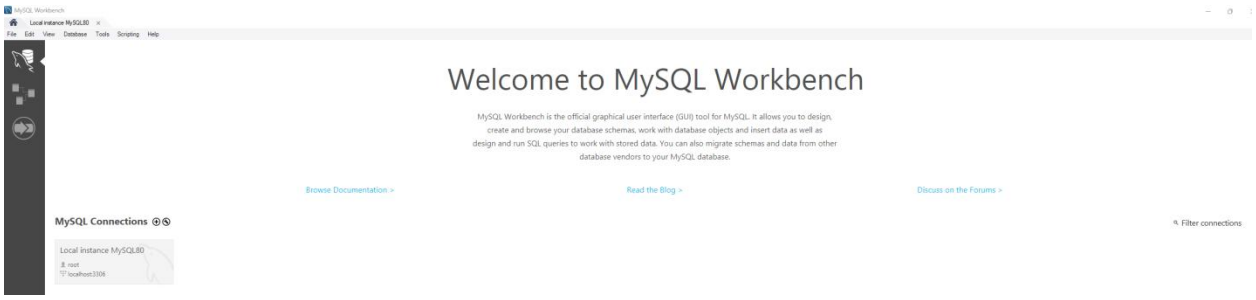
Document highlight:

- Tool Installation
- Database and Table creation, including dataset import
    - Covid-19 dataset sampling
- SQL data exploration (query and results):
    - Display all from table
    - Global number of cases, deaths, and fatality rate
    - Display death % per continent
    - Calculate continent with highest % infection rate compared to its population
    - Calculate continent with highest % death rate compared to its population
    - Display total highest count per country (location)
    - Display death % per country (location)
    - Calculate % likelihood of dying if contracted in certain country
    - Calculate % of cases versus population per subset of country
    - Calculate % of death versus population per subset of country
    - Calculate country with highest % infection rate compared to its population
    - Calculate country with highest % death rate compared to its population
    - Total population versus vaccinations
    - Total population versus vaccinations with rolling vaccination numbers by country
    - Calculate % of people vaccinated by country (using CTE)
    - Calculate % of people vaccinated by country (using TEMP TABLE)
    - Create View table

1. Setup MySQL Workbench (community)

Download and install (follow installation guide):
https://dev.mysql.com/downloads/installer/

MySQL home screen

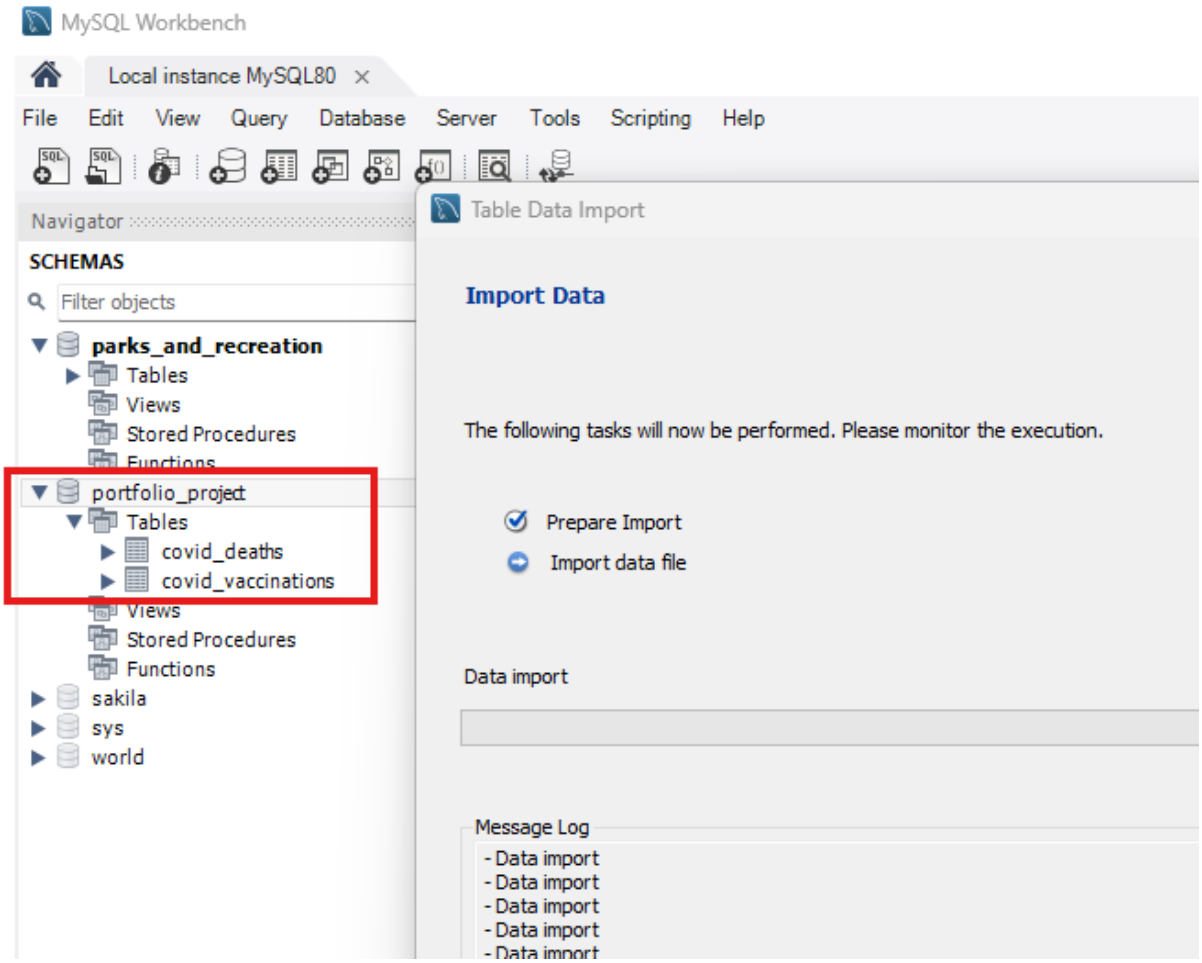


2. Create a database (create tables and load the set of data into it)

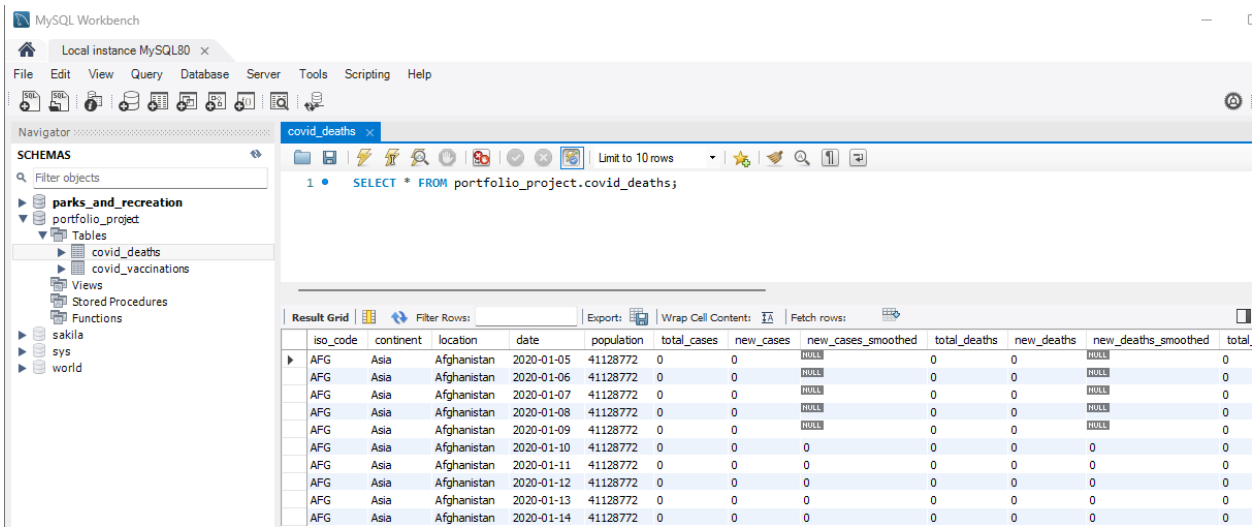
Sampling dataset (Covid-19 data):
https://ourworldindata.org/coronavirus

