

```

---- Let's select the data that we are going to be using
SELECT location, date, total_cases, new_cases, total_deaths, population
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
WHERE continent is NOT NULL
ORDER BY 1,2

```

<i>location</i>	<i>date</i>	<i>total_cases</i>	<i>new_cases</i>	<i>total_deaths</i>	<i>population</i>
Vietnam	2/20/2021	2368	6	35	97338583
Vietnam	2/21/2021	2383	15	35	97338583
Vietnam	2/22/2021	2392	9	35	97338583
Vietnam	2/23/2021	2403	11	35	97338583
Vietnam	2/24/2021	2412	9	35	97338583
Vietnam	2/25/2021	2421	9	35	97338583
Vietnam	2/26/2021	2426	5	35	97338583
Vietnam	2/27/2021	2432	6	35	97338583
Vietnam	2/28/2021	2448	16	35	97338583
Vietnam	3/1/2021	2448	0	35	97338583
Vietnam	3/2/2021	2475	27	35	97338583
Vietnam	3/3/2021	2482	7	35	97338583

```

--The percentage of death is based on total_cases and total_deaths in Vietnam
SELECT location, date, total_cases, total_deaths, ROUND((total_deaths/total_cases)*100, 2) AS
DeathPercentage
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
WHERE location ='Vietnam'
ORDER BY 1,2

```

<i>location</i>	<i>date</i>	<i>total_cases</i>	<i>total_deaths</i>	<i>DeathPercentage</i>
Vietnam	4/19/2021	2791	35	1.25
Vietnam	4/20/2021	2800	35	1.25
Vietnam	4/21/2021	2812	35	1.24
Vietnam	4/22/2021	2824	35	1.24
Vietnam	4/23/2021	2830	35	1.24
Vietnam	4/24/2021	2833	35	1.24
Vietnam	4/25/2021	2843	35	1.23
Vietnam	4/26/2021	2852	35	1.23
Vietnam	4/27/2021	2857	35	1.23
Vietnam	4/28/2021	2865	35	1.22
Vietnam	4/29/2021	2910	35	1.2
Vietnam	4/30/2021	2928	35	1.2

```

--The percentage of CasesByPopulation got Covid based on total_cases and population in Vietnam
SELECT location, date, total_cases, population, ROUND((total_cases/population)*100, 5) AS
CasesByPopulation
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
WHERE location ='Vietnam'
ORDER BY 1,2

```

<i>location</i>	<i>date</i>	<i>total_cases</i>	<i>population</i>	<i>CasesByPopulation</i>
Vietnam	4/19/2021	2791	97338583	0.00287
Vietnam	4/20/2021	2800	97338583	0.00288
Vietnam	4/21/2021	2812	97338583	0.00289
Vietnam	4/22/2021	2824	97338583	0.0029
Vietnam	4/23/2021	2830	97338583	0.00291
Vietnam	4/24/2021	2833	97338583	0.00291
Vietnam	4/25/2021	2843	97338583	0.00292
Vietnam	4/26/2021	2852	97338583	0.00293
Vietnam	4/27/2021	2857	97338583	0.00294
Vietnam	4/28/2021	2865	97338583	0.00294
Vietnam	4/29/2021	2910	97338583	0.00299
Vietnam	4/30/2021	2928	97338583	0.00301

```
--Countries with Highest Infection Rate compared to Population
SELECT location, population, MAX(total_cases) AS HighestInfectionCount,
Round(MAX((total_cases/population))*100,2) AS PercentPopulationInfected
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
GROUP BY location, population
ORDER BY PercentPopulationInfected DESC
```

<i>location</i>	<i>population</i>	<i>HighestInfectionCount</i>	<i>PercentPopulationInfected</i>
Andorra	77265	13232	17.13
Montenegro	628062	97389	15.51
Czechia	10708982	1630758	15.23
San Marino	33938	5066	14.93
Slovenia	2078932	240292	11.56
Luxembourg	625976	67205	10.74
Bahrain	1701583	176934	10.4
Serbia	6804596	689557	10.13
United States	331002647	32346971	9.77
Israel	8655541	838481	9.69

```
--Countries with Highest Death Rate Count per Population
SELECT location, MAX(CAST(total_deaths AS int)) AS TotalDeathCount
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
WHERE continent IS NOT NULL
GROUP BY location
ORDER BY TotalDeathCount DESC
```

