

## Project(1)

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# Exploring Weather Trends - Project Instructions

### Step 1. Extract the data

I first extract the data from the database using the following SQL commands

```
select distinct * from city_list;
```

in this command I have seen what country and cities exists in database and I have used distinct to avoid duplicate.

```
select * from city_list where country='Saudi Arabia';
```

in this command after I have seen that Saudi Arabia is listed, I show what cities in Saudi Arabia to select the nearest one.

```
select * from city_data where country='Saudi Arabia' and city='Mecca';
```

in this command , I have chose mecca city to export as csv file and analyze.

```
select * from global_data;
```

in this command, after I have extract my city data ; now extract the global weather data and export it as csv file.

### Step 2. Open up the CSV

Now open the data file we have obtained from the database in excel tool.

### Step 3. Create a line chart

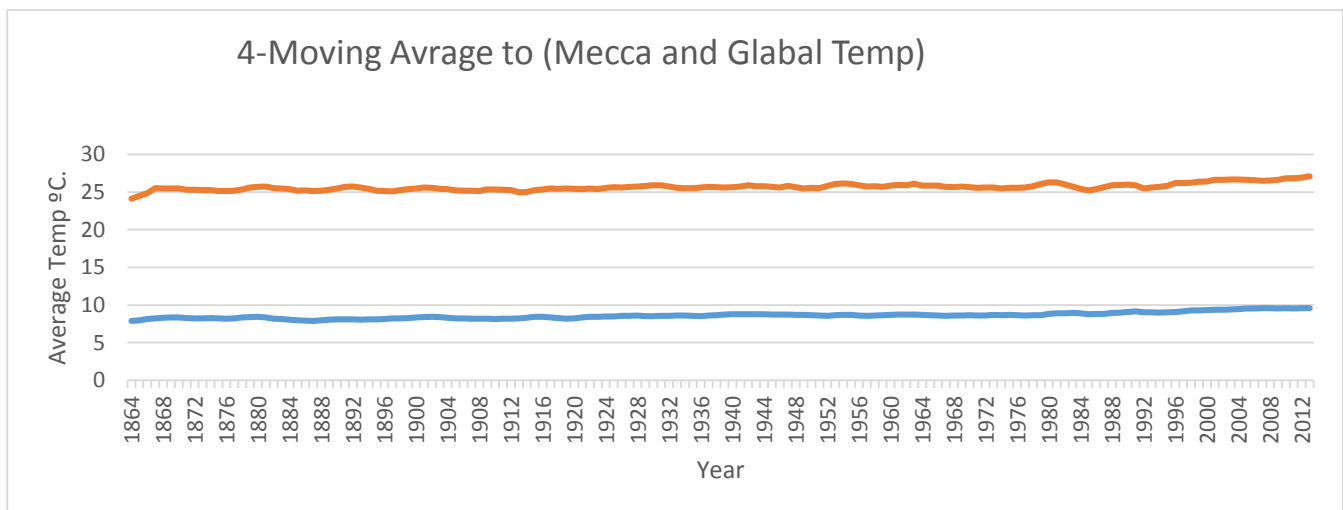
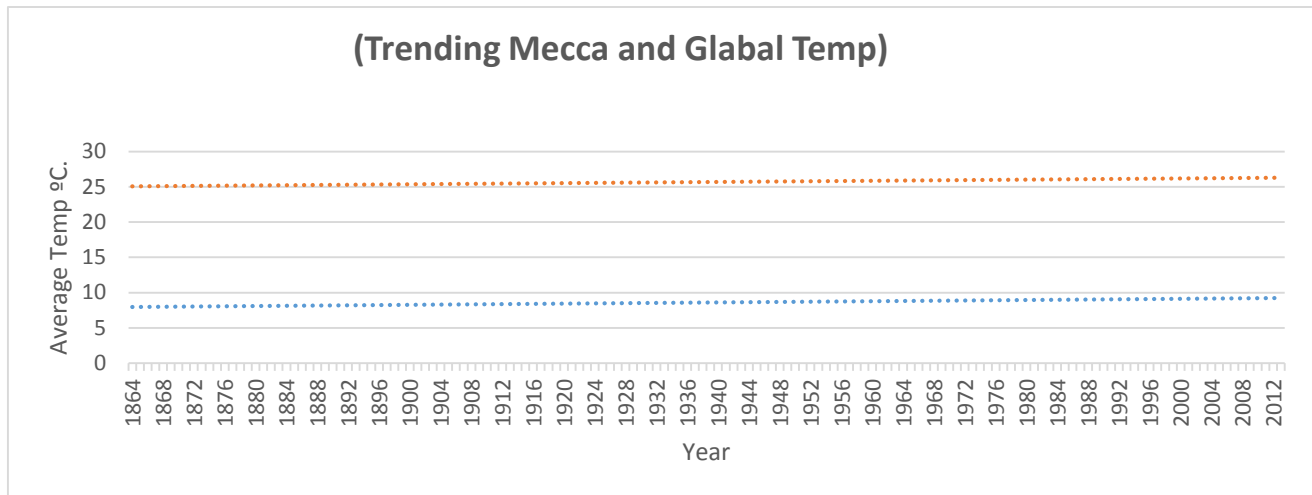


Figure 1. 4-Moving average (mecca against Global world temp)



**Figure 2. Trending**

I have calculated the 4-moving average for mecca and the Global Temperature by writing =Average(define the range for four cells) like (B1:B4) and then drag this function along with the Global average temp column and do the same for mecca column.

#### Step 4. Make observations

1. From figure(1), its clearly appear that Mecca is hotter than the Global world temperature due the differences in 4-moving average results between Mecca and the Global temp.
2. The differences between Mecca and Global temp is quite consistent over time and not changed.
3. The changes in temperature for Mecca city is increasing over time as the change in the global temperature that also increase over time.
4. From the figure(2), its appear that the world is getting hotter because the average temperature is increasing ascendant over time ,in 1864 temperature was **7.8** and by 2013 temperature was **9.5**
5. It seem from the last few hundred years in the global temperature that the change is quite little over time but it is in increasing manner.