









# ISYS2095 – Assessment 3 – Task D

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## Task D.1









List the total number of vaccines administered in each observation date for Afghanistan

     <span>1</span>    Total rows loaded: 161		
	date	daily vaccinations
1	2021/02/22	
2	2021/02/23	1367
3	2021/02/24	1367
4	2021/02/25	1367
5	2021/02/26	1367
6	2021/02/27	1367
7	2021/02/28	1367
8	2021/03/01	1580
9	2021/03/02	1794
10	2021/03/03	2008

```
SELECT date,
       daily_vaccinations
FROM CountryVaccinations
WHERE iso_code = (
                    SELECT iso_code
                    FROM Locations
                    WHERE location = "Afghanistan"
                );
```

## Task D.2

Produce a dataset containing total number of COVID-19 doses administered by each country

     <span>1</span>    Total rows loaded: 231		
	Country	Total Vaccinations Administered
1	Afghanistan	1442250
2	Africa	75170892
3	Albania	1238036
4	Algeria	4146091
5	Andorra	82349
6	Angola	1680059
7	Anguilla	18193
8	Antigua and Barbuda	69518
9	Argentina	34430142
10	Armenia	171890









```

SELECT (
    SELECT location
      FROM Locations
     WHERE iso_code = CountryVaccinations.iso_code
)
  AS Country,
  MAX(NULLIF(total_vaccinations, "")) AS [Total Vaccinations
Administered]
FROM CountryVaccinations
WHERE total_vaccinations NOT NULL
GROUP BY Country
ORDER BY Country ASC;

```

## Task D.3

Produce a list of all countries with the type of vaccines administered

     <span>1</span>    Total rows loaded: 567		
	Country	Vaccine
1	Afghanistan	Johnson&Johnson
2	Afghanistan	Oxford/AstraZeneca
3	Afghanistan	Pfizer/BioNTech
4	Afghanistan	Sinopharm/Beijing
5	Albania	Oxford/AstraZeneca
6	Albania	Pfizer/BioNTech
7	Albania	Sinovac
8	Albania	Sputnik V
9	Algeria	Oxford/AstraZeneca
10	Algeria	Sinopharm/Beijing

```

SELECT (
    SELECT location
      FROM Locations
     WHERE iso_code = LocationVaccines.iso_code
)
AS Country,
(
    SELECT name
      FROM Vaccines
     WHERE vaccine_id = LocationVaccines.vaccine_id
)
AS Vaccine
FROM LocationVaccines
ORDER BY Country ASC;

```









## Task D.4

Produce report showing the total number of vaccines administered according to each data source

NOTE: Combined Duplicates only when the data source website matched

**FOR THIS TASK I WROTE TWO INDEPENDENT QURIES WHICH PERFORM THE SAME TASK HOWEVER ONE USES A JOIN AND THE OTHER DOES NOT**

### Task D.4 – With Join









     <span>1</span>   		Total rows loaded: 151
	Source Name	Total Vaccines Administered
1	Africa Centres for Disease Control and Prevention	701530
2	COVID-19 Malta Public Health Response Team	774250
3	COVID-19 Vaccine Information Platform	75674278
4	Cayman Islands Government	98419
5	Centers for Disease Control and Prevention	350627188
6	Costa Rican Social Security Fund	3424278
7	Department of Health via ABS-CBN Investigative and Research Group	23199187
8	Directorate General for Health via Data Science for Social Good	12722759
9	Directorate General of Health Services	14699590
10	Directorate of Health	477205

```

SELECT SourceName AS [Source Name],
       SUM(TOTAL) AS [Total Vaccines Administered]
FROM (
    SELECT CountryVaccinations.iso_code,
           MAX(NULLIF(CountryVaccinations.total_vaccinations,
                    "")) AS Total,
           IFNULL(DataSource.source_name, "Unknown Source -
Data Unavailable") AS SourceName,
           DataSource.source_website AS SourceWebsite
    FROM CountryVaccinations
    LEFT JOIN
        DataSource ON CountryVaccinations.iso_code =
DataSource.iso_code
    GROUP BY CountryVaccinations.iso_code
)
GROUP BY SourceWebsite
ORDER BY SourceName ASC;

```

## Task D.4 – Without Join

     1    Total rows loaded: 151		
	Source Name	Total Vaccines Administered
1	Africa Centres for Disease Control and Prevention	701530
2	COVID-19 Malta Public Health Response Team	774250
3	COVID-19 Vaccine Information Platform	75674278
4	Cayman Islands Government	98419
5	Centers for Disease Control and Prevention	350627188
6	Costa Rican Social Security Fund	3424278
7	Department of Health via ABS-CBN Investigative and Research Group	23199187
8	Directorate General for Health via Data Science for Social Good	12722759
9	Directorate General of Health Services	14699590
10	Directorate of Health	477205









```

SELECT SourceName AS [Source Name],
       SUM(TOTAL) AS [Total Vaccines Administered]
FROM (
    SELECT iso_code,
           MAX(NULLIF(total_vaccinations, "")) AS Total,
           IFNULL( (
               SELECT source_name
               FROM DataSource
               WHERE iso_code =
CountryVaccinations.iso_code
           ), "Unknown Source - Data Unavailable") AS
SourceName,
           (
               SELECT source_website
               FROM DataSource
               WHERE iso_code = CountryVaccinations.iso_code
           )
           AS SourceWebsite
    FROM CountryVaccinations
    GROUP BY iso_code
)
GROUP BY SourceWebsite
ORDER BY SourceName;

```

## Task D.5

Produce a report that lists all the observation dates, and provides total number of fully vaccinated in 4 countries (Australia, United States, France, and Israel)

     <input type="text" value="1"/>    Total rows loaded: 232					
	date	Australia	United States	France	Israel
1	2021/08/07	4489605	166203176	NULL	5393230
2	2021/08/06	4372546	165918256	NULL	5392554
3	2021/08/05	4254352	165637566	33355956	5390738
4	2021/08/04	4139162	165334987	33118386	5387108
5	2021/08/03	4027658	165081416	32899388	5383879
6	2021/08/02	3930960	164919666	32644217	5380658
7	2021/08/01	3893539	164757423	32402833	5377506
8	2021/07/31	3832934	164446964	32352019	5374178
9	2021/07/30	3729786	164184080	32160436	5370721
10	2021/07/29	3624882	163868916	31842476	5360074

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```

SELECT CountryDailyTotals.date,
       MAX(CASE WHEN CountryDailyTotals.iso_code = (
           SELECT
             iso_code
           FROM
             Locations
           WHERE
             location = 'Australia'
         )
         THEN CountryDailyTotals.people_fully_vaccinated END) AS
Australia,
       MAX(CASE WHEN CountryDailyTotals.iso_code = (
           SELECT
             iso_code
           FROM
             Locations
           WHERE
             location = 'United States'
         )
         THEN CountryDailyTotals.people_fully_vaccinated END) AS
[United States],
       MAX(CASE WHEN CountryDailyTotals.iso_code = (
           SELECT
             iso_code
           FROM
             Locations
           WHERE
             location = 'France'
         )
         THEN CountryDailyTotals.people_fully_vaccinated END) AS
France,
       MAX(CASE WHEN CountryDailyTotals.iso_code = (
           SELECT
             iso_code
           FROM
             Locations
           WHERE
             location = 'Israel'
         )
         THEN CountryDailyTotals.people_fully_vaccinated END) AS
Israel
FROM CountryDailyTotals
GROUP BY CountryDailyTotals.date
ORDER BY CountryDailyTotals.date DESC;

```