Neo4J Assignment

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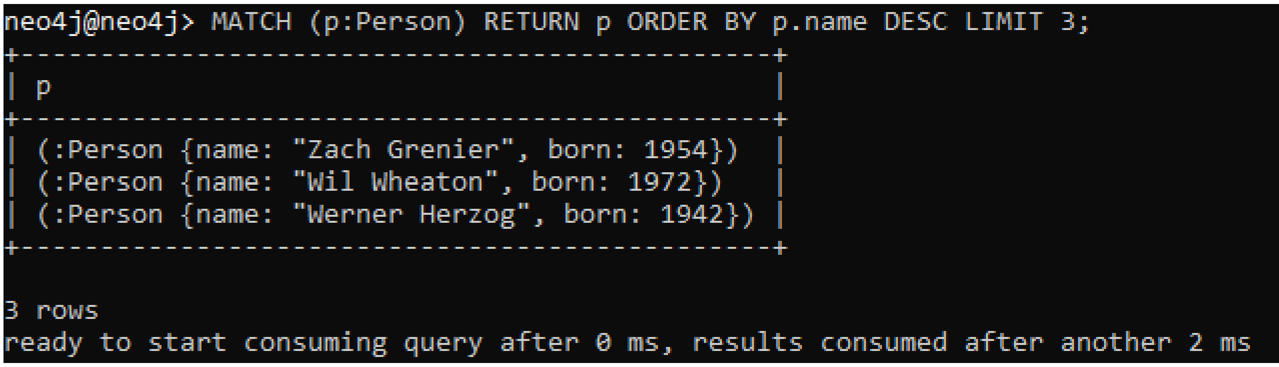
April 2022

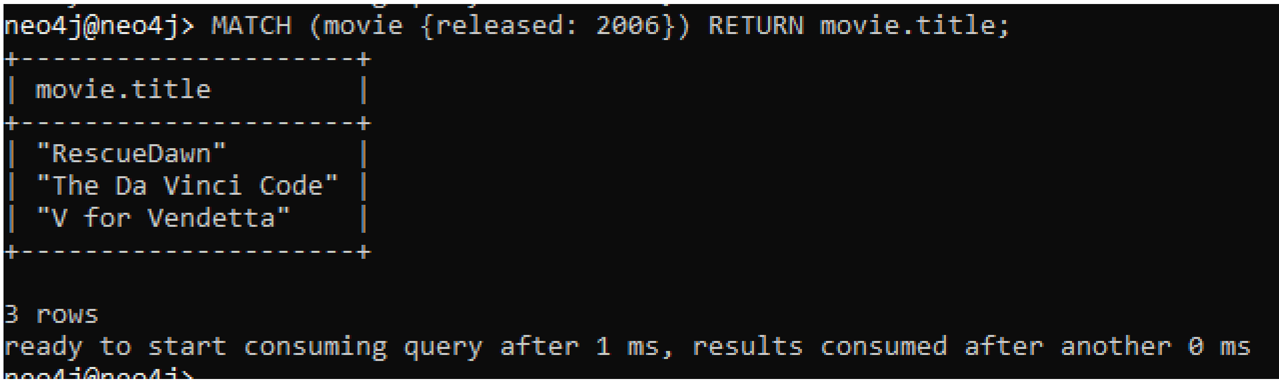
1 Retrieve three Person nodes in descending order of Person name



```
neo4j@neo4j> MATCH (p:Person) RETURN p ORDER BY p.name DESC LIMIT 3;
+-----------------------------------------------+
| p                                             |
+-----------------------------------------------+
| (:Person {name: "Zach Grenier", born: 1954})  |
| (:Person {name: "Wil Wheaton", born: 1972})   |
| (:Person {name: "Werner Herzog", born: 1942}) |
+-----------------------------------------------+

3 rows
ready to start consuming query after 0 ms, results consumed after another 2 ms
```

