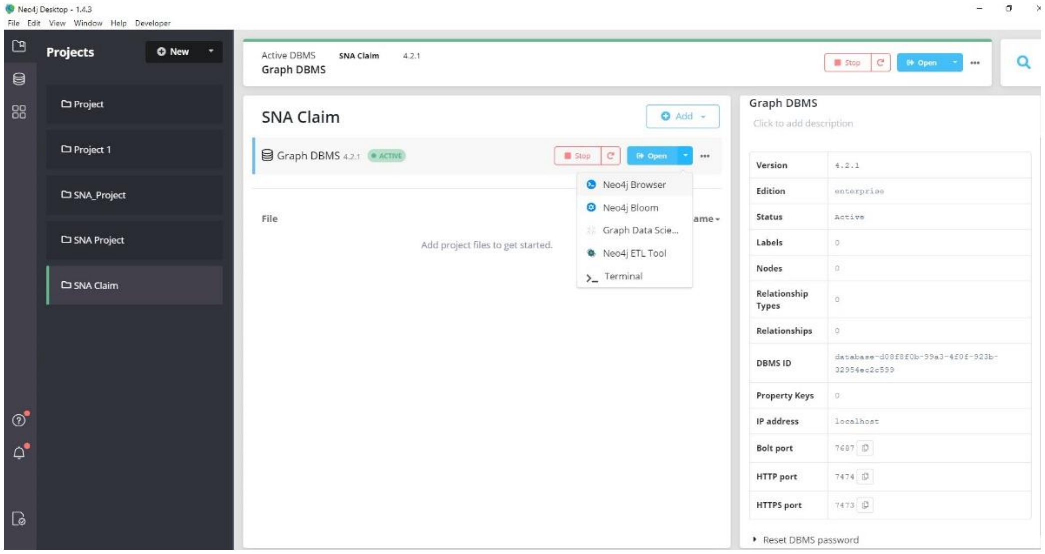
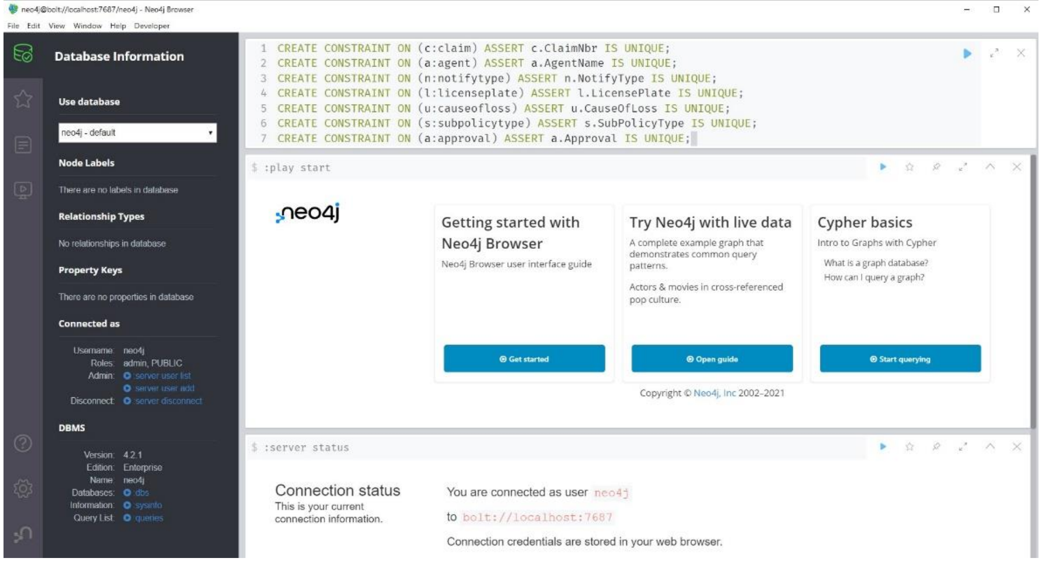
Load Dataset into local DBMS

- Use Cypher Query Language
- Use Neo4j Browser



Version	4.2.1
Edition	enterprise
Status	Active
Labels	0
Nodes	0
Relationship Types	0
Relationships	0
DBMS ID	database-d08f8f0b-99a3-4f0f-923b-32954ec2c599
Property Keys	0
IP address	localhost
Bolt port	7687
HTTP port	7474
HTTPS port	7473

