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Tarea 4. Graph databases

The screenshot shows the Neo4j web interface with a Cypher query: `$ MATCH (student) WHERE student.age > 20 RETURN student.name, student.age`. The results are displayed in a table with two columns: `student.name` and `student.age`. The table contains 17 rows of student names and their ages. A status message at the bottom of the results indicates: "Started streaming 57 records after 2 ms and completed after 4 ms."

student.name	student.age
"Charlotte A. Vaughn"	21
"Natalie Yang"	24
"Reece X. Craft"	22
"Zoe C. Woods"	21
"Hilana Z. Frederick"	23
"Cynthia Everett"	24
"Kendall Herring"	22
"Zachery L. Cash"	21
"Chandler Lawrence"	24
"Finn V. Edwards"	24
"Conan Jimenez"	24
"Yuli Bonner"	22
"Darryl Q. Gardner"	23
"Vernon G. Bauer"	24
"Dahlia D. Reed"	24
"Gail Cook"	21

The screenshot shows the Neo4j web interface with a Cypher query: `$ MATCH (student) RETURN student.name ORDER BY student.name`. The results are displayed in a table with one column: `student.name`. The table contains 17 rows of student names, sorted alphabetically. A status message at the bottom of the results indicates: "Started streaming 100 records after 5 ms and completed after 6 ms."

student.name
"Acton Y. Lambert"
"Ainsley U. Sanchez"
"Aladdin H. House"
"Allen S. Mercer"
"Aquila P. Ortega"
"Arden Rasmussen"
"Aspen L. McLaughlin"
"Athena V. Evans"
"Aurora W. Sosa"
"Autumn E. Luna"
"Brady S. Rosario"
"Brenna Green"
"Cade Morris"
"Chandler Lawrence"
"Charlotte A. Vaughn"
"Ciara O. Olson"

Below the results, there is a footer section with the following content:

- neo4j** logo
- Learn about Neo4j**
A graph epiphany awaits you.
What is a graph database?
How can I query a graph?
What do people do with Neo4j?
- Jump into code**
Use Cypher, the graph query language.
Code walk-throughs
RDBMS to Graph
- Monitor the system**
Key system health and status metrics.
Disk utilization
Cache activity
Cluster health and status

localhost

\$

\$ MATCH (s1:Student)-[b:IN_RELATIONSHIP_WITH]->(s2:Student) WITH s1, COUNT(b) as c WHERE c >= 1 return s1.name, s1.age, c

s1.name	s1.age	c
"Uriel Baxter"	20	3
"Lance R. Donovan"	18	2
"Zachary L. Cash"	21	2
"Ezekiel Mendez"	21	1
"Timon Mccoy"	21	1
"Jameson V. Key"	22	1
"Leigh Harrison"	20	2
"Zoe S. Livingston"	19	2
"Cynthia Everett"	24	1
"Rachel R. Lott"	18	2
"Shellie V. Ware"	18	1
"Aurora W. Sosa"	21	1
"Allen S. Mercer"	19	3
"Quon Jefferson"	19	2
"Marcia I. Bright"	22	2
"Imogene V. Lester"	20	2

Started streaming 59 records after 4 ms and completed after 5 ms.

\$ MATCH (student) WHERE student.age > 20 RETURN student.name, student.age

student.name	student.age
"Charlotte A. Vaughn"	21
"Natalie Yang"	24
"Reece X. Craft"	22
"Zoe C. Woods"	21
"Biliana Z. Frederick"	23
"Cynthia Everett"	24

localhost

\$

\$ MATCH (s1:Student {name: 'Uriel Baxter'})-[b:IN_RELATIONSHIP_WITH]-(mate:Student) with s1, mate, b RETURN s1.name, mate.name, b.duration

s1.name	mate.name	b.duration
"Uriel Baxter"	"Rachel R. Lott"	48
"Uriel Baxter"	"Natalie Yang"	28
"Uriel Baxter"	"Ezekiel Mendez"	15
"Uriel Baxter"	"Shellie V. Ware"	48
"Uriel Baxter"	"Diane D. Hurley"	46

Started streaming 5 records in less than 1 ms and completed after 1 ms.

