Monitoring Neo4J

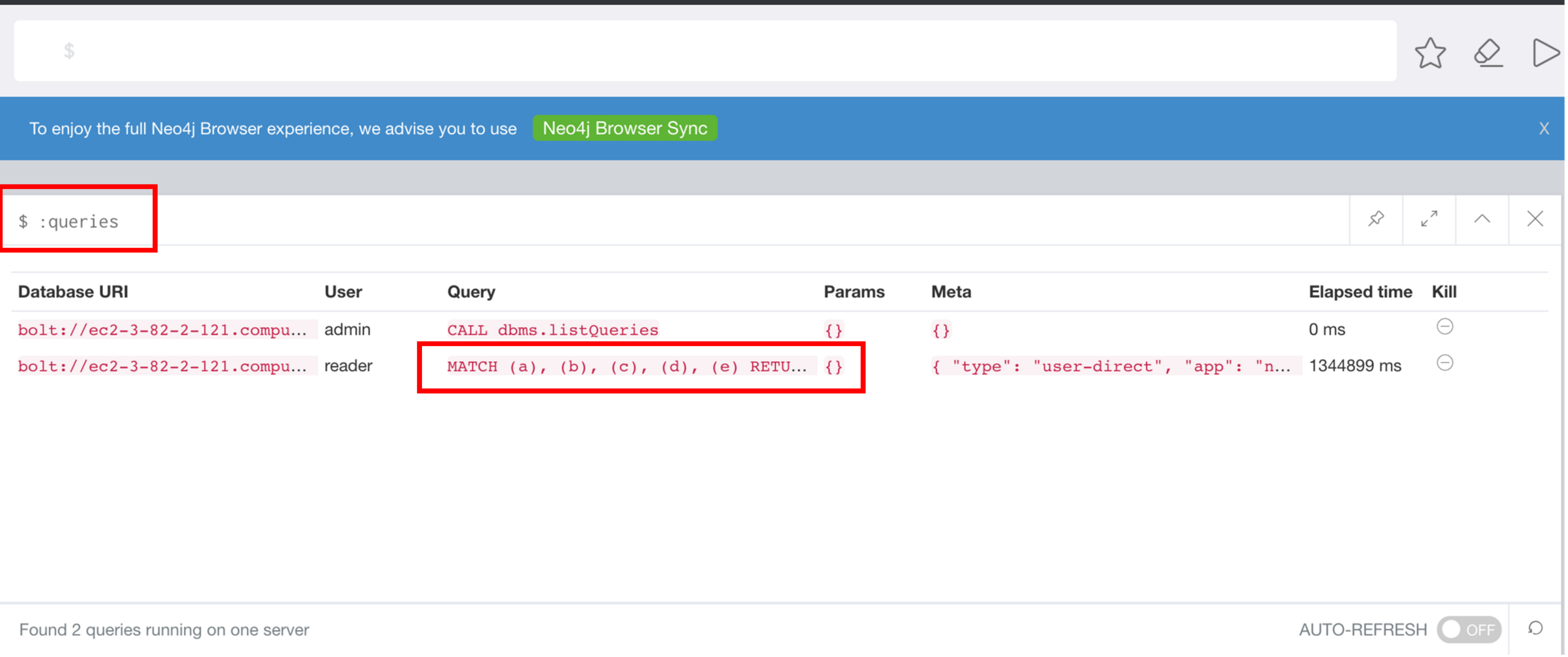
Create some nodes

- cypher-shell -u neo4j -p secret -d neo4j --format plain
  - :use neo4j;
  - MATCH (n) DETACH DELETE n;
  - #Create some records
  - FOREACH (i IN RANGE(1,200) | CREATE (:Person {name:'Person' + i}));

Exercise: Monitoring queries

- cypher-shell -u neo4j -p secret -d neo4j --format plain
  - #Execute a query that runs for longer than 1000 ms:
  - MATCH (a), (b), (c), (d) RETURN count(id(a));

