Unstructured Data Management
CIS8045: Assignment 02 (Neo4j)

Database: recommendations
Username/Password: recommendations

I. Based on the movie database you created, write Cypher commands to complete the following queries.

1. Find all movies that Sylvester Stallone acted in;
MATCH (a:Person)-[:ACTED_IN]->(m:Movie)
WHERE a.name = 'Sylvester Stallone'
RETURN m.title as Movie

2. Find all artists who are two steps away from Sylvester Stallone;
MATCH (p1:Actor)-[:ACTED_IN*2]-(p2:Actor)
WHERE p1.name = 'Sylvester Stallone'
RETURN p2.name as Actors

3. Find a path between the movie Rocky II and the movie The Karate Kid II;
MATCH p = (:Movie{title:'Rocky II'})-[:IN_GENRE*0..2]-
(:Movie{title:'Karate Kid, Part II, The'}) return p;

4. Find how many "DIRECTED" relationships are represented in the movie database. Your result should
present the total number of "DIRECTED" relationships;
MATCH (a:Person)-[:DIRECTED]->(m:Movie)
RETURN count(a.name) as Directed

5. Find who played in which movies with a role named "Daniel LaRusso";
MATCH (a:Person)-[r:ACTED_IN]->(m:Movie)
WHERE r.role = 'Daniel LaRusso'
RETURN m.title as Movie, a.name as Actor

6. Find all artists who are associated with (either ACTED_IN or DIRECTED) the Rocky series of movies;
MATCH (a:Actor)-[]-(m:Movie)
WHERE (m.title STARTS WITH 'Rocky') AND (((a)-[:DIRECTED]->(m)) OR ((a)-[:ACTED_IN]->(m)))
RETURN DISTINCT a.name as Artist

7. Find the total number of movies directed by each of the directors in the database. Your result should present the total numbers;
MATCH (d:Director)-[r:DIRECTED]->(m:Movie)
RETURN d.name,count(distinct r) as count

8. Find all the movies released after year 1990, but only return the most recent two of them;
MATCH (m)
WHERE m:Movie and m.released> "1990"
with m order by m.released desc
RETURN m.title as recentMovies limit 2

9. Find the director John G. Avildsen and the total number of movies he has directed;
MATCH (d:Director{name:'John G. Avildsen'})-[r:DIRECTED]->(m:Movie)
RETURN count(r) as count

10. Find out if Sylvester Stallone directed "The Expendables II" or not. If not, return NULL.
MATCH p=(d:Director{name:'Sylvester Stallone'})-[:DIRECTED]-
>(m:Movie{title:"Expendables 2, The"})
RETURN
CASE
  WHEN p is not null THEN "Yes"
  ELSE NULL
END