**SQL Scripts**

**-- Covid\_Cases Table**

CREATE TABLE "Covid\_Cases" (

date\_updated VARCHAR(50),

state VARCHAR(50),

start\_date VARCHAR(50),

end\_date VARCHAR(50),

tot\_cases INTEGER,

new\_cases INTEGER,

tot\_deaths INTEGER,

new\_deaths INTEGER,

new\_historic\_cases INTEGER,

new\_historic\_deaths INTEGER);

**-- Clean\_Covid\_Cases Table (removed unnecessary columns for this analysis from Covid\_Cases Table)**

CREATE TABLE clean\_covid\_cases( state TEXT, start\_date TEXT, end\_date TEXT, date\_updated TEXT, tot\_cases INT, new\_cases INT, new\_deaths INT );

**-- Covid\_Vaccinations Table**

CREATE TABLE Covid\_Vaccinations ( Date VARCHAR(50), MMWR\_week INTEGER, Location VARCHAR(50), Distributed INTEGER, Distributed\_Janssen INTEGER, Distributed\_Moderna INTEGER, Distributed\_Pfizer INTEGER, Distributed\_Novavax INTEGER, Distributed\_Unk\_Manuf INTEGER, Dist\_Per\_100K INTEGER, Distributed\_Per\_100k\_5Plus INTEGER, Distributed\_Per\_100k\_12Plus INTEGER, Distributed\_Per\_100k\_18Plus INTEGER, Distributed\_Per\_100k\_65Plus INTEGER, Administered INTEGER, Administered\_5Plus INTEGER, Administered\_12Plus INTEGER, Administered\_18Plus INTEGER, Administered\_65Plus INTEGER, Administered\_Janssen INTEGER, Administered\_Moderna INTEGER, Administered\_Pfizer INTEGER, Administered\_Novavax INTEGER, Administered\_Unk\_Manuf INTEGER, Admin\_Per\_100K INTEGER, Admin\_Per\_100k\_5Plus INTEGER, Admin\_Per\_100k\_12Plus INTEGER, Admin\_Per\_100k\_18Plus INTEGER, Admin\_Per\_100k\_65Plus INTEGER, Recip\_Administered INTEGER, Administered\_Dose1\_Recip INTEGER, Administered\_Dose1\_Pop\_Pct REAL, Administered\_Dose1\_Recip\_5Plus INTEGER, Administered\_Dose1\_Recip\_5PlusPop\_Pct INTEGER, Administered\_Dose1\_Recip\_12Plus INTEGER, Administered\_Dose1\_Recip\_12PlusPop\_Pct REAL, Administered\_Dose1\_Recip\_18Plus INTEGER, Administered\_Dose1\_Recip\_18PlusPop\_Pct REAL, Administered\_Dose1\_Recip\_65Plus INTEGER, Administered\_Dose1\_Recip\_65PlusPop\_Pct REAL, Series\_Complete\_Yes INTEGER, Series\_Complete\_Pop\_Pct REAL, Series\_Complete\_5Plus INTEGER, Series\_Complete\_5PlusPop\_Pct INTEGER, Series\_Complete\_12Plus INTEGER, Series\_Complete\_12PlusPop\_Pct REAL, Series\_Complete\_18Plus INTEGER, Series\_Complete\_18PlusPop\_Pct INTEGER, Series\_Complete\_65Plus INTEGER, Series\_Complete\_65PlusPop\_Pct REAL, Series\_Complete\_Janssen INTEGER, Series\_Complete\_Moderna INTEGER, Series\_Complete\_Pfizer INTEGER, Series\_Complete\_Novavax INTEGER, Series\_Complete\_Unk\_Manuf INTEGER, Series\_Complete\_Janssen\_5Plus INTEGER, Series\_Complete\_Moderna\_5Plus INTEGER, Series\_Complete\_Pfizer\_5Plus INTEGER, Series\_Complete\_Unk\_Manuf\_5Plus INTEGER, Series\_Complete\_Janssen\_12Plus INTEGER, Series\_Complete\_Moderna\_12Plus