ISYS1055 - Database Design Project

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Part D: Data Retrieval and Visualisation

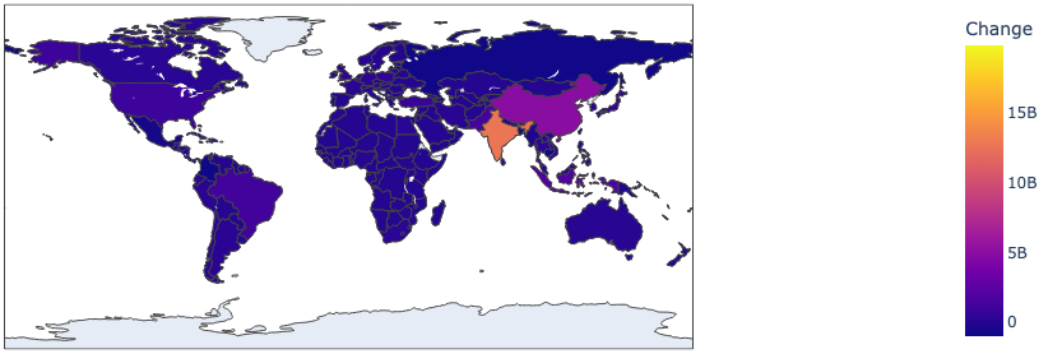
TASK D.1

```
SELECT vc1.Month AS OM1,
    c.location AS CN,
    vc1.total_vaccinations AS VOM1,
    vc2.Month AS OM2,
    vc2.total_vaccinations AS VOM2,
    vc1.total_vaccinations - vc2.total_vaccinations AS "VOM1 - VOM2"
 FROM (SELECT iso_code, strftime('%Y-%m', date) AS Month,
                SUM(total_vaccinations) AS total_vaccinations
          FROM vaccination
          WHERE date LIKE '%2022-04%'
          GROUP BY iso_code) vc1
         JOIN(SELECT iso_code, strftime('%Y-%m', date) AS Month,
                        SUM(total_vaccinations) AS total_vaccinations
                FROM vaccination
                WHERE date LIKE '%2022-05%'
                GROUP BY iso_code) vc2 ON vc1.iso_code = vc2.iso_code
        JOIN country c ON vc2.iso_code = c.iso_code
ORDER BY vc1.iso_code;
```

Total rows loaded: 227

	OM1	CN	VOM1	OM2	VOM2	VOM1 - VOM2
1	2022-04	Afghanistan	29733868	2022-05	30259766	-525898
2	2022-04	Africa	13613469631	2022-05	14982327419	-1368857788
3	2022-04	Albania	13936029	2022-05	11406489	2529540
4	2022-04	Algeria	13772044	2022-05	30411708	-16639664
5	2022-04	Andorra	304764	2022-05	458757	-153993
6	2022-04	Angola	17896626	2022-05	37388140	-19491514
7	2022-04	Anguilla	23126	2022-05	70461	-47335
8	2022-04	Antigua and Barbuda	0	2022-05	125877	-125877
9	2022-04	Argentina	2948195781	2022-05	3143874634	-195678853
10	2022-04	Armenia	4291152	2022-05	4299345	-8193

Administered vaccine between 2022-04 and 2022-05



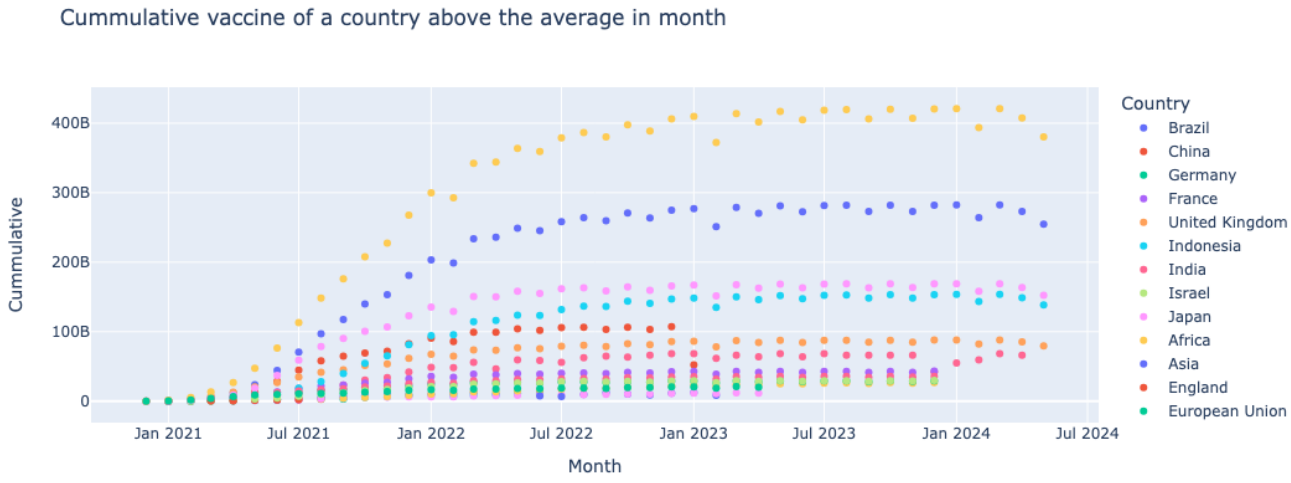
TASK D.2

```
SELECT c.location AS Country, avg.months AS Month, dose AS "Cumulative Doses"
FROM (SELECT tot1.months, AVG(dose) AS avgDose
        FROM (SELECT iso_code, strftime('%Y-%m', date) AS months,
                SUM(total_vaccinations) AS dose
                FROM vaccination
                GROUP BY iso_code,strftime('%Y-%m', date)) AS tot1
      GROUP BY tot1.months) AS avg
      JOIN (SELECT iso_code, strftime('%Y-%m', date) AS months,
                SUM(total_vaccinations) AS dose
```

```
        FROM vaccination
        GROUP BY iso_code,strftime('%Y-%m', date)) AS tot
        ON avg.months = tot.months
    JOIN country c ON c.iso_code = tot.iso_code
WHERE avgDose < dose;
```

