

## 14\_Specialized Storage Paradigms

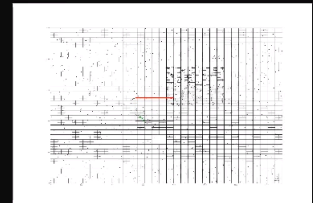
### *Specialized Storage Paradigms*

Blob Store Time Series DB Graph DB Spatial DB  
+ Quadtree

GCS  
S3

InfluxDB  
Prometheus

Neo4j



Blob Store (binary large object: arbitrary unstructure data - video, imge, large file) - GCS/S3

Time Series DB - InfluxDB, Prometheus

Graph DB - Neo4j

```
cypher_query.cql — specializedStorageParadigms
cypher_query.cql x sql_query.sql


cypher_query.cql
1  -- Populate data.
2  CREATE (facebook:Company {name:'Facebook'})
3
4  CREATE (clement:Candidate {name:'Clement'})
5  CREATE (antoine:Candidate {name:'Antoine'})
6  CREATE (simon:Candidate {name:'Simon'})
7
8  CREATE (alex:Interviewer {name:'Alex'})
9  CREATE (meghan:Interviewer {name:'Meghan'})
10 CREATE (marli:Interviewer {name:'Marli'})
11 CREATE (sandeep:Interviewer {name:'Sandeep'})
12 CREATE (molly:Interviewer {name:'Molly'})
13 CREATE (akshay:Interviewer {name:'Akshay'})
14 CREATE (aditya:Interviewer {name:'Aditya'})
15 CREATE (brandon:Interviewer {name:'Brandon'})
16 CREATE (pedro:Interviewer {name:'Pedro'})
17 CREATE (ryan:Interviewer {name:'Ryan'})
18 CREATE (xi:Interviewer {name:'Xi'})
19 CREATE (simran:Interviewer {name:'Simran'})
20 CREATE (amanda:Interviewer {name:'Amanda'})
21
22 CREATE (alex)-[:INTERVIEWED {score: 'passed'}]->(clement)
23 CREATE (meghan)-[:INTERVIEWED {score: 'passed'}]->(clement)
24 CREATE (simran)-[:INTERVIEWED {score: 'passed'}]->(clement)
25 CREATE (molly)-[:INTERVIEWED {score: 'failed'}]->(clement)
26 CREATE (marli)-[:INTERVIEWED {score: 'failed'}]->(antoine)
27 CREATE (akshay)-[:INTERVIEWED {score: 'passed'}]->(antoine)
28 CREATE (aditya)-[:INTERVIEWED {score: 'passed'}]->(antoine)
29 CREATE (meghan)-[:INTERVIEWED {score: 'passed'}]->(antoine)
30 CREATE (marli)-[:INTERVIEWED {score: 'failed'}]->(simon)
31 CREATE (meghan)-[:INTERVIEWED {score: 'failed'}]->(simon)
32 CREATE (brandon)-[:INTERVIEWED {score: 'passed'}]->(simon)
33 CREATE (xi)-[:INTERVIEWED {score: 'failed'}]->(simon)
34
35 CREATE (ryan)-[:APPLIED {status: 'rejected'}]->(facebook)
36 CREATE (simran)-[:APPLIED {status: 'accepted'}]->(facebook)
37 CREATE (xi)-[:APPLIED {status: 'rejected'}]->(facebook)
38 CREATE (molly)-[:APPLIED {status: 'rejected'}]->(facebook)
39 CREATE (alex)-[:APPLIED {status: 'rejected'}]->(facebook);
40
41 -- Find the interviewers who interviewed and failed Clement
42 -- and who also applied to and got rejected by Facebook.
43 MATCH (interviewer:Interviewer)-[:INTERVIEWED {score:'failed'}]->(:Candidate {name:
44 WHERE (interviewer)-[:APPLIED {status:'rejected'}]->(Company {name:'Facebook'})
```

```
sql_query.sql — specializedStorageParadigms


cypher_query.cql  sql_query.sql X

sql_query.sql
1  -- Find the interviewers who interviewed and failed Clement
2  -- and who also applied to and got rejected by Facebook.
3  SELECT interviewers.name
4  FROM (
5      ...candidates
6      ...JOIN interviews ON (candidates.id = interviews.candidate_id AND candidates.name
7      ...JOIN interviewers ON (interviewers.id = interviews.interviewer_id)
8  )
9  WHERE EXISTS (
10     ...SELECT *
11     FROM applications
12     WHERE company = 'Facebook' AND candidate_id = interviewers.id AND status = 're
13 );
```


# Specialized Storage Paradigms



Database Information



Node Labels



\*(17)

Candidate

Company

Interviewer

Relationship Types

\*(17)

APPLIED

INTERVIEWED

Property Keys





name


score

status

\$

MATCH (n) RETURN n LIMIT 25




Graph

\*(17)

Interviewer(13)

Candidate(3)


Company(1)


Table

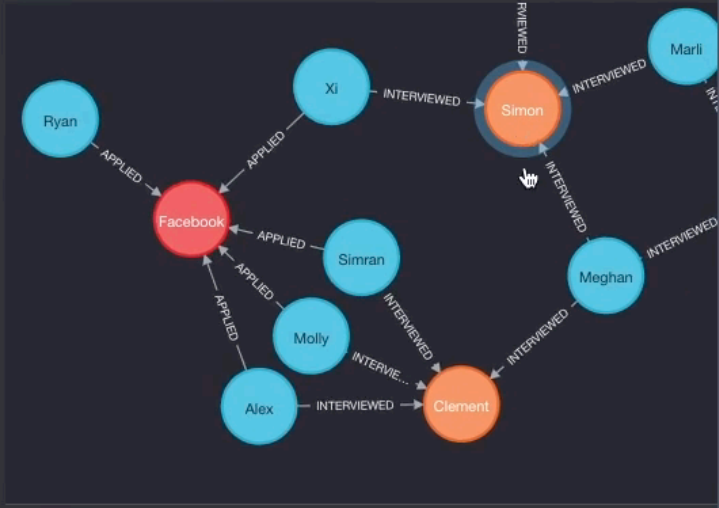
\*(17)

APPLIED(5)

INTERVIEWED(12)

Text

Code







Candidate


<id>: 24

name: Simon


\$


CREATE (facebook:Company {name:'Fa...



Table

Added 17 labels, created 17 nodes, set 34 properties, created 17 relationships, com...

Code



Added 17 labels, created 17 nodes, set 34 properties, created 17 relationships, comp...

Sptial DB - Quadree