Viewing currently running queries



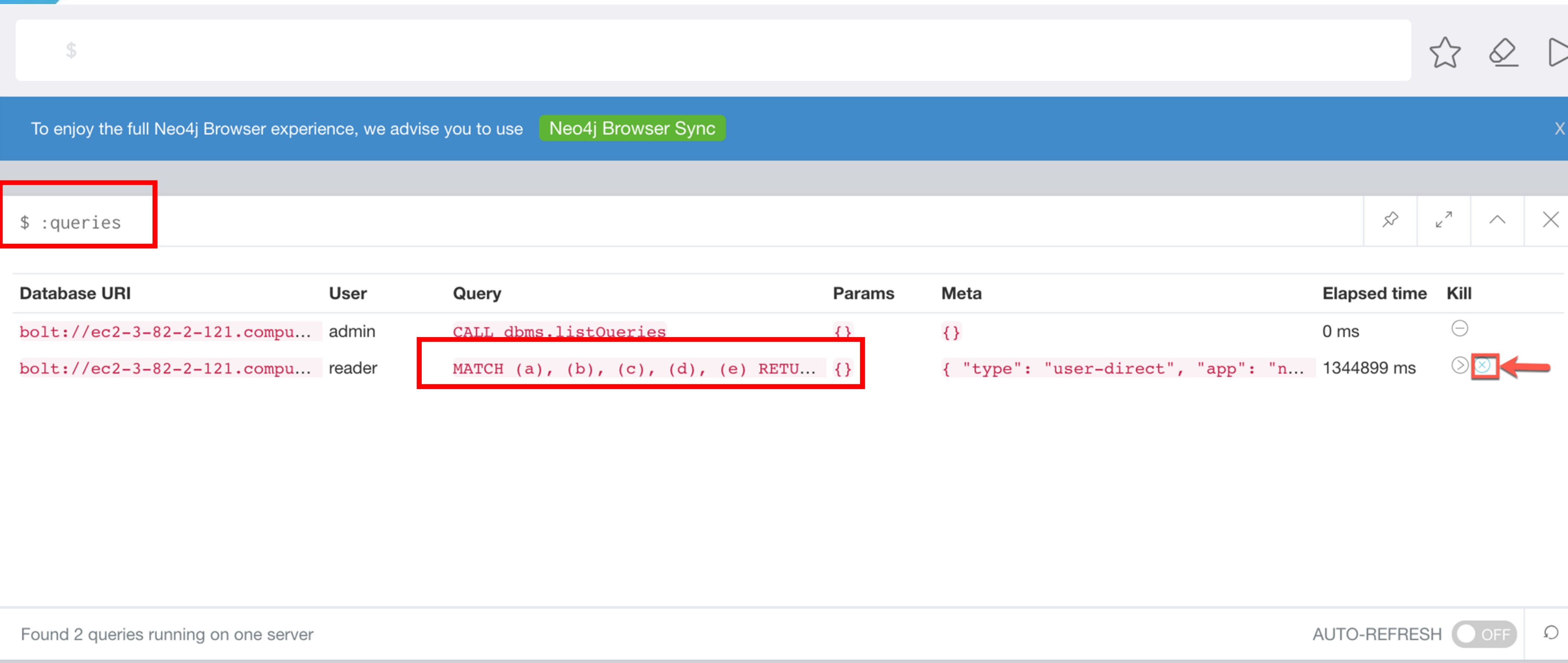
To enjoy the full Neo4j Browser experience, we advise you to use Neo4j Browser Sync

```
$ :queries
```

Database URI	User	Query	Params	Meta	Elapsed time	Kill
bolt://ec2-3-82-2-121.compu...	admin	CALL dbms.listQueries	{}	{}	0 ms	⊖
bolt://ec2-3-82-2-121.compu...	reader	MATCH (a), (b), (c), (d), (e) RETU...	{}	{ "type": "user-direct", "app": "n...	1344899 ms	⊖

Found 2 queries running on one server

Killing a long-running query



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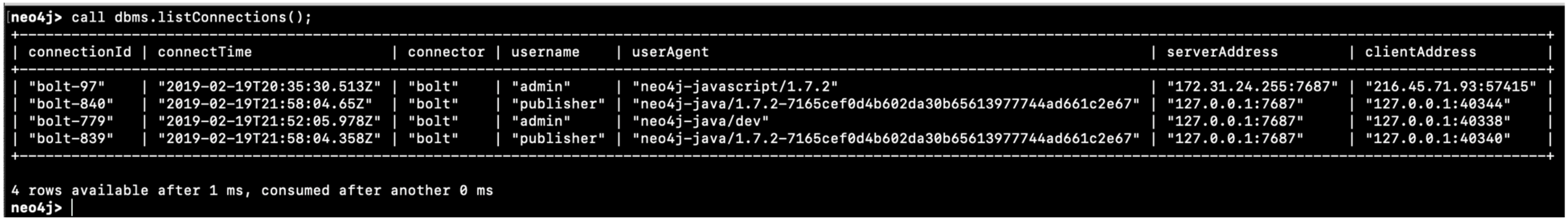
Found 2 queries running on one server

