Relational Schema:

Airports (**airportID**: VARCHAR(45)[PK], **city**: VARCHAR(45), **state**: VARCHAR(45), country VARCHAR(45), **latitude** DOUBLE, **longitude** DOUBLE)

Flights (**date**:DATE[PK], **airlineID**:VARCHAR(45) [PK,FK Airlines.AirlineID], **flightNumber**: INT [PK], **tailNumber** VARCHAR(45)[FK Airplanes.tailNumber], **origin_airport**: VARCHAR(45) [PK, FK Airports.airportID], **destination_airport**: VARCHAR(45) [FK Airports.airportID], **scheduled_departure**: INT [PK], **scheduled_arrival**: INT [PK], **cancellation_type**: INT [FK Cancellations.type])

Delays (**date**:DATE[PK, FK Flights.date], **airlineID**:VARCHAR(45) [PK,FK Flights.AirlineID], **flightNumber**: INT [PK, FK Flights.flightNumber], **scheduled_departure**: INT [PK, FK Flights.scheduled_departure], **air_system_delay** INT, **security_delay** INT, **airline_delay** INT, **late_aircraft_delay** INT, **weather_delay** INT)

Cancellations (**type**: INT [PK], **reason**: VARCHAR(45))

Airlines (**airlineID**: VARCHAR(45)[PK], **name**: VARCHAR(45))

Airplanes (**tailNumber**: VARCHAR(45)[PK], **airlineID**:VARCHAR(45)[PK, FK Airlines.airlineID])

Users (**username**: VARCHAR(45) [PK], **email**: VARCHAR(45), **password**: VARCHAR(45))

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.