Similitud de Cosenos

Nombre: Andrés Zeas.

Procedimiento

- Creación de nodos

```
CREATE (french:Cuisine {name:'French'})
CREATE (italian:Cuisine {name:'Italian'})
CREATE (indian:Cuisine {name:'Indian'})
CREATE (lebanese:Cuisine {name:'Lebanese'})
CREATE (portuguese:Cuisine {name:'Portuguese'})
CREATE (british:Cuisine {name:'British'})
CREATE (mauritian:Cuisine {name:'Mauritian'})

CREATE (zhen:Person {name: 'Zhen'})
CREATE (praveena:Person {name: 'Praveena'})
CREATE (michael:Person {name:'Michael'})
CREATE (arya:Person {name: 'Arya'})
CREATE (karin:Person {name: 'Karin'})

CREATE (praveena)-[:LIKES {score: 9}]->(indian)
CREATE (praveena)-[:LIKES {score: 7}]->(portuguese)
CREATE (praveena)-[:LIKES {score: 8}]->(british)
CREATE (praveena)-[:LIKES {score: 1}]->(mauritian)
CREATE (zhen)-[:LIKES {score: 10}]->(french)
CREATE (zhen)-[:LIKES {score: 6}]->(indian)
CREATE (zhen)-[:LIKES {score: 2}]->(british)
CREATE (michael)-[:LIKES {score: 8}]->(french)
CREATE (michael)-[:LIKES {score: 7}]->(italian)
CREATE (michael)-[:LIKES {score: 9}]->(indian)
CREATE (michael)-[:LIKES {score: 3}]->(portuguese)
```

CREATE (arya)-[:LIKES {score: 10}]->(lebanese)

CREATE (arya)-[:LIKES {score: 10}]->(italian)

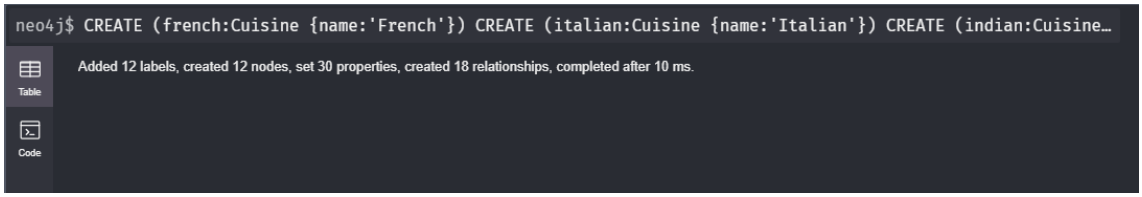
CREATE (arya)-[:LIKES {score: 7}]->(portuguese)

CREATE (arya)-[:LIKES {score: 9}]->(mauritian)

CREATE (karin)-[:LIKES {score: 9}]->(lebanese)

CREATE (karin)-[:LIKES {score: 7}]->(italian)

CREATE (karin)-[:LIKES {score: 10}]->(portuguese)



- Match de los nodos creados.

- Probamos con la similitud entre Michael y Arya.

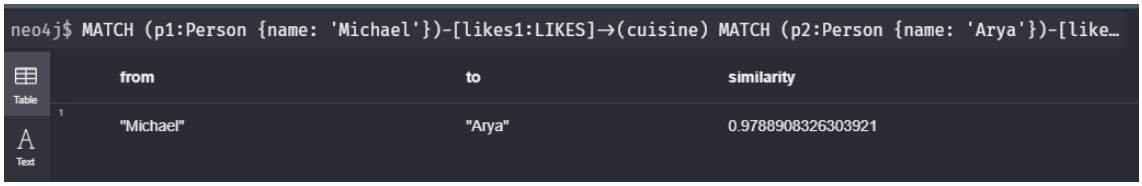
MATCH (p1:Person {name: 'Michael'})-[likes1:LIKES]->(cuisine)

MATCH (p2:Person {name: 'Arya'})-[likes2:LIKES]->(cuisine)

RETURN p1.name AS from,

p2.name AS to,

gds.alpha.similarity.cosine(collect(likes1.score), collect(likes2.score)) AS similarity



- Ahora procedemos a hallar la similitud de Coseno de Michael con otras personas en común.

MATCH (p1:Person {name: 'Michael'})-[likes1:LIKES]->(cuisine)

MATCH (p2:Person)-[likes2:LIKES]->(cuisine) WHERE p2 <> p1

RETURN p1.name AS from,

p2.name AS to,

gds.alpha.similarity.cosine(collect(likes1.score), collect(likes2.score)) AS similarity

ORDER BY similarity DESC