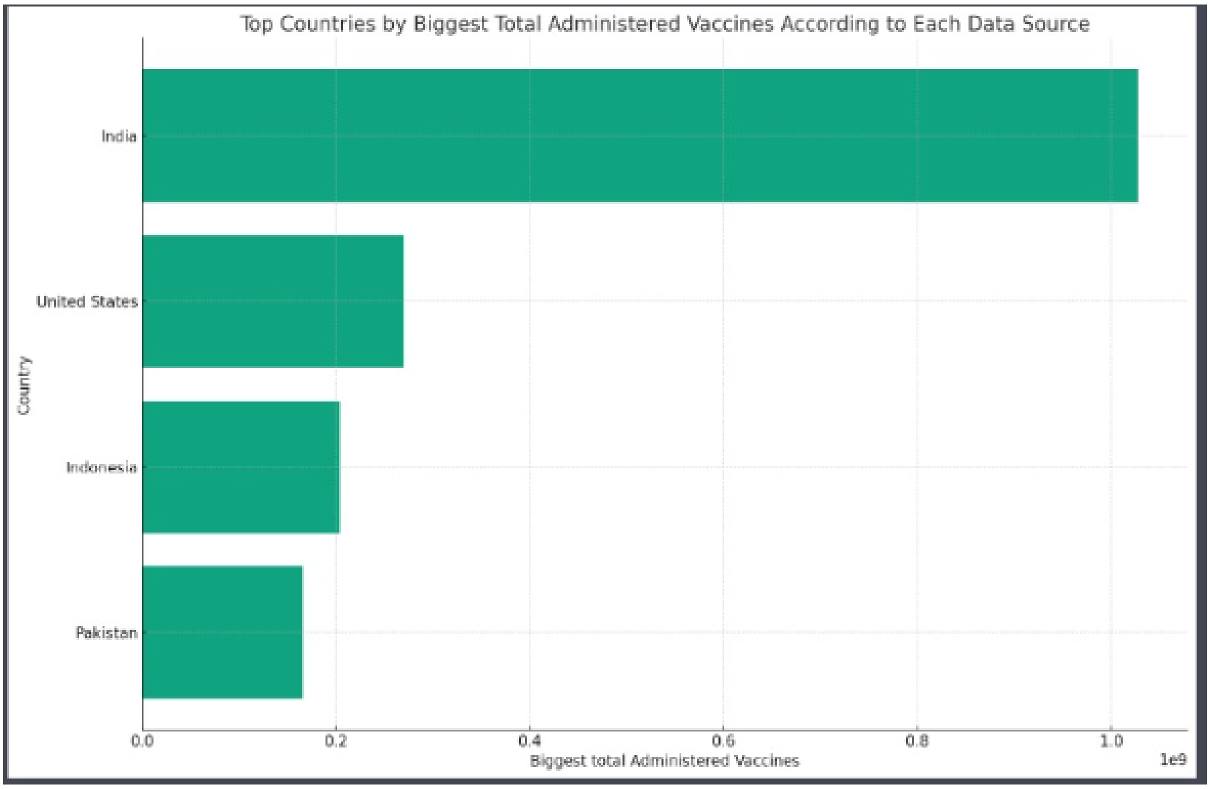
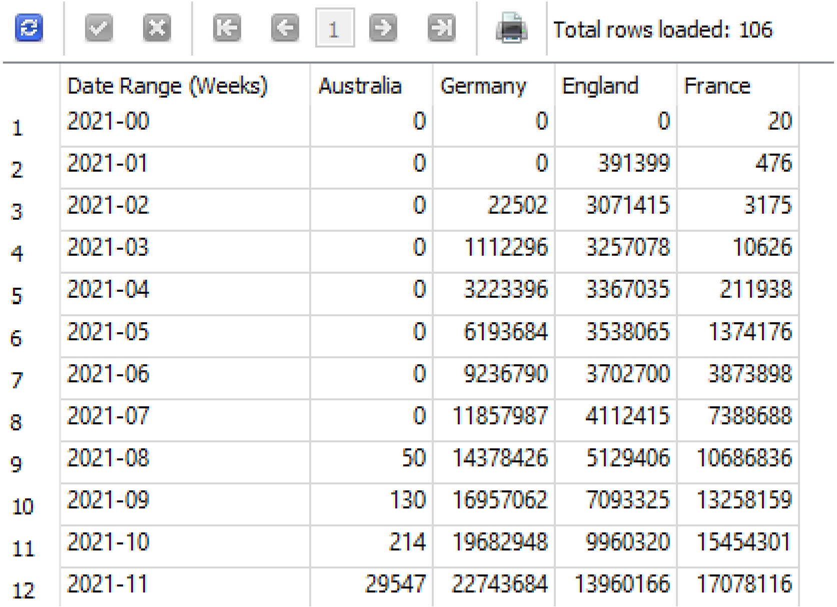
	Country	Source Name (URL)	Biggest total Administered Vaccines
1	United Arab Emirates	http://covid19.ncema.gov.ae/en	NULL
2	Russia	http://government.ru/news/41122/	28500
3	Jamaica	http://jamaica-gleaner.com/article/lead-stories/20210415/vaxxed-max	135473
4	Jamaica	http://jamaica-gleaner.com/article/news/20210409/no-reports-blood-clots-astrazeneca-jamaica-bisasor-...	47728
5	Kyrgyzstan	http://med.kg/en/news/4278-dmmp-people-who-received-covid-19-vaccine-are-feeling-well-and-report-no-...	644
6	Tajikistan	http://moh.tj/?p=28162	69229
7	Tajikistan	http://moh.tj/?p=29338	280000
8	Tajikistan	http://moh.tj/?p=29379	328405
9	Tajikistan	http://moh.tj/?p=29405	339749
10	Tajikistan	http://moh.tj/?p=29462	361000
11	Tajikistan	http://moh.tj/?p=29592	421832



