Project one

Outline:

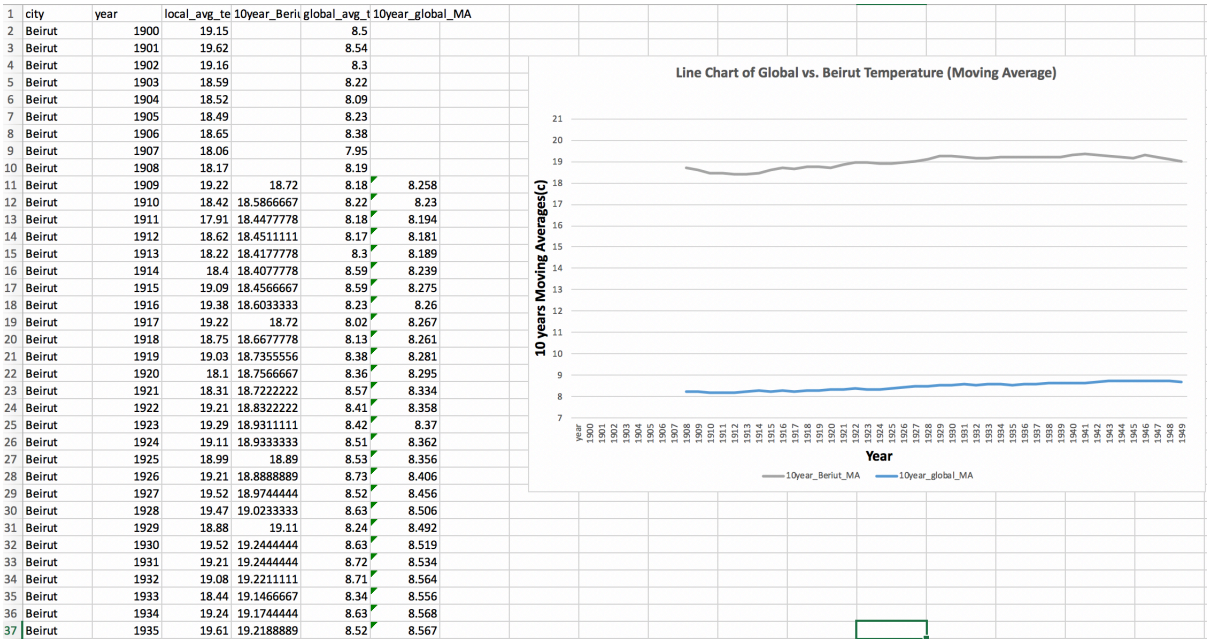
fistful, I use Excel tool and I take year from 1900 to 1950 ,the moving average for 10 years and Beirut city. I consider change of MA for global and local over years when deciding to visualize the trends.

1. **Extracting data from a database using SQL.**

1-select city , year,avg_temp from city_data where city='Beirut' and year BETWEEN 1900 AND 1950;

2-select year,avg_temp from global_data where year BETWEEN 1900 AND 1950;

2. **line chart and moving average.**



	city	year	local_avg_te	10year_Beri	global_avg_t	10year_global_MA
2	Beirut	1900	19.15		8.5	
3	Beirut	1901	19.62		8.54	
4	Beirut	1902	19.16		8.3	
5	Beirut	1903	18.59		8.22	
6	Beirut	1904	18.52		8.09	
7	Beirut	1905	18.49		8.23	
8	Beirut	1906	18.65		8.38	
9	Beirut	1907	18.06		7.95	
10	Beirut	1908	18.17		8.19	
11	Beirut	1909	19.22	18.72	8.18	8.258
12	Beirut	1910	18.42	18.5866667	8.22	8.23
13	Beirut	1911	17.91	18.4477778	8.18	8.194
14	Beirut	1912	18.62	18.4511111	8.17	8.181
15	Beirut	1913	18.22	18.4177778	8.3	8.189
16	Beirut	1914	18.4	18.4077778	8.59	8.239
17	Beirut	1915	19.09	18.4566667	8.59	8.275
18	Beirut	1916	19.38	18.6033333	8.23	8.26
19	Beirut	1917	19.22	18.72	8.02	8.267
20	Beirut	1918	18.75	18.6677778	8.13	8.261
21	Beirut	1919	19.03	18.7355556	8.38	8.281
22	Beirut	1920	18.1	18.7566667	8.36	8.295
23	Beirut	1921	18.31	18.7222222	8.57	8.334
24	Beirut	1922	19.21	18.8322222	8.41	8.358
25	Beirut	1923	19.29	18.9311111	8.42	8.37
26	Beirut	1924	19.11	18.9333333	8.51	8.362
27	Beirut	1925	18.99	18.89	8.53	8.356
28	Beirut	1926	19.21	18.8888889	8.73	8.406
29	Beirut	1927	19.52	18.9744444	8.52	8.456
30	Beirut	1928	19.47	19.0233333	8.63	8.506
31	Beirut	1929	18.88	19.11	8.24	8.492
32	Beirut	1930	19.52	19.2444444	8.63	8.519
33	Beirut	1931	19.21	19.2444444	8.72	8.534
34	Beirut	1932	19.08	19.2211111	8.71	8.564
35	Beirut	1933	18.44	19.1466667	8.34	8.556
36	Beirut	1934	19.24	19.1744444	8.63	8.568
37	Beirut	1935	19.61	19.2188889	8.52	8.567

Figure 1:year from 1900-1935

	A	B	C	D	E	F
37	Beirut	1935	19.61	19.2188889	8.52	8.567
38	Beirut	1936	19.42	19.2077778	8.55	8.549
39	Beirut	1937	19.66	19.2288889	8.7	8.567
40	Beirut	1938	18.86	19.2266667	8.86	8.59
41	Beirut	1939	19.47	19.2211111	8.76	8.642
42	Beirut	1940	19.29	19.23	8.76	8.655
43	Beirut	1941	19.54	19.2811111	8.77	8.66
44	Beirut	1942	19.14	19.3588889	8.73	8.662
45	Beirut	1943	18.86	19.3166667	8.76	8.704
46	Beirut	1944	19.09	19.2588889	8.85	8.726
47	Beirut	1945	18.82	19.1922222	8.58	8.732
48	Beirut	1946	19.39	19.1622222	8.68	8.745
49	Beirut	1947	20.05	19.2944444	8.8	8.755
50	Beirut	1948	18.6	19.1977778	8.75	8.744
51	Beirut	1949	18.36	19.0944444	8.59	8.727
52	Beirut	1950	18.94	19.0277778	8.37	8.688

Figure 2:years from 1935-1950

3. observations about provided data visualization

1-in general we can see that the Beirut average _temp is hotter than global average _temp

2- changing in Beirut temperature over time is not consistent comparing to the changes in the global average

3- from 1900 -1920 global average temperature was not consistent, one year it hot and other is cold but in 1920-1950 it is growing up and getting hotter.

4-over time global average temperature getting more hotter