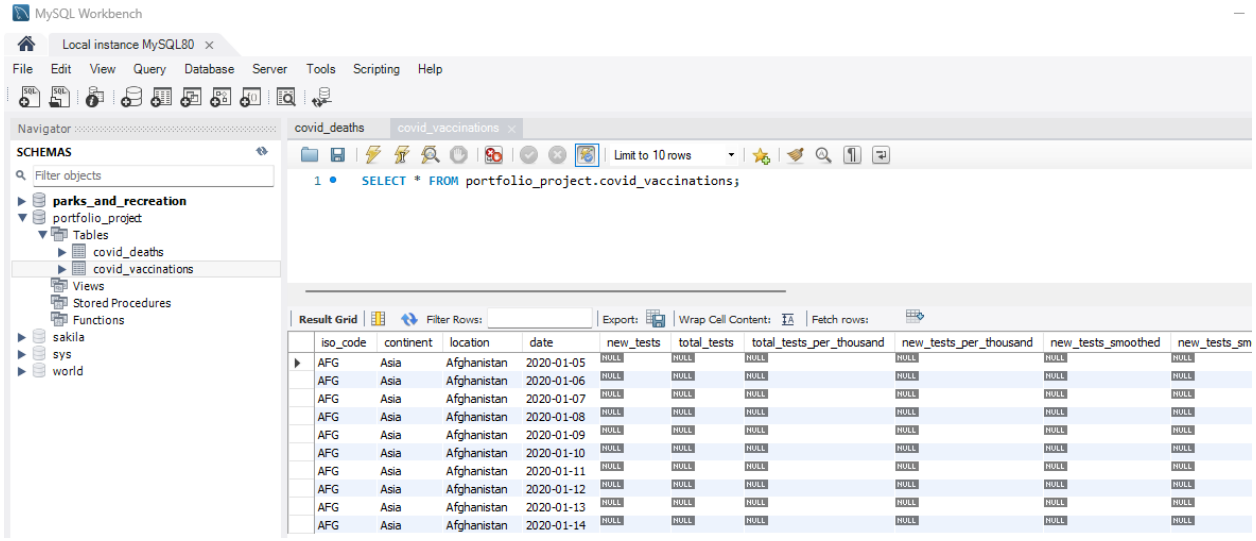
Covid_Deaths	2024-10-26 8:07 PM	Microsoft Office E...	58,202 KB
Covid_Vaccinations	2024-10-26 12:06 PM	Microsoft Office E...	105,020 KB

Create a database and import the file (going into the table) in MySQL Workbench:

