DUE: Thursday, March 30, 11:55PM

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Schema:

flight = (flightID, routeID[fk1])
fk1: routeID -> route(routeID)

route = (routeID)

leg = (legID, distance, departure[fk3], arrival[fk21])
fk3: departure -> airport(airportID)
fk21: arrival -> airport(airportID)

airport = (airportID, name, city, state, locID[fk4])
fk4: locID -> location(locID)

airplane = (airlineID[fk5], tail_num, seat_cap, speed, flightID[fk6], locID[fk7], airplane_type, skids, props, jets, progress, airplane_status, next_time)
fk5: airlineID -> airline(airlineID)
fk6: flightID -> flight(flightID)
fk7: locID -> location(locID)

airline = (airline_ID, revenue)

location = (locID)

ticket = (ticketID, cost, flightID[fk10], airportID[fk11], personID[fk12])
fk10: flightID -> flight(flightID)
fk11: airportID -> airport(airportID)
fk12: personID -> person(personID)

person = (personID, first_name, last_name, locID[fk13], isPilot, isPassenger)
fk13: locID -> location(locID)

- **passenger =** (personID[fk14], miles)
  fk14: personID -> person(personID)
- **pilot =** (personID[fk15], taxID, experience, airlineID[fk16], tail_num[fk16])
  fk15: personID -> person(personID)
  fk16: (airlineID, tail_num) -> airplane(airlineID, tail_num)

contains = (routeID[fk17], legID[fk18], sequence)
fk17: routeID -> route(routeID)

fk18: legID -> leg(legID)

seat = (seat_num, ticketID[fk19])
fk19: ticketID -> ticket(ticketID)

license = (taxID[fk20], license)
fk20: taxID -> pilot(taxID)

Unhandled Constraints:

1. The number of combined seats for all tickets of a flight cannot exceed the seat_cap of the airplane
2. For a ticket to reference a seat, the seat must exist on the airplane
3. For a higher sequence number of a flight to exist, all lower numbers must also exist (ex: cannot have a leg sequence number of 3 without 2 as well)
4. If a person is on an airplane or at an airport, they must have a location associated with them, otherwise location must be NULL
5. Airplane status can be one of the following values: in_flight, on_ground, null
6. Airplane progress is a percentage of the total distance of the flight (NULL if not flying), represented as the percent without the percent symbol
7. A route must be made up of at least 1 leg; for multiple legs, the arriving airport of leg_A and departing airport of leg_B must be the same.
8. Leg distance in miles.
9. AirportID in ticket relation is the location which the person DEPLANES at.
10. Ensure that next time has a value that is reasonable to the speed and distance of each leg.