Project 1: Exploring Weather Trends

Step1:

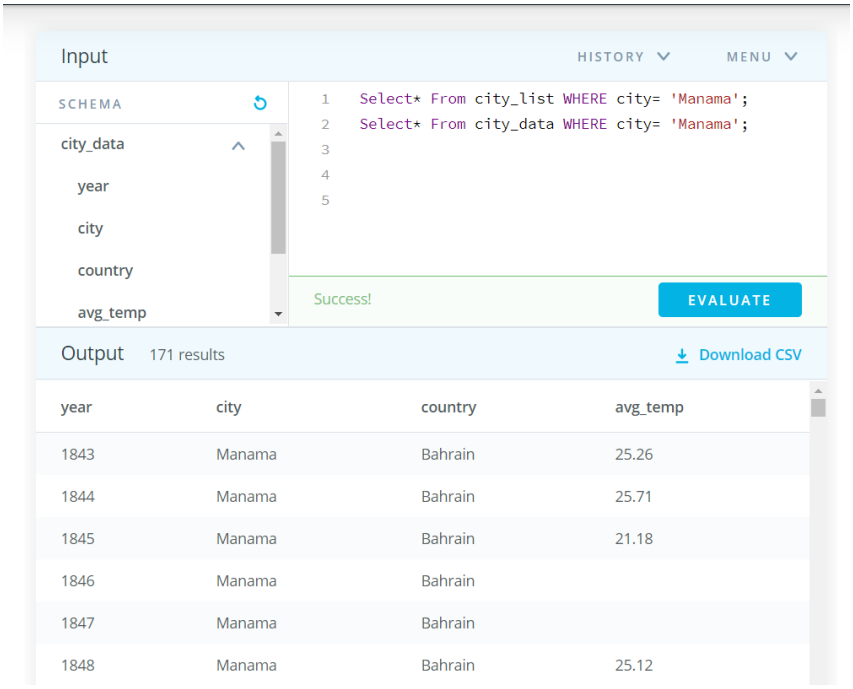
Extracting the data of the nearest big city to me from the Database and download it as CSV.

SQL queries used to extract 'Manama City' from city_list:

Select* From city_list WHERE city= 'Manama';

SQL code used to extract the nearest big city which is 'Manama City' data from city_data:

Select* From city_data WHERE city= 'Manama';



Miaad Altamimi

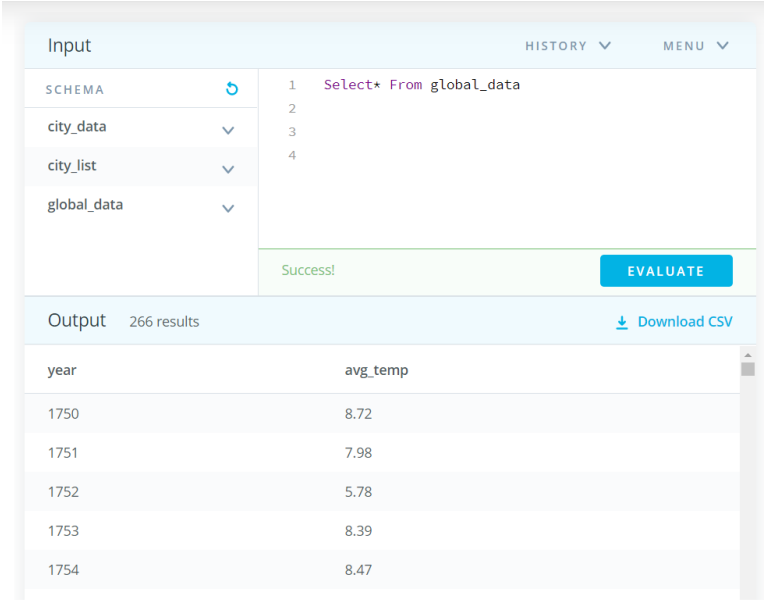
Project 1: Exploring Weather Trends

Step2:

Extracting the global data from the Database and download it as CSV.

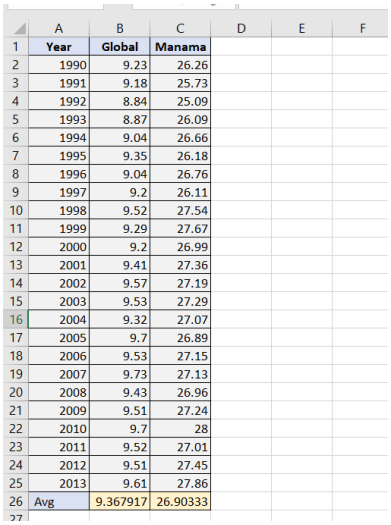
SQL query used to extract 'Globe' data from global_data:

Select* From global_data;



Step3:

Creating a spreadsheet using MS Excel to compare the data extracted from previous steps.



