--COVID Project Queries

SELECT \*

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

order by 1,2

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

FROM `jennyai.PortfolioProject.CovidDeaths`

ORDER BY 1, 2;

--Looking for Total Case vs Total Deaths (percentage of deaths for reported)

--Likelihood of Deaths if you contract COVID by country

SELECT location, date, total\_cases, total\_deaths, (total\_deaths/total\_cases)\*100 AS DeathPercentage

FROM `jennyai.PortfolioProject.CovidDeaths`

ORDER BY 1,2;

SELECT location, date, total\_cases, total\_deaths, (total\_deaths/total\_cases)\*100 AS DeathPercentage

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE location like '%States%'

ORDER BY 1,2;

--Looking at Total Cases vs Population

--Shows what percentage of population contracted COVID

SELECT location, date, total\_cases, population, (total\_cases/population)\*100 AS PercentPopulationInfected

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE location like '%States%'

ORDER BY 1,2;

--Looking at Countries with highest infection rate vs population

SELECT location, population, MAX(total\_cases) AS HighestInfectionCount, MAX((total\_cases/population))\*100 AS PercentPopulationInfected

FROM `jennyai.PortfolioProject.CovidDeaths`

--WHERE location like '%States%'

GROUP BY location, population

ORDER BY PercentPopulationInfected DESC;

--Showing Countries with highest death count per population

SELECT location, MAX(cast(total\_deaths AS INT)) AS TotalDeathCount

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY location

ORDER BY TotalDeathCount DESC;

--BREAKING THINGS DOWN BY CONTINENT

--Showing the continents with the highest death count per population

SELECT continent, MAX(cast(total\_deaths AS INT)) AS TotalDeathCount

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY continent

ORDER BY TotalDeathCount DESC;

--Looking for Total Case by continent

SELECT continent,MAX(total\_cases)

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY continent;

--Looking for Total Case vs Total Deaths (percentage of deaths for reported) by continent

--Likelihood of Deaths if you contract COVID by continent

SELECT continent, MAX(total\_cases) AS Total\_Cases, MAX(total\_deaths) AS Total\_Deaths,(MAX(total\_deaths)/MAX(total\_cases))\*100 AS DeathPercentage

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY continent;

--GLOBAL NUMBERS

--total world cases by date

SELECT date, SUM(new\_cases)--total\_deaths, (total\_deaths/total\_cases)\*100 AS DeathPercentage

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY date

ORDER BY 1,2;

--SUM of global cases/deaths by date

--sum(new\_cases) adds up to total cases globally

--new\_deaths column VARCHAR datatype, CAST to int

SELECT date, SUM(new\_cases), SUM(CAST (new\_deaths AS INT))

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY date

ORDER BY 1,2;

--Global Death percentage by date

SELECT date, SUM(new\_cases) AS total\_cases, SUM(CAST (new\_deaths AS INT)) AS total\_deaths, SUM(cast(new\_deaths as int))/SUM(new\_cases)\*100 as DeathPercentage

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

GROUP BY date

ORDER BY 1,2;

--Total cases/deaths/deathpercentage Globally as of 6/4/22

SELECT SUM(new\_cases) AS total\_cases, SUM(CAST (new\_deaths AS INT)) AS total\_deaths, SUM(cast(new\_deaths as int))/SUM(new\_cases)\*100 as DeathPercentage

FROM `jennyai.PortfolioProject.CovidDeaths`

WHERE continent is not null

ORDER BY 1,2;

--Joining CovidDeaths and CovidVaccinations tables on location and date columns

SELECT\*

FROM `jennyai.PortfolioProject.CovidDeaths` AS dea

Join `jennyai.PortfolioProject.CovidVaccinations` AS vac

ON dea.location = vac.location

AND dea.date = vac.date;

--Looking at Total Population vs vaccinations

SELECT dea.continent, dea.location,dea.date, dea.population, vac.new\_vaccinations

FROM `jennyai.PortfolioProject.CovidDeaths` AS dea

Join `jennyai.PortfolioProject.CovidVaccinations` AS vac

ON dea.location = vac.location

AND dea.date = vac.date

WHERE dea.continent is not null

ORDER BY 2,3;

--Rolling count of vaccinations per day. Partitioned the SUM by location

SELECT dea.continent, dea.location,dea.date, dea.population, vac.new\_vaccinations,SUM(CAST(vac.new\_vaccinations AS INT)) OVER (Partition BY dea.location ORDER BY dea.location, dea.date) AS RollingCountVaccinated

FROM `jennyai.PortfolioProject.CovidDeaths` AS dea

Join `jennyai.PortfolioProject.CovidVaccinations` AS vac

ON dea.location = vac.location

AND dea.date = vac.date

WHERE dea.continent is not null

ORDER BY 2,3;

--Total Population VS Vaccinations

--want to use max # of rollingcountvaccinated / population to see the percentage of people vaccinated per country

--need to create CTE or temp table

SELECT dea.continent, dea.location,dea.date, dea.population, vac.new\_vaccinations,SUM(CAST(vac.new\_vaccinations AS INT)) OVER (Partition BY dea.location ORDER BY dea.location, dea.date) AS RollingCountVaccinated

FROM `jennyai.PortfolioProject.CovidDeaths` AS dea

Join `jennyai.PortfolioProject.CovidVaccinations` AS vac

ON dea.location = vac.location

AND dea.date = vac.date

WHERE dea.continent is not null

ORDER BY 2,3;

--USE CTE(EXAMPLE)

--The WITH statement is only part of a query. It needs to followed by another statement, usually a SELECT.

--Ex. WITH longest\_used\_bike AS (SELECT Bikeid, SUM(duration\_minutes) AS trip\_duration)

--FROM 'bigquery-public-data.austin\_bikeshare.bikeshare\_trips'

--GROUP BY Trip\_duration DESC

--LIMIT 1)

--SELECT \* FROM longest\_used\_bike;

WITH PopvsVac

AS

(

SELECT dea.continent, dea.location,dea.date, dea.population, vac.new\_vaccinations,SUM(CAST(vac.new\_vaccinations AS INT)) OVER (Partition BY dea.location ORDER BY dea.location, dea.date) AS RollingCountVaccinated

FROM `jennyai.PortfolioProject.CovidDeaths` AS dea

Join `jennyai.PortfolioProject.CovidVaccinations` AS vac

ON dea.location = vac.location

AND dea.date = vac.date

WHERE dea.continent is not null

--ORDER BY 2,3

)

Select \*,(RollingCountVaccinated/Population)\*100

FROM PopvsVac;

--Create TEMP Table

CREATE TEMP TABLE PercentPopulationVaccinated

(Continent STRING (225),

Location STRING (225),

Date datetime,

Population numeric,

New\_vaccinations numeric,

RollingCountVaccinated numeric

)

AS

SELECT dea.continent, dea.location,dea.date, dea.population, vac.new\_vaccinations,SUM(CAST(vac.new\_vaccinations AS INT)) OVER (Partition BY dea.location ORDER BY dea.location, dea.date) AS RollingCountVaccinated

FROM `jennyai.PortfolioProject.CovidDeaths` AS dea

Join `jennyai.PortfolioProject.CovidVaccinations` AS vac

ON dea.location = vac.location

AND dea.date = vac.date

WHERE dea.continent is not null

ORDER BY 2,3;

Select \*,(RollingCountVaccinated/Population)\*100

FROM PercentPopulationVaccinated;