

Explore weather trends

Outline:

1- Accessing data with sql

Selecting local data code

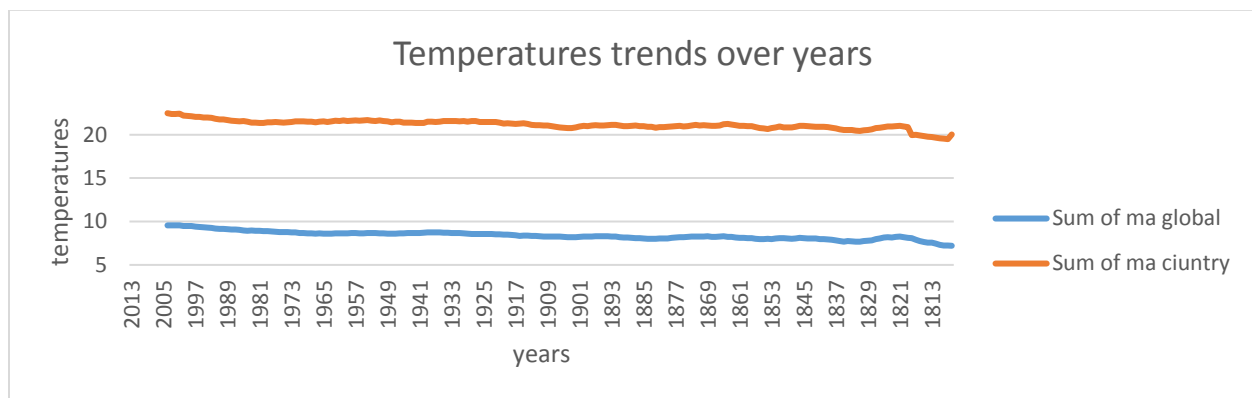
```
select * from city_data  
where city = 'Cairo'  
order by year desc
```

Selecting global data code

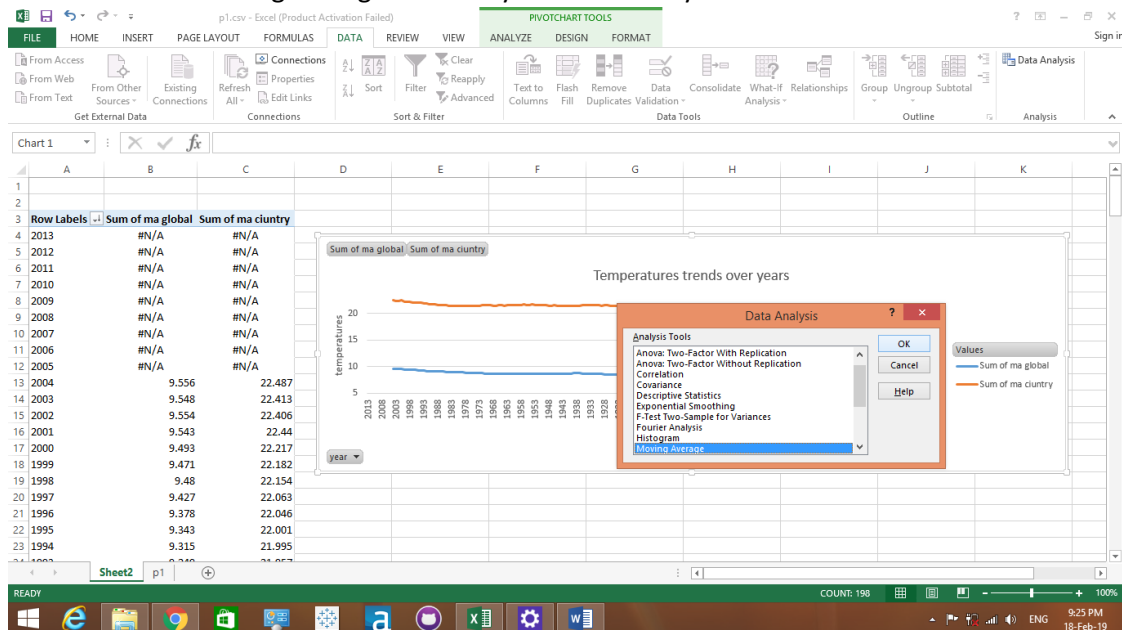
```
select * from global_data  
order by year desc
```

2- Copied the data into excel sheet and made pivot chart and table.

