**Business blog assignment**

Flight delays and cancellations can be expensive for businesses and ruinous for vacation travellers. With millions of flights departing annually in the United States, odds are pretty good that you've experienced the frustration and helplessness associated with interrupted travel.

Stakeholders are hungry for departure and arrival information for US flights. For example, flight crews are only paid when aircraft doors are closed and flight underway. Departure delays directly impact overall time at work, upsetting work-life balance. Prospective employees want to work for airlines who have proven track-records.

Airport authorities and airline service providers are very interested in predicting performance. For non-hub airports, airlines lease transient gate spots and hire third-party ground crews for fuelling and baggage handling. When flights arrive late at the airport, they face stiff penalties as alternative gates need to be assigned, causing tarmac delays. Ground crews have to alter schedules, increasing time and stress associated with providing services. If groups could anticipate when a flight would likely be delayed, based on predictive modelling, they could have contingency plans in place to ease the burden on crews and other airlines.

The goal of our research, analysis and predictive modelling is to provide travellers and other stakeholders with a tool that can be used to evaluate on-time performance, allowing the travelling public to make informed decisions about which airline to best suits their needs.

Our approach analyzes data from millions of flights in 2015, creating a predictive model that will use past performance to indicate the likelihood of future on-time airline performance. It takes into account departures, arrivals, as well as the frequency of flight cancellations and the reasons why. We want to create a front-end application that will allow users to enter intended travel dates, providing them with a simple to read predictive airline performance score.

Travellers have different objectives when selecting who to fly with. Business fliers aren't as cost-conscious, and may put a greater emphasis on on-time arrivals due to important meetings. Companies will pay a higher rate to ensure their employees arrive when required.

Vacation travellers on cruises or all-inclusive holidays, with set start and stop dates, are very time sensitive. They may choose to pay slightly more for a greater likelihood of on-time arrivals, increasing the odds they'll get to enjoy the vacation they've already invested so much in.

Price-sensitive users will look for the cheapest way to get from point A to point B, but when prices are similar between airlines, will find the predictive score valuable to choose the best airline for the money.

Predictive knowledge puts important information at the fingertips of travellers, providing value and insight for making informed decisions. Easing the stress associated with flight.