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# Task 5C: SIG 734 Data Wrangling - Tableau and Power BI Dashboards

Name: Suraj Mathew Thomas  
Student ID: S223509398  
Email ID: s223509398@deakin.edu.au

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## Introduction

In this task we would need to create ONE Dashboard using two different visualization tools. The tools that we will be using for this task are Tableau and Power BI.

The data set that we are using for this task is the flights13 weather data. We would need to do some data transformations here using Tableau Calculated Fields and in Power BI the Power Query Editor

## TABLEAU

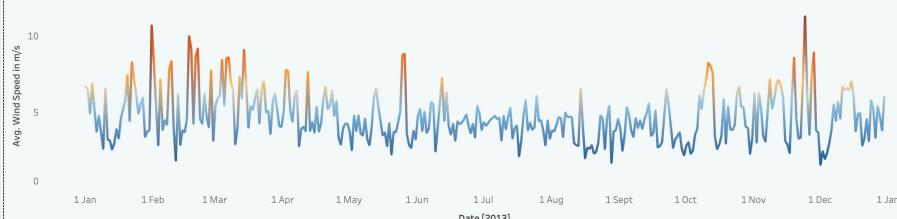
Link to Tableau Public where the Interactive Dashboard is Hosted

[Click Here to Go To Tableau Public](#)

```
In [5]: from PIL import Image
from IPython.display import display
img = Image.open('Tableau-Dashboard.jpg')
display(img)
```

## New York City - Weather Parameters Analysis at JFK, EWR and LGA Airports

Daily Avg. Wind Speed at LGA Airport in 2013



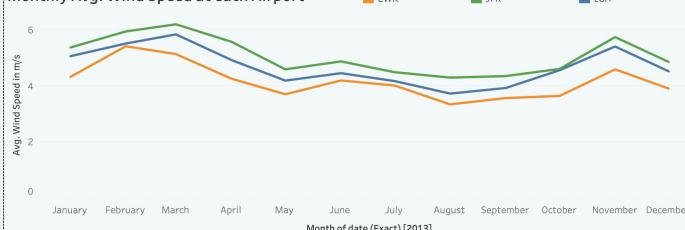
Top 10 Windiest Days in LGA Airport in 2013



Top 10 Windiest Days in LGA Airport in 2013 - Table

Day of date (Ex: 24-Nov-13)	Avg. Wind Speed in m/s	Precipitation in mm
24-Nov-13	11.32	0.00
31-Jan-13	10.72	11.43
17-Feb-13	10.01	0.00
21-Feb-13	9.19	0.00
18-Feb-13	9.17	0.00
14-Mar-13	9.11	0.00
28-Nov-13	8.94	0.00
26-May-13	8.85	0.00
25-May-13	8.77	2.03
20-Feb-13	8.66	0.00

Monthly Avg. Wind Speed at each Airport



Monthly Avg. Wind Speed at each Airport - Table

Month of d..	JFK	EWR	LGA
Jan-13	5.38	4.33	5.07
Feb-13	5.95	5.42	5.52
Mar-13	6.21	5.14	5.85
Apr-13	5.58	4.27	4.93
May-13	4.60	3.71	4.20
Jun-13	4.88	4.20	4.46
Jul-13	4.50	4.02	4.18
Aug-13	4.30	3.35	3.73
Sept-13	4.36	3.57	3.93
Oct-13	4.61	3.65	4.57
Nov-13	5.75	4.60	5.42
Dec-13	4.86	3.91	4.53

## POWER BI

Link to Power BI Online where the Interactive Dashboard is Hosted

[Click Here to Go To Power BI Online Deakin](#)

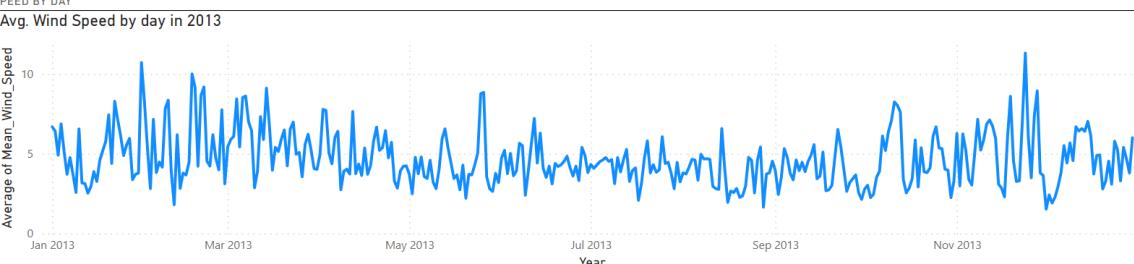
In [12]:

```
from PIL import Image
from IPython.display import display
img = Image.open('Power_BI_Dashboard_1.png')
display(img)
```