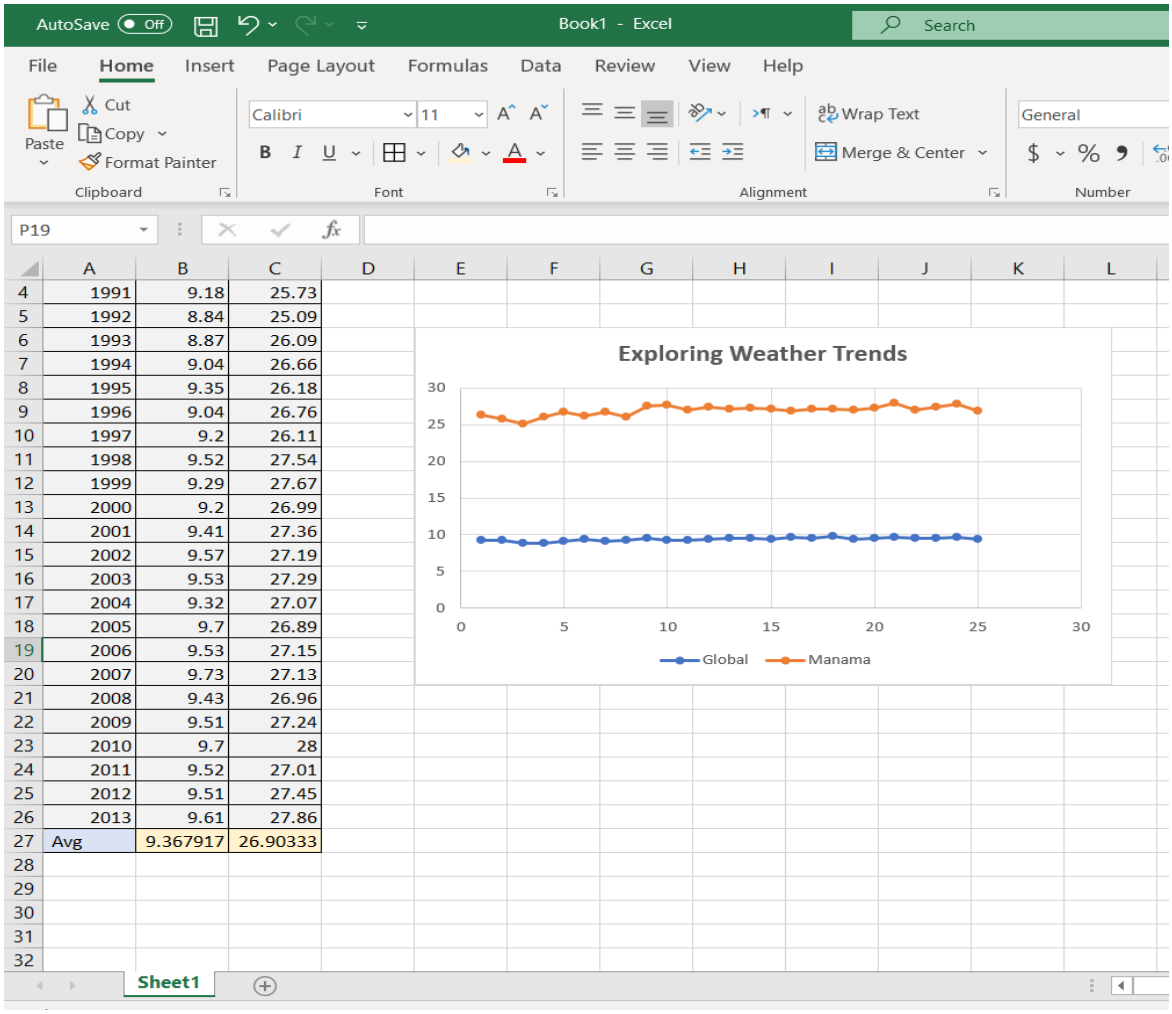
	A	B	C	D	E	F
1	Year	Global	Manama			
2	1990	9.23	26.26			
3	1991	9.18	25.73			
4	1992	8.84	25.09			
5	1993	8.87	26.09			
6	1994	9.04	26.66			
7	1995	9.35	26.18			
8	1996	9.04	26.76			
9	1997	9.2	26.11			
10	1998	9.52	27.54			
11	1999	9.29	27.67			
12	2000	9.2	26.99			
13	2001	9.41	27.36			
14	2002	9.57	27.19			
15	2003	9.53	27.29			
16	2004	9.32	27.07			
17	2005	9.7	26.89			
18	2006	9.53	27.15			
19	2007	9.73	27.13			
20	2008	9.43	26.96			
21	2009	9.51	27.24			
22	2010	9.7	28			
23	2011	9.52	27.01			
24	2012	9.51	27.45			
25	2013	9.61	27.86			
26	Avg	9.367917	26.90333			

Miaad Altamimi

Project 1: Exploring Weather Trends

Step4:

Creating a chart to show the temperature change in Globe and Manama as shown below.



