Exploring Weather Trends

Data Analyst Nanodegree

First Project completed by using SQL and Excel

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Exploring Weather Trends

1761 -2013

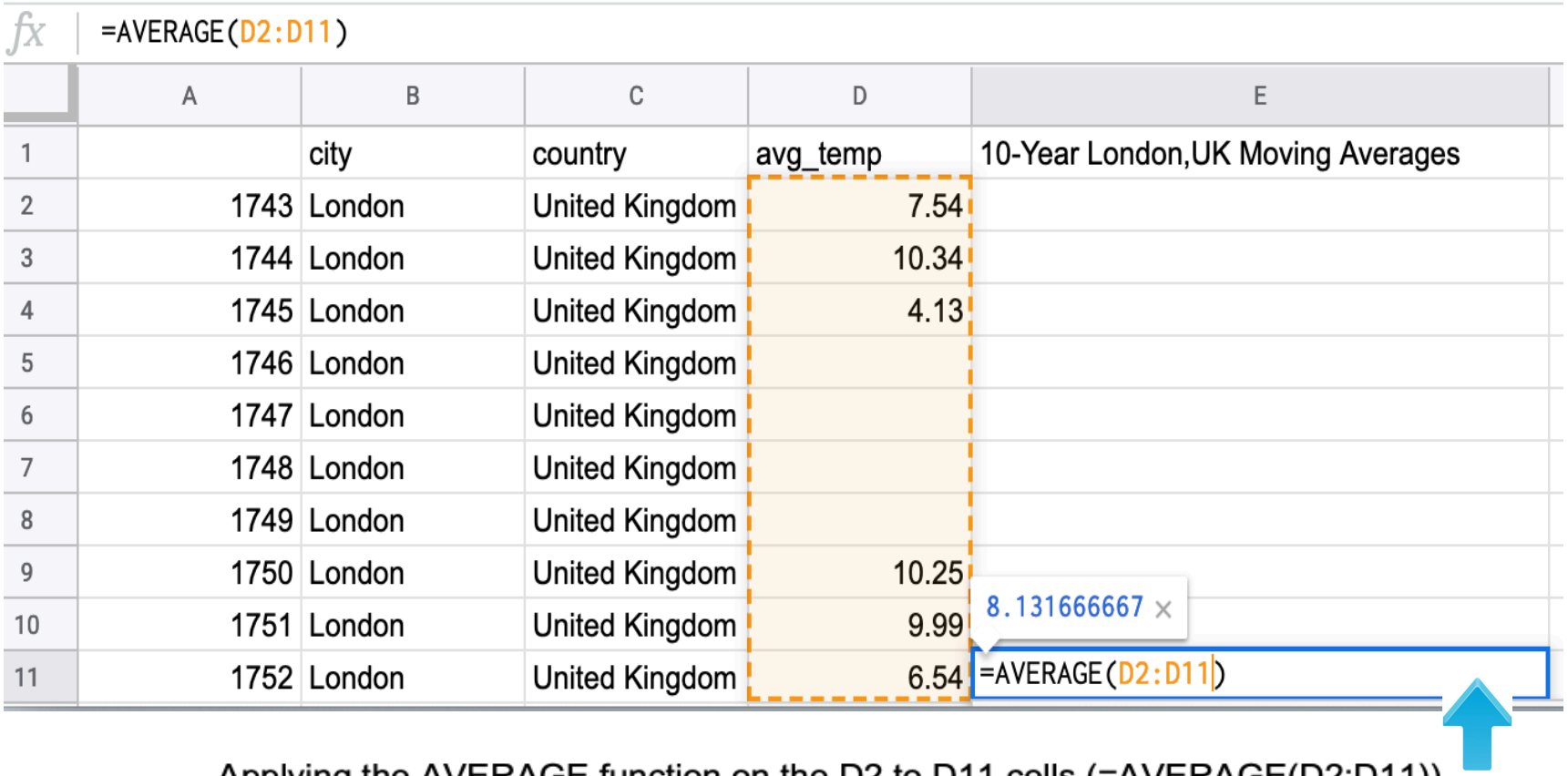
SQL queries used to extract the data

```
SELECT * FROM city_list;

SELECT * FROM city_data;

SELECT * FROM global_data;

SELECT * FROM city_data
WHERE city = 'London' AND country = 'United Kingdom';
```