- Load Data Claim to local DBMS
  - Create Constraint of claim data



```
CREATE CONSTRAINT ON (c:claim) ASSERT c.ClaimNbr IS UNIQUE;
CREATE CONSTRAINT ON (a:agent) ASSERT a.AgentName IS UNIQUE;
CREATE CONSTRAINT ON (n:notifytype) ASSERT n.NotifyType IS UNIQUE;
CREATE CONSTRAINT ON (l:licenseplate) ASSERT l.LicensePlate IS UNIQUE;
CREATE CONSTRAINT ON (u:causeofloss) ASSERT u.CauseOfLoss IS UNIQUE;
CREATE CONSTRAINT ON (s:subpolicytype) ASSERT s.SubPolicyType IS UNIQUE;
CREATE CONSTRAINT ON (a:approval) ASSERT a.Approval IS UNIQUE;
```

```
$ :play start
```

neo4j
Getting started with Neo4j Browser
Neo4j Browser user interface guide
Get started
Try Neo4j with live data
A complete example graph that demonstrates common query patterns.
Actors & movies in cross-referenced pop culture.
Open guide
Cypher basics
Intro to Graphs with Cypher
What is a graph database?
How can I query a graph?
Start querying
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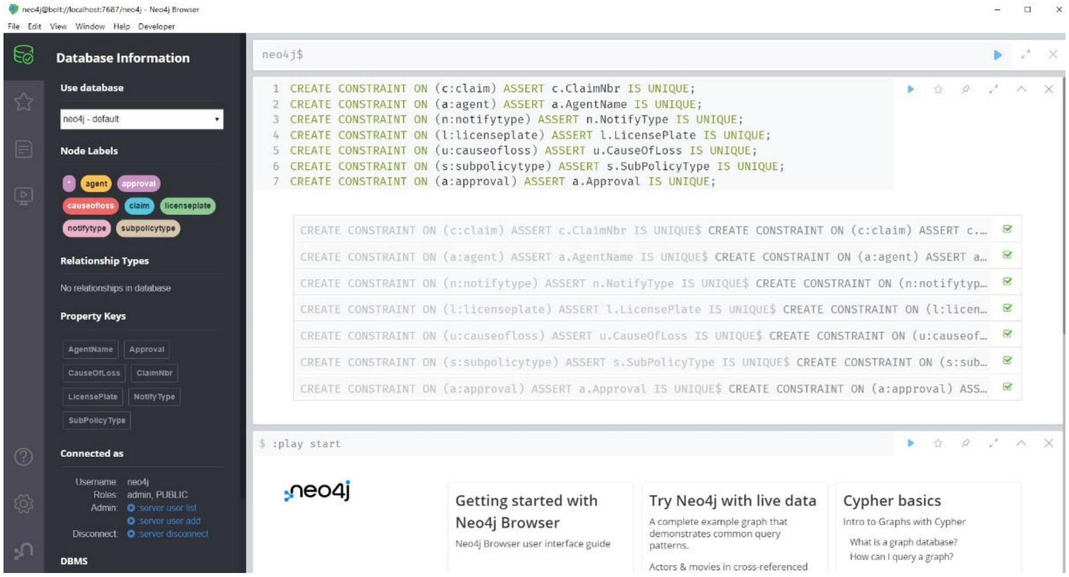
```
$ :server status
```

Connection status
This is your current connection information.

