The purpose of this project is to show some examples of SQL coding.

The data is from ourworldindata.org for Monkeypox and COVID from 10/15/22. I used Microsoft Access to process this data. COVID data was used minimally, but I may delve further in the future. I used Microsoft Excel to format some data prior to Access, like to add the “locdate” key to both datasets which I used to join the data.

Microsoft Access unfortunately doesn’t allow for comments. I will give some comments below to explain my intentions. Also, I planned to make views in this project, but my Access subscription couldn’t make views because I could just save a query.

**QUERY 1**

-- Make sure my data uploaded properly

SELECT \*

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.continent is not null

ORDER BY 3, 4;

**QUERY 2**

-- Select specific data after a join

SELECT COVID.location, Monkeypox.date, Monkeypox.total\_cases, Monkeypox.new\_cases, Monkeypox.total\_deaths, COVID.population

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.continent is not null

ORDER BY 1, 2;

**QUERY 3**

-- Total Cases vs Total Deaths

-- Compare likelihood of dying through contracting Monkeypox and COVID

SELECT COVID.location, COVID.date, Monkeypox.total\_cases, Monkeypox.total\_deaths, (Monkeypox.total\_deaths/Monkeypox.total\_cases)\*100 AS MonkeyPoxDeathPercentage, (COVID.total\_deaths/COVID.total\_cases)\*100 AS COVIDDeathPercentage

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.continent is not null

ORDER BY 1, 2;

**QUERY 4**

-- Shows percentage of population infected with Monkeypox and COVID

SELECT COVID.location, COVID.date, COVID.population, Monkeypox.total\_cases, (Monkeypox.total\_cases/COVID.population)\*100 AS MonkeypoxPercentPopulationInfected, (COVID.total\_cases/COVID.population)\*100 AS COVIDPercentPopulationInfected

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.location = 'United States'

ORDER BY 1, 2;

**QUERY 5**

-- Countries with Highest Monkeypox Infection Rate with respect to population

SELECT COVID.location, AVG(COVID.population) AS Population, MAX(Monkeypox.total\_cases) AS MonkeypoxHighestInfection, (MonkeypoxHighestInfection/Population)\*100 AS PercentPopulationInfected

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

GROUP BY COVID.location, Population

ORDER BY MAX(Monkeypox.total\_cases) DESC;

**QUERY 6**

-- Countries with Highest Death Count per population

SELECT COVID.location, MAX(CInt(Monkeypox.total\_deaths)) AS TotalDeathCount

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.continent IS NOT null

GROUP BY COVID.location

ORDER BY MAX(CInt(Monkeypox.total\_deaths)) DESC;

**QUERY 7**

-- Continents with highest death counts

SELECT COVID.continent, MAX(CInt(Monkeypox.total\_deaths)) AS TotalDeathCount

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.continent IS NOT null

GROUP BY COVID.continent

ORDER BY MAX(CInt(Monkeypox.total\_deaths)) DESC;

**QUERY 8**

-- Global numbers

SELECT SUM(Monkeypox.new\_cases) AS Total\_Cases, SUM(CInt(Monkeypox.new\_deaths)) AS Total\_Deaths, SUM(CInt(Monkeypox.new\_deaths))/SUM(CInt(Monkeypox.new\_cases))\*100 AS DeathPercentage

FROM COVID RIGHT JOIN Monkeypox ON COVID.locdate =[Monkeypox].[locdate]

WHERE COVID.continent IS NOT null

GROUP BY Monkeypox.date

ORDER BY 1 DESC , 2;

**QUERY 9**

-- This is just an example of counts by continent and country. This is also done at the beginning to ensure data is there and to start basic analysis/understanding of dataset

SELECT MAX(COVID.continent) AS continent, MAX(COVID.location) AS location, COUNT(COVID.date) AS dates, COUNT(COVID.population) AS population, COUNT(COVID.new\_vaccinations) AS new\_vaccinations

FROM COVID

WHERE COVID.continent IS NOT null

GROUP BY location

ORDER BY 1, 2;

**PARTITION EXAMPLE**

-- Although this doesn’t make much sense data-wise, I did make a partition example to accustom myself with the Partition-making process in Access. It’s different from what I’m used to.

SELECT PARTITION(Monkeypox.total\_cases,40,240,20) AS PartitionExample

FROM Monkeypox

GROUP BY Partition(Monkeypox.total\_cases,40,240,20);