Chart



- I calculated the moving average for 10 days via data analysis tool in excel



p1.csv - Excel (Product Activation Failed)

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Get External Data Sort & Filter Data Tools Outline Analysis

C2 9.61

year	avg_temp	avg_temp	year	ma cuntry	ma global
2013	22.91	9.61	2013	#N/A	#N/A
2012	22.48	9.51	2012	#N/A	#N/A
2011	21.99	9.52	2011	#N/A	#N/A
2010	23.72	9.7	2010	#N/A	#N/A
2009	22.63	9.51	2009	#N/A	#N/A
2008	22.64	9.43	2008	#N/A	#N/A
2007	22.36	9.73	2007	#N/A	#N/A
2006	22.05	9.53	2006	#N/A	#N/A
2005	22.01	9.7	2005	#N/A	#N/A
2004	22.08	9.32	2004	22.487	9.556
2003	22.17	9.53	2003	22.413	9.548
2002	22.41	9.57	2002	22.406	9.554
2001	22.33	9.41	2001	22.44	9.543
2000	21.49	9.2	2000	22.217	9.493
1999	22.28	9.29	1999	22.182	9.471
1998	22.36	9.52	1998	22.154	9.48
1997	21.45	9.2	1997	22.063	9.427
1996	21.88	9.04	1996	22.046	9.378
1995	21.56	9.35	1995	22.001	9.343
1994	22.02	9.04	1994	21.995	9.315
1993	21.79	8.87	1993	21.957	9.249
1992	21.11	8.84	1992	21.827	9.176

Sheet2 p1

ENTER

9:28 PM 18-Feb-19

Moving Average

Input
Input Range: \$C\$2:\$C\$207
☐ Labels in First Row
Interval: 10
Output options
Output Range: \$G\$1
New Worksheet Ply:
New Workbook
☐ Chart Output ☐ Standard Errors

OK Cancel Help

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FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Get External Data Sort & Filter Data Tools Outline Analysis

C2 9.61

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
185	1830	21.25	8.52	1830	20.514	7.738	1830	20.694	7.954									
186	1829	20.91	7.94	1829	20.562	7.769	1829	20.738	7.912									
187	1828	20.99	8.17	1828	20.64	7.835	1828	20.774	7.944									
188	1827	21.63	8.81	1827	20.776	7.978	1827	21.06	8.216									
189	1826	20.94	8.36	1826	20.811	8.044	1826	21.144	8.36									
190	1825	21	8.39	1825	20.894	8.144	1825	21.094	8.334									
191	1824	21.44	8.55	1824	20.969	8.184	1824	21.2										
192	1823	20.71	7.72	1823	20.959	8.155	1823	21.144										
193	1822	20.72	8.19	1822	21.011	8.229	1822	20.962										
194	1821	20.63	8.09	1821	21.022	8.274	1821	20.9										
195	1820	20.58	7.62	1820	20.955	8.184	1820	20.816										
196	1819	20.31	7.37	1819	20.895	8.127	1819	20.59										
197	1818	11.6	7.83	1818	19.956	8.093	1818	18.768										
198	1817	21.88	6.98	1817	19.981	7.91	1817	19										
199	1816	20.51	6.94	1816	19.938	7.768	1816	18.976										
200	1815	20.3	7.24	1815	19.868	7.653	1815	18.92										
201	1814	20.43	7.59	1814	19.767	7.557	1814	18.944										
202	1813	20.51	7.74	1813	19.747	7.559	1813	20.726										
203	1812	19.93	7.05	1812	19.668	7.445	1812	20.336										
204	1811	20	6.86	1811	19.605	7.322	1811	20.234	7.296									
205	1810	19.93	6.92	1810	19.54	7.252	1810	20.16	7.232									
206	1809	19.87	7.08	1809	19.496	7.223	1809	20.048	7.13									
207	1808	17.11	7.63	1808	20.047	7.203	1808	19.368	7.108									

