Query Database Like you Chat

You:

For each year, how many five to nine year olds are in Kentucky?

Question:

For each year, how many five to nine year olds are in Kentucky?

SQL Prompt:

Please return a syntactically correct SQLite query answering the following question:

For each year, how many five to nine year olds are in Kentucky?

Using the table information below:

Table Name	Column Name	Column T
acs	Unnamed: 0	INTEGER
acs	Geography	TEXT
acs	Geographic Area Name	TEXT
acs	Total population	INTEGER
acs	Male	INTEGER
acs	Female	INTEGER
acs	Under 5 years	INTEGER
acs	5 to 9 years	INTEGER
acs	10 to 14 years	INTEGER
acs	15 to 19 years	INTEGER
acs	20 to 24 years	INTEGER
acs	25 to 34 years	INTEGER
acs	35 to 44 years	INTEGER
acs	45 to 54 years	INTEGER
acs	55 to 59 years	INTEGER
acs	60 to 64 years	INTEGER
acs	65 to 74 years	INTEGER
acs	75 to 84 years	INTEGER
acs	85 years and over	INTEGER
acs	Median age (years)	REAL
acs	18 years and over	INTEGER
acs	21 years and over	INTEGER
acs	65 years and over	INTEGER
acs	One race	INTEGER
acs	Two or more races	INTEGER
acs	White	INTEGER
acs	Black or African American	INTEGER
acs	American Indian and Alaska Native	INTEGER
acs	Asian	INTEGER
acs	Native Hawaiian and Other Pacific Islander	INTEGER
acs	Some other race	INTEGER
acs	Hispanic or Latino (of any race)	INTEGER
acs	Not Hispanic or Latino	INTEGER
acs	Total housing units_x	INTEGER
acs	YEAR	INTEGER
acs	Total households	REAL
acs	Households with one or more people under 18 years	REAL
acs	Households with one or more people 65 years and over	REAL
acs	Average household size	REAL
acs	Males 15 years and over	REAL
acs	Never married, Males 15 years and over	REAL
acs	Now married, except separated, Males 15 years and over	REAL
acs	Separated, Males 15 years and over	REAL
acs	Widowed, Males 15 years and over	REAL
acs	Divorced, Males 15 years and over	REAL
acs	Females 15 years and over	REAL
acs	Never married, Females 15 years and over	REAL
acs	Now married, except separated, Females 15 years and over	REAL
acs	Separated, Females 15 years and over	REAL
acs	Widowed, Females 15 years and over	REAL
acs	Divorced, Females 15 years and over	REAL
acs	Population 3 years and over enrolled in school	REAL
acs	Population 25 years and over	REAL
acs	Less than 9th grade	REAL
acs	9th to 12th grade, no diploma	REAL
acs	High school graduate (includes equivalency)	REAL
acs	Some college, no degree	REAL
acs	Associate's degree	REAL
acs	Bachelor's degree	REAL
acs	Graduate or professional degree	REAL

```
acs          Native                                                REAL
acs          Foreign born                                          REAL
acs          Language other than English                           REAL
acs          Population 16 years and over                          INTEGER
acs          In labor force                                        INTEGER
acs          Civilian labor force                                  INTEGER
acs          Employed                                              INTEGER
acs          Unemployed                                            INTEGER
acs          Armed Forces                                          INTEGER
acs          Not in labor force                                    INTEGER
acs          Civilian employed population 16 years and over        INTEGER
acs          Management, business, science, and arts occupations   INTEGER
acs          Service occupations                                   INTEGER
acs          Sales and office occupations                          INTEGER
acs          Natural resources, construction, and maintenance occupations  INTEGER
acs          Production, transportation, and material moving occupations    INTEGER
acs          Median family income (dollars)                        INTEGER
acs          Mean family income (dollars)                          INTEGER
acs          Per capita income (dollars)                           INTEGER
acs          Civilian noninstitutionalized population              INTEGER
acs          With health insurance coverage                        INTEGER
acs          With private health insurance                         INTEGER
acs          With public coverage                                  INTEGER
acs          No health insurance coverage                          INTEGER
acs          Total housing units_y                                 INTEGER
acs          Occupied housing units                                INTEGER
acs          Vacant housing units                                  INTEGER
acs          Homeowner vacancy rate                                REAL
acs          Rental vacancy rate                                   REAL
acs          Median rooms                                          REAL
acs          Median (dollars), Value                               INTEGER
acs          Owner-occupied units                                  INTEGER
acs          Housing units with a mortgage                         INTEGER
acs          Housing units without a mortgage                      INTEGER
acs          Median (dollars), Rent                                INTEGER
acs          No rent paid                                          INTEGER
```

Always quote the table columns used in the query.