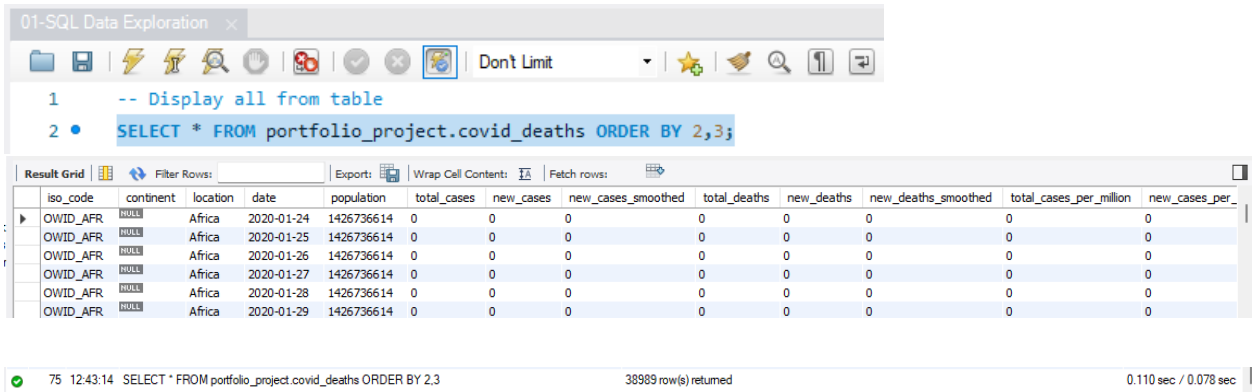


3. Quick query run to ensure that (1) tables were created and (2) data were imported

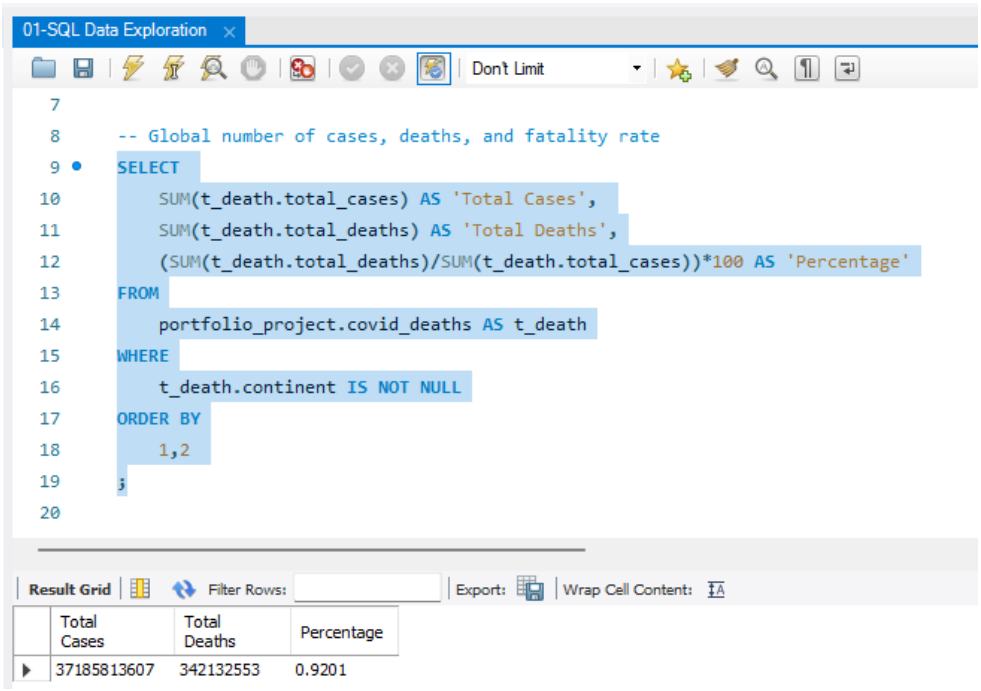


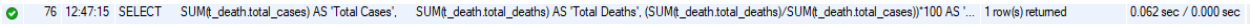


4. Display all from table

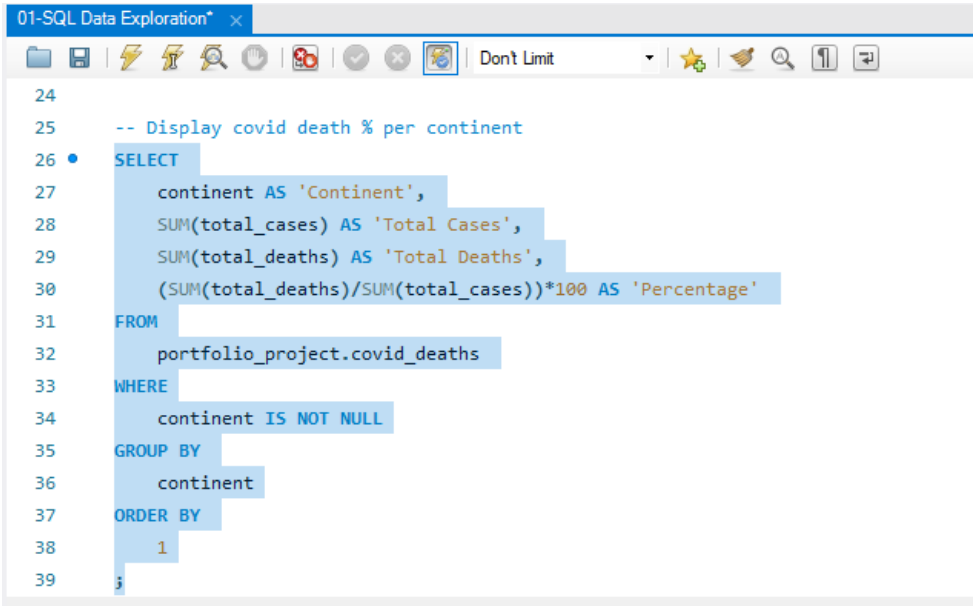


5. Global number of cases, deaths, and fatality rate





6. Display death % per continent

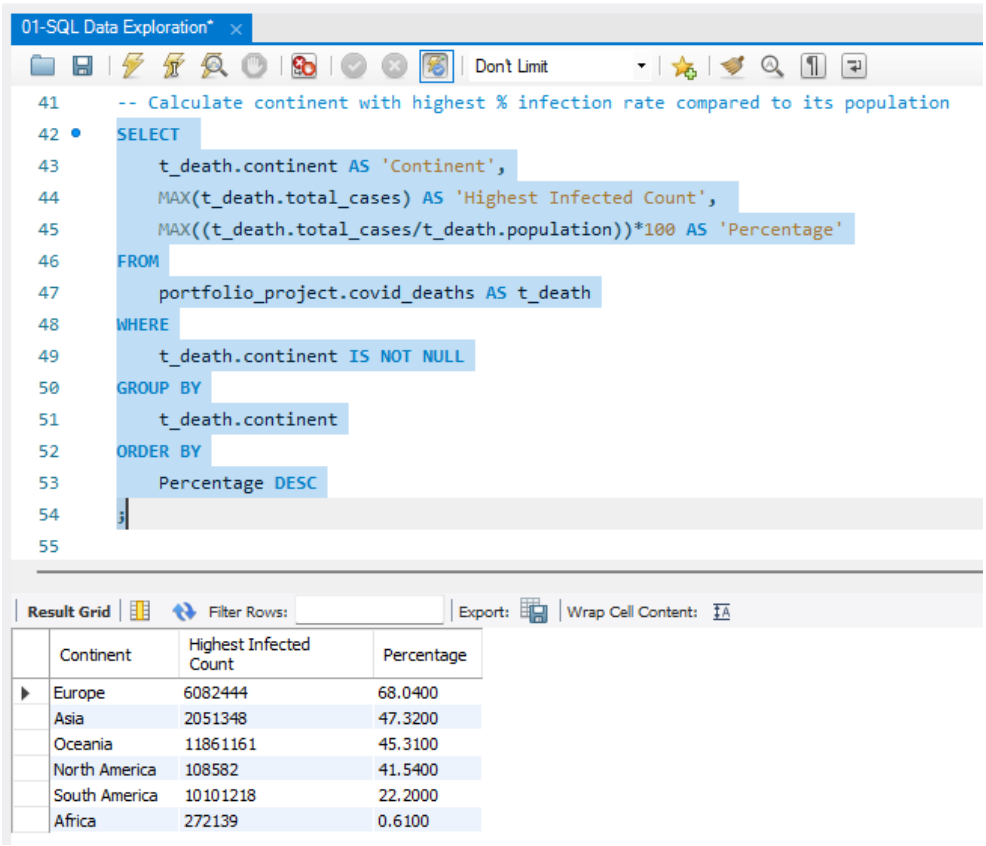


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Continent	Total Cases	Total Deaths	Percentage
Africa	467047326	10830799	2.3190
Asia	4746768343	68187007	1.4365
Europe	11565592419	80981252	0.7002
North America	263325710	2720029	1.0330
Oceania	9331000117	18062968	0.1936
South America	10812079692	161350498	1.4923

77 13:02:50 SELECT continent AS 'Continent', SUM(total_cases) AS 'Total Cases', SUM(total_deaths) AS 'Total Deaths', (SUM(total_deaths)/SUM(total_cases))*100 AS 'Per... 6 row(s) returned 0.110 sec / 0.000 sec

