

# Exploring Weather Trends

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## Tools Used

**SQL:** Extract the data from the database

**Excel:** calculate the moving average and data visualized in the chart.

## Extract the data from the database

Extract the Riyadh city data

Input		HISTORY	MENU
SCHEMA		1 <code>SELECT * From city_data where city='Riyadh' ;</code>	<div>EVALUATE</div>
city_data			
city_list			
city			
country			
global_data		Success!	
Output		171 results	
		<a href="#">Download CSV</a>	
year	city	country	avg_temp
1843	Riyadh	Saudi Arabia	24.74
1844	Riyadh	Saudi Arabia	15.45
1845	Riyadh	Saudi Arabia	20.82

Extact the global data

Input		HISTORY	MENU
SCHEMA		1 <code>SELECT * From global_data ;</code>	<div>EVALUATE</div>
city_data			
city_list			
global_data			
		Success!	
Output		266 results	
		<a href="#">Download CSV</a>	
year	avg_temp		
1750	8.72		
1751	7.98		
1752	5.78		

calculate the moving average

I calculated the five-year moving average

Riyadh moving average

AVERAGE

✖

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*fx*

=AVERAGE(B2:B6)

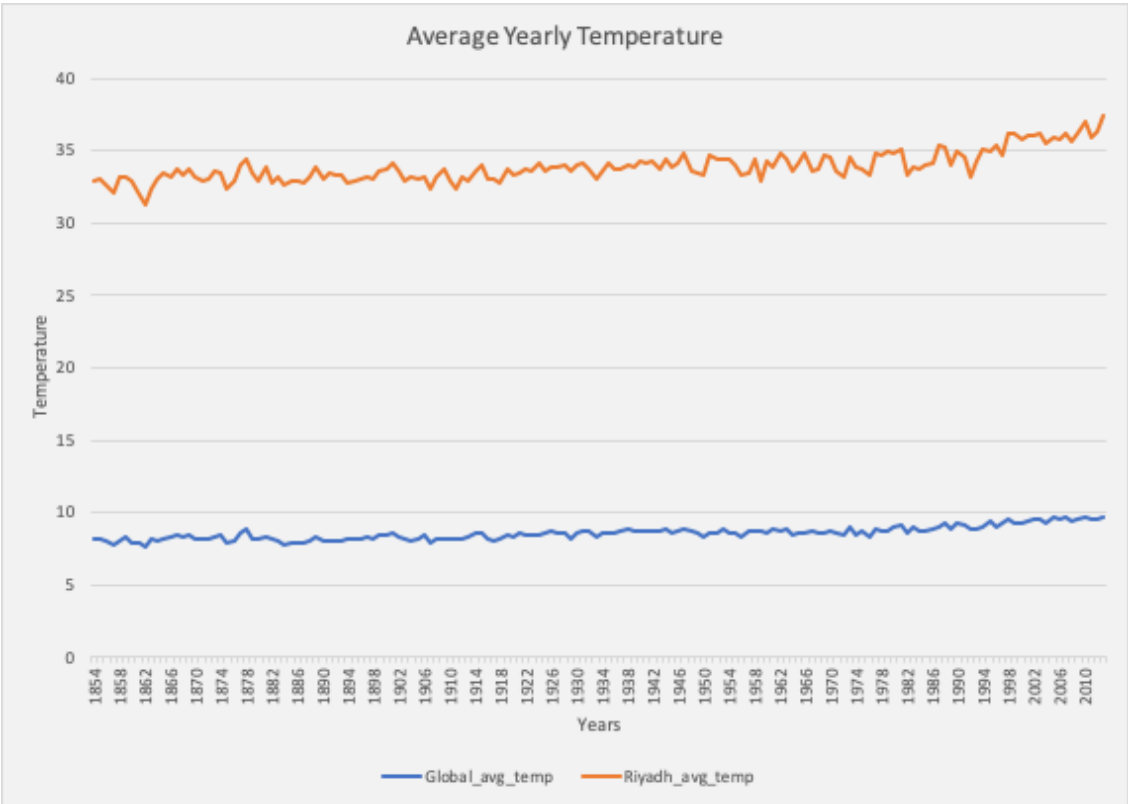
	A	B	C
1	year	Riyadh_avg_temp	Riyadh_moving_average
2	1854	24.72	
3	1855	24.92	
4	1856	24.57	
5	1857	24.26	
6	1858	<div><div>!</div></div>	=AVERAGE(B2:B6)