Total rows loaded: 558

	Country	Month	Cumulative Doses
1	Asia	2020-12	33426341
2	High income	2020-12	48278222
3	North America	2020-12	42460693
4	Upper middle income	2020-12	29429070
5	World	2020-12	77707292
6	United States	2020-12	41731199
7	China	2021-01	80767000
8	United Kingdom	2021-01	129168021
9	Israel	2021-01	86438726
10	Asia	2021-01	574808407



TASK D.3

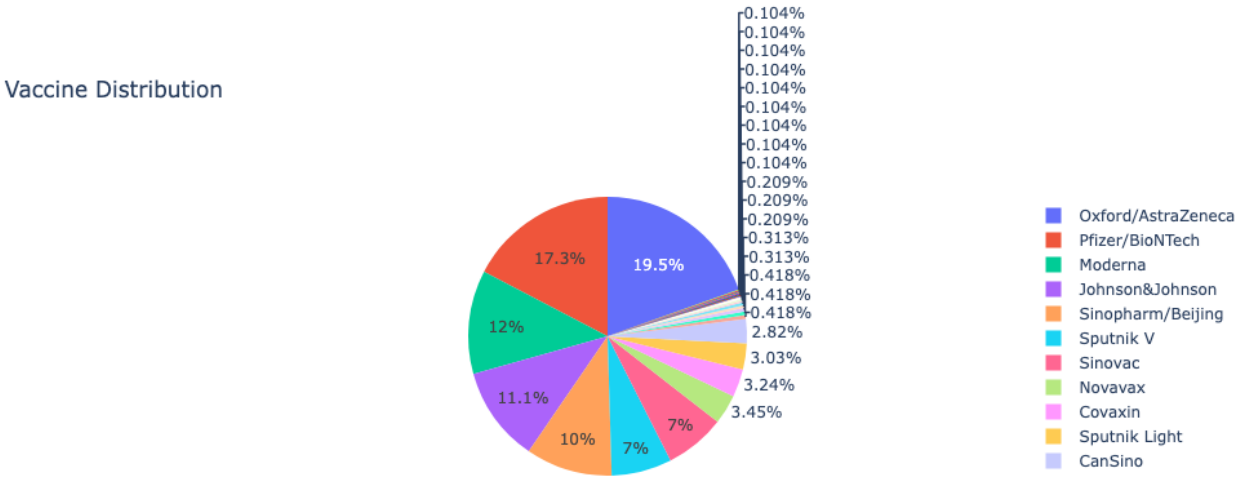
SELECT cv.vaccine AS "Vaccine Type",c.location AS Country

FROM country_vaccine cv

JOIN country c ON c.iso_code = cv.iso_code;

Total rows loaded: 957

	Vaccine Type	Country
1	Covaxin	Afghanistan
2	CanSino	Afghanistan
3	Sputnik Light	Afghanistan
4	Pfizer/BioNTech	Afghanistan
5	Sinopharm/Beijing	Afghanistan
6	Johnson&Johnson	Afghanistan
7	Moderna	Afghanistan
8	Sinovac	Afghanistan
9	Oxford/AstraZeneca	Afghanistan
10	Sputnik V	Afghanistan

