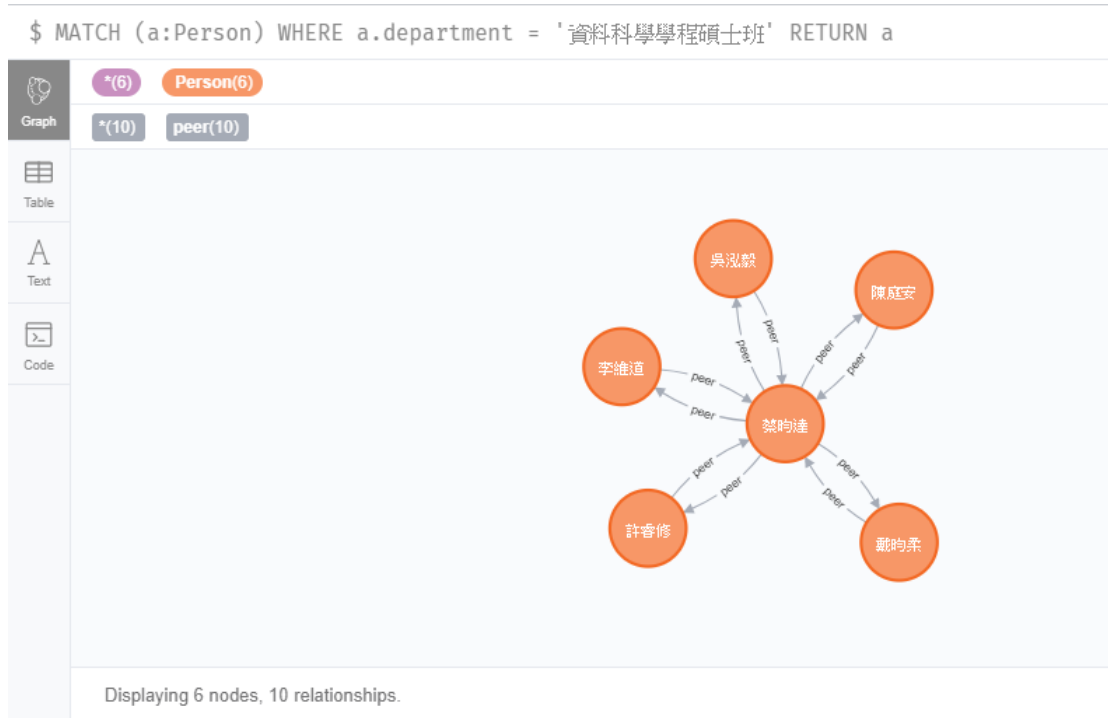108-1 SQL HW4 Report
Name:蔡昀達
UID: r08946007

Part 2 Graph Database (20 %)

1. Write a Cypher query to return you and your peer student in a graph. (20%)

MATCH (a:Person)
WHERE a.department ='資料科學學程碩士班'
RETURN a

Part 3 Part III Graph Database

1. Write a cypher query to print out your "foaf" and their associate new hobbies. (15%)

我嘗試了兩種方法，一種使用 label 來幫每個人標記複數個 hobby，另一個使用 array property
但 query 的語意相同，只差在一個呼叫 n.hooby 一個是 labels(n)
Query 的思路是先 match 有跟我一樣 hobby 的人然後 match 這些跟 hobby friend 相同 hobby
的人，也就是 foaf，然後返回 foaf 的 node 和個別的 hobby

match (n{studentID:'r08946007'}), (m)
where any(x in labels(n) where x in labels(m))
with m, n
match (m), (o)
where any(x in labels(m) where x in labels(o)) and (o.studentID <> r08946007')
return DISTINCT o.name, filter(y in labels(o) where not y in labels(n))

Started streaming 57 records after 1 ms and completed after 120 ms.

2. **Write a cypher query to print our all the new hobbies of your foaf.**

和上題思路一模一樣但是把返回 **foaf node** 改成將 **foaf hobby** 展開並且返回 **distinct**

match (n{studentID:'r08946007'}), (m)
where any(x in labels(n) where x in labels(m))
with m, n
match (m), (o)
where any(x in labels(m) where x in labels(o)) and (o.studentID <> 'r08946007')
unwind filter(y in labels(o) where not y in labels(n)) as new_hobby
return distinct new_hobby

Started streaming 110 records after 1 ms and completed after 52 ms.