INTEGER, Series\_Complete\_Pfizer\_12Plus INTEGER, Series\_Complete\_Unk\_Manuf\_12Plus INTEGER, Series\_Complete\_Janssen\_18Plus INTEGER, Series\_Complete\_Moderna\_18Plus INTEGER, Series\_Complete\_Pfizer\_18Plus INTEGER, Series\_Complete\_Unk\_Manuf\_18Plus INTEGER, Series\_Complete\_Janssen\_65Plus INTEGER, Series\_Complete\_Moderna\_65Plus INTEGER, Series\_Complete\_Pfizer\_65Plus INTEGER, Series\_Complete\_Unk\_Manuf\_65Plus INTEGER, Additional\_Doses INTEGER, Additional\_Doses\_Vax\_Pct REAL, Additional\_Doses\_5Plus INTEGER, Additional\_Doses\_5Plus\_Vax\_Pct REAL, Additional\_Doses\_12Plus INTEGER, Additional\_Doses\_12Plus\_Vax\_Pct REAL, Additional\_Doses\_18Plus INTEGER, Additional\_Doses\_18Plus\_Vax\_Pct REAL, Additional\_Doses\_50Plus INTEGER, Additional\_Doses\_50Plus\_Vax\_Pct REAL, Additional\_Doses\_65Plus INTEGER, Additional\_Doses\_65Plus\_Vax\_Pct INTEGER, Additional\_Doses\_Moderna INTEGER, Additional\_Doses\_Pfizer INTEGER, Additional\_Doses\_Janssen INTEGER, Additional\_Doses\_Unk\_Manuf INTEGER, Second\_Booster VARCHAR(50), Second\_Booster\_50Plus INTEGER, Second\_Booster\_50Plus\_Vax\_Pct REAL, Second\_Booster\_65Plus INTEGER, Second\_Booster\_65Plus\_Vax\_Pct REAL, Second\_Booster\_Janssen INTEGER, Second\_Booster\_Moderna INTEGER, Second\_Booster\_Pfizer INTEGER, Second\_Booster\_Unk\_Manuf INTEGER, Administered\_Bivalent INTEGER, Admin\_Bivalent\_PFR INTEGER, Admin\_Bivalent\_MOD INTEGER, Dist\_Bivalent\_PFR INTEGER, Dist\_Bivalent\_MOD INTEGER, Bivalent\_Booster\_5Plus INTEGER, Bivalent\_Booster\_5Plus\_Pop\_Pct REAL, Bivalent\_Booster\_12Plus INTEGER, Bivalent\_Booster\_12Plus\_Pop\_Pct REAL, Bivalent\_Booster\_18Plus INTEGER, Bivalent\_Booster\_18Plus\_Pop\_Pct REAL, Bivalent\_Booster\_65Plus INTEGER, Bivalent\_Booster\_65Plus\_Pop\_Pct REAL );

**-- Clean\_Vaccinations Table (removed unnecessary columns for this analysis from Covid\_Vaccinations Table)**

CREATE TABLE clean\_vaccinations( Date TEXT, State TEXT, Administered INT, Series\_Complete\_Yes INT, Additional\_Doses INT );

**-- Covid\_Joined Table (Joined Clean\_Vaccinations Table & Clean\_Covid\_Cases Table. This table was exported to Excel and imported into Power BI)**

CREATE TABLE covid\_joined( state TEXT, date\_updated TEXT, new\_cases INT, tot\_cases INT, Administered INT, Series\_Complete\_Yes INT, Additional\_Doses INT );

**Summary of SQL Operations Used**

* **Joins**
  + Joined clean\_covid\_cases and clean\_vaccinations on state and date to create a unified dataset for visualization.
* **Subqueries**
  + Used in SQL filtering and aggregation steps to derive total vaccination rates and identify thresholds across different states.
* **Filtering & Aggregation**
  + Used WHERE, GROUP BY, ORDER BY, and SUM() to extract and compare meaningful trends.