<i>location</i>	<i>TotalDeathCount</i>
India	211853
United Kingdom	127775
Italy	120807

<i>Russia</i>	<i>108290</i>
<i>France</i>	<i>104675</i>
<i>Germany</i>	<i>83097</i>
<i>Spain</i>	<i>78216</i>

--Continent with Highest Death per Population

```
SELECT continent, MAX(CAST(total_deaths AS int)) AS TotalDeathCount
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
WHERE continent IS NOT NULL
GROUP BY continent
ORDER BY TotalDeathCount DESC
```

<i>continent</i>	<i>TotalDeathCount</i>
<i>North America</i>	<i>576232</i>
<i>South America</i>	<i>403781</i>
<i>Asia</i>	<i>211853</i>
<i>Europe</i>	<i>127775</i>
<i>Africa</i>	<i>54350</i>
<i>Oceania</i>	<i>910</i>

--Global Numbers by date

```
SELECT date, SUM(new_cases) AS TotalCases, SUM(CAST(new_deaths AS int)) AS TotalDeaths,
ROUND((SUM(cast(new_deaths AS int))/SUM(new_cases))*100,2) AS DeathPercentage
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
WHERE continent IS NOT NULL
GROUP BY date
ORDER BY 1,2
```

<i>date</i>	<i>TotalCases</i>	<i>TotalDeaths</i>	<i>DeathPercentage</i>
<i>4/19/2021</i>	<i>693422</i>	<i>10490</i>	<i>1.51</i>
<i>4/20/2021</i>	<i>854425</i>	<i>14189</i>	<i>1.66</i>
<i>4/21/2021</i>	<i>889975</i>	<i>14102</i>	<i>1.58</i>
<i>4/22/2021</i>	<i>899755</i>	<i>13730</i>	<i>1.53</i>
<i>4/23/2021</i>	<i>897839</i>	<i>14189</i>	<i>1.58</i>
<i>4/24/2021</i>	<i>821237</i>	<i>13316</i>	<i>1.62</i>
<i>4/25/2021</i>	<i>727967</i>	<i>9780</i>	<i>1.34</i>
<i>4/26/2021</i>	<i>682784</i>	<i>11156</i>	<i>1.63</i>
<i>4/27/2021</i>	<i>844470</i>	<i>14487</i>	<i>1.72</i>
<i>4/28/2021</i>	<i>905992</i>	<i>15719</i>	<i>1.74</i>
<i>4/29/2021</i>	<i>897602</i>	<i>14990</i>	<i>1.67</i>
<i>4/30/2021</i>	<i>879014</i>	<i>14573</i>	<i>1.66</i>

--Global Numbers overall

```
SELECT SUM(new_cases) AS TotalCases, SUM(CAST(new_deaths AS int)) AS TotalDeaths,
ROUND((SUM(CAST(new_deaths AS int))/SUM(new_cases))*100,2) AS DeathPercentage
FROM `famous-momentum-394718.Deaths19.CovidDeaths`
```

```
WHERE continent IS NOT NULL
ORDER BY 1,2
```

<i>TotalCases</i>	<i>TotalDeaths</i>	<i>DeathPercentage</i>
150574977	3180206	2.11

```
--% of Population that has received at least one Covid Vaccine
SELECT dea.continent, dea.location, dea.date, dea.population, vax.new_vaccinations,
SUM(CAST(vax.new_vaccinations AS int64)) OVER (Partition by dea.location Order by
dea.location, dea.Date) as RollingPeopleVaccinated
FROM `famous-momentum-394718.Deaths19.CovidDeaths` dea
JOIN `famous-momentum-394718.Deaths19.CovidVaccinations` vax
ON dea.location = vax.location
AND dea.date = vax.date
WHERE dea.continent IS NOT NULL
ORDER BY 2,3
```