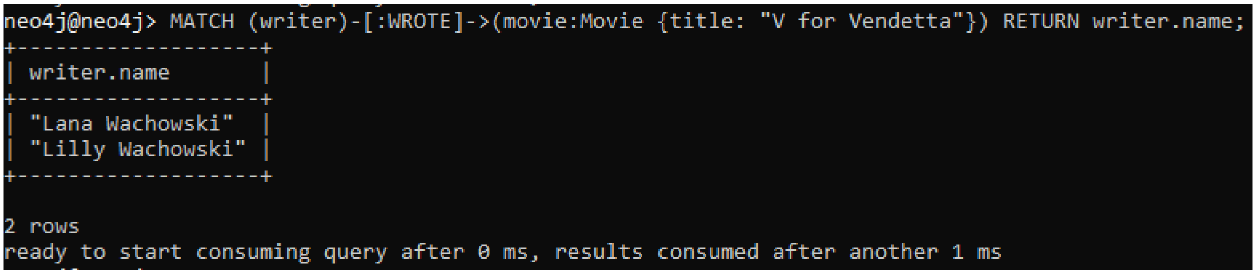
2 Retrieve all Movies released in 2006, returning only their titles.



```
neo4j@neo4j> MATCH (movie {released: 2006}) RETURN movie.title;
+---------------------+
| movie.title         |
+---------------------+
| "RescueDawn"        |
| "The Da Vinci Code" |
| "V for Vendetta"    |
+---------------------+

3 rows
ready to start consuming query after 1 ms, results consumed after another 0 ms
neo4j@neo4j>
```

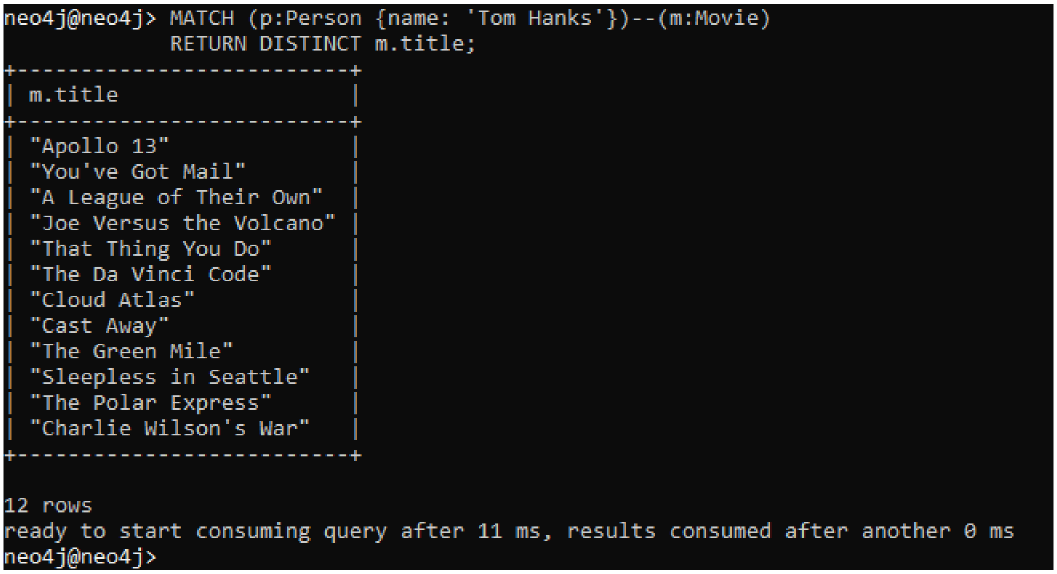
3 Retrieve all people who wrote the movie “V for Vendetta”, returning only their name.



```
neo4j@neo4j> MATCH (writer)-[:WROTE]->(movie:Movie {title: "V for Vendetta"}) RETURN writer.name;
+-------------------+
| writer.name       |
+-------------------+
| "Lana Wachowski"  |
| "Lilly Wachowski" |
+-------------------+

2 rows
ready to start consuming query after 0 ms, results consumed after another 1 ms
```