SQL queries used to extract the data

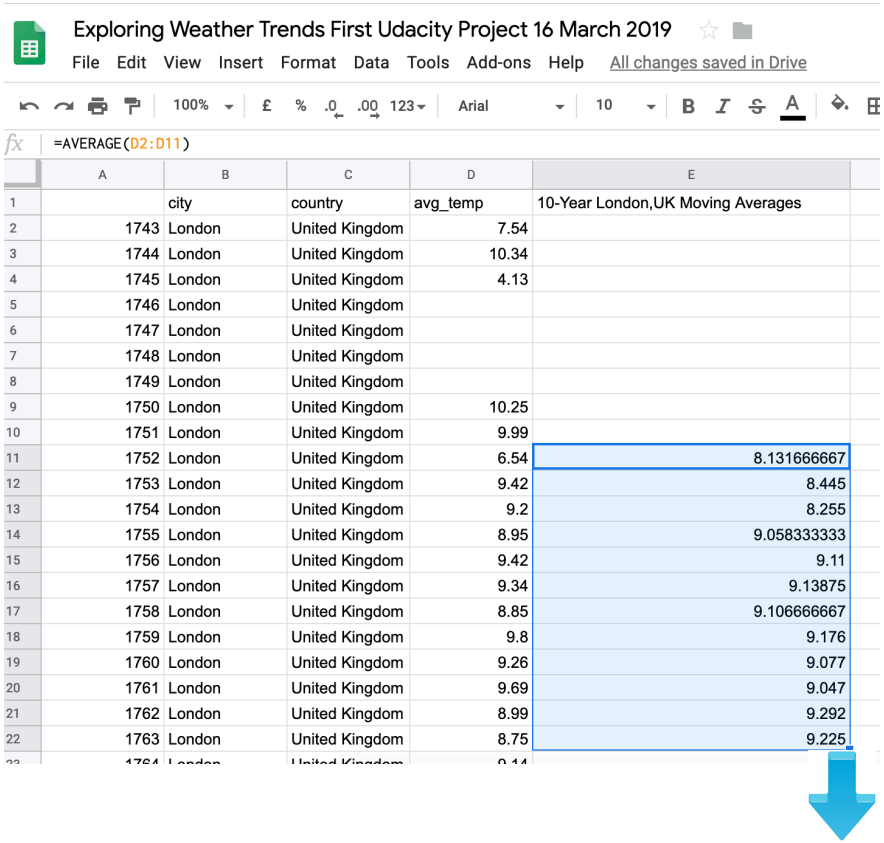
```
SELECT MIN(avg_temp)
FROM global_data;

SELECT MAX(avg_temp)
FROM global_data;

SELECT MIN(avg_temp) FROM city_data
WHERE city =‘London” AND country = ‘United Kingdom’

SELECT MAX(avg_temp) FROM city_data
WHERE city =‘London’ AND country = ‘United Kingdom’
```

Calculating Moving Averages in Excel



Applying the AVERAGE function on the D2 to D11 cells (=AVERAGE(D2:D11))

Calculating Moving Averages in Excel



	A	B	C	D	E
1		city	country	avg_temp	10-Year London,UK Moving Averages
2	1743	London	United Kingdom	7.54	
3	1744	London	United Kingdom	10.34	
4	1745	London	United Kingdom	4.13	
5	1746	London	United Kingdom		
6	1747	London	United Kingdom		
7	1748	London	United Kingdom		
8	1749	London	United Kingdom		
9	1750	London	United Kingdom	10.25	
10	1751	London	United Kingdom	9.99	
11	1752	London	United Kingdom	6.54	8.131666667
12	1753	London	United Kingdom	9.42	8.445
13	1754	London	United Kingdom	9.2	8.255
14	1755	London	United Kingdom	8.95	9.058333333
15	1756	London	United Kingdom	9.42	9.11
16	1757	London	United Kingdom	9.34	9.13875
17	1758	London	United Kingdom	8.85	9.106666667
18	1759	London	United Kingdom	9.8	9.176
19	1760	London	United Kingdom	9.26	9.077
20	1761	London	United Kingdom	9.69	9.047
21	1762	London	United Kingdom	8.99	9.292
22	1763	London	United Kingdom	8.75	9.225

Dragging the formula down.

Observations regarding the weather trends

- The Linear Chart represents the long term increasing trend globally and locally (London, UK).

- MIN average global temperature is 5.78 ‘C
  MAX average global temperature is 9.83 ‘C

- MIN average temperature in London, UK is 4.13 ‘C.
  MAX average temperature in London, UK is 11.19 ‘C.

- The major fluctuation was approximately in 1820.