Sheet2 p1

ENTER

9:29 PM 18-Feb-19

Moving Average

Input
Input Range: \$B\$2:\$B\$207
☐ Labels in First Row
Interval: 10
Output options
Output Range: \$H\$1
New Worksheet Ply:
New Workbook
☐ Chart Output ☐ Standard Errors

OK Cancel Help

- Then I made a pivot chart and table this way

p1.csv - Excel (Product Activation Failed)

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

PivotTable Recommended Table
PivotTables Tables

Pictures Online Pictures Illustrations

Store Bing Maps My Apps People Graph Add-ins

Recommended Charts Charts

PivotChart Line Column Win/Loss Sparklines

Slicer Timeline Filters Links

Text Box Header & Footer Text Symbols

Sign in

D1 : X ✓ fx year

year	avg_temp	avg_temp	year	ma ciuntry	ma global
2013	22.91	9.61	2013	#N/A	#N/A
2012	22.48	9.51	2012	#N/A	#N/A
2011	21.99	9.52	2011	#N/A	#N/A
2010	23.72	9.7	2010	#N/A	#N/A
2009	22.63	9.51	2009	#N/A	#N/A
2008	22.64	9.43	2008	#N/A	#N/A
2007	22.36	9.73	2007	#N/A	#N/A
2006	22.05	9.53	2006	#N/A	#N/A
2005	22.01	9.7	2005	#N/A	#N/A
2004	22.08	9.32	2004	22.487	9.556
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1997	21.45	9.2	1997	22.063	9.427
1996	21.88	9.04	1996	22.046	9.378
1995	21.56	9.35	1995	22.001	9.343
1994	22.02	9.04	1994	21.995	9.315
1993	21.79	8.87	1993	21.957	9.249
1992	21.11	8.84	1992	21.827	9.176

Create PivotTable

Choose the data that you want to analyze

☒ Select a table or range
Table/Range: p1!\$D\$1:\$F\$207

☐ Use an external data source
Choose Connection...

Connection name:

Choose where you want the PivotTable report to be placed

☒ New Worksheet
☐ Existing Worksheet
Location:

Choose whether you want to analyze multiple tables

☐ Add this data to the Data Model

OK Cancel

POINT COUNT: 621 100%

9:30 PM 18-Feb-19

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FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW PIVOTTABLE TOOLS ANALYZE DESIGN

PivotTable Name: Active Field: PivotTable2

Options Field Settings

Active Field

Group Selection Ungroup Group Field

Insert Slicer Insert Timeline Filter Refresh Change Data Source

Clear Select Move PivotTable

Fields, Items, & Sets OLAP Tools Relationships

PivotChart Recommended PivotTables

Field List Buttons Headers

Sum of ma ciuntry

Row Labels	Sum of ma global	Sum of ma ciuntry
2013	#N/A	#N/A
2012	#N/A	#N/A
2011	#N/A	#N/A
2010	#N/A	#N/A
2009	#N/A	#N/A
2008	#N/A	#N/A
2007	#N/A	#N/A
2006	#N/A	#N/A
2005	#N/A	#N/A
2004	9.556	22.487
2003	9.548	22.413
2002	9.554	22.406
2001	9.543	22.44
2000	9.493	22.217
1999	9.471	22.182
1998	9.48	22.154
1997	9.427	22.063
1996	9.378	22.046
1995	9.343	22.001
1994	9.315	21.995
1993	9.249	21.957

Sum of ma global Sum of ma ciuntry

Temperatures trends over years

year

PivotTable Fields

Choose fields to add to report:

☒ year
☒ ma ciuntry
☒ ma global

MORE TABLES...

Drag fields between areas below:

FILTERS

ROWS

COLUMNS

VALUES

year

Sum of ma gl...

Sum of ma ci...

Defer Layout Update UPDATE

READY 100%

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- While I visualize the data I considered that year should be on x axis and both global and local temperature should be on y axis so I can compare them clearly

Observations

- 1- In general temperature in my country cairo is higher than the average global temperature.
- 2- The temperature everywhere is getting higher through years.
- 3- Highest average in cairo temperature was in 2004 when it was 22.487, while lowest temp in cairo was in 1809 when it was 19.496
- 4- Highest average in global temperature was in 2004 when it was 9.556, while lowest temp in cairo was in 1808 when it was 7.203