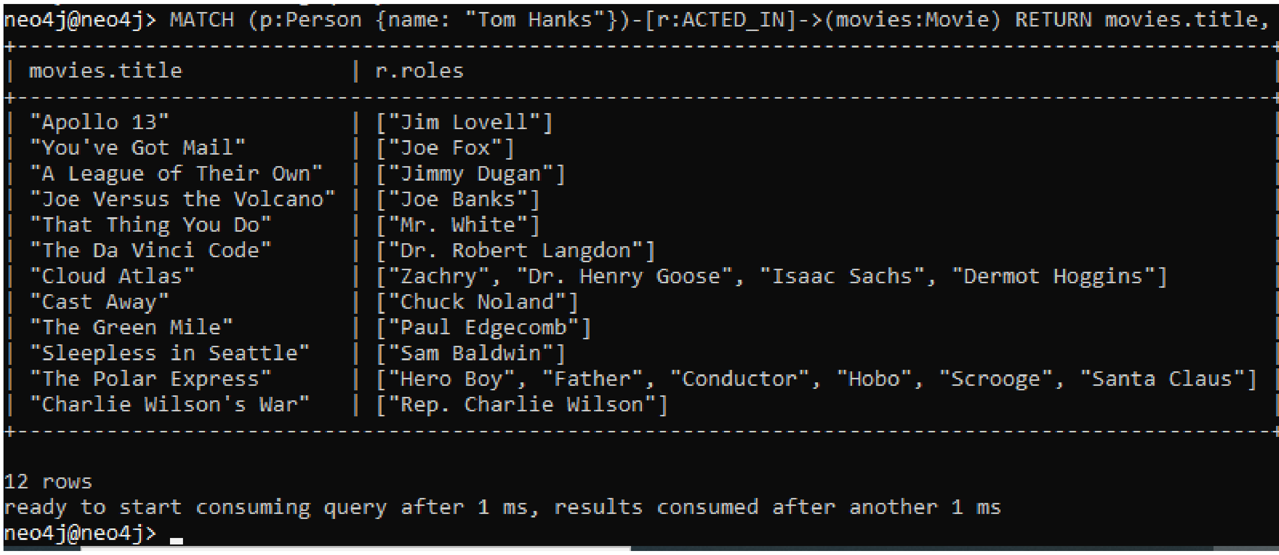
4 Retrieve all movies (titles only) connected in any way with Tom Hanks.



```
neo4j@neo4j> MATCH (p:Person {name: 'Tom Hanks'})--(m:Movie)
             RETURN DISTINCT m.title;
+--------------------------+
| m.title                  |
+--------------------------+
| "Apollo 13"              |
| "You've Got Mail"        |
| "A League of Their Own"  |
| "Joe Versus the Volcano" |
| "That Thing You Do"      |
| "The Da Vinci Code"      |
| "Cloud Atlas"            |
| "Cast Away"              |
| "The Green Mile"         |
| "Sleepless in Seattle"   |
| "The Polar Express"      |
| "Charlie Wilson's War"   |
+--------------------------+

12 rows
ready to start consuming query after 11 ms, results consumed after another 0 ms
neo4j@neo4j>
```