Global moving average

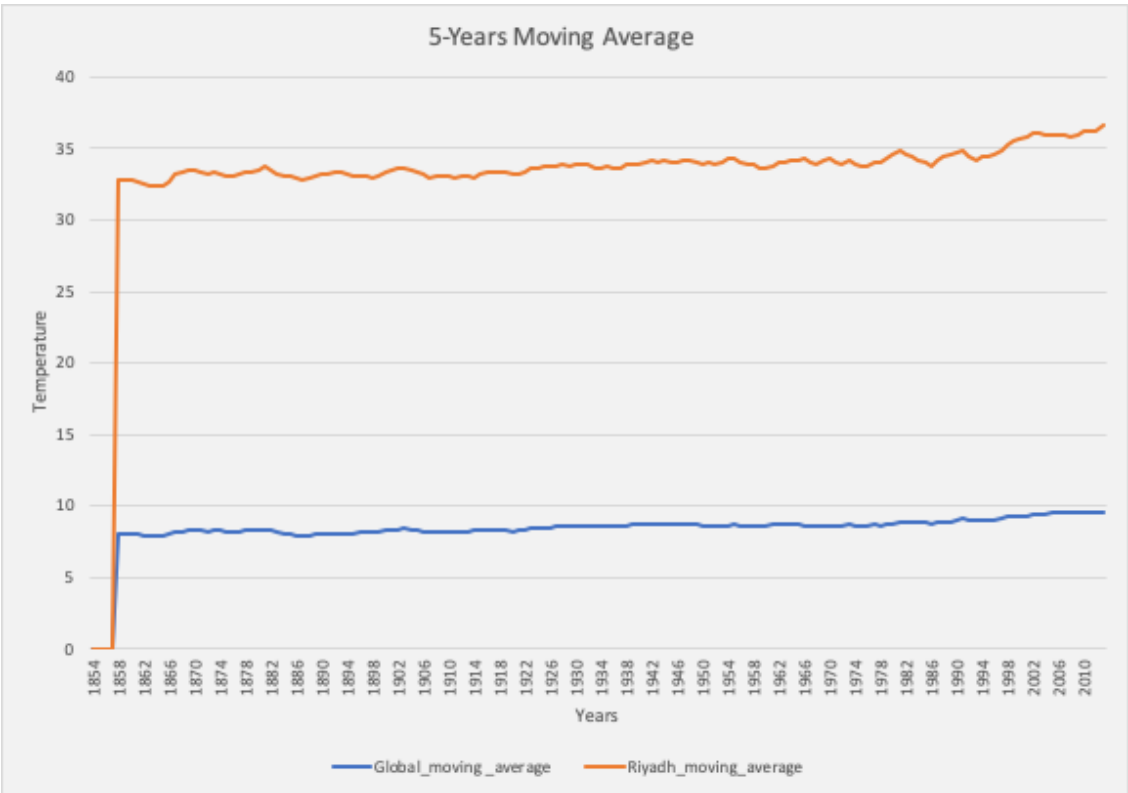
D	E
Global_avg_temp	Global_moving_average
8.21	
8.11	
8	
7.76	
<div><div>!</div></div>	=AVERAGE(D2:D6)

# Line chart

Line chart for Average Yearly Temperature between the Riyadh and the Global



Line chart for 5-year moving average between the Riyadh and the Global



## **observations**

- The Riyadh is hotter than global average Temperature.
- The Riyadh trend fast change more than the global over time.
- The difference between the Riyadh and global average is consistent over time.
- The Riyadh changed over time to become hotter.
- The world changed over time to become hotter.
- The trend has changed over the past few hundred years.