7. Calculate continent with highest % infection rate compared to its population

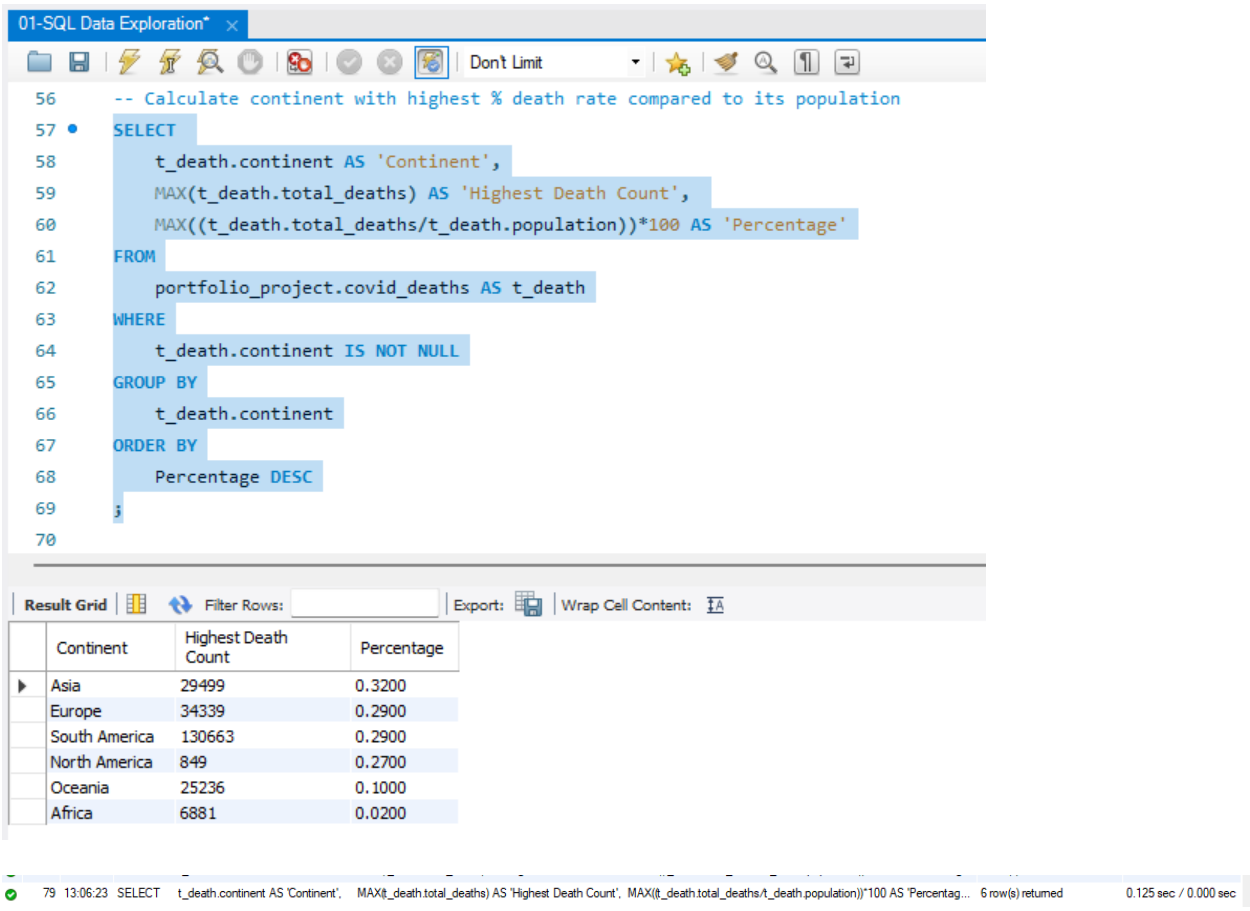


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Continent	Highest Infected Count	Percentage
Europe	6082444	68.0400
Asia	2051348	47.3200
Oceania	11861161	45.3100
North America	108582	41.5400
South America	10101218	22.2000
Africa	272139	0.6100

78 13:05:14 SELECT t_death.continent AS 'Continent', MAX(t_death.total_cases) AS 'Highest Infected Count', MAX((t_death.total_cases/t_death.population))*100 AS 'Percentag... 6 row(s) returned 0.094 sec / 0.000 sec

8. Calculate continent with highest % death rate compared to its population



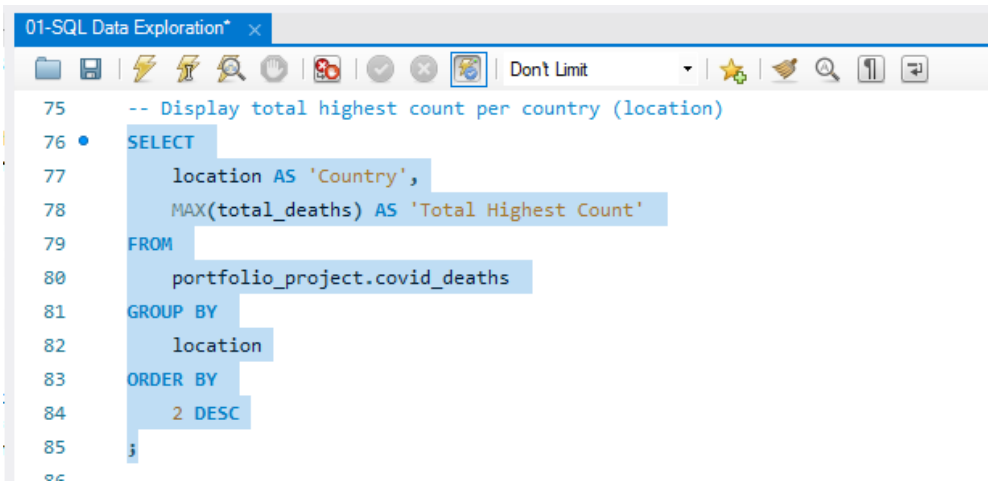
```sql
-- Calculate continent with highest % death rate compared to its population
SELECT
    t_death.continent AS 'Continent',
    MAX(t_death.total_deaths) AS 'Highest Death Count',
    MAX((t_death.total_deaths/t_death.population))*100 AS 'Percentage'
FROM
    portfolio_project.covid_deaths AS t_death
WHERE
    t_death.continent IS NOT NULL
GROUP BY
    t_death.continent
ORDER BY
    Percentage DESC
;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Continent	Highest Death Count	Percentage
Asia	29499	0.3200
Europe	34339	0.2900
South America	130663	0.2900
North America	849	0.2700
Oceania	25236	0.1000
Africa	6881	0.0200

79 13:06:23 SELECT t_death.continent AS 'Continent', MAX(t_death.total_deaths) AS 'Highest Death Count', MAX((t_death.total_deaths/t_death.population))*100 AS 'Percentag... 6 row(s) returned 0.125 sec / 0.000 sec

9. Display total highest count per country (location)



```sql
-- Display total highest count per country (location)
SELECT
    location AS 'Country',
    MAX(total_deaths) AS 'Total Highest Count'
FROM
    portfolio_project.covid_deaths
GROUP BY
    location
ORDER BY
    2 DESC
;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Country	Total Highest Count
Africa	259117
Argentina	130663
Belgium	34339
Bangladesh	29499
Australia	25236
Austria	22534
Azerbaijan	10353
Armenia	8777
Afghanistan	7998
Belarus	7118
Algeria	6881
Albania	3605
Angola	1937
Bahrain	1536
Bahamas	849
Belize	688
Barbados	593
Aruba	292
Benin	163
Andorra	159
Antigua an...	146
American S...	34

81 13:09:00 SELECT location AS 'Country', MAX(total_deaths) AS 'Total Highest Count' FROM portfolio_project.covid_deaths GROUP BY location ORDER BY 2 DESC 24 row(s) returned 0.109 sec / 0.000 sec

10. Display death % per country (location)

01-SQL Data Exploration

Don't Limit

```
87   -- Display death % per country (location)
88   SELECT
89       location AS 'Country',
90       SUM(total_cases) AS 'Total Cases',
91       SUM(total_deaths) AS 'Total Deaths',
92       (SUM(total_deaths)/SUM(total_cases))*100 AS 'Percentage'
93   FROM
94       portfolio_project.covid_deaths
95   WHERE
96       continent IS NOT NULL
97   GROUP BY
98       location
99   ORDER BY
100      4 DESC
101  ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Country	Total Cases	Total Deaths	Percentage
Afghanistan	245988981	9482547	3.8549
Algeria	321430718	8409268	2.6162
Bermuda	167790	3808	2.2695
Bahamas	41028740	928279	2.2625
Armenia	515749237	10181877	1.9742
Angola	114441477	2219488	1.9394
Antigua and Barbuda	8957640	154832	1.7285
Bangladesh	2354357374	35158810	1.4934
Argentina	10812079692	161350498	1.4923
Azerbaijan	918519664	11514202	1.2536
Albania	355635062	4320183	1.2148
Belize	70481110	790792	1.1220
Belgium	4751573368	43290916	0.9111
Belarus	1100835696	7985375	0.7254
Aruba	44492474	295867	0.6650
Benin	31175131	202043	0.6481
Barbados	94625816	535680	0.5661
Austria	5308511352	25176950	0.4743
Andorra	49036941	207828	0.4238

82 13:11:15 SELECT location AS 'Country', SUM(total_cases) AS 'Total Cases', SUM(total_deaths) AS 'Total Deaths', (SUM(total_deaths)/SUM(total_cases))*100 AS 'Perc... 23 row(s) returned 0.109 sec / 0.000 sec

11. Calculate % likelihood of dying if contracted in certain country

01-SQL Data Exploration

Don't Limit