If you are not able to exactly answer the question, please return the following mess

I am not able to answer the question exactly.

SQL:

```
SELECT YEAR, SUM(`5 to 9 years`) AS `Number of 5 to 9 year olds in Kentucky`
FROM acs
WHERE Geography = '0400000US21'
GROUP BY YEAR
```

Result:

```
YEAR     Number of 5 to 9 year olds in Kentucky
2012                             280790
2013                             282464
2014                             282577
2015                             281090
2016                             282564
2017                             280088
2018                             281151
2019                             275466
2020                             275013
2021                             279548
```

Readable Format Prompt:

Please put the following result in readable format:

```
YEAR     Number of 5 to 9 year olds in Kentucky
2012                             280790
2013                             282464
2014                             282577
2015                             281090
2016                             282564
2017                             280088
2018                             281151
```

```
2019                                    275466
2020                                    275013
2021                                    279548
```

It was generated by this SQL query:

```
SELECT YEAR, SUM(`5 to 9 years`) AS `Number of 5 to 9 year olds in Kentucky`
FROM acs
WHERE Geography = '0400000US21'
GROUP BY YEAR
```

Readable Format:

```
| Year | Number of 5 to 9 year olds in Kentucky |
|------|----------------------------------------|
| 2012 | 280,790                                |
| 2013 | 282,464                                |
| 2014 | 282,577                                |
| 2015 | 281,090                                |
| 2016 | 282,564                                |
| 2017 | 280,088                                |
| 2018 | 281,151                                |
| 2019 | 275,466                                |
| 2020 | 275,013                                |
| 2021 | 279,548                                |
```

Plot Prompt:

Please return Python code to plot Pandas DataFrame self.df, containing this:

```
YEAR     Number of 5 to 9 year olds in Kentucky
2012                                    280790
2013                                    282464
2014                                    282577
2015                                    281090
2016                                    282564
2017                                    280088
2018                                    281151
2019                                    275466
2020                                    275013
2021                                    279548
```

The code should not create a new data frame but use the existing Pandas DataFrame, s
Also, the code should not show the plot, but save it as a file named "_plot.png".

The data answers this question:

For each year, how many five to nine year olds are in Kentucky?

Which was generated by this SQL query:

```
SELECT YEAR, SUM(`5 to 9 years`) AS `Number of 5 to 9 year olds in Kentucky`
FROM acs
WHERE Geography = '0400000US21'
GROUP BY YEAR
```

Python Code for Plot:

```python
# Import necessary libraries
import matplotlib.pyplot as plt

# Set x and y values for the plot
x_values = self.df['YEAR']
y_values = self.df['Number of 5 to 9 year olds in Kentucky']

# Create the plot
plt.plot(x_values, y_values)

# Add labels and title
plt.xlabel('YEAR')
plt.ylabel('Number of 5 to 9 year olds in Kentucky')
plt.title('5 to 9 Year Olds in Kentucky from 2012-2021')

# Save the plot as a file
plt.savefig('_plot.png')
```
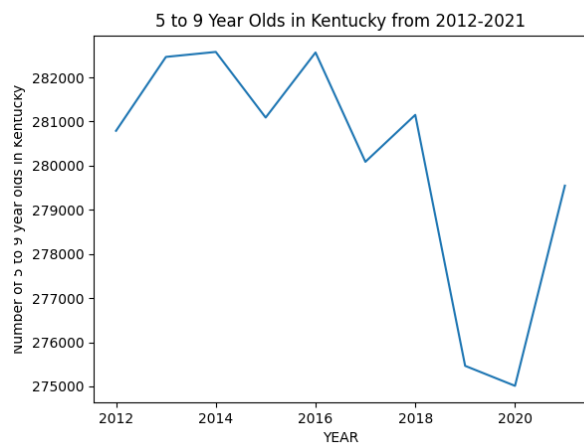
More than one data point:

```
True
```

Plot Code Error:

```
False
```

Plot:

For each year, how many five to nine year olds are in Kentucky?