	A	B	C
4	1991	9.18	25.73
5	1992	8.84	25.09
6	1993	8.87	26.09
7	1994	9.04	26.66
8	1995	9.35	26.18
9	1996	9.04	26.76
10	1997	9.2	26.11
11	1998	9.52	27.54
12	1999	9.29	27.67
13	2000	9.2	26.99
14	2001	9.41	27.36
15	2002	9.57	27.19
16	2003	9.53	27.29
17	2004	9.32	27.07
18	2005	9.7	26.89
19	2006	9.53	27.15
20	2007	9.73	27.13
21	2008	9.43	26.96
22	2009	9.51	27.24
23	2010	9.7	28
24	2011	9.52	27.01
25	2012	9.51	27.45
26	2013	9.61	27.86
27	Avg	9.367917	26.90333
28			
29			
30			
31			
32			

Miaad Altamimi

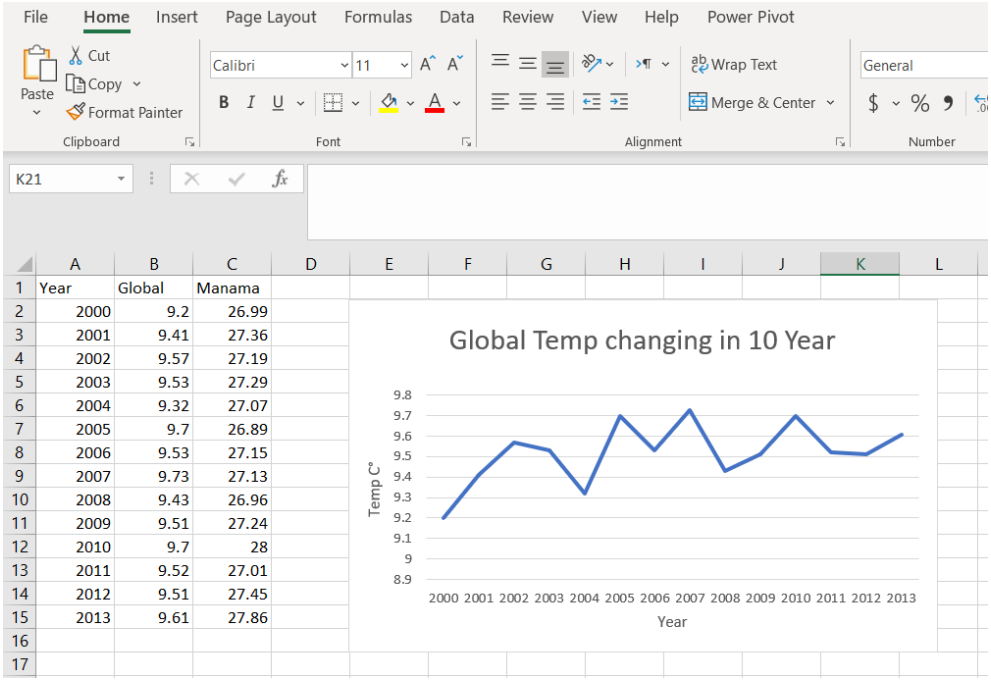
Project 1: Exploring Weather Trends

Step5:

My observation:

- Manama's temperature varies between 25.09 C° lowest and 28.0 C° highest with average 26.90C°.
- Global temperature varies between 8.84 C° lowest and 9.73 C° highest with average 9.36 C°.
- When comparing the average of the Globe (9.36 C°) with the average in Manama (26.90C°) we clearly see that Manama is way hotter.
- By observing the temperature over time, let's say in 10 years (from 2003 to 2013) we can tell that the temperature is increasing year after another as shown below:

Globe Temp. observation between 2003 and 2013:

