***PROJECT 1: SQL DATA EXPLORATION***

Create Database PortfolioDatabase

USE PortfolioDatabase

/\*

Select \*

From CovidDeaths

Select \*

From CovidVaccination

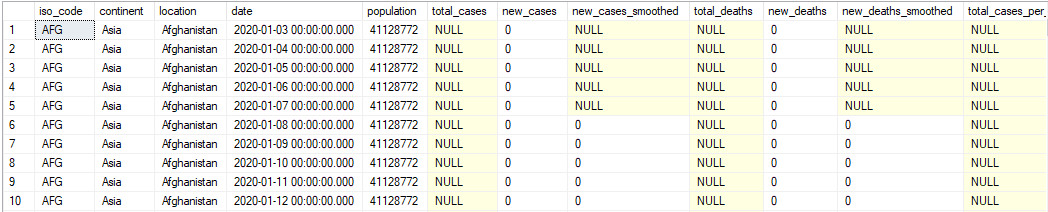
\*/

1. **Display Data from Table 1: Covid Deaths**

Select \*

From PortfolioDatabase.dbo.Covid\_Deaths

Order by 3,4

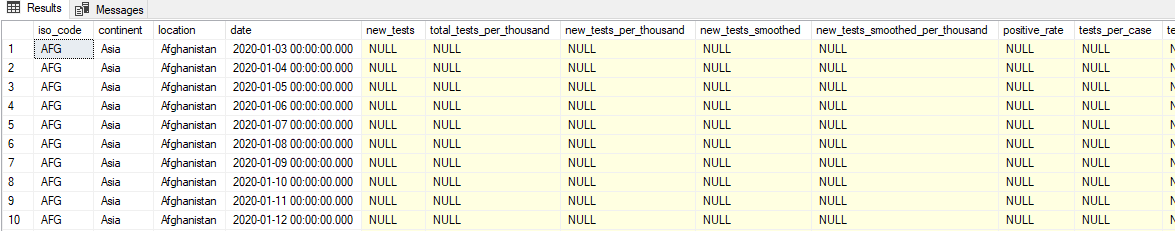


1. **Display Data from Table 2: Covid Vaccination**

Select \*

From PortfolioDatabase..Covid\_Vaccination

Order by 3,4



1. **Display Data from Table 1: Covid Deaths after Data Cleaning**

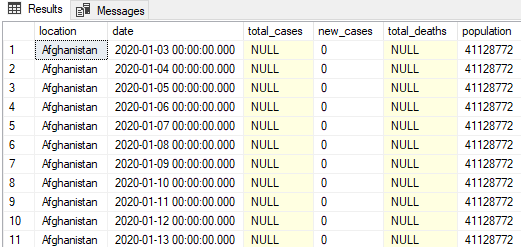
Select location, date, total\_cases, new\_cases, total\_deaths, population

From PortfolioDatabase.dbo.Covid\_Deaths

Order by 1,2

--ALTER TABLE PortfolioDatabase..Covid\_Deaths

--ALTER COLUMN total\_cases float



**A. Total Cases Vs Total Deaths**

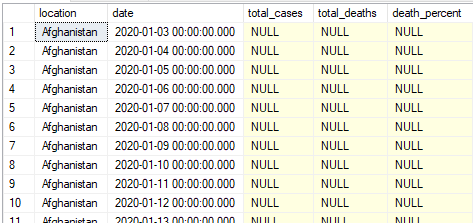
**--(Shows likelihood of dying if you contract Covid in Your Country)**

1. **Countrywise Death Ratio:**

Select location, date, total\_cases, total\_deaths, (total\_deaths/total\_cases) AS death\_percent

From PortfolioDatabase.dbo.Covid\_Deaths

Order by 1,2

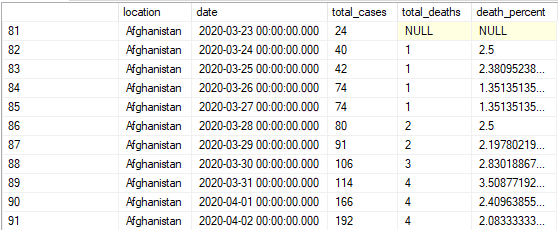


1. **Countrywise Death Percent:**

Select [location],[date],[total\_cases],[total\_deaths], [total\_deaths]/[total\_cases] \* 100 AS death\_percent

From [PortfolioDatabase]..[Covid\_Deaths]

Order By 1, 2



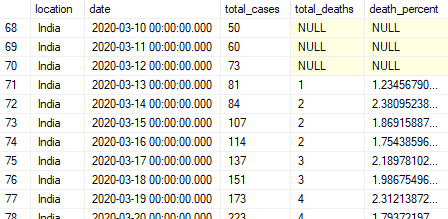
1. **India Death Percent:**

Select [location],[date],[total\_cases],[total\_deaths], [total\_deaths]/[total\_cases] \* 100 AS death\_percent

