**PROJECT DESIGN PHASE-II**

**Technology architecture**

### Project Name: Airlines Data Analytics for Avaition Industry

### Team ID : PNT2022TMID44843

These scenarios demonstrate how airlines can leverage technology and data to improve operational performance. Now, big data is propelling airlines towards a new, more innovative future. Below, we detail five case studies that show how major players in the industry are using big data to the fullestadvantage**.**

### 1. Encourage loyalty: United Airlines

Tailor-made offers will always appeal to the customer, thus encouraging loyalty. Airlines are in the fortunate position of being able to learn an enormous amount about their client base from data. Even a single booking contains data which can teach an airline a huge amount about its customers. For instance, United Airlines use their “collect, detect, act” protocol to analyze over 150 variables in each customer profile. These analyses measure everything from previous purchases to customer preferences in order to generate a tailor-made offer. The collect, detect, act initiative has increased United’s year-to-year revenue by over 15%.

### 2. Get to know the customer: British Airways

### British Airways uses an [intelligent ‘Know Me’ feature](http://www.businessinsider.com/british-airways-know-me-2012-7?IR=T) to provide personalized search results to customers. In this impressive big data case study, BA identified that their customer base largely consists of busy, time-pressed professionals who require fast, concise results. Therefore, ‘Know Me’ uses in-depth data analysis to provide relevant and targeted offers for their consideration. BA received a huge amount of positive feedback from clients who loved the fact that the company understood their travel needs.

### 3. Deploy artificial intelligence: Easy Jet

### Many airlines go a step further than basic data collection. With new technology, it is possible for companies to [analyze big data](https://blog.datumize.com/leveraging-new-data-can-make-sell) accumulated from purchase activity to demand patterns. For instance, if an airline sees the demand for a certain route increasing, they can adjust prices accordingly. From this information, the airline can also identify which customer segments are price sensitive, and determine a segment’s price range for a given route.

### A related big data case study comes from Easy Jet. Easy Jet invested in an artificially intelligent algorithm that determines seat pricing automatically, depending on demand. Furthermore, the system can also analyze historical data to predict demand patterns up to a year in advance. These analytics can also impact future decision-making about new routes, schedules, and code share alliances.

**4. In-flight intelligence: Southwest Airlines**

### Inflight, vast amounts of data are generated throughout the journey – pilot reports, warning reports, control positions, and air traffic control communications. Whenthis data is closely monitored and analyzed it can streamline operations and improve safety. For example, Southwest Airlines have teamed up with NASA to continually improve airline safety. By using intelligent algorithms, Southwest and NASA have created an automated system that can crunch an enormous amount of data to flag anomalies and prevent accidents.

**5. Making lost bags a thing of the past: Delta**

American airline Delta has developed an app which allows customers to track their bags on their smartphones. The concept is simple – the app uses exactly the same technology that the Delta ground staff use. So far, the app has been downloaded over 11 million times by Delta customers globally