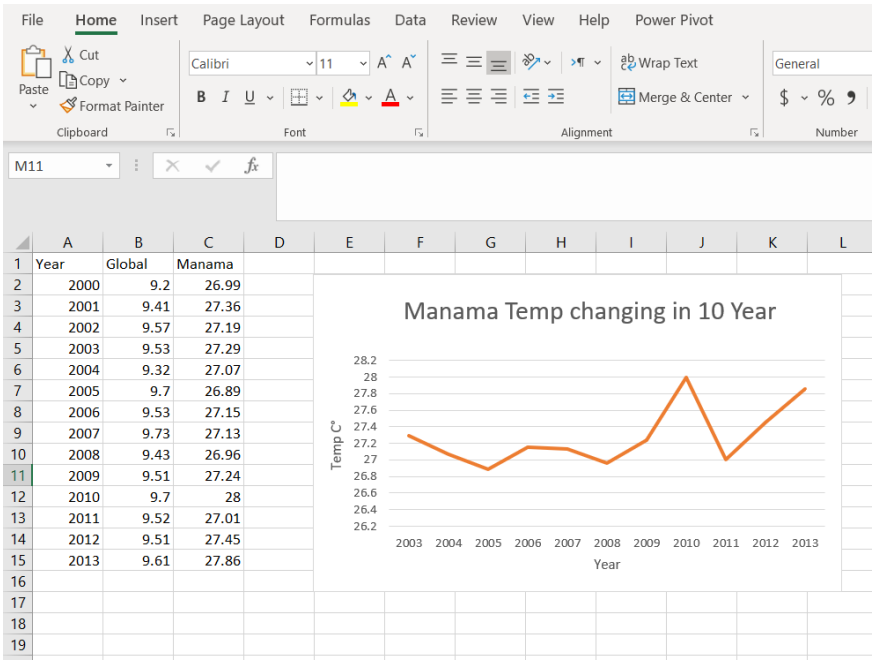


	A	B	C
1	Year	Global	Manama
2	2000	9.2	26.99
3	2001	9.41	27.36
4	2002	9.57	27.19
5	2003	9.53	27.29
6	2004	9.32	27.07
7	2005	9.7	26.89
8	2006	9.53	27.15
9	2007	9.73	27.13
10	2008	9.43	26.96
11	2009	9.51	27.24
12	2010	9.7	28
13	2011	9.52	27.01
14	2012	9.51	27.45
15	2013	9.61	27.86

Miaad Altamimi

Project 1: Exploring Weather Trends

Manama's Temp. observation between 2003 and 2013:



	A	B	C	D	E	F	G	H	I	J	K	L
1	Year	Global	Manama									
2	2000	9.2	26.99									
3	2001	9.41	27.36									
4	2002	9.57	27.19									
5	2003	9.53	27.29									
6	2004	9.32	27.07									
7	2005	9.7	26.89									
8	2006	9.53	27.15									
9	2007	9.73	27.13									
10	2008	9.43	26.96									
11	2009	9.51	27.24									
12	2010	9.7	28									
13	2011	9.52	27.01									
14	2012	9.51	27.45									
15	2013	9.61	27.86									
16												
17												
18												
19												