```
103    -- Calculate total cases vs total deaths
104    -- % likelihood of dying if contracted in certain country
105    SELECT
106        location AS 'Country',
107        date AS 'Date',
108        total_cases AS 'Total Cases',
109        total_deaths AS 'Total Deaths',
110        (total_deaths/total_cases)*100 AS 'Percentage'
111    FROM
112        portfolio_project.covid_deaths
113    WHERE
114        continent IS NOT NULL
115    ORDER BY
116        1,2
117    ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Country	Date	Total Cases	Total Deaths	Percentage
Afghanistan	2020-01-05	0	0	NULL
Afghanistan	2020-01-06	0	0	NULL
Afghanistan	2020-01-07	0	0	NULL
Afghanistan	2020-01-08	0	0	NULL
Afghanistan	2020-01-09	0	0	NULL
Afghanistan	2020-01-10	0	0	NULL
Afghanistan	2020-01-11	0	0	NULL
Afghanistan	2020-01-12	0	0	NULL
Afghanistan	2020-01-13	0	0	NULL
Afghanistan	2020-01-14	0	0	NULL
Afghanistan	2020-01-15	0	0	NULL
Afghanistan	2020-01-16	0	0	NULL
Afghanistan	2020-01-17	0	0	NULL
Afghanistan	2020-01-18	0	0	NULL
Afghanistan	2020-01-19	0	0	NULL
Afghanistan	2020-01-20	0	0	NULL
Afghanistan	2020-01-21	0	0	NULL
Afghanistan	2020-01-22	0	0	NULL
Afghanistan	2020-01-23	0	0	NULL

83 13:13:25 SELECT location AS 'Country', date AS 'Date', total_cases AS 'Total Cases', total_deaths AS 'Total Deaths', (total_deaths/total_cases)*100 AS 'Percentage' F... 37315 row(s) returned 0.094 sec / 0.031 sec

12. Calculate % of cases versus population per subset of country

01-SQL Data Exploration

Don't Limit

```sql
-- Calculate total cases VS population
-- % of cases vs population per subset of country
SELECT
    t_death.location AS 'Country',
    t_death.date AS 'Date',
    t_death.population AS 'Population',
    t_death.total_cases AS 'Total Cases',
    t_death.total_deaths AS 'Total Deaths',
    (t_death.total_cases/t_death.population)*100 AS 'Percentage'
FROM
    portfolio_project.covid_deaths AS t_death
WHERE
    t_death.location
        LIKE
            '%us%'
AND
    t_death.continent IS NOT NULL
ORDER BY
    1,2
;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Country	Date	Population	Total Cases	Total Deaths	Percentage
Australia	2020-01-05	26177410	0	0	0.0000
Australia	2020-01-06	26177410	0	0	0.0000
Australia	2020-01-07	26177410	0	0	0.0000
Australia	2020-01-08	26177410	0	0	0.0000
Australia	2020-01-09	26177410	0	0	0.0000
Australia	2020-01-10	26177410	0	0	0.0000
Australia	2020-01-11	26177410	0	0	0.0000
Australia	2020-01-12	26177410	0	0	0.0000
Australia	2020-01-13	26177410	0	0	0.0000
Australia	2020-01-14	26177410	0	0	0.0000
Australia	2020-01-15	26177410	0	0	0.0000
Australia	2020-01-16	26177410	0	0	0.0000

84 13:15:28 SELECT t_death.location AS 'Country', t_death.date AS 'Date', t_death.population AS 'Population', t_death.total_cases AS 'Total Cases', t_death.total_deaths AS '... 5022 row(s) returned 0.063 sec / 0.000 sec

13. Calculate % of death versus population per subset of country

01-SQL Data Exploration

Don't Limit

```
140    -- Calculate total death VS population
141    -- % of death vs population per subset of country
142    SELECT
143        t_death.location AS 'Country',
144        t_death.date AS 'Date',
145        t_death.population AS 'Population',
146        t_death.total_cases AS 'Total Cases',
147        t_death.total_deaths AS 'Total Deaths',
148        (t_death.total_deaths/t_death.population)*100 AS 'Percentage'
149    FROM
150        portfolio_project.covid_deaths AS t_death
151    WHERE
152        t_death.location
153            LIKE
154                '%us%'
155    AND
156        t_death.continent IS NOT NULL
157    ORDER BY
158        1,2
159    ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Country	Date	Population	Total Cases	Total Deaths	Percentage
Australia	2020-01-05	26177410	0	0	0.0000
Australia	2020-01-06	26177410	0	0	0.0000
Australia	2020-01-07	26177410	0	0	0.0000
Australia	2020-01-08	26177410	0	0	0.0000
Australia	2020-01-09	26177410	0	0	0.0000
Australia	2020-01-10	26177410	0	0	0.0000
Australia	2020-01-11	26177410	0	0	0.0000
Australia	2020-01-12	26177410	0	0	0.0000
Australia	2020-01-13	26177410	0	0	0.0000
Australia	2020-01-14	26177410	0	0	0.0000
Australia	2020-01-15	26177410	0	0	0.0000
Australia	2020-01-16	26177410	0	0	0.0000

85 13:17:03 SELECT t_death.location AS 'Country', t_death.date AS 'Date', t_death.population AS 'Population', t_death.total_cases AS 'Total Cases', t_death.total_deaths AS '... 5022 row(s) returned 0.062 sec / 0.000 sec

14. Calculate country with highest % infection rate compared to its population

01-SQL Data Exploration

```
161    -- Calculate country with highest % infection rate compared to its population
162    SELECT
163        t_death.location AS 'Country',
164        t_death.population AS 'Population',
165        MAX(t_death.total_cases) AS 'Highest Infected Count',
166        MAX((t_death.total_cases/t_death.population))*100 AS 'Percentage'
167    FROM
168        portfolio_project.covid_deaths AS t_death
169    WHERE
170        t_death.continent IS NOT NULL
171    GROUP BY
172        t_death.location,
173        t_death.population
174    ORDER BY
175        Percentage DESC
176    ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Country	Population	Highest Infected Count	Percentage
Austria	8939617	6082444	68.0400
Andorra	79843	48015	60.1400
Bahrain	1472237	696614	47.3200
Australia	26177410	11861161	45.3100
Belgium	11655923	4872829	41.8100
Aruba	106459	44224	41.5400
Barbados	281646	108582	38.5500
Anguilla	15877	3904	24.5900
Argentina	45510324	10101218	22.2000
American Samoa	44295	8359	18.8700
Belize	405285	71414	17.6200
Armenia	2780472	452273	16.2700
Albania	2842318	335047	11.7900
Belarus	9534956	994037	10.4300
Antigua and Ba...	93772	9106	9.7100
Bahamas	409989	39127	9.5400

86 13:25:04 SELECT t_death.location AS 'Country', t_death.population AS 'Population', MAX(t_death.total_cases) AS 'Highest Infected Count', MAX((t_death.total_cases/t_deat... 23 row(s) returned 0.110 sec / 0.000 sec

15. Calculate country with highest % death rate compared to its population

01-SQL Data Exploration

```sql
-- Calculate country with highest % death rate compared to its population
SELECT
    t_death.location AS 'Country',
    t_death.population AS 'Population',
    MAX(t_death.total_deaths) AS 'Highest Death Count',
    MAX((t_death.total_deaths/t_death.population))*100 AS 'Percentage'
FROM
    portfolio_project.covid_deaths AS t_death
WHERE
    t_death.continent IS NOT NULL
GROUP BY
    t_death.location,
    t_death.population
ORDER BY
    Percentage DESC
;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Country	Population	Highest Death Count	Percentage
Armenia	2780472	8777	0.3200
Argentina	45510324	130663	0.2900
Belgium	11655923	34339	0.2900
Aruba	106459	292	0.2700
Austria	8939617	22534	0.2500
Bahamas	409989	849	0.2100
Barbados	281646	593	0.2100
Andorra	79843	159	0.2000
Belize	405285	688	0.1700
Antigua and Barbuda	93772	146	0.1600
Albania	2842318	3605	0.1300
Australia	26177410	25236	0.1000
Azerbaijan	10358078	10353	0.1000
Bahrain	1472237	1536	0.1000
American Samoa	44295	34	0.0800
Anguilla	15877	12	0.0800
Belarus	9534956	7118	0.0700