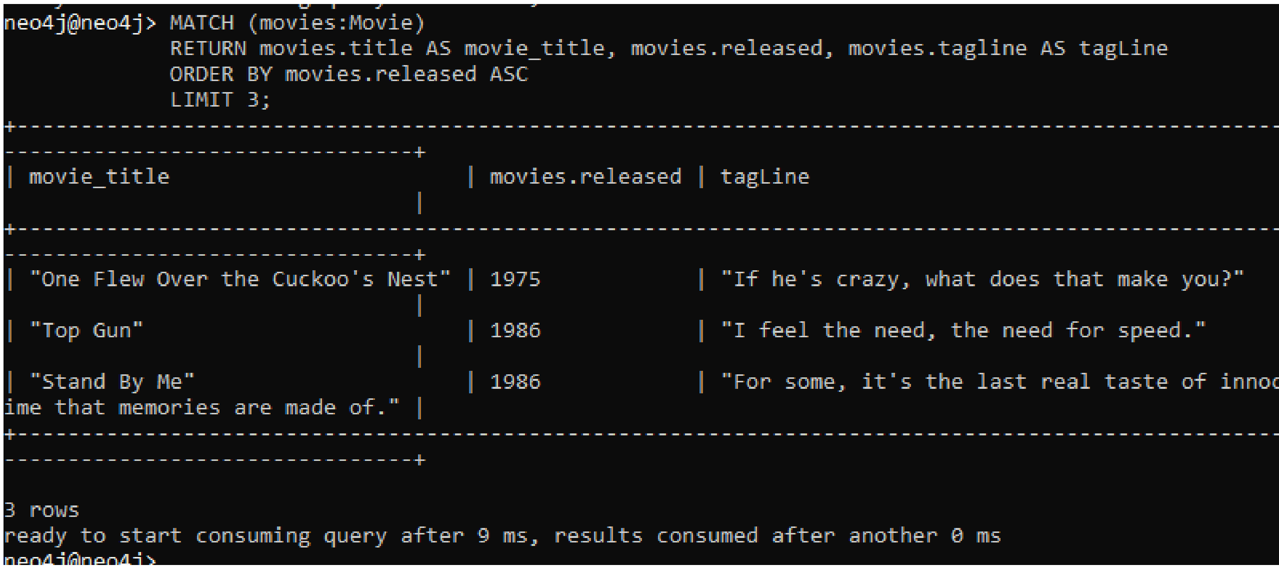
5 For each movie in which Tom Hanks acted, list the title of the movie and the role(s) that he played.



```
neo4j@neo4j> MATCH (p:Person {name: "Tom Hanks"})-[r:ACTED_IN]->(movies:Movie) RETURN movies.title,
+----------------------------------------------------------------------------------------------------
| movies.title              | r.roles                                                               |
+----------------------------------------------------------------------------------------------------
| "Apollo 13"               | ["Jim Lovell"]                                                        |
| "You've Got Mail"         | ["Joe Fox"]                                                           |
| "A League of Their Own"   | ["Jimmy Dugan"]                                                       |
| "Joe Versus the Volcano"  | ["Joe Banks"]                                                         |
| "That Thing You Do"       | ["Mr. White"]                                                         |
| "The Da Vinci Code"       | ["Dr. Robert Langdon"]                                                |
| "Cloud Atlas"             | ["Zachry", "Dr. Henry Goose", "Isaac Sachs", "Dermot Hoggins"]        |
| "Cast Away"               | ["Chuck Noland"]                                                      |
| "The Green Mile"          | ["Paul Edgecomb"]                                                     |
| "Sleepless in Seattle"    | ["Sam Baldwin"]                                                       |
| "The Polar Express"       | ["Hero Boy", "Father", "Conductor", "Hobo", "Scrooge", "Santa Claus"] |
| "Charlie Wilson's War"    | ["Rep. Charlie Wilson"]                                               |
+----------------------------------------------------------------------------------------------------

12 rows
ready to start consuming query after 1 ms, results consumed after another 1 ms
neo4j@neo4j> _
```

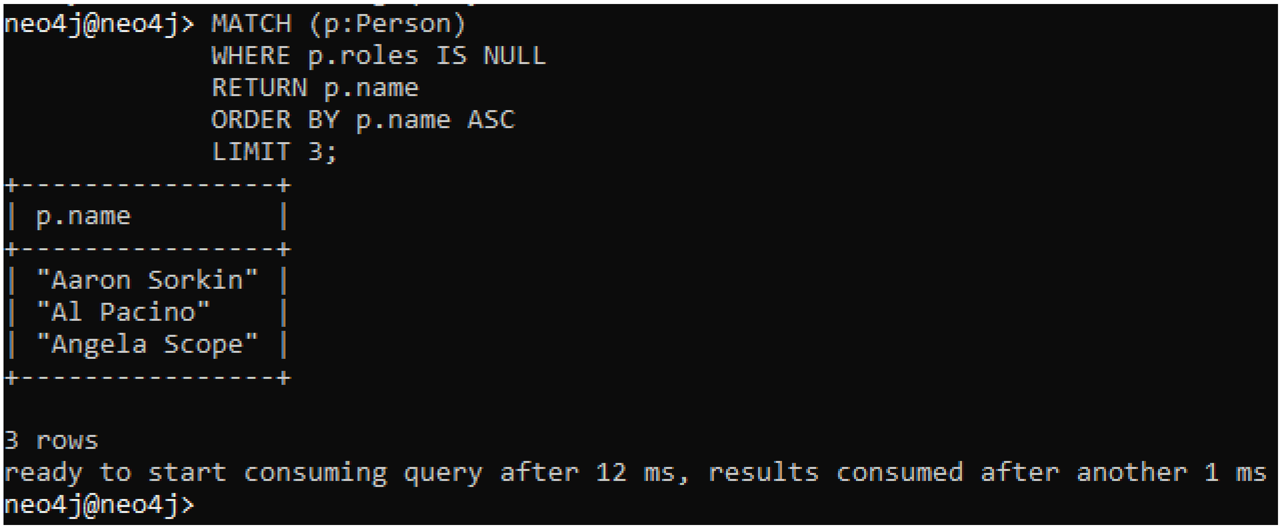
6 Return the first three movies in the database, specifying that movies are ordered by ascending year in which the movie was released. The query should return only the title (renamed as "movie title"), the year released, and tagline (renamed as "tagLine").



```
neo4j@neo4j> MATCH (movies:Movie)
             RETURN movies.title AS movie_title, movies.released, movies.tagline AS tagLine
             ORDER BY movies.released ASC
             LIMIT 3;
+---------------------------------------------------------------------------------------------------
--------------------------------+
| movie_title                        | movies.released | tagLine
                                |
+---------------------------------------------------------------------------------------------------
--------------------------------+
| "One Flew Over the Cuckoo's Nest" | 1975            | "If he's crazy, what does that make you?"
                                |
| "Top Gun"                          | 1986            | "I feel the need, the need for speed."
                                |
| "Stand By Me"                      | 1986            | "For some, it's the last real taste of innoc
ime that memories are made of." |
+---------------------------------------------------------------------------------------------------
--------------------------------+

3 rows
ready to start consuming query after 9 ms, results consumed after another 0 ms
neo4j@neo4j>
```

