Data Engineering 1: Lab 07



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,Ķyou 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
- I) 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.