87 13:27:00 SELECT t_death.location AS 'Country', t_death.population AS 'Population', MAX(t_death.total_deaths) AS 'Highest Death Count', MAX((t_death.total_deaths/t_death... 23 row(s) returned 0.140 sec / 0.000 sec

16. Total population versus vaccinations

```sql
-- ========================================================
-- ********JOIN Statements********
-- ========================================================

-- Total population vs vaccinations
SELECT
    t_death.continent AS 'Continent',
    t_death.location AS 'Location',
    t_death.date AS 'Date',
    t_death.population AS 'Population',
    t_vacc.new_vaccinations AS 'New Vaccination'
FROM
    portfolio_project.covid_deaths AS t_death
    JOIN
        portfolio_project.covid_vaccinations AS t_vacc
ON
    t_death.location = t_vacc.location
    AND
        t_death.date= t_vacc.date
WHERE
    t_death.continent IS NOT NULL
    AND
        t_vacc.new_vaccinations IS NOT NULL
ORDER BY
    2,3
;
```

Continent	Location	Date	Population	New Vaccination
Asia	Afghanistan	2021-05-27	41128772	2859
Asia	Afghanistan	2021-06-03	41128772	4015
Asia	Afghanistan	2022-01-27	41128772	6868
Asia	Afghanistan	2022-04-27	41128772	383
Asia	Afghanistan	2022-09-12	41128772	9447
Asia	Afghanistan	2022-11-02	41128772	36587
Asia	Afghanistan	2022-11-16	41128772	14800
Asia	Afghanistan	2023-04-25	41128772	3316
Europe	Albania	2021-01-13	2842318	60
Europe	Albania	2021-01-14	2842318	78
Europe	Albania	2021-01-15	2842318	42
Europe	Albania	2021-01-16	2842318	61
Europe	Albania	2021-01-17	2842318	36
Europe	Albania	2021-01-18	2842318	42
Europe	Albania	2021-01-19	2842318	36
Europe	Albania	2021-01-20	2842318	36
Europe	Albania	2021-01-21	2842318	30
Europe	Albania	2021-02-18	2842318	1348
Europe	Albania	2021-02-19	2842318	1128
Europe	Albania	2021-03-23	2842318	3461
Europe	Albania	2021-03-24	2842318	2302
Europe	Albania	2021-03-25	2842318	5356
Europe	Albania	2021-03-26	2842318	2900
Europe	Albania	2021-03-27	2842318	1827
Europe	Albania	2021-03-28	2842318	13925

88 13:29:05 SELECT t_death.continent AS 'Continent', t_death.location AS 'Location', t_death.date AS 'Date', t_death.population AS 'Population', t_vacc.new_vaccinations ... 5152 row(s) returned 0.640 sec / 0.016 sec

17. Total population versus vaccinations with rolling vaccination numbers by country

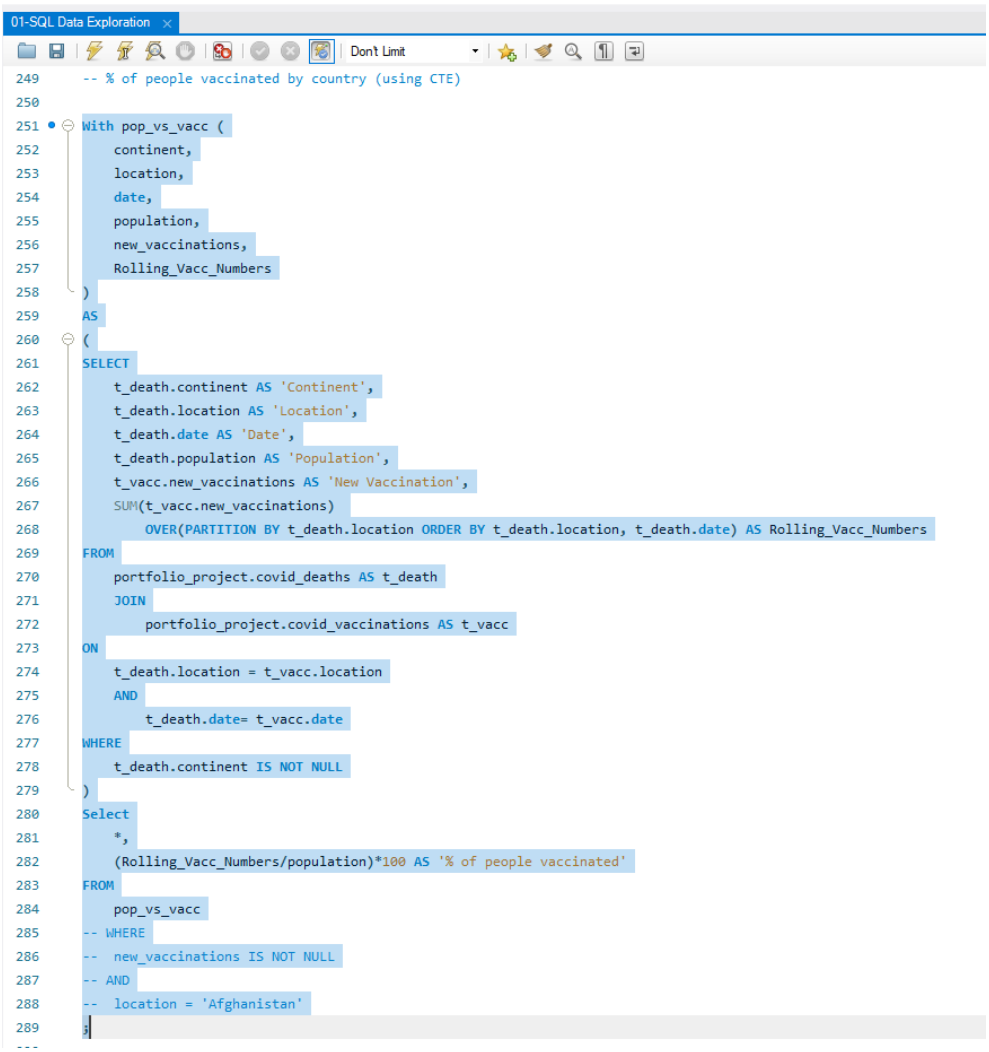
```sql
-- ========================================================
-- *******Windows Function********
-- ========================================================

-- Total population vs vaccinations with rolling vaccination numbers by country
SELECT
    t_death.continent AS 'Continent',
    t_death.location AS 'Location',
    t_death.date AS 'Date',
    t_death.population AS 'Population',
    t_vacc.new_vaccinations AS 'New Vaccination',
    SUM(t_vacc.new_vaccinations)
        OVER(PARTITION BY t_death.location ORDER BY t_death.location, t_death.date) AS 'Rolling Vacc. Numbers'
FROM
    portfolio_project.covid_deaths AS t_death
    JOIN
        portfolio_project.covid_vaccinations AS t_vacc
ON
    t_death.location = t_vacc.location
    AND
        t_death.date= t_vacc.date
WHERE
    t_death.continent IS NOT NULL
ORDER BY
    2,3
;
```

