



UNIVERSITY OF
BIRMINGHAM

College of Engineering and Physical Sciences | School of Computer Science

Full Stack Application Development [06 34252]

YiCS – Software Workshop 2 [06 34169]

Software Workshop 2 [06 34157]

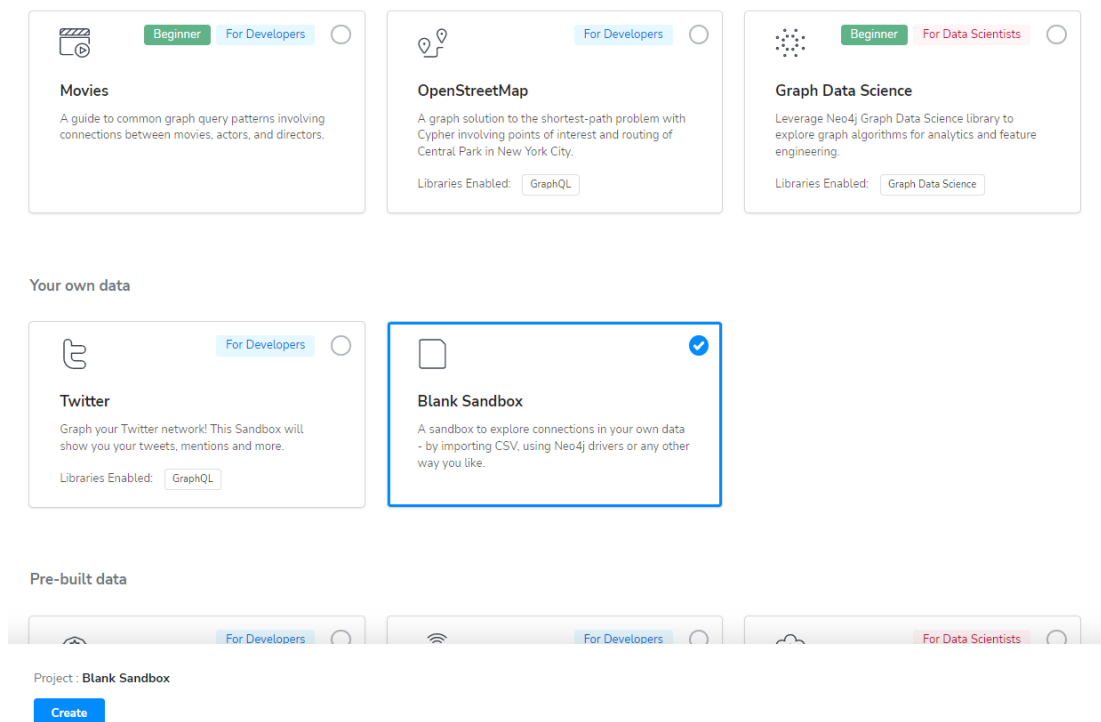
Full Stack Application Development (Dubai) [06 34236]

Software Workshop 2 (Dubai) [06 34188]

Week 9 Lab Exercises

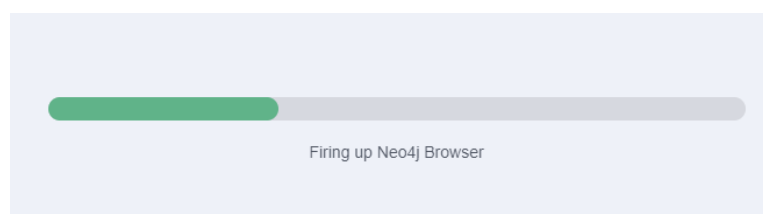
Topic: GraphDB – Neo4j Introduction

1. Go to <https://neo4j.com/sandbox/> and click on “Launch the Free Sandbox” button.
2. Follow the Sign-Up instructions.
3. Once your account is created, login and ...
4. In the popup window, select “Blank Sandbox” and click on “Create” at the bottom of the window.



