In [ ]:
```sql
%%sql
/*
Data Sources:

*Obesity-
https://catalog.data.gov/dataset/national-obesity-by-state-2094c
*State Population-
https://en.wikipedia.org/wiki/List_of_U.S._states_and_territories_by_population
*Weekly Death Counts and Causes by State-
https://catalog.data.gov/dataset/weekly-counts-of-deaths-by-state-and-select-causes-2019-2020

Metadata:
1. Deleted last columns in the Weekly_Provisional_Counts_of_Deaths_by_State_and_Select_Causes__2020-2022
CSV file from flag_allcause to flag_cov19ucod
2. Used https://en.wikipedia.org/wiki/List_of_U.S._states_and_territories_by_population to get population data
        A. Used get the "Data From Web" tool on Excel then used the Power Query Editor to transpose and deleted
    columns and rows that are not needed.
        B. Removed the headers and the 4/1/20 and the 4/1/10 census population columns
        (This will leave the July 1st, 2021 Census Population left)
3. Changed Diseases_of_heart_I00_I09_I11_I13_I20_I51 into a float variable instead of an smallint
when importing the Weekly_Provisional_Counts_of_Deaths_by_State_and_Select_Causes__2020-2022 CSV file.
4. Changed the names of the columns in StatePopulation table to state and pop for the 7/1/2021
Census Population.
*/
```

Obesity CSV Preview

FID	NAME	Obesity	SHAPE_Length	SHAPE_Area
1	Texas	32.4	15408321.87	7.67233E+12
2	California	24.2	14518698.46	5.32781E+12
3	Kentucky	34.6	6346698.587	1.12883E+12
4	Georgia	30.7	5795595.917	1.65298E+12
5	Wisconsin	30.7	6806782.084	1.56782E+12
6	Oregon	30.1	7976010.942	3.17845E+12
7	Virginia	29.2	7710803.899	1.1588E+12
8	Tennessee	33.8	6350376.861	1.17705E+12
9	Louisiana	36.2	7383856.92	1.35509E+12
10	New York	25	7981383.078	1.41144E+12
11	Michigan	31.2	12407988.02	1.65722E+12
12	Idaho	28.6	9081125.222	2.5936E+12
13	Florida	26.8	10533929.14	1.67441E+12
14	Alaska	29.8	6663726.591	5.30114E+11
15	Montana	23.6	9745471.754	4.37147E+12
16	Minnesota	26.1	8530250.43	2.36787E+12
17	Nebraska	31.4	6921599.989	2.20744E+12
18	Washington	26.4	7508966.84	2.21421E+12
19	Ohio	29.8	5015484.925	1.15802E+12
20	Illinois	30.8	6172530.808	1.57157E+12

State Population CSV Preview

California	39,237,836
Texas	29,527,941
Florida	21,781,128
New York	19,835,913
Pennsylvania	12,964,056
Illinois	12,671,469
Ohio	11,780,017
Georgia	10,799,566
North Carolina	10,551,162
Michigan	10,050,811
New Jersey	9,267,130
Virginia	8,642,274
Washington	7,738,692
Arizona	7,276,316
Massachusetts	6,984,723
Tennessee	6,975,218
Indiana	6,805,985
Missouri	6,168,187
Maryland	6,165,129

Weekly Death Counts and Causes by State CSV Preview

Data As Of	Jurisdiction of Occurrence	MMWR Year	MMWR Week	Week Ending Date	All Cause	Natural Cause	Septicemia (A40-A41)	Malignant neoplasms (C00-C97)	Diabetes mellitus (E10-E14)	Alzheimer dise
11/23/2022	United States	2020	1	1/4/2020	60176	55009	843	11569	1829	
11/23/2022	United States	2020	2	1/11/2020	60735	55754	861	11962	1942	
11/23/2022	United States	2020	3	1/18/2020	59362	54516	829	11701	1819	
11/23/2022	United States	2020	4	1/25/2020	59162	54401	828	11879	1864	
11/23/2022	United States	2020	5	2/1/2020	58844	54007	811	11964	1828	
11/23/2022	United States	2020	6	2/8/2020	59482	54411	806	11704	1957	
11/23/2022	United States	2020	7	2/15/2020	58815	53969	792	11807	1848	

```sql
%%sql
/*
The query below selects the weekly heart disease related deaths by State Per 10k Residents,
state population, and each state's percentage of residents who self-report themselves
as obese.
(Excluding national and city values)
*/
```

```sql
%%sql
--Query 1
```

```sql
SELECT ROUND(weeklydeath.Diseases_of_heart_I00_I09_I11_I13_I20_I51 / statepop.pop * 10000, 3) as
'Weekly Heart Disease Related Deaths by State Per 10k Residents',
statepop.pop as Population,
weeklydeath.Jurisdiction_of_Occurrence as State,
CONCAT(ROUND(obesity.Obesity,3), '%') as 'Percentage of Individuals Who Self-Report Being Obese'
FROM weeklydeath
LEFT JOIN obesity
ON weeklydeath.Jurisdiction_of_Occurrence = obesity.NAME
LEFT JOIN statepop
ON weeklydeath.Jurisdiction_of_Occurrence = statepop.state
WHERE weeklydeath.Jurisdiction_of_Occurrence != 'United States'
AND weeklydeath.Jurisdiction_of_Occurrence != 'New York City';
```

Query 1 Result

	Weekly Heart Disease Related Deaths by State Per 10k Residents	Population	State	Percentage of Individuals Who Self-Report Being Obese
1	0.532	5039877	Alabama	35.6%
2	0.544	5039877	Alabama	35.6%
3	0.474	5039877	Alabama	35.6%
4	0.564	5039877	Alabama	35.6%
5	0.526	5039877	Alabama	35.6%
6	0.603	5039877	Alabama	35.6%
7	0.506	5039877	Alabama	35.6%
8	0.565	5039877	Alabama	35.6%

In [ ]:
```sql
%%sql
/*
The query below selects the average weekly heart disease related deaths by state per 10k residents
and each state/territory.
(Excluding national and city values)
*/
```

In [ ]:
```sql
%%sql
--Query 2
SELECT ROUND(
AVG(ROUND(weeklydeath.Diseases_of_heart_I00_I09_I11_I13_I20_I51 / statepop.pop * 10000, 3)), 3)
as 'Average Weekly Heart Disease Related Deaths by State Per 10k Residents',
weeklydeath.Jurisdiction_of_Occurrence as State
FROM weeklydeath
LEFT JOIN obesity
ON weeklydeath.Jurisdiction_of_Occurrence = obesity.NAME
LEFT JOIN statepop
ON weeklydeath.Jurisdiction_of_Occurrence = statepop.state
```

```sql
WHERE weeklydeath.Jurisdiction_of_Occurrence != 'United States' AND
weeklydeath.Jurisdiction_of_Occurrence != 'New York City'
GROUP BY weeklydeath.Jurisdiction_of_Occurrence
ORDER BY weeklydeath.Jurisdiction_of_Occurrence ASC;
```

Query 2 Result

	Average Weekly Heart Disease Related Deaths by State Per 10k Residents	State
1	0.554	Alabama
2	0.249	Alaska
3	0.382	Arizona
4	0.535	Arkansas
5	0.319	California
6	0.27	Colorado
7	0.365	Connecticut
8	0.411	Delaware
9	0.422	District of Columbia
10	0.442	Florida
11	0.378	Georgia
12	0.355	Hawaii