Continent	Location	Date	Population	New Vaccination	Rolling Vacc. Numbers
Asia	Afghanistan	2020-01-05	41128772	NULL	NULL
Asia	Afghanistan	2020-01-06	41128772	NULL	NULL
Asia	Afghanistan	2020-01-07	41128772	NULL	NULL
Asia	Afghanistan	2020-01-08	41128772	NULL	NULL
Asia	Afghanistan	2020-01-09	41128772	NULL	NULL
Asia	Afghanistan	2020-01-10	41128772	NULL	NULL
Asia	Afghanistan	2020-01-11	41128772	NULL	NULL
Asia	Afghanistan	2020-01-12	41128772	NULL	NULL
Asia	Afghanistan	2020-01-13	41128772	NULL	NULL
Asia	Afghanistan	2020-01-14	41128772	NULL	NULL
Asia	Afghanistan	2020-01-15	41128772	NULL	NULL
Asia	Afghanistan	2020-01-16	41128772	NULL	NULL
Asia	Afghanistan	2020-01-17	41128772	NULL	NULL
Asia	Afghanistan	2020-01-18	41128772	NULL	NULL
Asia	Afghanistan	2020-01-19	41128772	NULL	NULL
Asia	Afghanistan	2020-01-20	41128772	NULL	NULL
Asia	Afghanistan	2020-01-21	41128772	NULL	NULL
Asia	Afghanistan	2020-01-22	41128772	NULL	NULL
Asia	Afghanistan	2020-01-23	41128772	NULL	NULL
Asia	Afghanistan	2020-01-24	41128772	NULL	NULL
Asia	Afghanistan	2020-01-25	41128772	NULL	NULL
Asia	Afghanistan	2020-01-26	41128772	NULL	NULL

89 13:31:09 SELECT t_death.continent AS 'Continent', t_death.location AS 'Location', t_death.date AS 'Date', t_death.population AS 'Population', t_vacc.new_vaccinations ... 37315 row(s) returned 1.031 sec / 0.031 sec

18. Calculate % of people vaccinated by country (using CTE)




```sql
-- % of people vaccinated by country (using CTE)

With pop_vs_vacc (
    continent,
    location,
    date,
    population,
    new_vaccinations,
    Rolling_Vacc_Numbers
)
AS
(
SELECT
    t_death.continent AS 'Continent',
    t_death.location AS 'Location',
    t_death.date AS 'Date',
    t_death.population AS 'Population',
    t_vacc.new_vaccinations AS 'New Vaccination',
    SUM(t_vacc.new_vaccinations)
        OVER(PARTITION BY t_death.location ORDER BY t_death.location, t_death.date) AS Rolling_Vacc_Numbers
FROM
    portfolio_project.covid_deaths AS t_death
    JOIN
        portfolio_project.covid_vaccinations AS t_vacc
ON
    t_death.location = t_vacc.location
    AND
        t_death.date= t_vacc.date
WHERE
    t_death.continent IS NOT NULL
)
Select
    *,
    (Rolling_Vacc_Numbers/population)*100 AS '% of people vaccinated'
FROM
    pop_vs_vacc
-- WHERE
--  new_vaccinations IS NOT NULL
-- AND
--  location = 'Afghanistan'
;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

continent	location	date	population	new_vaccinations	Rolling_Vacc_Numbers	% of people vaccinated
Europe	Belgium	2021-01-10	11655923	491	28065	0.24077887268129688
Europe	Belgium	2021-01-11	11655923	5730	33795	0.28993842872846703
Europe	Belgium	2021-01-12	11655923	16078	49873	0.4278768828517484
Europe	Belgium	2021-01-13	11655923	21830	71703	0.6151636382635678
Europe	Belgium	2021-01-14	11655923	23564	95267	0.8173269504268345
Europe	Belgium	2021-01-15	11655923	23700	118967	1.0206570513549207
Europe	Belgium	2021-01-16	11655923	5242	124209	1.0656298947753857
Europe	Belgium	2021-01-17	11655923	3301	127510	1.0939502603097155
Europe	Belgium	2021-01-18	11655923	11294	138804	1.190845203764644
Europe	Belgium	2021-01-19	11655923	19470	158274	1.3578847423751856
Europe	Belgium	2021-01-20	11655923	21750	180024	1.5444851514547582
Europe	Belgium	2021-01-21	11655923	30409	210433	1.8053739716708834
Europe	Belgium	2021-01-22	11655923	30212	240645	2.0645726640438515
Europe	Belgium	2021-01-23	11655923	8529	249174	2.137745762390503
Europe	Belgium	2021-01-24	11655923	1950	251124	2.1544754542390168
Europe	Belgium	2021-01-25	11655923	11459	262583	2.252785987004204
Europe	Belgium	2021-01-26	11655923	12986	275569	2.36419715538615
Europe	Belgium	2021-01-27	11655923	16838	292407	2.5086558996657753
Europe	Belgium	2021-01-28	11655923	24043	316450	2.7149287104933686
Europe	Belgium	2021-01-29	11655923	21799	338249	2.9019495067014427
Europe	Belgium	2021-01-30	11655923	4573	342822	2.941182778918495
Europe	Belgium	2021-01-31	11655923	1005	343827	2.949805004717344
Europe	Belgium	2021-02-01	11655923	8006	351833	3.0184911139169333
Europe	Belgium	2021-02-02	11655923	24797	376630	3.2312327389259523
Europe	Belgium	2021-02-03	11655923	31151	407781	3.498487421373665
Europe	Belgium	2021-02-04	11655923	34612	442393	3.795435162020202

91 13:37:01 With pop_vs_vacc (continent, location, date, population, new_vaccinations, Rolling_Vacc_Numbers) AS (SELECT t_de... 37315 row(s) return... 0.813 sec / 0.062 sec

19. Calculate % of people vaccinated by country (using TEMP TABLE)

01-SQL Data Exploration

Don't Limit

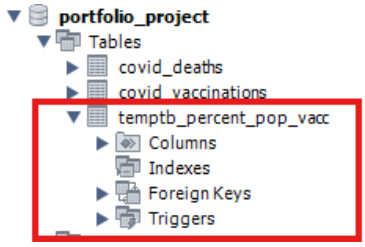
```sql
-- % of people vaccinated by country (using TEMP TABLE)

DROP TABLE IF EXISTS tempTB_percent_pop_vacc;

CREATE TABLE tempTB_percent_pop_vacc (
    continent VARCHAR(255),
    location VARCHAR(255),
    date DATE,
    population INT,
    new_vaccinations VARCHAR(255),
    rolling_Vacc_Numbers INT
    )
;

INSERT INTO
    tempTB_percent_pop_vacc
SELECT
    t_death.continent AS 'Continent',
    t_death.location AS 'Location',
    t_death.date AS 'Date',
    t_death.population AS 'Population',
    t_vacc.new_vaccinations AS 'New Vaccination',
    SUM(t_vacc.new_vaccinations)
        OVER(PARTITION BY t_death.location ORDER BY t_death.location, t_death.date) AS Rolling_Vacc_Numbers
FROM
    portfolio_project.covid_deaths AS t_death
    JOIN
        portfolio_project.covid_vaccinations AS t_vacc
ON
    t_death.location = t_vacc.location
    AND
        t_death.date= t_vacc.date
WHERE
    t_death.continent IS NOT NULL
;
```