5. Once the sandbox is ready, click on “open” to open the Blank Sandbox in your browser.

Name	Status	
● Blank Sandbox	Running Expires in about 3 days	Open ▼



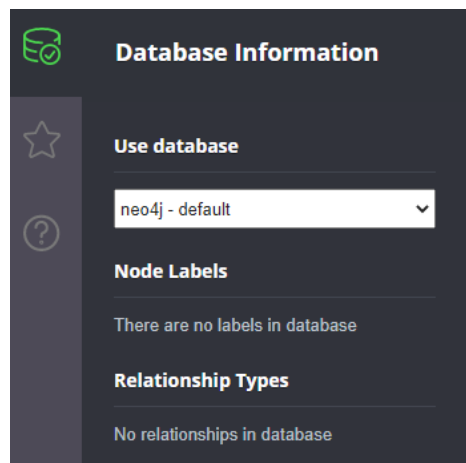
6. A new browser window will open and the something like the following will indicate you are connected ...



7. Click on the Database Information icon (top-left)

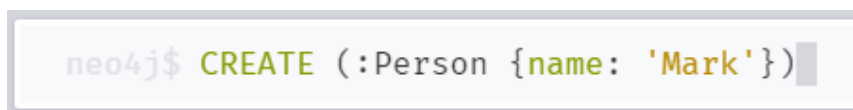


8. Obviously, you currently have an empty database

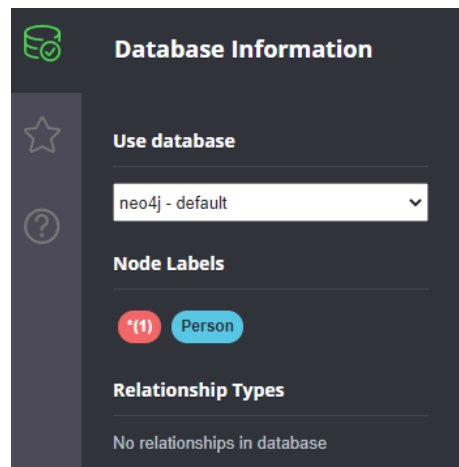


9. In the top text box type the first create command from the lecture.

```
CREATE (:Person {name: 'Mark'})
```



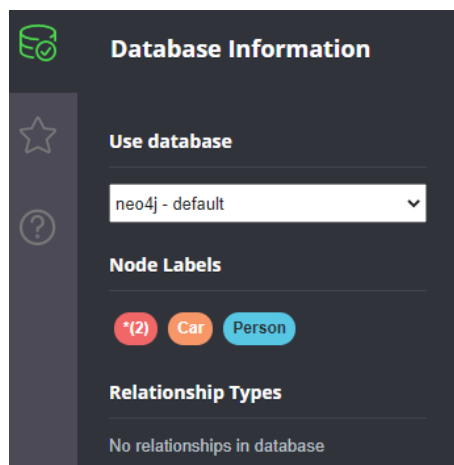
10.This creates your first node




11.Issue the second command

```
CREATE (:Car { colour: 'Red', reg_No: 'SN68THW'})
```

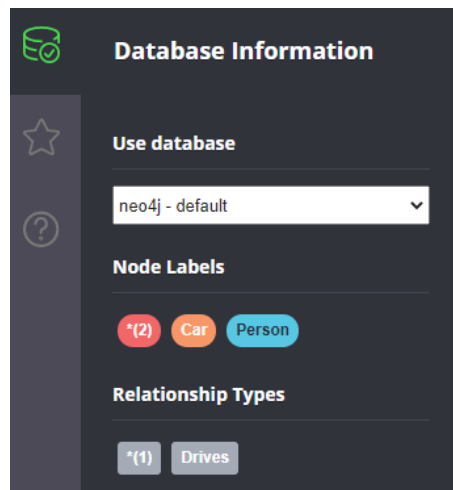
```
neo4j$ CREATE (:Car {colour: 'Red', reg_No: 'SN68THW'})
```



12. Now create a relationship between them, using MATCH and CREATE commands. For multi-line commands, use Shift-Enter to create a new line, you then have to use the Play icon  to issue the command.