You are connected as user neo4j

to bolt://localhost:7687

Connection credentials are stored in your web browser.



```
CREATE CONSTRAINT ON (c:claim) ASSERT c.ClaimNbr IS UNIQUE;
CREATE CONSTRAINT ON (a:agent) ASSERT a.AgentName IS UNIQUE;
CREATE CONSTRAINT ON (n:notifytype) ASSERT n.NotifyType IS UNIQUE;
CREATE CONSTRAINT ON (l:licenseplate) ASSERT l.LicensePlate IS UNIQUE;
CREATE CONSTRAINT ON (u:causeofloss) ASSERT u.CauseOfLoss IS UNIQUE;
CREATE CONSTRAINT ON (s:subpolicytype) ASSERT s.SubPolicyType IS UNIQUE;
CREATE CONSTRAINT ON (a:approval) ASSERT a.Approval IS UNIQUE;
```

```
CREATE CONSTRAINT ON (c:claim) ASSERT c.ClaimNbr IS UNIQUE$ CREATE CONSTRAINT ON (c:claim) ASSERT c...
CREATE CONSTRAINT ON (a:agent) ASSERT a.AgentName IS UNIQUE$ CREATE CONSTRAINT ON (a:agent) ASSERT a...
CREATE CONSTRAINT ON (n:notifytype) ASSERT n.NotifyType IS UNIQUE$ CREATE CONSTRAINT ON (n:notifytyp...
CREATE CONSTRAINT ON (l:licenseplate) ASSERT l.LicensePlate IS UNIQUE$ CREATE CONSTRAINT ON (l:licen...
CREATE CONSTRAINT ON (u:causeofloss) ASSERT u.CauseOfLoss IS UNIQUE$ CREATE CONSTRAINT ON (u:causeof...
CREATE CONSTRAINT ON (s:subpolicytype) ASSERT s.SubPolicyType IS UNIQUE$ CREATE CONSTRAINT ON (s:sub...
CREATE CONSTRAINT ON (a:approval) ASSERT a.Approval IS UNIQUE$ CREATE CONSTRAINT ON (a:approval) ASS...
```

```
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```

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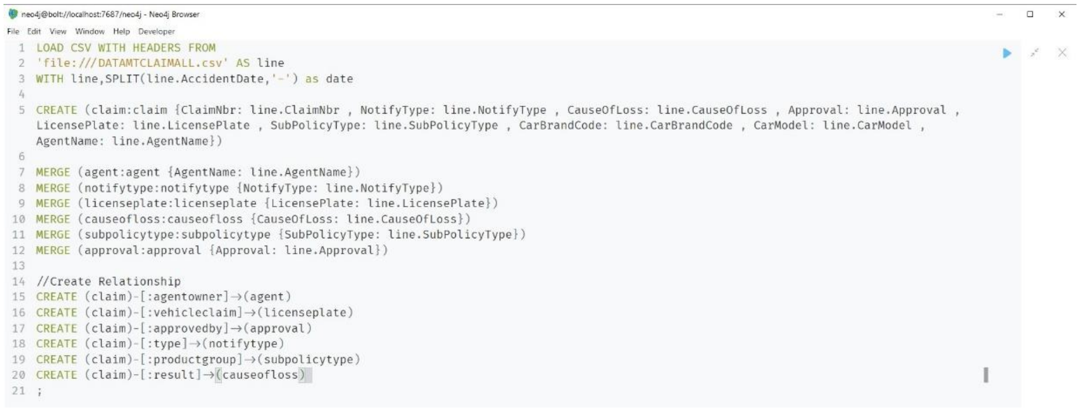
- Load Data and create property, label
- Create Relationship

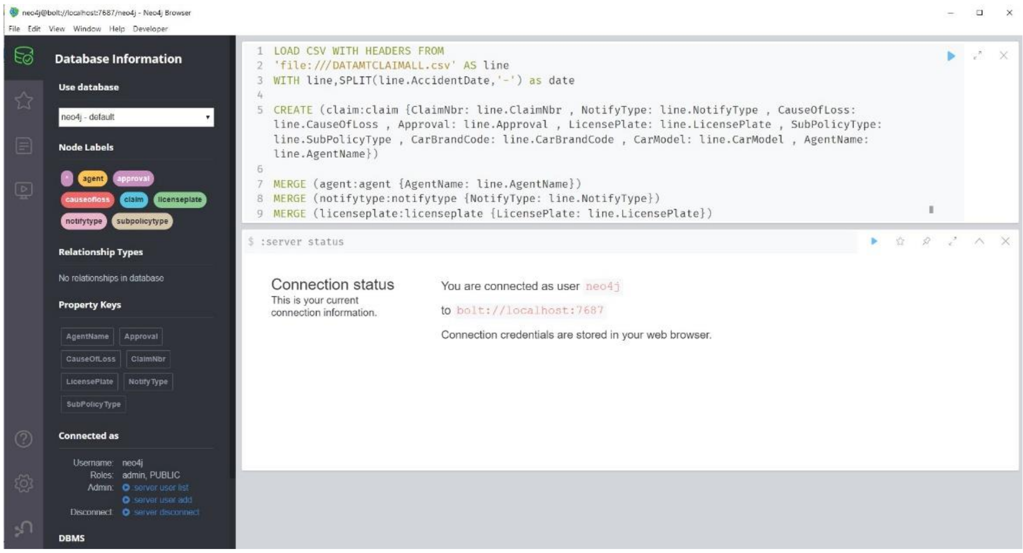

neo4j@bolt://localhost:7687/neo4j - Neo4j Browser
File Edit View Window Help Developer

```
LOAD CSV WITH HEADERS FROM
'file:///DATAMTCLAIMALL.csv' AS line
WITH line,SPLIT(line.AccidentDate,'-') as date

CREATE (claim:claim {ClaimNbr: line.ClaimNbr , NotifyType: line.NotifyType , CauseOfLoss: line.CauseOfLoss , Approval: line.Approval ,
LicensePlate: line.LicensePlate , SubPolicyType: line.SubPolicyType , CarBrandCode: line.CarBrandCode , CarModel: line.CarModel ,
AgentName: line.AgentName})

MERGE (agent:agent {AgentName: line.AgentName})
MERGE (notifytype:notifytype {NotifyType: line.NotifyType})
MERGE (licenseplate:licenseplate {LicensePlate: line.LicensePlate})
MERGE (causeofloss:causeofloss {CauseOfLoss: line.CauseOfLoss})
MERGE (subpolicytype:subpolicytype {SubPolicyType: line.SubPolicyType})
MERGE (approval:approval {Approval: line.Approval})

//Create Relationship
CREATE (claim)-[:agentowner]→(agent)
CREATE (claim)-[:vehicleclaim]→(licenseplate)
CREATE (claim)-[:approvedby]→(approval)
CREATE (claim)-[:type]→(notifytype)
CREATE (claim)-[:productgroup]→(subpolicytype)
CREATE (claim)-[:result]→(causeofloss)
;
```