From [PortfolioDatabase]..[Covid\_Deaths]

Where [location] like 'INDIA'

Order By 1, 2



**B. Looking at Total Cases Vs Population**

**--(Shows percentage of Population got Covid)**

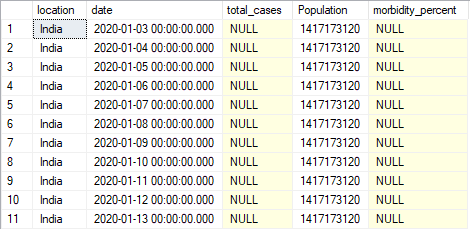
1. **India Morbidity Percent:**

Select [location],[date],[total\_cases],[Population], [total\_cases]/[Population] \* 100 AS morbidity\_percent

From [PortfolioDatabase]..[Covid\_Deaths]

Where [location] like 'INDIA'

Order By 1, 2

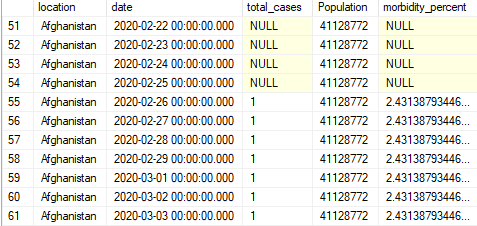


1. **Countrywise Morbidity Percent:**

Select [location],[date],[total\_cases],[Population], [total\_cases]/[Population] \* 100 AS morbidity\_percent

From [PortfolioDatabase]..[Covid\_Deaths]

Order By 1, 2



**C. Looking at Countries with Highest Infection Rate compared to Population**

**-- (Shows highest infection rate in your country)**

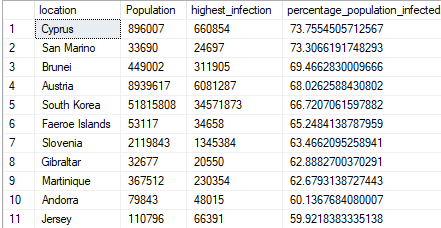
1. **Countrywise Infected Rate:**

Select [location],[Population], MAX([total\_cases]) as highest\_infection, MAX([total\_cases]/[Population]) \* 100 AS percentage\_population\_infected

From [PortfolioDatabase]..[Covid\_Deaths]

Group by [population], [location]

Order By percentage\_population\_infected desc



1. **India Infected Rate:**

Select [location],[Population], MAX([total\_cases]) as highest\_infection, MAX([total\_cases]/[Population]) \* 100 AS percentage\_population\_infected

From [PortfolioDatabase]..[Covid\_Deaths]

Where [location] like 'INDIA'

Group by [population], [location]

Order By percentage\_population\_infected desc



**D. Looking at Highest Death Count per Population**

**-- ( Showing Highest Death Count per Population)**

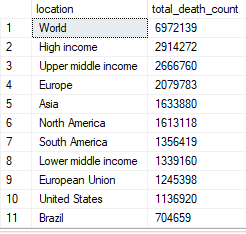
1. **Countrywise Highest Death Count**

Select [location],MAX(cast(total\_deaths AS int)) As total\_death\_count

From [PortfolioDatabase]..[Covid\_Deaths]

Group by [location]

Order By total\_death\_count desc



**E. Looking at Highest Death Count per Population by Continent**

**-- (Showing Highest Death Count per population by Continent)**

1. **Countrywise Highest Death Count:**

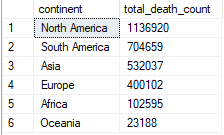
Select continent,MAX(cast(total\_deaths AS int)) As total\_death\_count

From [PortfolioDatabase]..[Covid\_Deaths]

Where continent is not null

Group by continent

Order By total\_death\_count desc



1. **Locationwise Highest Death Count:**

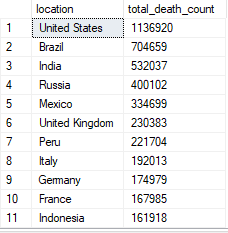
Select location,MAX(cast(total\_deaths AS int)) As total\_death\_count

From [PortfolioDatabase]..[Covid\_Deaths]

Where continent is not null

Group by location

Order By total\_death\_count desc



**F. Max Death Count Global Numbers**

1. **Highest Number of Cases, Deaths recorded:**

Select [date], [total\_cases],[total\_deaths], [total\_deaths]/[total\_cases] \* 100 AS death\_percent

From [PortfolioDatabase]..[Covid\_Deaths]

Where continent is not null

group by [date]