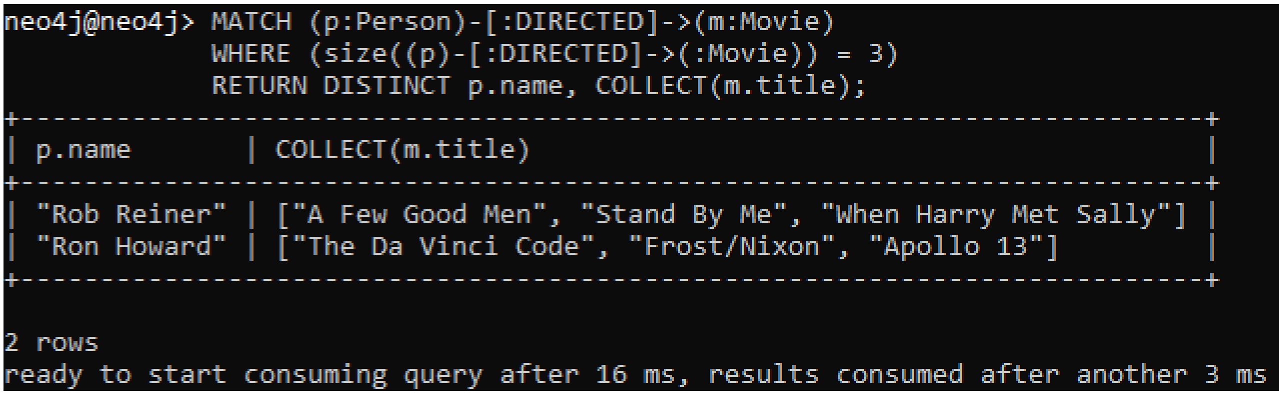
7 Return the first three people in the database, specifying that people are ordered by ascending name) that do not have a roles property, returning only their names.



```
neo4j@neo4j> MATCH (p:Person)
             WHERE p.roles IS NULL
             RETURN p.name
             ORDER BY p.name ASC
             LIMIT 3;
+----------------+
| p.name         |
+----------------+
| "Aaron Sorkin" |
| "Al Pacino"    |
| "Angela Scope" |
+----------------+

3 rows
ready to start consuming query after 12 ms, results consumed after another 1 ms
neo4j@neo4j>
```

