Airline Management Flight Database

# Background

Airlines are complicated organizations with a large range of logistical needs such as flight scheduling, ticketing, aircraft maintenance, crew assignments, and much more. Major airlines handle thousands of flights per day, and any failure in the system can lead to massive delays, stranded passengers, and, at worst, injuries and death.

With this in mind, we can look to a properly assembled database to ease the logistical burden. By avoiding data duplication, preserving integrity, and promoting accessibility, we can reduce organizational friction and allow for fully informed decisions within every level of the organization.

# Purpose

* To allow customers and ticketing staff to easily make and manage reservations, as well as access gate information, scheduled arrival and departure times, and real-time updates.
* To provide a mechanism for airline staff to easily and efficiently schedule flights. This should include access to the existing flight schedule, aircraft availability, and historical demand.
* To connect all essential functional areas into one system.
* To allow for data-driven decision making with regard to hiring, scheduling, and ticket pricing.
* To ensure sensitive data is stored and accessed in accordance with industry standards.

# Scope

For the purposes of this database, we will mainly be focused around connecting passengers, planes, staff, and airports. Food service and other tangentially related processes will be included in the design by reference only, with the possibility of linking future data sources for expanded functionality.