\$ MATCH (s1:Student)-[b:IN_RELATIONSHIP_WITH]->(s2:Student) WITH s1, COUNT(b) as c WHERE c >= 1 return s1.name, s1.age, c

s1.name	s1.age	c
"Uriel Baxter"	20	3
"Lance R. Donovan"	18	2
"Zachary L. Cash"	21	2
"Ezekiel Mendez"	21	1
"Timon Mccoy"	21	1
"Jameson V. Key"	22	1
"Leigh Harrison"	20	2
"Zoe S. Livingston"	19	2
"Cynthia Everett"	24	1
"Rachel R. Lott"	18	2
"Shellie V. Ware"	18	1
"Aurora W. Sosa"	21	1
"Allen S. Mercer"	19	3
"Quon Jefferson"	19	2

localhost

\$

\$ MATCH (studentA:Student)-[:FRIEND_OF]->(studentB:Student) with studentA, SIZE(COLLECT(studentA)) as cnt RETURN studentA.name ORDER BY cnt DESC LIMIT 1

studentA.name
"Ulric M. Austin"

Started streaming 1 records after 5 ms and completed after 5 ms.

\$ MATCH (s1:Student {name: 'Uriel Baxter'})-[:IN_RELATIONSHIP_WITH]->(mate:Student) with s1, mate, b RETURN s1.name, mate.name, b.duration

s1.name	mate.name	b.duration
"Uriel Baxter"	"Rachel R. Lott"	48
"Uriel Baxter"	"Natalie Yang"	28
"Uriel Baxter"	"Ezekiel Mendez"	15
"Uriel Baxter"	"Shelle V. Ware"	48
"Uriel Baxter"	"Dane D. Hurley"	46

Started streaming 5 records in less than 1 ms and completed after 1 ms.

\$ MATCH (s1:Student)-[:IN_RELATIONSHIP_WITH]->(s2:Student) WITH s1, COUNT(b) as c WHERE c >= 1 return s1.name, s1.age, c

s1.name	s1.age	c
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localhost

\$

\$ MATCH (studentA)-[:IN_RELATIONSHIP_WITH]->(c) WHERE r IS NULL RETURN studentA.name

(no changes, no records)

Completed after 2 ms.

\$ MATCH (studentA:Student)-[:FRIEND_OF]->(studentB:Student) with studentA, SIZE(COLLECT(studentA)) as cnt RETURN studentA.name ORDER BY cnt DESC LIMIT 1

studentA.name
"Ulric M. Austin"

Started streaming 1 records after 5 ms and completed after 5 ms.

\$ MATCH (s1:Student {name: 'Uriel Baxter'})-[:IN_RELATIONSHIP_WITH]->(mate:Student) with s1, mate, b RETURN s1.name, mate.name, b.duration

s1.name	mate.name	b.duration
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localhost

\$

\$ MATCH (student)-[:IN_RELATIONSHIP_WITH]->(studentB) WITH student, count(*) as relationships where relationships > 3 return student.name, relationships

student.name	relationships
"Clio A. Morse"	4
"Acton Y. Lambert"	5
"Dacey Dale"	4
"Kelle Brock"	4

Started streaming 4 records after 3 ms and completed after 3 ms.

\$ MATCH (studentA)-[:IN_RELATIONSHIP_WITH]->(c) WHERE r IS NULL RETURN studentA.name

(no changes, no records)

Completed after 2 ms.

\$ MATCH (studentA:Student)-[:FRIEND_OF]->(studentB:Student) with studentA, SIZE(COLLECT(studentA)) as cnt RETURN studentA.name ORDER BY cnt DESC LIMIT 1

studentA.name

localhost

\$

\$ MATCH (:Student {name: 'Winter R. Grimes'})-[:AQUINTANCE_OF]->(friend) RETURN COUNT(AQUINTANCE_OF)

COUNT(AQUINTANCE_OF)
5

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

\$ MATCH (student)-[:IN_RELATIONSHIP_WITH]->(studentB) WITH student, count(*) as relationships where relationships > 3 return student.name, relationships

student.name	relationships
"Clio A. Morse"	4
"Acton Y. Lambert"	5
"Dacey Dale"	4
"Kelle Brock"	4

Started streaming 4 records after 3 ms and completed after 3 ms.

\$ MATCH (studentA)-[:IN_RELATIONSHIP_WITH]->(c) WHERE r IS NULL RETURN studentA.name

(no changes, no records)

localhost

\$

\$ MATCH (:Student {name: 'Winter R. Grimes'})-[:AQUINTANCE_OF]-(:mate) RETURN mate.name

mate.name

"Conan Jimenez"
"Shannon Allen"
"Melodie H. Peck"
"Dahlia S. Boone"
"Neil Benson"

Started streaming 5 records after 3 ms and completed after 12 ms.

\$ MATCH (:Student {name: 'Winter R. Grimes'})-[:AQUINTANCE_OF]-(:friend) RETURN COUNT(AQUINTANCE_OF)

COUNT(AQUINTANCE_OF)

5

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

\$ MATCH (student)-[:IN_RELATIONSHIP_WITH]->(studentB) WITH student, count(*) as relationships where relationships > 3 return student.name, relationships

student.name	relationships
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