```sql
Select
    *,
    (Rolling_Vacc_Numbers/population)*100 AS '% of people vaccinated'
FROM
    tempTB_percent_pop_vacc
-- WHERE
--  new_vaccinations IS NOT NULL
-- AND
--  location = 'Afghanistan'
;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

continent	location	date	population	new_vaccinations	rolling_Vacc_Numbers	% of people vaccinated
Asia	Bangladesh	2021-02-09	171186368	NULL	567	0.0003
Asia	Bangladesh	2021-02-10	171186368	158451	159018	0.0929
Asia	Bangladesh	2021-02-11	171186368	NULL	159018	0.0929
Asia	Bangladesh	2021-02-12	171186368	NULL	159018	0.0929
Asia	Bangladesh	2021-02-13	171186368	NULL	159018	0.0929
Asia	Bangladesh	2021-02-14	171186368	169353	328371	0.1918
Asia	Bangladesh	2021-02-15	171186368	226678	555049	0.3242
Asia	Bangladesh	2021-02-16	171186368	226902	781951	0.4568
Asia	Bangladesh	2021-02-17	171186368	226755	1008706	0.5892
Asia	Bangladesh	2021-02-18	171186368	261945	1270651	0.7423
Asia	Bangladesh	2021-02-19	171186368	NULL	1270651	0.7423
Asia	Bangladesh	2021-02-20	171186368	NULL	1270651	0.7423
Asia	Bangladesh	2021-02-21	171186368	NULL	1270651	0.7423
Asia	Bangladesh	2021-02-22	171186368	NULL	1270651	0.7423
Asia	Bangladesh	2021-02-23	171186368	182896	1453547	0.8491
Asia	Bangladesh	2021-02-24	171186368	181985	1635532	0.9554
Asia	Bangladesh	2021-02-25	171186368	177902	1813434	1.0593
Asia	Bangladesh	2021-02-26	171186368	NULL	1813434	1.0593
Asia	Bangladesh	2021-02-27	171186368	NULL	1813434	1.0593
Asia	Bangladesh	2021-02-28	171186368	125752	1939186	1.1328
Asia	Bangladesh	2021-03-01	171186368	NULL	1939186	1.1328
Asia	Bangladesh	2021-03-02	171186368	NULL	1939186	1.1328
Asia	Bangladesh	2021-03-03	171186368	NULL	1939186	1.1328
Asia	Bangladesh	2021-03-04	171186368	NULL	1939186	1.1328

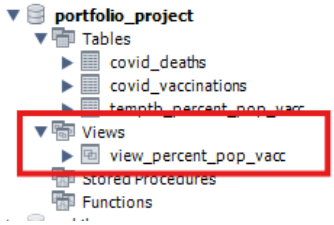
95 13:39:45 Select *, (Rolling_Vacc_Numbers/population)*100 AS '% of people vaccinated' FROM tempTB_percent_pop_vacc -- WHERE -- new... 37315 row(s) return... 0.000 sec / 0.047 sec

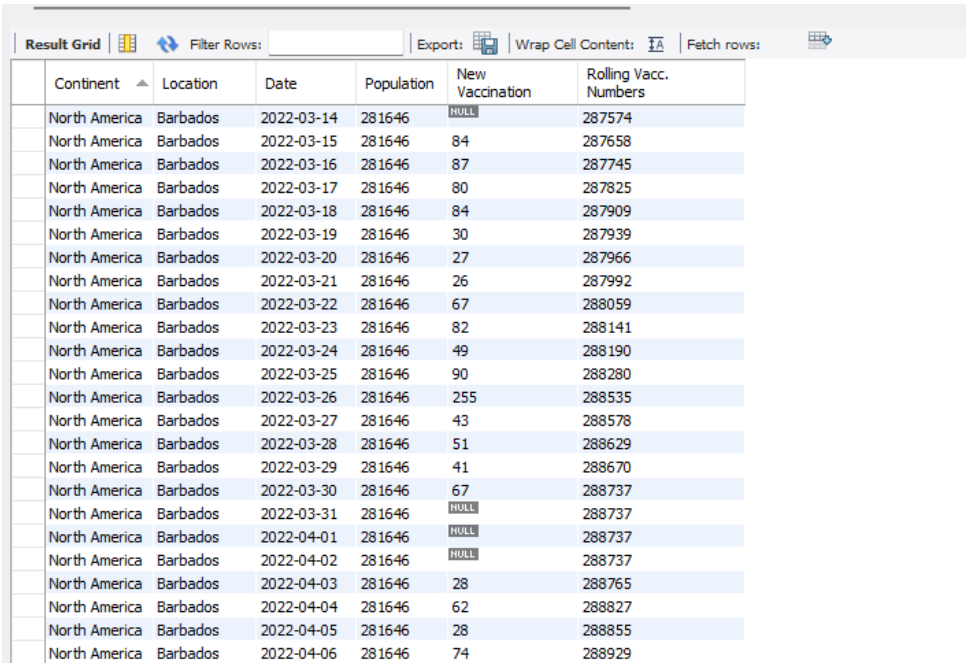
20. Create View table

```sql
-- ========================================================
-- ********CREATE VIEW********
-- ========================================================
DROP VIEW IF EXISTS view_percent_pop_vacc;

CREATE VIEW view_percent_pop_vacc AS
SELECT
    t_death.continent AS 'Continent',
    t_death.location AS 'Location',
    t_death.date AS 'Date',
    t_death.population AS 'Population',
    t_vacc.new_vaccinations AS 'New Vaccination',
    SUM(t_vacc.new_vaccinations)
        OVER(PARTITION BY t_death.location ORDER BY t_death.location, t_death.date) AS 'Rolling Vacc. Numbers'
FROM
    portfolio_project.covid_deaths AS t_death
    JOIN
        portfolio_project.covid_vaccinations AS t_vacc
ON
    t_death.location = t_vacc.location
    AND
        t_death.date= t_vacc.date
WHERE
    t_death.continent IS NOT NULL
ORDER BY
    2,3
;

SELECT
    *
FROM
view_percent_pop_vacc
;
```





Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Continent	Location	Date	Population	New Vaccination	Rolling Vacc. Numbers
North America	Barbados	2022-03-14	281646	NULL	287574
North America	Barbados	2022-03-15	281646	84	287658
North America	Barbados	2022-03-16	281646	87	287745
North America	Barbados	2022-03-17	281646	80	287825
North America	Barbados	2022-03-18	281646	84	287909
North America	Barbados	2022-03-19	281646	30	287939
North America	Barbados	2022-03-20	281646	27	287966
North America	Barbados	2022-03-21	281646	26	287992
North America	Barbados	2022-03-22	281646	67	288059
North America	Barbados	2022-03-23	281646	82	288141
North America	Barbados	2022-03-24	281646	49	288190
North America	Barbados	2022-03-25	281646	90	288280
North America	Barbados	2022-03-26	281646	255	288535
North America	Barbados	2022-03-27	281646	43	288578
North America	Barbados	2022-03-28	281646	51	288629
North America	Barbados	2022-03-29	281646	41	288670
North America	Barbados	2022-03-30	281646	67	288737
North America	Barbados	2022-03-31	281646	NULL	288737
North America	Barbados	2022-04-01	281646	NULL	288737
North America	Barbados	2022-04-02	281646	NULL	288737
North America	Barbados	2022-04-03	281646	28	288765
North America	Barbados	2022-04-04	281646	62	288827
North America	Barbados	2022-04-05	281646	28	288855
North America	Barbados	2022-04-06	281646	74	288929

98 13:43:20 SELECT * FROM view_percent_pop_vacc 37315 row(s) return... 1.157 sec / 0.031 sec

**********END**********