MTU
Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

neo4j

Student Name: Laiba Asif

Student ID: R00201303

Module: NoSQL Data Architectures

Date: 09/05/23

1) Create a node for one chef and a new cake recipe for the chef:

```
CREATE (:Chef {name: "JOHN J GILDEN"})
WITH lastNode() AS chef
CREATE (:Recipe {name: "Cake Recipe"})
WITH lastNode() AS recipe, chef
MERGE (chef)-[:OWNS {copies: 0}]->(recipe)
SET (chef)-[:POPULARITY]->(recipe) = {popularity: 5}
RETURN chef, recipe
```

2) List which Cakes have both Cream and Milk in them:

```
MATCH (cake:Recipe)-[:CONTAINS]->(ingredient)
WHERE ingredient.name IN ["Cream", "Milk"]
RETURN cake
```

3) List the 5 least useful ingredients:

```
MATCH (ingredient:Ingredient)
RETURN ingredient
ORDER BY ingredient.usefulness
LIMIT 5
```

4) Find the recipe most similar to apple scones and output a list of ingredients from other recipes in order of similarity:

```
MATCH (scone:Recipe {name: "Apple Scones"})-[:CONTAINS]->(ingredient)<-[:CONTAINS]-(otherRecipe:Recipe)

WHERE otherRecipe <> scone

WITH otherRecipe, COLLECT(DISTINCT ingredient.name) AS ingredients

ORDER BY SIZE(ingredients) DESC

RETURN otherRecipe.name, ingredients
```