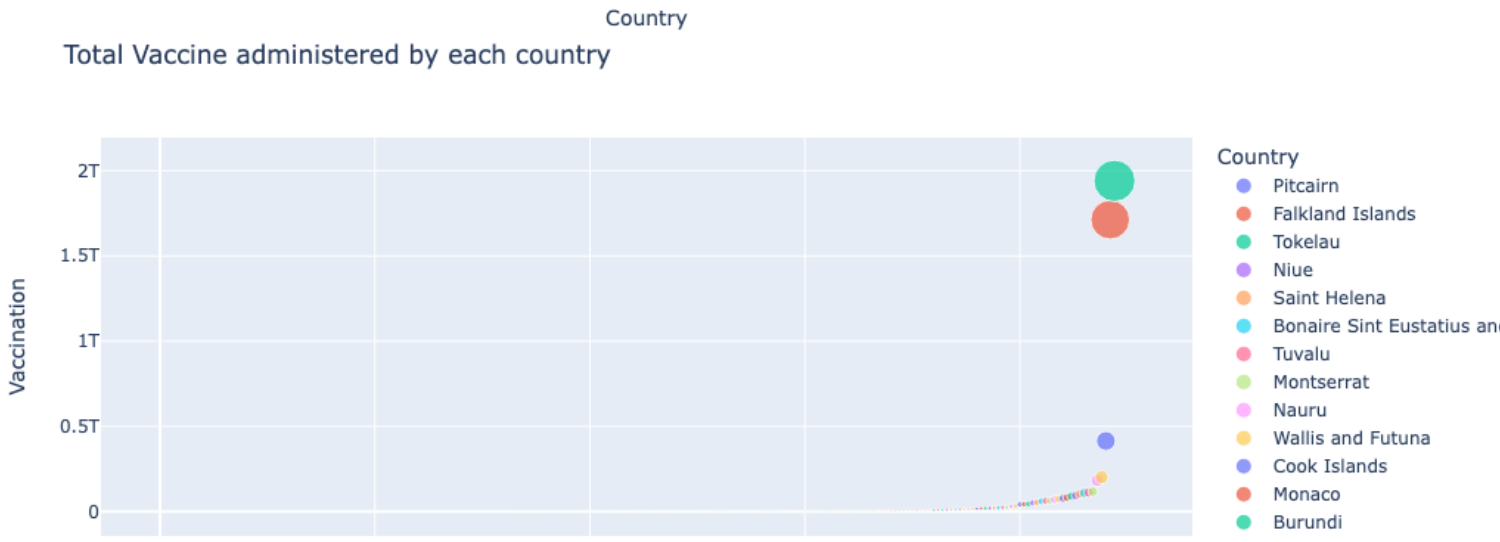


TASK D.4

```
SELECT location,
        s.source_name || ' - ' || s.source_website AS "Source Name(URL)" ,
        tot_vaccine AS "Total Administered Vaccines"
FROM country c
    JOIN source s ON s.source_id=c.source_id
    JOIN (SELECT iso_code, SUM(total_vaccinations) AS tot_vaccine
        FROM vaccination
        GROUP BY iso_code) AS v ON v.iso_code=c.iso_code
WHERE s.source_website IS NOT NULL AND s.source_website <> ''
ORDER BY tot_vaccine;
```

Total rows loaded: 223

	location	Source Name(URL)	Total Administered Vaccines
1	Botswana	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	101026778
2	Central African Republic	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	73101000
3	Congo	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	16093094
4	Gabon	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	14821139
5	Gambia	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	14700467
6	Mauritania	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	139339674
7	Namibia	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	64936035
8	Chad	Africa Centres for Disease Control and Prevention - https://data.who.int/dashboards/covid19/	149221681
9	Malta	COVID-19 Malta Public Health Response Team - https://github.com/COVID19-Malta/COVID19-...	757555874
10	Turkey	COVID-19 Vaccine Information Platform - https://covid19asi.saglik.gov.tr/	63145737970



TASK D.5

```
SELECT usaDate AS "Date Range", usaVac AS "United States”,
        wlsVac ASWales, canVac AS Canada, dnkVac AS Denmark
FROM (SELECT strftime('%Y-%m', date) AS usaDate,
                SUM(people_fully_vaccinated) AS usaVac
        FROM vaccination
        WHERE date LIKE "2022-%" AND iso_code = "USA"
        GROUP BY strftime('%Y-%m', date))
       JOIN (SELECT strftime('%Y-%m', date) AS canDate,
                        SUM(people_fully_vaccinated) AS canVac
                FROM vaccination
                WHERE date LIKE "2022-%" AND iso_code = "CAN"
                GROUP BY strftime('%Y-%m', date)) ON canDate = usaDate
      JOIN (SELECT strftime('%Y-%m', date) AS wlsDate,
                        SUM(people_fully_vaccinated) AS wlsVac
                FROM vaccination
                WHERE date LIKE "2022-%" AND iso_code = "OWID_WLS"
                GROUP BY strftime('%Y-%m', date)) ON wlsDate = usaDate
      JOIN (SELECT strftime('%Y-%m', date) AS dnkDate,
                        SUM(people_fully_vaccinated) AS dnkVac
                FROM vaccination
                WHERE date LIKE "2022-%" AND iso_code = "DNK"
                GROUP BY strftime('%Y-%m', date)) ON dnkDate = usaDate;
```

Total rows loaded: 12

	Date Range	United States	Wales	Canada	Denmark
1	2022-02	6077229508	66583095	857165749	18751187
2	2022-01	6600697602	72520299	921332759	18550648
3	2022-04	6621916071	72215488	843766566	23500111
4	2022-06	6693229825	72722039	817146990	18820420
5	2022-09	6774563616	73720387	946890386	23544253
6	2022-03	6795486776	74219507	962730585	18785873
7	2022-11	6854696077	71566403	918311330	18840992
8	2022-05	6884154907	72524729	972005756	18810542
9	2022-07	6942374319	75530280	818313846	23535589
10	2022-08	6972177316	75960111	977097794	18832559