BABI 9040 Assignment 3

* Data cleaning steps- Alison - 1 min
* Alison talking about the graphs on Power BI- Alison - 30 sec
* Comparison between different models (with RMSE, MAPE, etc.)- Tolu - 1 min or 1.5
* Jay goes more in-depth about his model (show graph)- Jay
  + Explain model
  + Show actual and predicted values
  + Additional features
    - Generate random times to see what hourly arrivals are
  + Include most important variables

Jay- I created a slide in case we want to use it for presentation (optional)

<https://docs.google.com/presentation/d/1ZE9EFbkUSEwxJu9J_FYcRvLg6loPAb2A7A2__xCKpcU/edit?usp=sharing>

The code:

<https://colab.research.google.com/drive/1QfnjeKYpcjzTmykx8nxQyPL75O7Rqxz_?usp=sharing>

| **Variable Name** | **Description** | **Rationale** |
| --- | --- | --- |
| Hour | Hour of the day | Can capture patterns throughout the day |
| Weekday | Day of the week | Can capture hourly patterns throughout each day of the week |
| avg\_dwell\_time | Average time taxis spend at the airport waiting | Shows potential congestion |
| pct\_complete\_trips | Percentage of hourly trips completed | Shows demand for taxis through busyness |
| avg\_monthly\_trips | Average number of trips per month | Can capture overall experience of taxis |
| avg\_trips\_per\_hour | Average number of trips per hour | Gives a snapshot of trip activity |
| lag\_1 | Number of taxi arrivals 1 hour ago | Observes momentum when it comes to taxi patterns |
| lag\_2 | Number of taxi arrivals 2 hours ago | Observes momentum when it comes to taxi patterns |
| rolling\_3hr | 3 hour moving average of taxi arrivals | Helps smooth short term fluctuations |