(A) MATCH (p:Place) -[:IN_CATEGORY] → (c:Category),

(p) -[:AT_GATE] → (g:Gate),

(g) - [:IN_TERMINAL] → (t:Terminal)

WHERE c.name IN {Categories} AND
t.name = {terminal}

WITH p, c, g, t,
abs(g.gate - {gate}) AS dist

ORDER BY dist

RETURN p.name AS Name, c.name AS Category,
g.gate AS Gate, t.name AS Terminal

Recomendation based on location (airport gate)

(B) Food and drink places in the following {categories} closest to gate {gate} in terminal {terminal} that {user}'s friends like.

MATCH (p:Place) -[:IN_CATEGORY] →(c:Category),
(p) -[:AT_GATE] → (g:Gate),
(g) -[:IN_TERMINAL] → (t:terminal),
(u:User) -[:FRIENDS_WITH] →(friend:User),
(friend) -[:LIKES] → (p)

WHERE c.name IN {categories} AND
t.name ~~IN~~ ={terminal} AND
u.name = {user}

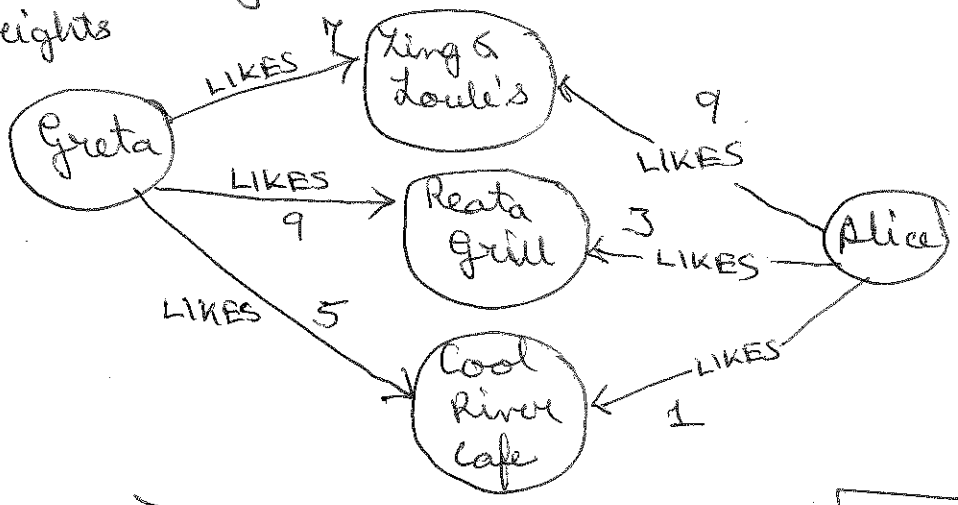
WITH p.name AS NAME, c.name AS Category,
g.gate AS Gate, t.name AS Terminal,
count(friends) AS friends,
abs(g.gate - {gate}) AS dist

ORDER BY friends DESC, dist

RETURN Name, Category, Gate, Terminal;

© Similarity Recomendations

weights



How to put weights in like?

User input

$\overrightarrow{Greta} = \langle 7, 9, 5 \rangle$

$\overrightarrow{Alice} = \langle 9, 3, 1 \rangle$

$$d(x,y) = \sqrt{\sum_{i=1}^{n} (x_i - y_i)^2}$$

$$\sqrt{(7-9)^2 + (9-3)^2 + (5-1)^2} = 7.483314773555$$

```
MATCH (u1:User) -[x:LIKES]-> (p:Place),
      (u2:User) -[y:LIKES]-> (p)
WHERE u1.name = 'Alice' AND
      u2.name = 'Greta'
RETURN sqrt(sum((x.weight - y.weight)^2))
```

```
MATCH (u1:User) -[x:LIKES]-> (p:Place),
      (u2:User) -[y:LIKES]-> (p)
WHERE id(u1) < id(u2)
WITH sqrt(sum((x.weight - y.weight)^2)) AS euc, u1, u2
MERGE (u1) -[d:DISTANCE]- (u2)
SET d.euclidean = euc;
```
