Data Engineering: Lab 09

Task 01: Installation of neo4j

Install the Desktop Version of neo4j on your machine or a virtual machine. Download it from here: https://neo4j.com/download-neo4j-now

Task 02: First steps with neo4j

Start the movie graph sample on your neo4j installation. Go through the tutorial and get to know neo4j https://neo4j.com/developer/cypher/guide-cypher-basics/

Task 03: Working with neo4j

a) Create a *Movie* node for the movie with the *title*, *Forrest Gump*

b) Retrieve the newly-created node

c) Create a *Person* node for the person with the *name*, *Robin Wright*.

d) Retrieve the *Person* node you just created by its *name*

e) Add the label *OlderMovie* to any *Movie* node that was released before 2010.

f) Retrieve all older movie nodes to test that the label was indeed added to these nodes.

g) Add the label *Female* to all *Person* nodes that has a person whose name starts with *Robin*.

h) Retrieve all *Female* nodes

i) We've decided to not use the Female label. Remove the Female label from the nodes that have this label.

j) Add the following properties to the movie, Forrest Gump:
    released: 1994
    tagline: Life is like a box of chocolates,Ä¶you never know what you're gonna get.
    lengthInMinutes: 142

k) Retrieve the top 5 ratings and their associated movies, returning the movie title and the rating

l) Retrieve all actors that have not appeared in more than 3 movies. Return their names and list of movies

m) Retrieve all nodes that the person named James Thompson directly has the FOLLOWS relationship in either direction.

n) Modify the query of m) to retrieve nodes that are exactly three hops away.

o) Modify the query of m) to retrieve nodes that are one and two hops away.

p) Retrieve the actors who have acted in exactly five movies, returning the name of the actor, and the list of movies for that actor.

q) Retrieve all movies that Tom Cruise has acted in and the co-actors that acted in the same movie, returning the movie title and the list of co-actors that Tom Cruise worked with.

r) Retrieve the movies that have at least 2 directors, and optionally the names of people who reviewed the movies.