

## Relational Schema:

Airports (airportID: VARCHAR(3)[PK], city: VARCHAR(100), state: VARCHAR(2))

Flights (airlineID: VARCHAR(2)[PK], flightNumber: INT [PK], originID: VARCHAR(3) [FK], destinationID: VARCHAR(3) [FK], cancellationType: VARCHAR(100), tailNumber: INT, departureTime: INT, arrivalTime: INT, day: INT, month: INT)

Cancellations (type: VARCHAR(100) [PK], reason: VARCHAR(100))

Delays (airlineID: VARCHAR(2)[PK], flightNumber: INT [PK], airSystemTime: INT, securityTime: INT, airlineTime: INT, lateAircraftTime: INT, weatherTime: INT)

Airlines (IATACode: VARCHAR(2)[PK], name: VARCHAR(100))

Airplanes (tailNumber: INT [PK], airlineID: VARCHAR(2)[FK])

Users (username: VARCHAR(50) [PK], email: VARCHAR(50), password: VARCHAR(50))

Subscriptions(username: VARCHAR(50)[PK], airlineID: VARCHAR(2)[PK], flightNumber: INT [PK])

## Assumptions/Descriptions:

- An airport has at least 1 flight but a flight must have mandatory flights (to and from)
- A delay can only have 1 flight and a flight can have 0 or 1 delays
- A flight can only be canceled through 1 cancellation type but a cancellation type can affect many flights
- A flight can be interested in by many users and users can be interested in many flights
- Airplanes can only be owned by 1 airline
- Each flight is owned by 1 airline
- The subscriptions table demonstrates the relationship between users and flights.

