Benjamin Arancibia

Data Acquisition and Management

Week 12 Assignment

11/20/14

***Business Use Case***

For my assignment, I decided to use the airport data used in the Neo4j lab. This data focus on airplane traffic including flight numbers, departure codes, and takeoff/landing times. The business use case is pretty simple, using this data we can take a look at the flights going around the country and estimate time it takes to get from location to location. Furthermore, we can combine this data with other datasets out there to get a better idea of how often planes are early or delayed. This is useful for companies that have employees that often travel, minimizing the amount of time an employee is delayed at an airport is good for business.

***Data Model***

*Nodes*

Airport (code, city, state)

Flight(number, airline, capacity)

*Relationships*

Arrive (landing time)

Depart (take off time)

***Data Import***

*Airport nodes*

load csv with headers from

"file:/users/bcarancibia/CUNY\_IS\_607/neo4j-airport-csv-raw.csv" as airports

create (a1:Airport {label: airports.label, city: airports.city, state: airports.state})

*flight nodes*

load csv with headers from "file:/users/bcarancibia/CUNY\_IS\_607/neo4j-flight-lab-data.csv" as flights

create (n:Flight {number: flights.flight, airline: flights.airline, capacity: flights.capacity})

*arrival relationship*

load csv with headers from "file:/users/bcarancibia/CUNY\_IS\_607/neo4j-flight-lab-data.csv" as flights

match

(a: Flight {number: flights.flight}),

(b:Airport {label: flights.arrive}) create (a) -[r:Arrives {landing:

flights.landing}]-> (b)

*departure relationships*

load csv with headers from "file:/users/bcarancibia/CUNY\_IS\_607/neo4j-flight-lab-data.csv" as flights

match (a: Flight {number: flights.flight}),

(b:Airport {label: flights.depart}) create (a) -[r:Departs {takeoff:

flights.takeoff}]-> (b)

***Query***

I need to find all flights that arrive in Boston on Delta. My company has a partnership with Delta and the client meeting is in Boston.

match (f:Flight) -[r:Arrives]-(a:Airport) where f.airline = 'Delta' and a.label = 'BOS' return f