Miaad Altamimi

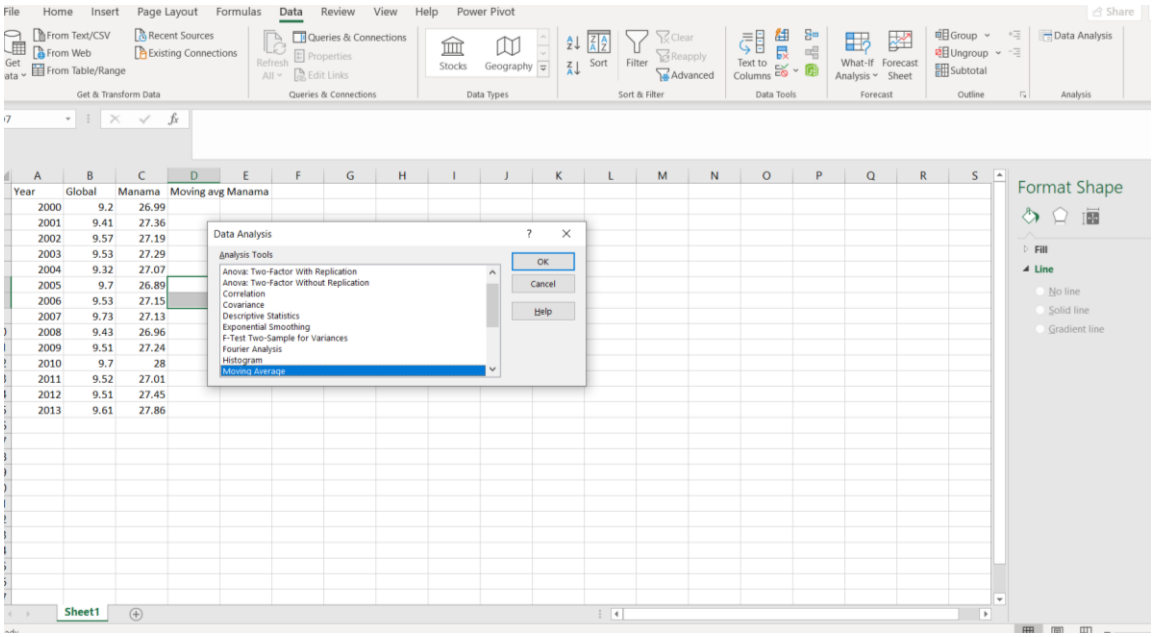
Project 1: Exploring Weather Trends

Step6:

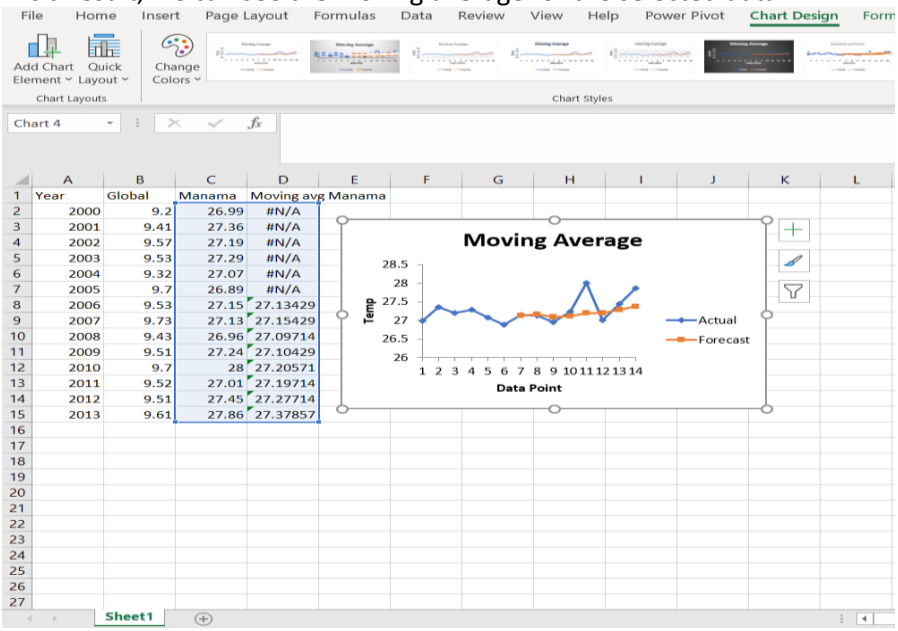
Moving Avg:

Using excel we can extract the moving average by following the steps below:

1- In the toolbar we go to Data tab and click then choosing the tool Data analysis.
2- Clicking on Data analysis and choose Moving average function.
3- Selecting the data range for Manama and then calculate with a chart output.



As a result, we can see the moving average for the selected data.

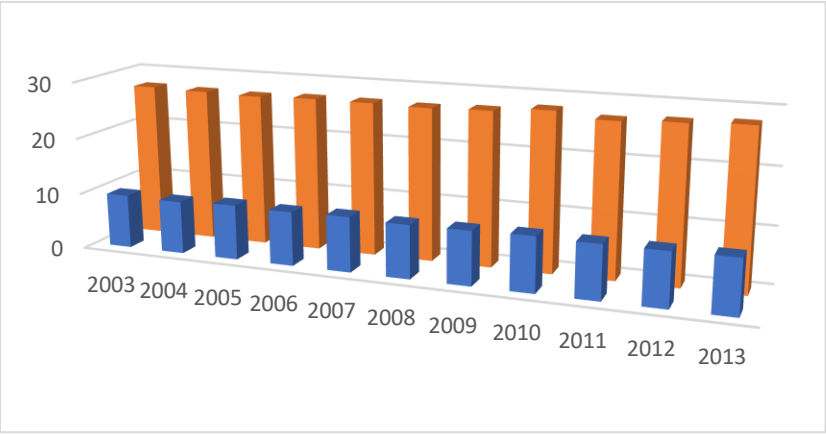


Miaad Altamimi

Project 1: Exploring Weather Trends

Conclusion:

Increasingly positive relationship between the Global temp and Manama's temp.



THE WORLD IS GETTING HOTTER.

Miaad Altamimi