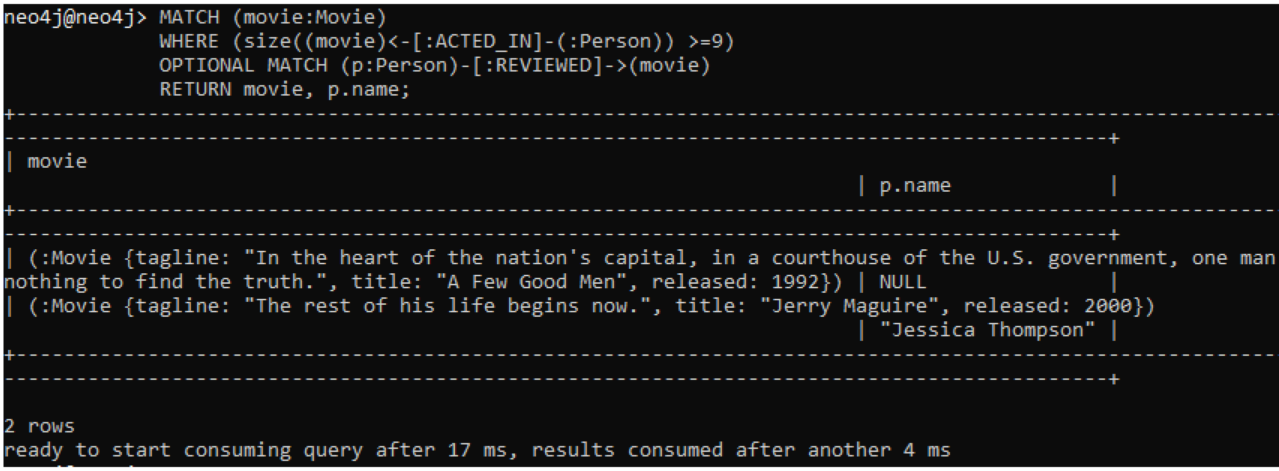
8 Retrieve the people who have directed exactly three movies, returning the name of the director, and the list of movies that they directed.



```
neo4j@neo4j> MATCH (p:Person)-[:DIRECTED]->(m:Movie)
             WHERE (size((p)-[:DIRECTED]->(:Movie)) = 3)
             RETURN DISTINCT p.name, COLLECT(m.title);
+----------------------------------------------------------------------------+
| p.name       | COLLECT(m.title)                                            |
+----------------------------------------------------------------------------+
| "Rob Reiner" | ["A Few Good Men", "Stand By Me", "When Harry Met Sally"] |
| "Ron Howard" | ["The Da Vinci Code", "Frost/Nixon", "Apollo 13"]           |
+----------------------------------------------------------------------------+

2 rows
ready to start consuming query after 16 ms, results consumed after another 3 ms
```

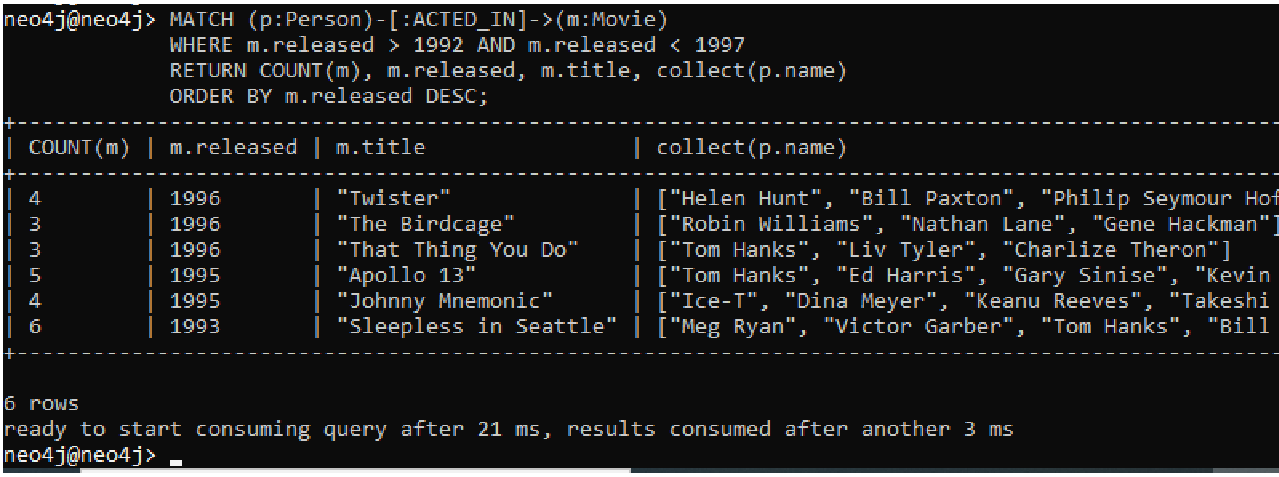
9 Return the movies that have at least nine actors playing in them, and, if the data are available in the database, return with each movie the names of people who reviewed those movies .



```
neo4j@neo4j> MATCH (movie:Movie)
             WHERE (size((movie)<-[:ACTED_IN]-(:Person)) >=9)
             OPTIONAL MATCH (p:Person)-[:REVIEWED]->(movie)
             RETURN movie, p.name;
+---------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------+
| movie
                                                                       | p.name             |
+---------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------+
| (:Movie {tagline: "In the heart of the nation's capital, in a courthouse of the U.S. government, one man
nothing to find the truth.", title: "A Few Good Men", released: 1992}) | NULL               |
| (:Movie {tagline: "The rest of his life begins now.", title: "Jerry Maguire", released: 2000})
                                                                       | "Jessica Thompson" |
+---------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------+

2 rows
ready to start consuming query after 17 ms, results consumed after another 4 ms
```