```
LOAD CSV WITH HEADERS FROM
'file:///DATAMTCLAIMALL.csv' AS line
WITH line,SPLIT(line.AccidentDate,'-') as date

CREATE (claim:claim {ClaimNbr: line.ClaimNbr , NotifyType: line.NotifyType , CauseOfLoss:
line.CauseOfLoss , Approval: line.Approval , LicensePlate: line.LicensePlate , SubPolicyType:
line.SubPolicyType , CarBrandCode: line.CarBrandCode , CarModel: line.CarModel , AgentName:
line.AgentName})

MERGE (agent:agent {AgentName: line.AgentName})
MERGE (notifytype:notifytype {NotifyType: line.NotifyType})
MERGE (licenseplate:licenseplate {LicensePlate: line.LicensePlate})
```

```
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```

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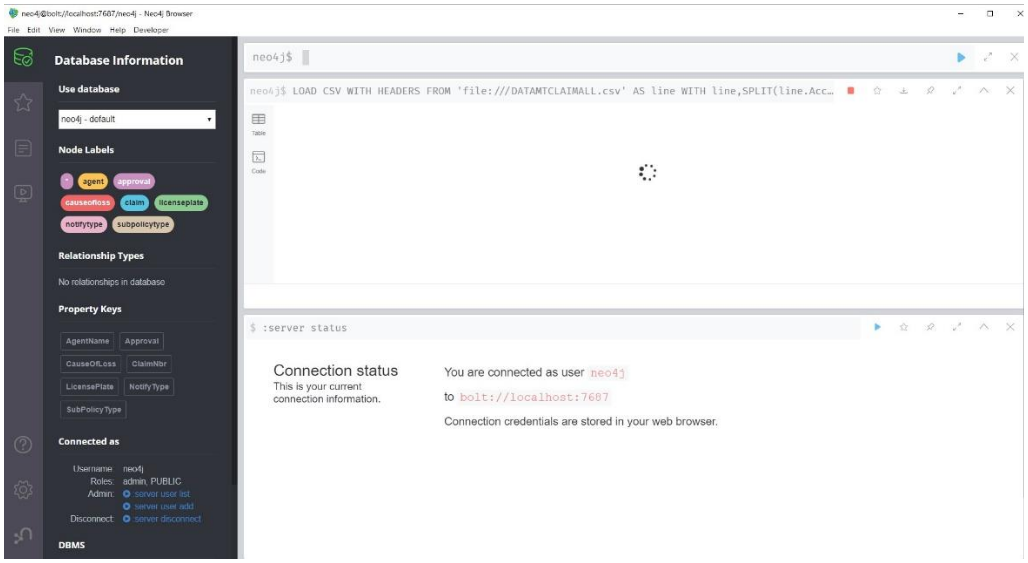

```
neo4j$
```

```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///DATAMTCLAIMALL.csv' AS line WITH line,SPLIT(line.Acc…
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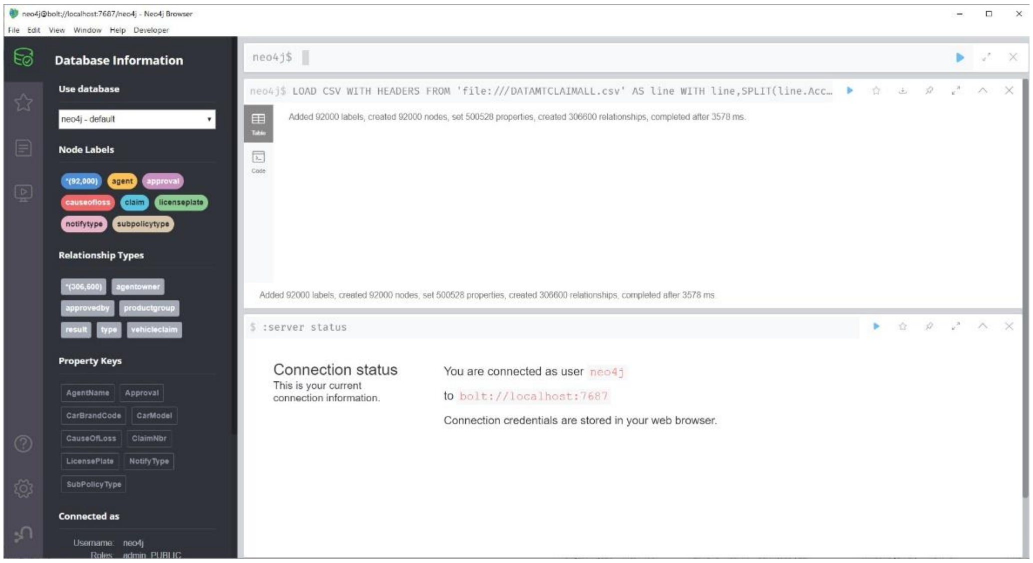