## New York City - Weather Parameters Analysis

At JFK, EWR and LGA Airports

S223509398\_Task5C\_DataWrangling  
MEAN WIND SPEED BY DAY



Top 10 days in 2013 Avg. Wind Speed & Precipitation



Top 10 days in 2013 Avg. Wind Speed & Precipitation

Year	Month	Day	Average of Mean_Wind_Speed	Sum of Precipitation_In_mm
2013	November	24	11.32	0.00
2013	January	31	10.72	11.44
2013	February	17	10.01	0.00
2013	February	21	9.19	0.00
2013	February	18	9.17	0.00
2013	March	14	9.11	0.00
2013	November	28	8.94	0.00
2013	May	26	8.85	0.00
2013	May	25	8.77	2.03
2013	February	20	8.66	0.00

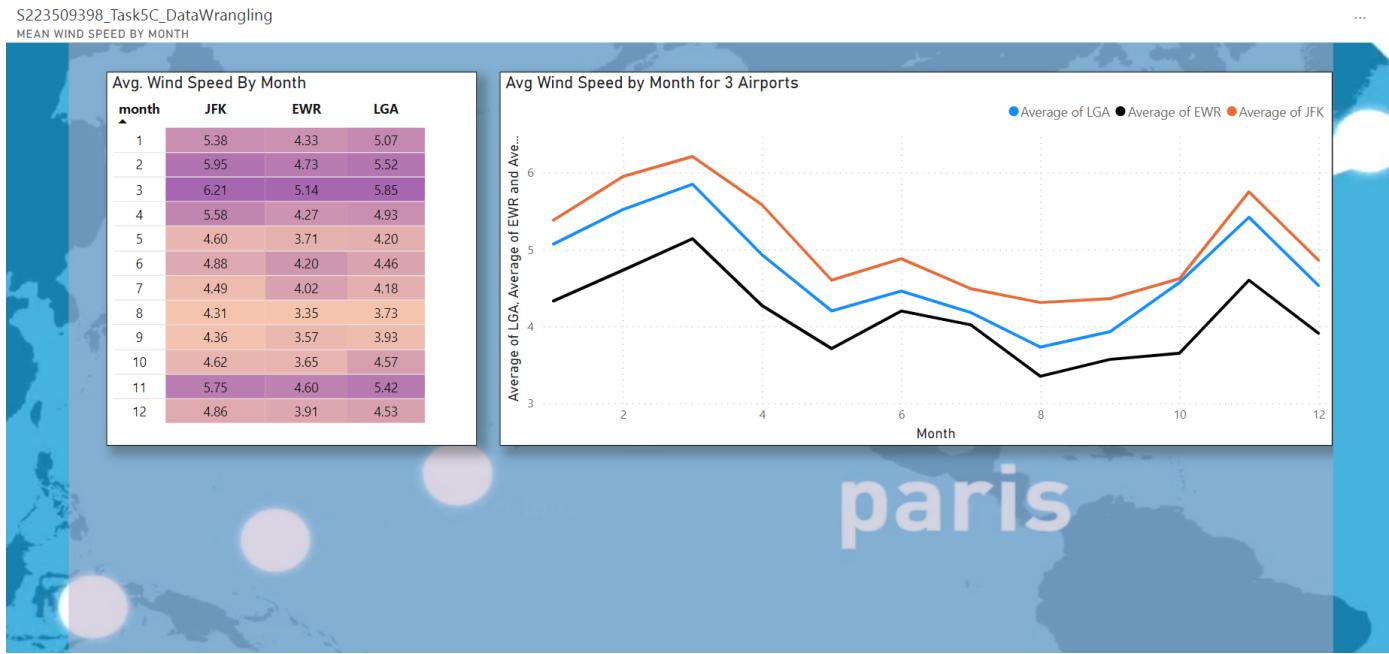
In [13]:

```
from PIL import Image
from IPython.display import display
img = Image.open('Power_BI_Dashboard_2.png')
display(img)
```



In [10]:

```
from PIL import Image
from IPython.display import display
img = Image.open('Power_BI_Dashboard_3.png')
display(img)
```



## Conclusion

We have created both the Tableau and Power BI dashboards replicating the analysis of Task P4. The Tableau Dashboard was created and stitched from the individual visualizations created in the Tableau Public Desktop version for Mac and uploaded into my Tableau Public Profile.

The Power BI reports were created using the POWER BI Desktop for windows and uploaded the dashboard into the Power BI Service trial account using the Deakin Student Credentials. The screen shots of the dashboards are given above along with the links

## References

- Power BI Masterclass, Dr. Karuna Batra, attended on 28th January 2024.

- Deakin Content, Great Learning Content, Additional Resource - Tableau and Power BI, accessed 26th January 2024.
- Deakin Content, Week 5 Learning Material, Data Exploration with Tableau, accessed 26th January 2024.
- Deakin Content, Week 5 Learning Material, Data Exploration with Power BI, accessed 27th January 2024.

```
In [ ]: !jupyter nbconvert --to webpdf --allow-chromium-download TASK_5C_S223509398.ipynb
```