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CSC 424

Assignment # 2

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Part 2

* Providence Airlines stores the following about each airport:
  + Airport Code
  + City
  + State
  + Name
  + Each airport code is a unique value
* Each type of airplane is described by:
  + Company
  + Type
  + Max number of seats
  + Type is a unique value for each airplane type
* Each airplane is described by:
  + Airplane ID
  + Total number of seats
  + Airplane ID is a unique value for each airplane
* Each leg instance is described by:
  + The number of available seats
  + Date
  + Leg instance is determined by a flight leg
* Each seat is described by:
  + Seat number
  + Seat is determined by leg instance
* Flight leg is described by:
  + Leg number
  + Flight leg is determined by flight
* Flight is described by:
  + Flight number
  + Airline
  + Weekdays
  + Flight number is a unique value for flights
* Fare is described by:
  + Restrictions
  + Amount
  + Code
  + Fare is determined by flight
* Airports makes sure airplane types can land at their airports
  + Multiple airplane types can land at an airport
  + Airplane types can land at multiple airports
* Airports make sure leg instances can depart
  + Airports can have multiple leg instances
  + Departs are described by:
    - Depart time
* Airports make sure leg instances can arrive
  + Airports can have multiple leg instances
  + Arrivals are described by:
    - Arrival time
* Airports make sure flight legs have an airport to arrive at
  + Airports can have multiple flight legs
  + Airports must have a flight leg
  + Airport arrivals are described by:
    - Scheduled arrival time
* Airports make sure flight legs have an airport to depart from
  + Airports can have multiple flight legs
  + Airports must have a flight leg
  + Airport departures are described by:
    - Scheduled departure time
* Airplanes have a type of airplane
  + Multiple airplanes can be the same airplane type
  + Airplanes cannot be more than one airplane type
  + Airplanes must have an airplane type
* Airplanes are assigned a leg instance
  + Airplanes can have multiple leg instances
  + Leg instances can only have one airplane
  + Airplanes must have a leg instance
* Seats have reservations for leg instances:
  + Leg instances can have multiple seats
  + A seat can only be on one leg instance
  + Leg instance must have a seat
  + Reservations are described by:
    - Customer name
    - Customer phone
* Leg instances are instances of a flight leg
  + Flight legs can have multiple leg instances
  + Leg instance can have one flight leg
  + Flight legs must have a leg instance
* Flights have flight legs
  + One flight has one leg
* Flights have fares
  + Flights can have multiple fares
  + One fare is only allowed on one flight
  + Flights must have fares