```
neo4j$
```

```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///DATAMTCLAIMALL.csv' AS line WITH line,SPLIT(line.Acc…
```

Added 92000 labels, created 92000 nodes, set 500528 properties, created 306600 relationships, completed after 3578 ms.

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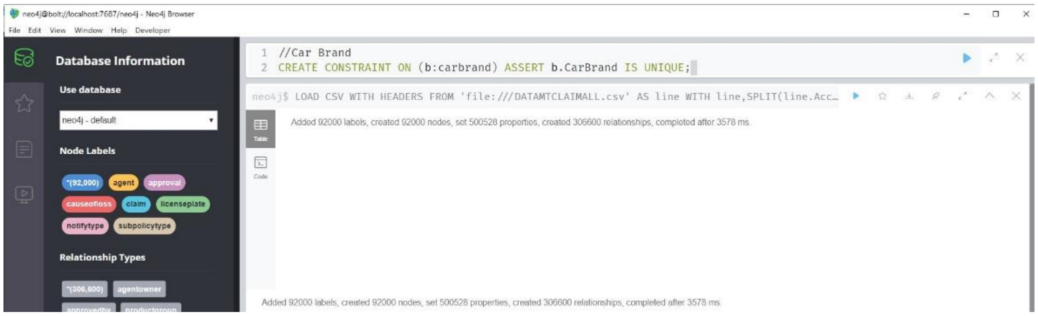

```
//Car Brand
CREATE CONSTRAINT ON (b:carbrand) ASSERT b.CarBrand IS UNIQUE;
```

```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///DATAMTCLAIMALL.csv' AS line WITH line,SPLIT(line.Acc…
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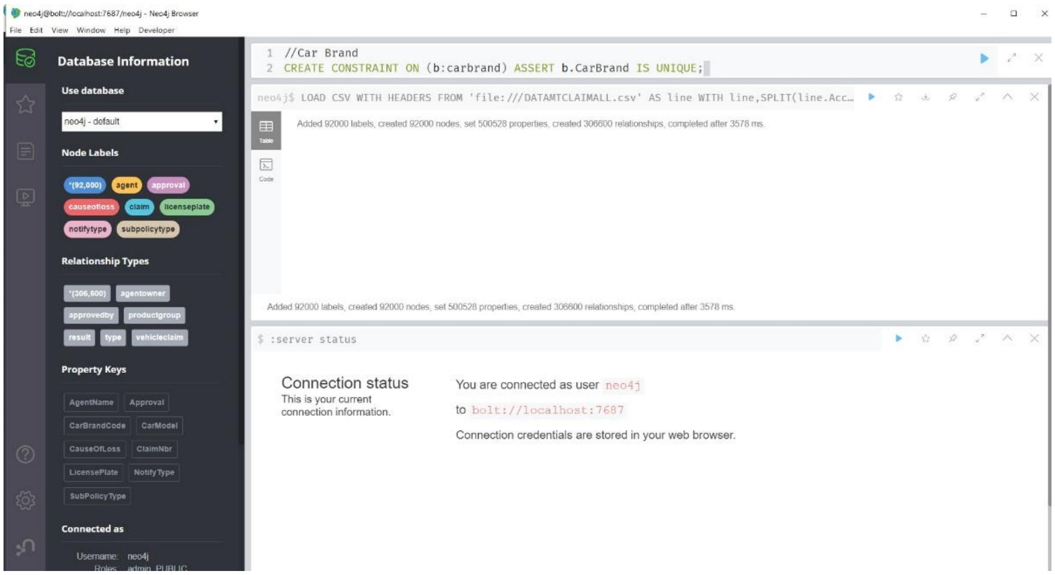
- Load Data Car Brand to local DBMS
    - Create Constraint of car brand


