Project#1: Explore Weather Trends
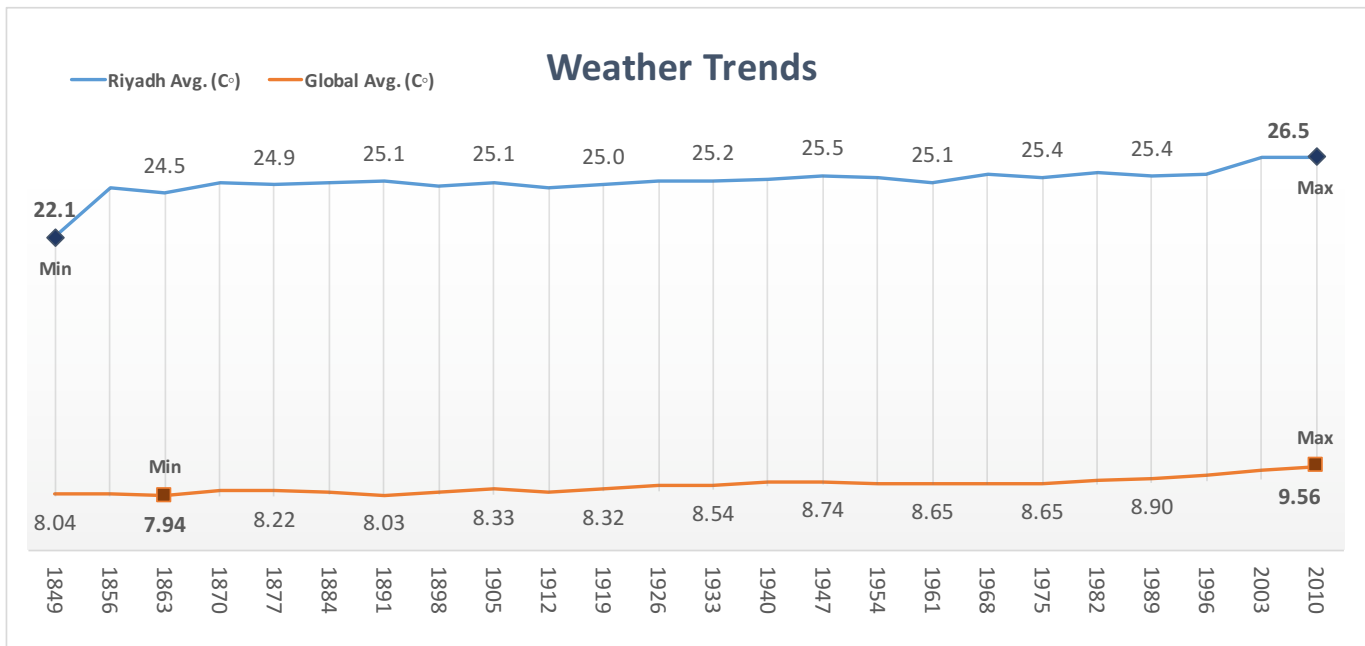
Rakan Yamani

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Prepration Steps:

1) Data was extracted as CSV files from both "City Table" and "Global Table" using below queries:
    - Select * From city_data
    - Select * From global_date
2) Microsoft Excel 2016 was used to process the extracted data.
3) In each data set, a 7-day moving average was calculated by calculating the average of each 7 days together using the following formula: "=Average(B2:B8)" repeatedly.
4) Only the overlapped years were selected to be visualized in the liner chart, in addition to the Min & Max degrees in Both Riyadh and Global datasets, as shown below:

Year	Riyadh Avg. (C○)	Global Avg. (C○)	Riyadh Min/Max	Global Min/Max
1849	22.1	8.04	22.1	-
1856	24.8	8.08	-	-
1863	24.5	7.94	-	7.94
1870	25.1	8.25	-	-
1877	24.9	8.22	-	-
1884	25.1	8.18	-	-
1891	25.1	8.03	-	-
1898	24.9	8.16	-	-
1905	25.1	8.33	-	-
1912	24.8	8.18	-	-
1919	25.0	8.32	-	-
1926	25.2	8.50	-	-
1933	25.2	8.54	-	-
1940	25.2	8.68	-	-
1947	25.5	8.74	-	-
1954	25.4	8.63	-	-
1961	25.1	8.65	-	-
1968	25.5	8.62	-	-
1975	25.4	8.65	-	-
1982	25.6	8.77	-	-
1989	25.4	8.90	-	-
1996	25.6	9.08	-	-
2003	26.5	9.39	26.5	-
2010	26.5	9.56	26.5	9.56

Weather Trends

Riyadh Avg. (C°) — Global Avg. (C°)

Riyadh values: 22.1 (Min), 24.5, 24.9, 25.1, 25.1, 25.0, 25.2, 25.5, 25.1, 25.4, 25.4, 26.5 (Max)

Global values: 8.04, 7.94 (Min), 8.22, 8.03, 8.33, 8.32, 8.54, 8.74, 8.65, 8.65, 8.90, 9.56 (Max)

Years: 1849, 1856, 1863, 1870, 1877, 1884, 1891, 1898, 1905, 1912, 1919, 1926, 1933, 1940, 1947, 1954, 1961, 1968, 1975, 1982, 1989, 1996, 2003, 2010

#General Observations:

1. The difference between Riyadh Min/Max values is: 26.5-22.1= 4.4, which is three times more than the difference between Global Min/Max: 9.56-8.04= 1.52
2. Both trends show a gradual raising of the temperature with the time.
3. Between 1900 and 1925 the weather was almost stable in both scales.
4. Riyadh weather is way hot than the global average :)