<i>continent</i>	<i>location</i>	<i>date</i>	<i>population</i>	<i>new_vaccinations</i>	<i>RollingPeopleVaccinated</i>
Africa	Zimbabwe	4/21/2021	14862927	7989	331682
Africa	Zimbabwe	4/22/2021	14862927	18803	350485
Africa	Zimbabwe	4/23/2021	14862927	14186	364671
Africa	Zimbabwe	4/24/2021	14862927	6114	370785
Africa	Zimbabwe	4/25/2021	14862927	17919	388704
Africa	Zimbabwe	4/26/2021	14862927	21592	410296
Africa	Zimbabwe	4/27/2021	14862927	22329	432625
Africa	Zimbabwe	4/28/2021	14862927	24074	456699
Africa	Zimbabwe	4/29/2021	14862927	19584	476283
Africa	Zimbabwe	4/30/2021	14862927	22745	499028

```
--Using CTE to perform calculation on partition by previous query
SELECT *,
ROUND((RollingPeopleVaccinated / Population) * 100, 2) AS RollingPercent
FROM (
SELECT dea.continent,
dea.location,
dea.date,
dea.population,
vax.new_vaccinations,
SUM(CAST(vax.new_vaccinations AS int64)) OVER (PARTITION BY dea.location ORDER BY
dea.location, dea.date) AS RollingPeopleVaccinated
FROM `famous-momentum-394718.Deaths19.CovidDeaths` dea
JOIN `famous-momentum-394718.Deaths19.CovidVaccinations` vax
ON dea.location = vax.location AND dea.date = vax.date
WHERE dea.continent IS NOT NULL
) AS PopulationvsVaccinations
```

<i>continent</i>	<i>location</i>	<i>date</i>	<i>population</i>	<i>new_vaccinations</i>	<i>RollingPeopleVaccinated</i>	<i>RollingPercent</i>
Africa	Zimbabwe	4/21/2021	14862927	7989	331682	2.23
Africa	Zimbabwe	4/22/2021	14862927	18803	350485	2.36

Africa	Zimbabwe	4/23/2021	14862927	14186	364671	2.45
Africa	Zimbabwe	4/24/2021	14862927	6114	370785	2.49
Africa	Zimbabwe	4/25/2021	14862927	17919	388704	2.62
Africa	Zimbabwe	4/26/2021	14862927	21592	410296	2.76
Africa	Zimbabwe	4/27/2021	14862927	22329	432625	2.91
Africa	Zimbabwe	4/28/2021	14862927	24074	456699	3.07
Africa	Zimbabwe	4/29/2021	14862927	19584	476283	3.2
Africa	Zimbabwe	4/30/2021	14862927	22745	499028	3.36

```
--Using TEMP TABLE to perform calculation on Partition By in previous query
CREATE TABLE IF NOT EXISTS famous-momentum-394718.Deaths19.PercentPopulationVaccinated (
  Continent STRING,
  Location STRING,
  date TIMESTAMP,
  Population NUMERIC,
  New_Vaccinations NUMERIC,
  RollingPeopleVaccinated NUMERIC
);

INSERT INTO famous-momentum-394718.Deaths19.PercentPopulationVaccinated
SELECT
  dea.continent,
  dea.location,
  dea.date,
  dea.population,
  vax.new_vaccinations,
  SUM(CAST(vax.new_vaccinations AS NUMERIC)) OVER (PARTITION BY dea.location ORDER BY
  dea.location, dea.date) AS RollingPeopleVaccinated
FROM
  `famous-momentum-394718.Deaths19.CovidDeaths` dea
JOIN
  `famous-momentum-394718.Deaths19.CovidVaccinations` vax
ON
  dea.location = vax.location
  AND dea.date = vax.date
WHERE
  dea.continent IS NOT NULL;

SELECT
  *,
  ROUND((RollingPeopleVaccinated / Population) * 100, 2) AS RollingPercent
FROM
  famous-momentum-394718.Deaths19.PercentPopulationVaccinated
```