neo4j@bolt://localhost:7687/neo4j - Neo4j Browser
File Edit View Window Help Developer
Database Information
Use database
neo4j - default
Node Labels
*(92,000) agent approval causeofloss claim licenseplate notifytype subpolicytype
Relationship Types
*(306,600) agentowner approvedby productgroup result type vehicleclaim
Property Keys
AgentName Approval CarBrandCode CarModel CauseOfLoss ClaimNbr LicensePlate NotifyType SubPolicyType
Connected as
Username: neo4j
Roles: admin, PUBLIC
Table
Code

```
//Car Brand
CREATE CONSTRAINT ON (b:carbrand) ASSERT b.CarBrand IS UNIQUE;
```

```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///DATAMTCLAIMALL.csv' AS line WITH line,SPLIT(line.Acc…
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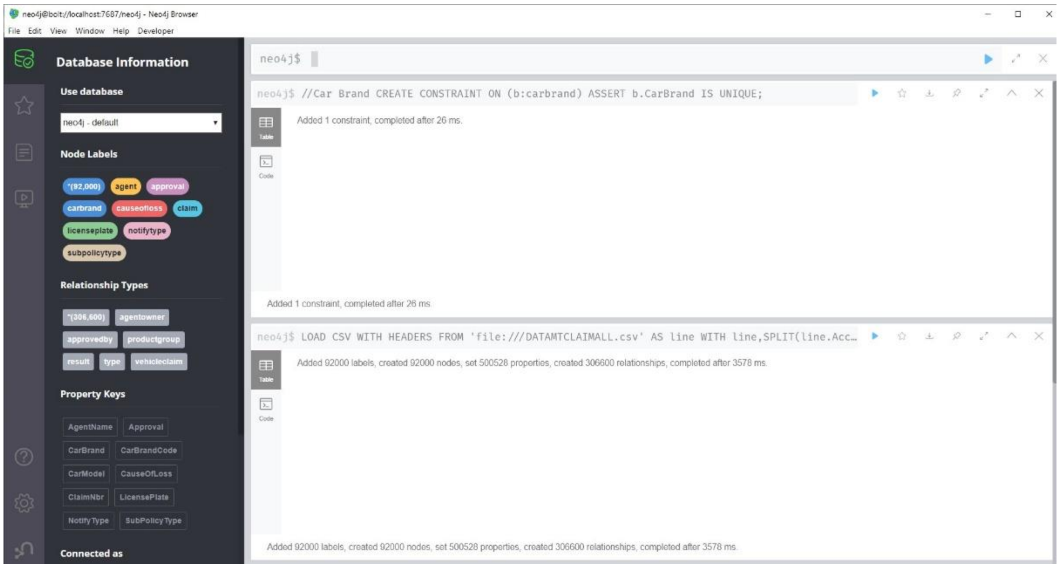
neo4j@bolt://localhost:7687/neo4j - Neo4j Browser
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Database Information
Use database
neo4j - default
Node Labels
*(92,000) agent approval carbrand causeofloss claim licenseplate notifytype subpolicytype
Relationship Types
*(306,600) agentowner approvedby productgroup result type vehicleclaim
Property Keys
AgentName Approval CarBrand CarBrandCode CarModel CauseOfLoss ClaimNbr LicensePlate NotifyType SubPolicyType
Connected as
Table
Code

```
neo4j$
```

```
neo4j$ //Car Brand CREATE CONSTRAINT ON (b:carbrand) ASSERT b.CarBrand IS UNIQUE;
```

Added 1 constraint, completed after 26 ms.

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```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///DATAMTCLAIMALL.csv' AS line WITH line,SPLIT(line.Acc…
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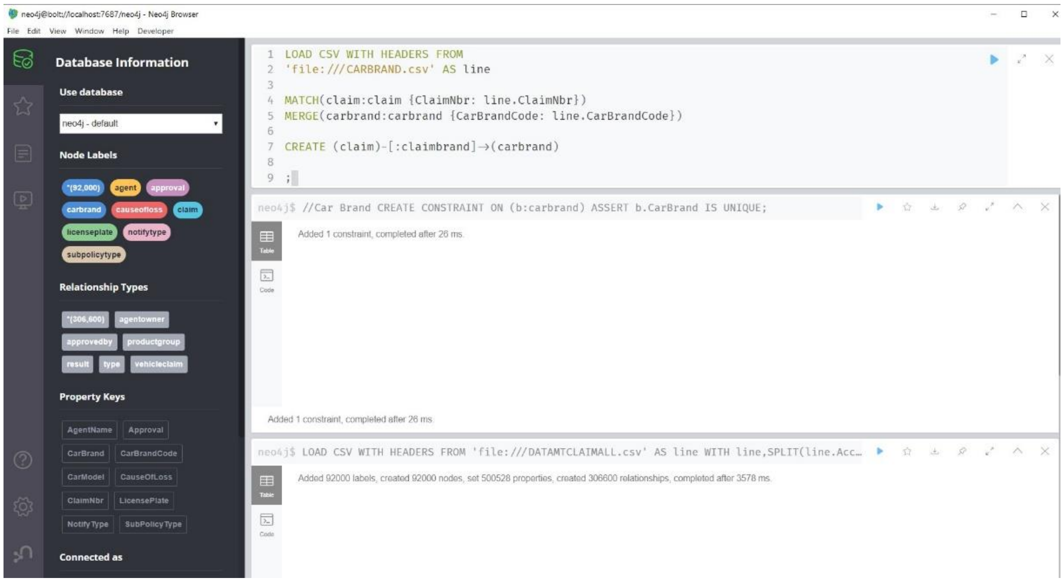

```
LOAD CSV WITH HEADERS FROM
'file:///CARBRAND.csv' AS line

MATCH(claim:claim {ClaimNbr: line.ClaimNbr})
MERGE(carbrand:carbrand {CarBrandCode: line.CarBrandCode})

CREATE (claim)-[:claimbrand]→(carbrand)

