

# Assignemnt 10: NEO4j

Tom Bohbot

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## 1 Retrieve the first three Person nodes

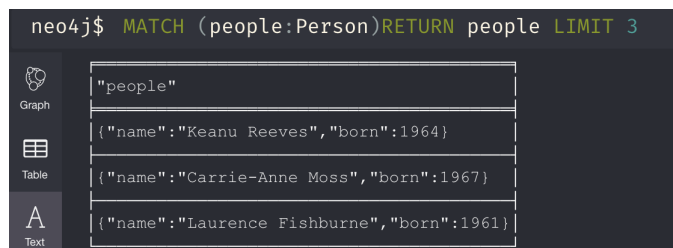


Figure 1: First three person nodes

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

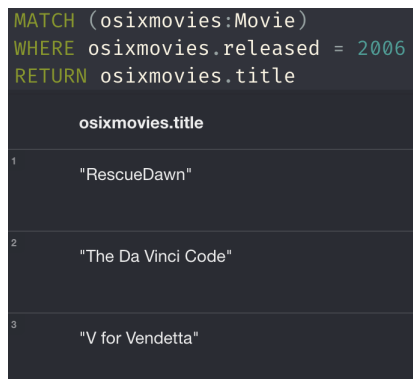


Figure 2: Movie titles released in 2006

- 3 Query the database for all property keys (hint: use a **CALL** command rather than **MATCH**)

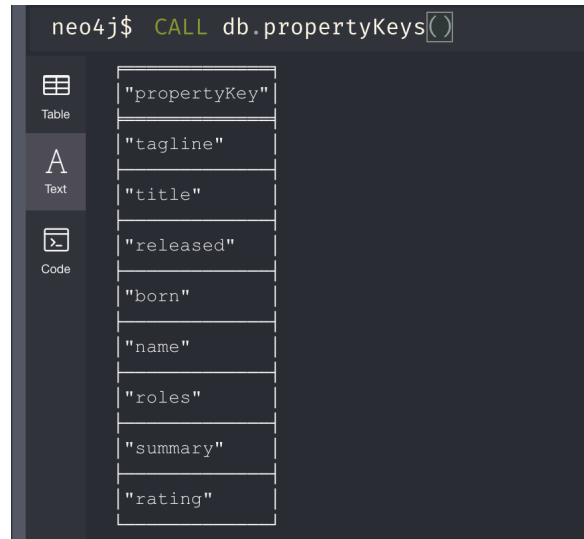


Figure 3: All property keys

- 4 Retrieve all people who wrote the movie Speed Racer

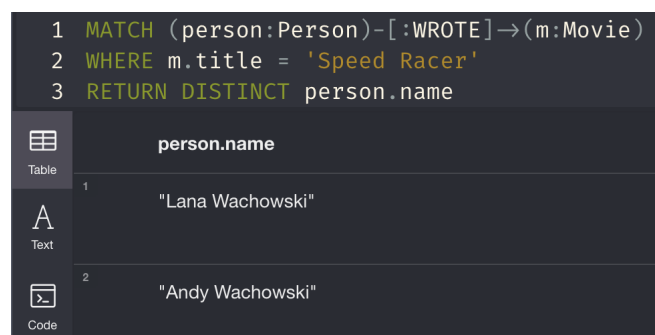


Figure 4: People who wrote Speed Racer

## 5 Retrieve all movies (titles only) connected in any way with Tom Hanks

```
MATCH (person:Person)-[r]-(movie:Movie)
WHERE person.name = 'Tom Hanks'
RETURN DISTINCT movie.title
```

"movie.title"
"You've Got Mail"
"Apollo 13"
"Joe Versus the Volcano"
"That Thing You Do"
"Cloud Atlas"
"The Da Vinci Code"
"Sleepless in Seattle"
"A League of Their Own"
"The Green Mile"
"Charlie Wilson's War"
"Cast Away"
"The Polar Express"

Figure 5: All movies connected to Tom Hanks

## 6 Retrieve information about the relationships Tom Hanks has with the set of movies retrieved in the previous query

```
MATCH (person :Person)-[r]→(movie:Movie)
WHERE person.name = 'Tom Hanks'
RETURN DISTINCT movie.title, type(r)
```

"movie.title"	"type(r)"
"You've Got Mail"	"ACTED_IN"
"Apollo 13"	"ACTED_IN"
"Joe Versus the Volcano"	"ACTED_IN"
"That Thing You Do"	"ACTED_IN"
"Cloud Atlas"	"ACTED_IN"
"The Da Vinci Code"	"ACTED_IN"
"Sleepless in Seattle"	"ACTED_IN"
"A League of Their Own"	"ACTED_IN"
"The Green Mile"	"ACTED_IN"
"Charlie Wilson's War"	"ACTED_IN"
"Cast Away"	"ACTED_IN"
"That Thing You Do"	"DIRECTED"
"The Polar Express"	"ACTED_IN"

Figure 6: Relationships Tom Hanks has with Movies

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

```

1 MATCH (person :Person)-[r:ACTED_IN]→(movie)
2 WHERE person.name = 'Tom Hanks'
3 RETURN DISTINCT movie.title AS Title, r.roles AS Roles

```

"Title"	"Roles"
"You've Got Mail"	["Joe Fox"]
"Apollo 13"	["Jim Lovell"]
"Joe Versus the Volcano"	["Joe Banks"]
"That Thing You Do"	["Mr. White"]
"Cloud Atlas"	["Zachry", "Dr. Henry Goose", "Isaac Sachs", "Dermot Hoggins"]
"The Da Vinci Code"	["Dr. Robert Langdon"]
"Sleepless in Seattle"	["Sam Baldwin"]
"A League of Their Own"	["Jimmy Dugan"]
"The Green Mile"	["Paul Edgecomb"]
"Charlie Wilson's War"	["Rep. Charlie Wilson"]
"Cast Away"	["Chuck Noland"]
"The Polar Express"	["Hero Boy", "Father", "Conductor", "Hobo", "Scrooge", "Santa Claus"]

Figure 7: List of roles in each of Tom Hank's movies