In [ ]:

```python
#UNIVERSIDAD POLITECNICA SALESIANA
# Materia: Sistemas Expertos
# Docente: Diego Quisi
# Tema: Similitud de Coseno en Neo4j
# Objetivo: Consolidar los conocimientos adquiridos en clases
```

In [ ]:

```python
from neo4j import GraphDatabase
username = ('neo4j')
password = ('neo4jj')
uri = "bolt://localhost:7687"
driver = GraphDatabase.driver(uri, auth=(username, password))
session2= driver.session(database="neo4j")
session2= driver.session()
cocina =session2.run("CREATE (french:Cuisine {name:'French'}), (italian:Cuisine
persona = session2.run("CREATE (zhen:Person {name: 'Zhen'}), (praveena:Person {r
relacion = session2.run("CREATE (praveena)-[:LIKES {score: 9}]->(indian),  (prav
relacion2= session2.run ("CREATE (zhen)-[:LIKES {score: 10}]->(french), (zhen)-
relacion3= session2.run (" CREATE (michael)-[:LIKES {score: 8}]->(french), (mich
relacion4 = session2.run (" CREATE (arya)-[:LIKES {score: 10}]->(lebanese),  (ar
relacion5 = session2.run (" CREATE (karin)-[:LIKES {score: 9}]->(lebanese), (kar

session2.close()
driver.close()
```

In [15]:

```python
#obtener similitud entre los gustos de la persona
gustos = session2.run(" MATCH (p:Person), (c:Cuisine)OPTIONAL MATCH (p)-[likes:LIKES
print (gustos)
for c in gustos:
  print (c, 'ln')
print (' ')
print (' ')
print (' ')
similitudGustos = session2.run (" MATCH (p:Person), (c:Cuisine)  OPTIONAL MATCH (p)-
for c2 in similitudGustos:
 print (c2, "\n")


totalsimilitud= session2.run(" MATCH (p:Person), (c:Cuisine)  OPTIONAL MATCH (p)-[li
for re in   totalsimilitud:
 print (re, "\n")
```

```
<neo4j.work.result.Result object at 0x7fe4b9e2d2d0>
<Record nodes=5 similarityPairs=5 writeRelationshipType='SIMILAR' writ
eProperty='score' min=0.9542236328125 max=1.0000038146972656 mean=0.98
24020385742187 p95=1.0000038146972656> ln



<Record from='Praveena' to='Karin' similarity=1.0>

<Record from='Karin' to='Praveena' similarity=1.0>

<Record from='Michael' to='Arya' similarity=0.9788908326303921>

<Record from='Arya' to='Michael' similarity=0.9788908326303921>

<Record from='Arya' to='Karin' similarity=0.9610904115204073>

<Record from='Karin' to='Arya' similarity=0.9610904115204073>

<Record from='Zhen' to='Michael' similarity=0.9542262139256075>

<Record from='Michael' to='Zhen' similarity=0.9542262139256075>

<Record from='Praveena' to='Michael' similarity=0.9429903335828895>

<Record from='Michael' to='Praveena' similarity=0.9429903335828895>

<Record from='Zhen' to='Praveena' similarity=0.9191450300180579>

<Record from='Praveena' to='Zhen' similarity=0.9191450300180579>

<Record from='Karin' to='Michael' similarity=0.8498063272285821>

<Record from='Arya' to='Praveena' similarity=0.7194014606174091>

<Record from='Zhen' to='Arya' similarity=0.0>

<Record nodes=5 similarityPairs=5 writeRelationshipType='SIMILAR' writ
eProperty='score' min=0.9542236328125 max=1.0000038146972656 mean=0.98
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```

In [ ]:

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