Order By 1, 2



1. **Highest Number of Cases, Deaths recorded by date:**

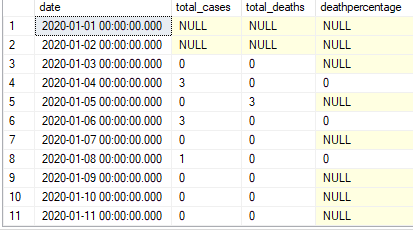
Select [date], SUM(new\_cases)

From [PortfolioDatabase]..[Covid\_Deaths]

Where continent is not null

Group By [date]

order by 1,2



**G. Total Population VS Vaccination**

Select \*

From [PortfolioDatabase]..[Covid\_Deaths] CD

JOIN [PortfolioDatabase]..Covid\_Vaccination CV

ON CD.[location]=CV.[location]

AND CD.[date]=CV.[date]

1. **Using CTE**

With POPvsVAC (Continent,Location,Date,Population,new\_vaccinations,RollingPeopleVaccinated)

AS

(

Select CD.[continent],CD.[location],CD.[date],CD.[population],CV.[new\_vaccinations],

SUM(CAST(CV.[new\_vaccinations] AS bigint)) OVER (PARTITION BY CD.[location] Order BY CD.[location],CD.[date]) AS RollingPeopleVaccinated

--(RollingPeopleVaccinated/CD.[population])\*100

From [PortfolioDatabase]..[Covid\_Deaths] CD

JOIN [PortfolioDatabase]..Covid\_Vaccination CV

ON CD.[location]=CV.[location]

AND CD.[date]=CV.[date]

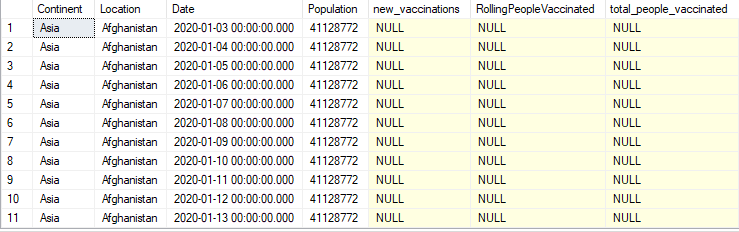
Where CD.[continent] is not null

--order by 2,3

)

Select \*, (RollingPeopleVaccinated/Population)\*100 AS total\_people\_vaccinated

From POPvsVAC



1. **Using Temp Table**

Drop Table if exists #PercentPopulationVaccinated

Create Table #PercentPopulationVaccinated

(

Continent nvarchar (255),

Location nvarchar (255),

Date datetime,

Population float,

New\_vaccination bigint,

RollingPeopleVaccinated bigint,

)

Insert into #PercentPopulationVaccinated

Select

CD.[continent],

CD.[location],

CD.[date],

CD.[population],

CV.[new\_vaccinations],

SUM(CAST(CV.[new\_vaccinations] AS bigint)) OVER (PARTITION BY CD.[location] ORDER BY CD.[location], CD.[date]) AS RollingPeopleVaccinated

From [PortfolioDatabase]..Covid\_Deaths CD

JOIN [PortfolioDatabase]..Covid\_Vaccination CV

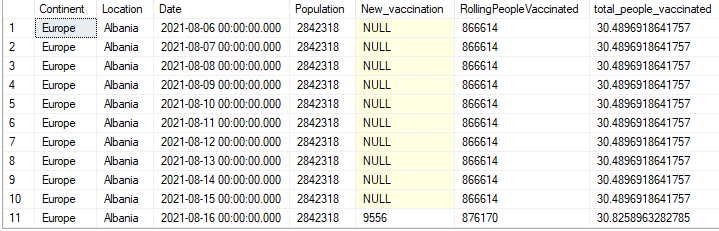
ON CD.[location]=CV.[location]

AND CD.[date]=CV.[date]

Where CD.[continent] is not null

Select \*, CAST(RollingPeopleVaccinated AS float)/Population\*100 AS total\_people\_vaccinated

FROM #PercentPopulationVaccinated



**H. Create View to store data for visualization:**

Create View PercentPopulationVaccinated AS

Select

CD.[continent],

CD.[location],

CD.[date],

CD.[population],

CV.[new\_vaccinations],

SUM(CAST(CV.[new\_vaccinations] AS bigint)) OVER (PARTITION BY CD.[location] ORDER BY CD.[location], CD.[date]) AS RollingPeopleVaccinated

From [PortfolioDatabase]..Covid\_Deaths CD

JOIN [PortfolioDatabase]..Covid\_Vaccination CV

ON CD.[location]=CV.[location]

AND CD.[date]=CV.[date]

Where CD.[continent] is not null

Select \*

From PercentPopulationVaccinated