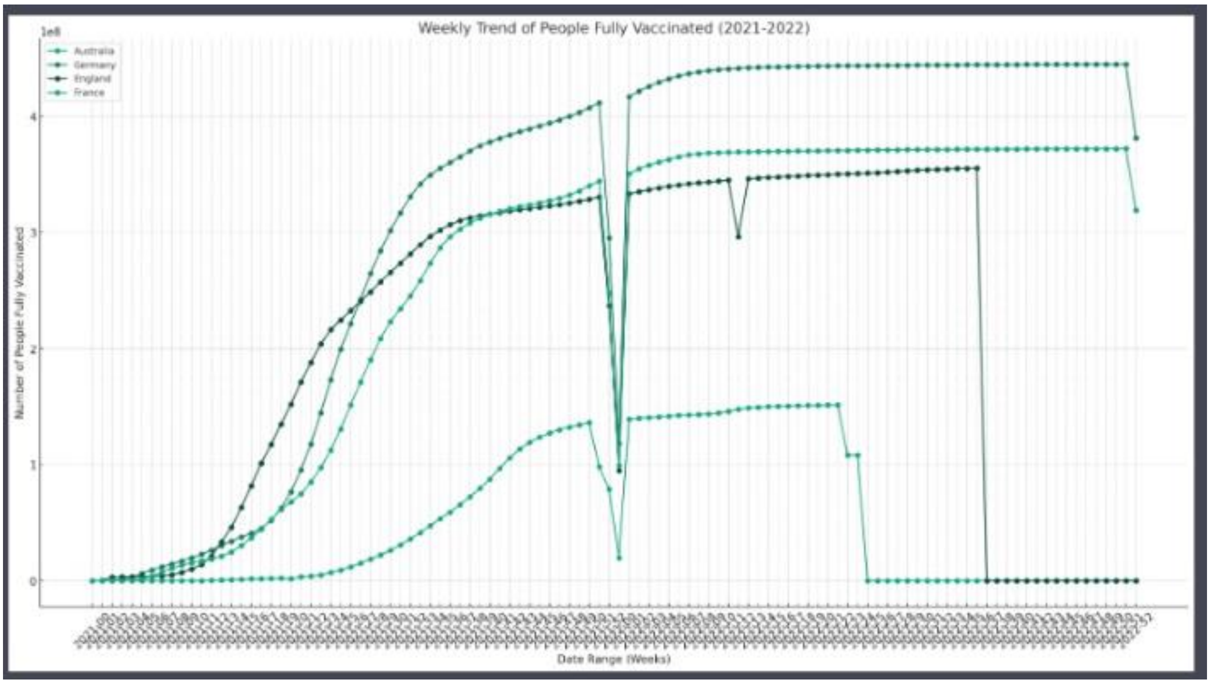
Task D.5 How do various countries compare in the speed of their vaccine administration? Produce a report that lists all the observation weeks in 2021 and 2022, and then for each week, list the total number of people *fully vaccinated* in each one of the 4 countries used in this assignment.

```
SELECT
        strftime('%Y-%W', v.date) AS "Date Range (Weeks)",
        SUM(CASE WHEN l.location_name = 'Australia' THEN v.people_fully_vaccinated
        ELSE 0 END) AS Australia,
        SUM(CASE WHEN l.location_name = 'Germany' THEN v.people_fully_vaccinated
        ELSE 0 END) AS Germany,
        SUM(CASE WHEN l.location_name = 'United Kingdom' THEN
        v.people_fully_vaccinated ELSE 0 END) AS England,
        SUM(CASE WHEN l.location_name = 'France' THEN v.people_fully_vaccinated
        ELSE 0 END) AS France
FROM vaccination v
JOIN locations l ON v.iso_code = l.iso_code
WHERE strftime('%Y', v.date) IN ('2021', '2022')
AND l.location_name IN ('Australia', 'Germany', 'United Kingdom', 'France')
GROUP BY strftime('%Y-%W', v.date)
ORDER BY strftime('%Y-%W', v.date);
```



Total rows loaded: 106

	Date Range (Weeks)	Australia	Germany	England	France
1	2021-00	0	0	0	20
2	2021-01	0	0	391399	476
3	2021-02	0	22502	3071415	3175
4	2021-03	0	1112296	3257078	10626
5	2021-04	0	3223396	3367035	211938
6	2021-05	0	6193684	3538065	1374176
7	2021-06	0	9236790	3702700	3873898
8	2021-07	0	11857987	4112415	7388688
9	2021-08	50	14378426	5129406	10686836
10	2021-09	130	16957062	7093325	13258159
11	2021-10	214	19682948	9960320	15454301
12	2021-11	29547	22743684	13960166	17078116


Weekly Trend of People Fully Vaccinated (2021-2022)
1e8
Australia
Germany
England
France
Number of People Fully Vaccinated
Date Range (Weeks)