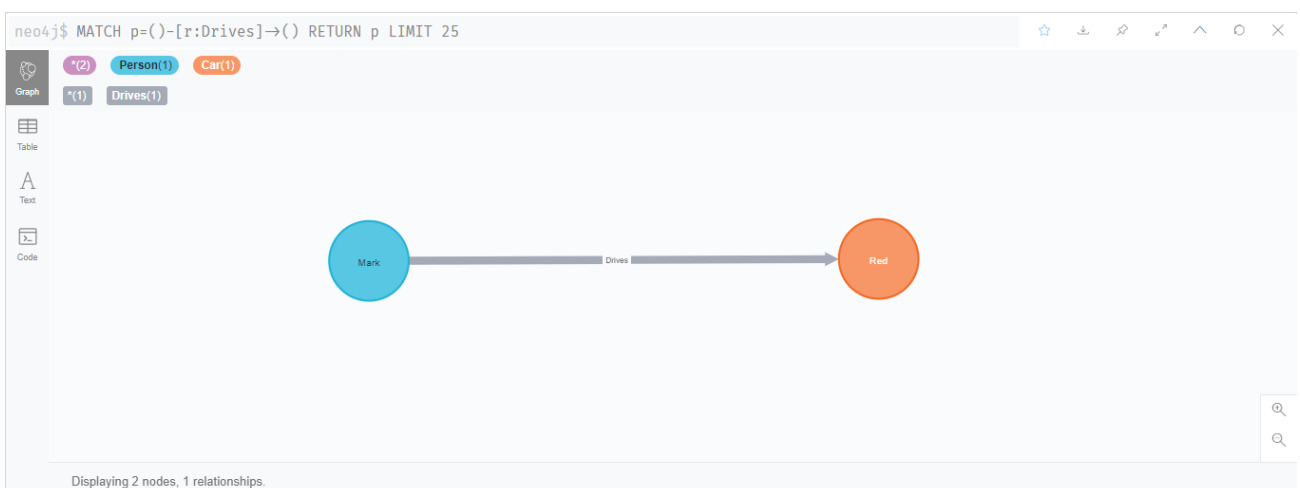
```
MATCH (p:Person {name : 'Mark'})
MATCH (c:Car { colour: 'Red', reg_No: 'SN68THW'})
CREATE (p)-[:Drives]->(c)
```

```
1 MATCH (p:Person {name: 'Mark'})
2 MATCH (c:Car {colour: 'Red', reg_No: 'SN68THW'})
3 CREATE (p)-[:Drives]→(c)
```



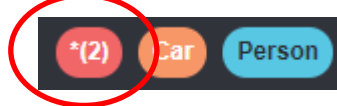
13. Now you have a simple graph created

14. Click on the Drives button to view your graph.



Note the command that produces this output. At the top of the output. It introduces the RETURN command and relates a variable, p, to a structure rather than an individual node or relationship.

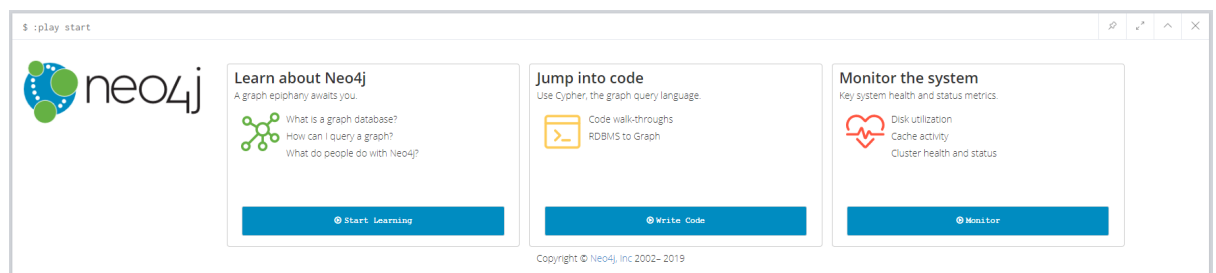
Also, note the different commands if you click on the All Nodes button



or the All Relationships button



For further information, enter the command



and follow some of the tutorials to extend your knowledge of Neo4J and Graph Databases

Note:

Your sandbox will remain active for 3 days, you will get an email to extend it a few more days. You can always create another sandbox, but your data will be lost.

There are other sandboxes with data already loaded, these are all free for you to investigate further.

If you are really interested in using graph databases, you can download Neo4J onto your machine from <https://neo4j.com/download/>