Automating monitoring of queries

- Automate the killing of long-running queries:
  - CALL dbms.listQueries() YIELD query, elapsedTimeMillis, queryId, username
  - WHERE NOT query CONTAINS toLower('LOAD')
  - AND elapsedTimeMillis > 1000
  - WITH query, collect(queryId) AS q
  - CALL dbms.killQueries(q) YIELD queryId
  - RETURN query, queryId;

Monitoring connections

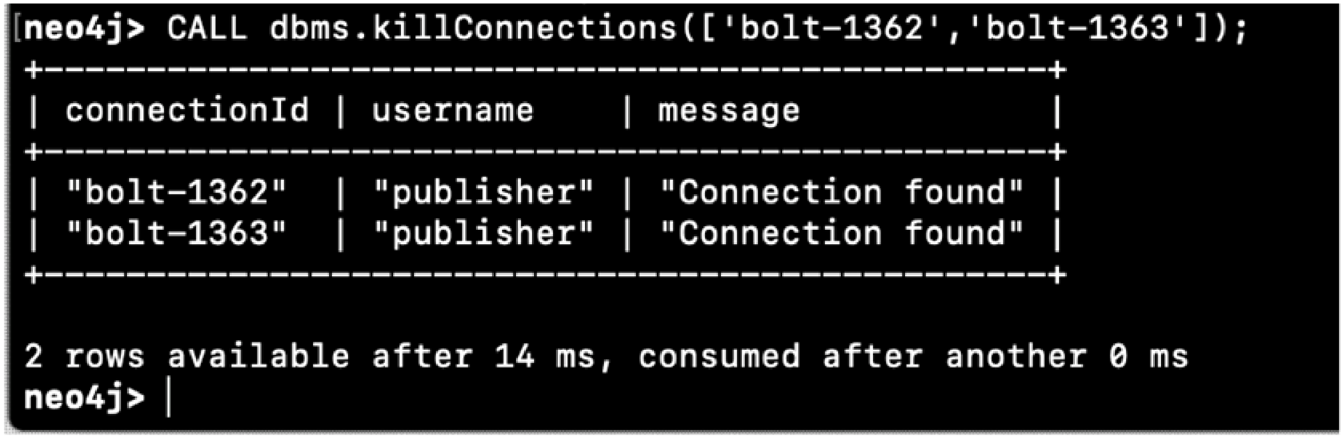
- Can view the current connections to a Neo4j instance from cypher-shell
  - Call dbms.listConnections();



```
neo4j> call dbms.listConnections();
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+
| connectionId | connectTime                | connector | username    | userAgent                                                   | serverAddress        | clientAddress        |
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+
| "bolt-97"    | "2019-02-19T20:35:30.513Z" | "bolt"    | "admin"     | "neo4j-javascript/1.7.2"                                    | "172.31.24.255:7687" | "216.45.71.93:57415" |
| "bolt-840"   | "2019-02-19T21:58:04.65Z"  | "bolt"    | "publisher" | "neo4j-java/1.7.2-7165cef0d4b602da30b65613977744ad661c2e67" | "127.0.0.1:7687"     | "127.0.0.1:40344"    |
| "bolt-779"   | "2019-02-19T21:52:05.978Z" | "bolt"    | "admin"     | "neo4j-java/dev"                                            | "127.0.0.1:7687"     | "127.0.0.1:40338"    |
| "bolt-839"   | "2019-02-19T21:58:04.358Z" | "bolt"    | "publisher" | "neo4j-java/1.7.2-7165cef0d4b602da30b65613977744ad661c2e67" | "127.0.0.1:7687"     | "127.0.0.1:40340"    |
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

4 rows available after 1 ms, consumed after another 0 ms
neo4j>
```

- Terminate the connection
  - dbms.killConnection()



```
neo4j> CALL dbms.killConnections(['bolt-1362','bolt-1363']);
+-------------------------------------------------+
| connectionId | username    | message            |
+-------------------------------------------------+
| "bolt-1362"  | "publisher" | "Connection found" |
| "bolt-1363"  | "publisher" | "Connection found" |
+-------------------------------------------------+

2 rows available after 14 ms, consumed after another 0 ms
neo4j>
```

THANK YOU