;
```

```
neo4j$ //Car Brand CREATE CONSTRAINT ON (b:carbrand) ASSERT b.CarBrand IS UNIQUE;
```

Added 1 constraint, completed after 26 ms.

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neo4j$ LOAD CSV WITH HEADERS FROM 'file:///DATAMTCLAIMALL.csv' AS line WITH line,SPLIT(line.Acc…
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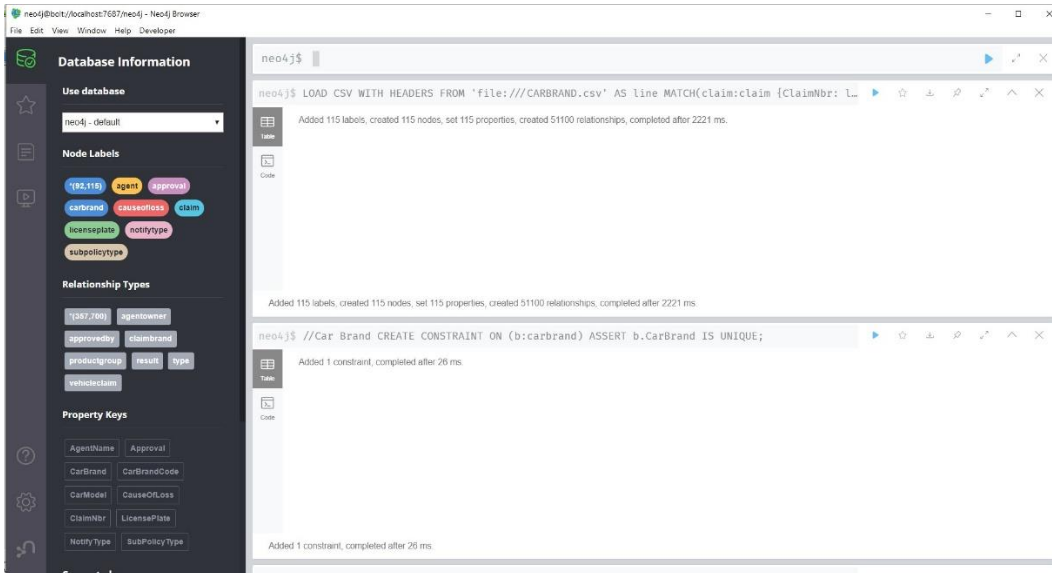

```
neo4j$
```

```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///CARBRAND.csv' AS line MATCH(claim:claim {ClaimNbr: l…
```

Added 115 labels, created 115 nodes, set 115 properties, created 51100 relationships, completed after 2221 ms.

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neo4j$ //Car Brand CREATE CONSTRAINT ON (b:carbrand) ASSERT b.CarBrand IS UNIQUE;
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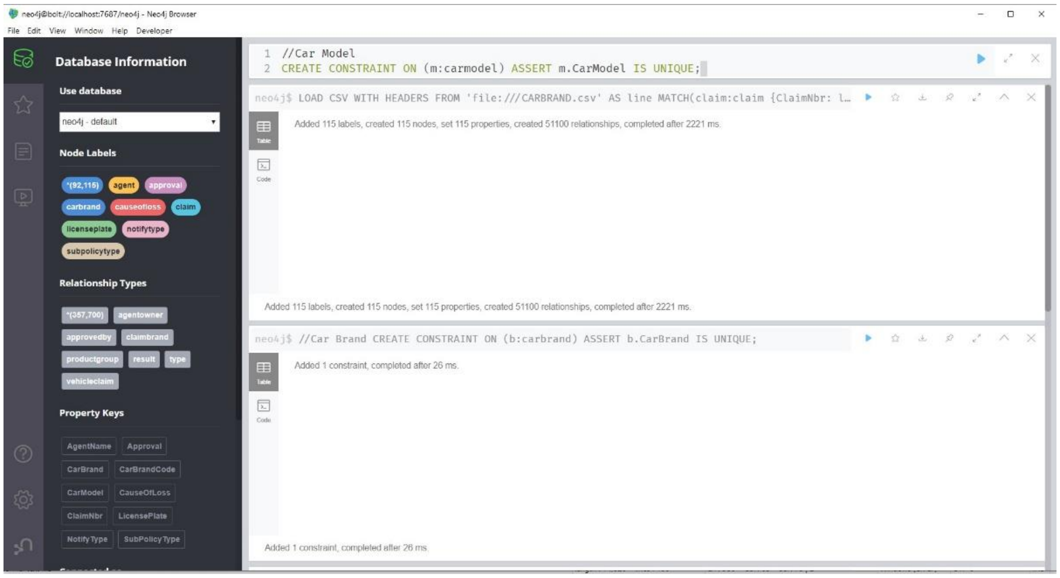
- Load Data Car Model to local DBMS
  - Create Constraint of car model



```
//Car Model
CREATE CONSTRAINT ON (m:carmodel) ASSERT m.CarModel IS UNIQUE;
```