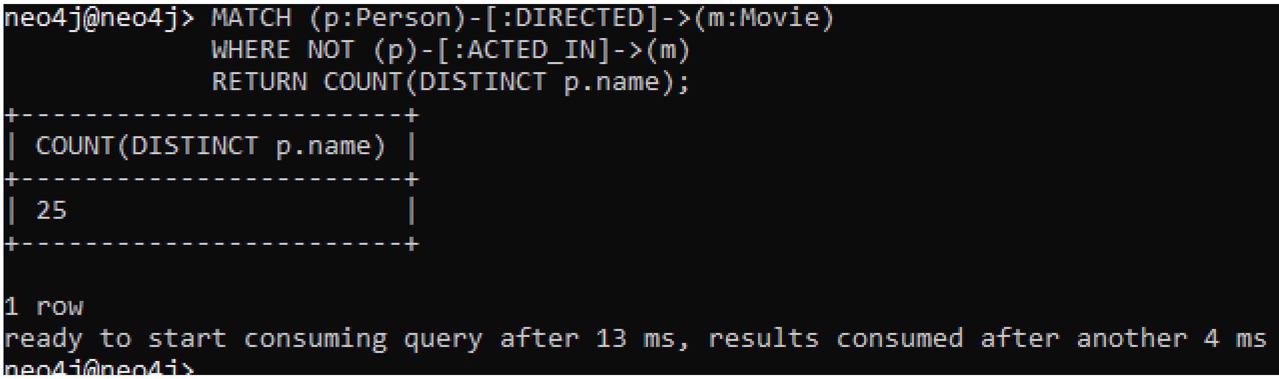
10 **Retrieve all actors that acted in movies released after 1992 and before 1997, returning the released date, the movie title, and the set of all actor names who acted in that movie. All movies released in a given year must be grouped in the same tuple in the result, merging the actors from those movies, and eliminating duplicates from the collection. Order the results so that more recent years are displayed first..**



```
neo4j@neo4j> MATCH (p:Person)-[:ACTED_IN]->(m:Movie)
             WHERE m.released > 1992 AND m.released < 1997
             RETURN COUNT(m), m.released, m.title, collect(p.name)
             ORDER BY m.released DESC;
+---------------------------------------------------------------------------------------------------------
| COUNT(m) | m.released | m.title                  | collect(p.name)
+---------------------------------------------------------------------------------------------------------
| 4        | 1996       | "Twister"                | ["Helen Hunt", "Bill Paxton", "Philip Seymour Hof
| 3        | 1996       | "The Birdcage"           | ["Robin Williams", "Nathan Lane", "Gene Hackman"]
| 3        | 1996       | "That Thing You Do"      | ["Tom Hanks", "Liv Tyler", "Charlize Theron"]
| 5        | 1995       | "Apollo 13"              | ["Tom Hanks", "Ed Harris", "Gary Sinise", "Kevin
| 4        | 1995       | "Johnny Mnemonic"        | ["Ice-T", "Dina Meyer", "Keanu Reeves", "Takeshi
| 6        | 1993       | "Sleepless in Seattle"   | ["Meg Ryan", "Victor Garber", "Tom Hanks", "Bill
+---------------------------------------------------------------------------------------------------------

6 rows
ready to start consuming query after 21 ms, results consumed after another 3 ms
neo4j@neo4j> _
```

11 Return the number of people who directed, but did not act, in a given movie.



```
neo4j@neo4j> MATCH (p:Person)-[:DIRECTED]->(m:Movie)
             WHERE NOT (p)-[:ACTED_IN]->(m)
             RETURN COUNT(DISTINCT p.name);
+------------------------+
| COUNT(DISTINCT p.name) |
+------------------------+
| 25                     |
+------------------------+

1 row
ready to start consuming query after 13 ms, results consumed after another 4 ms
neo4j@neo4j>
```

12 Input Queries in text

file was uploaded to github in case you wanted to run them yourself :).

13 Output

also uploaded to github