```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///CARBRAND.csv' AS line MATCH(claim:claim {ClaimNbr: l…
```

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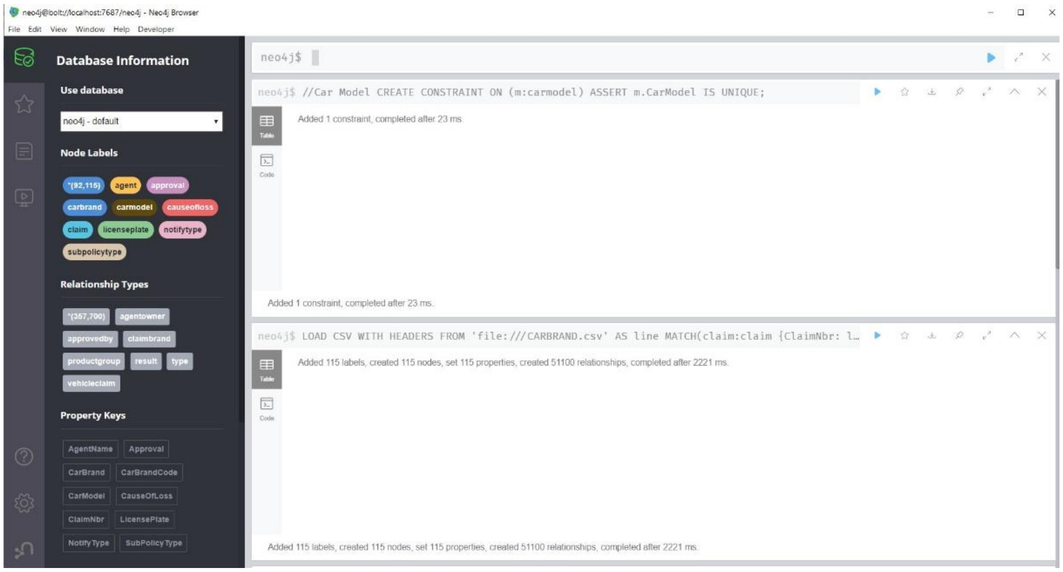

```
neo4j$
```

```
neo4j$ //Car Model CREATE CONSTRAINT ON (m:carmodel) ASSERT m.CarModel IS UNIQUE;
```

Added 1 constraint, completed after 23 ms.

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```
neo4j$ LOAD CSV WITH HEADERS FROM 'file:///CARBRAND.csv' AS line MATCH(claim:claim {ClaimNbr: l…
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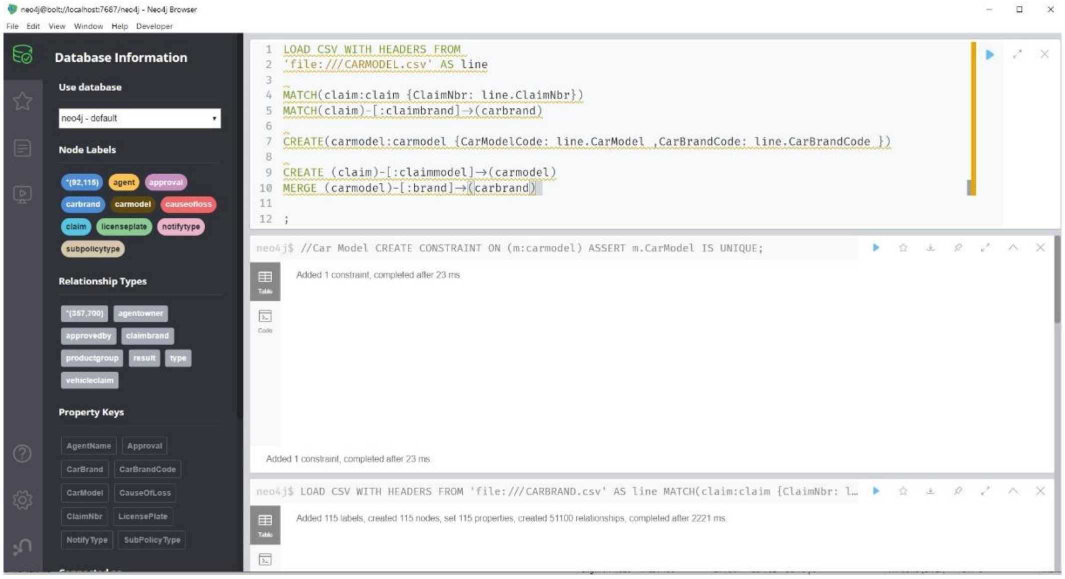

```
LOAD CSV WITH HEADERS FROM
'file:///CARMODEL.csv' AS line

MATCH(claim:claim {ClaimNbr: line.ClaimNbr})
MATCH(claim)-[:claimbrand]→(carbrand)

CREATE(carmodel:carmodel {CarModelCode: line.CarModel ,CarBrandCode: line.CarBrandCode })

CREATE (claim)-[:claimmodel]→(carmodel)
MERGE (carmodel)-[:brand]→(carbrand)

;
```

```
neo4j$ //Car Model CREATE CONSTRAINT ON (m:carmodel) ASSERT m.CarModel IS UNIQUE;
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Added 1 constraint, completed after 23 ms.

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