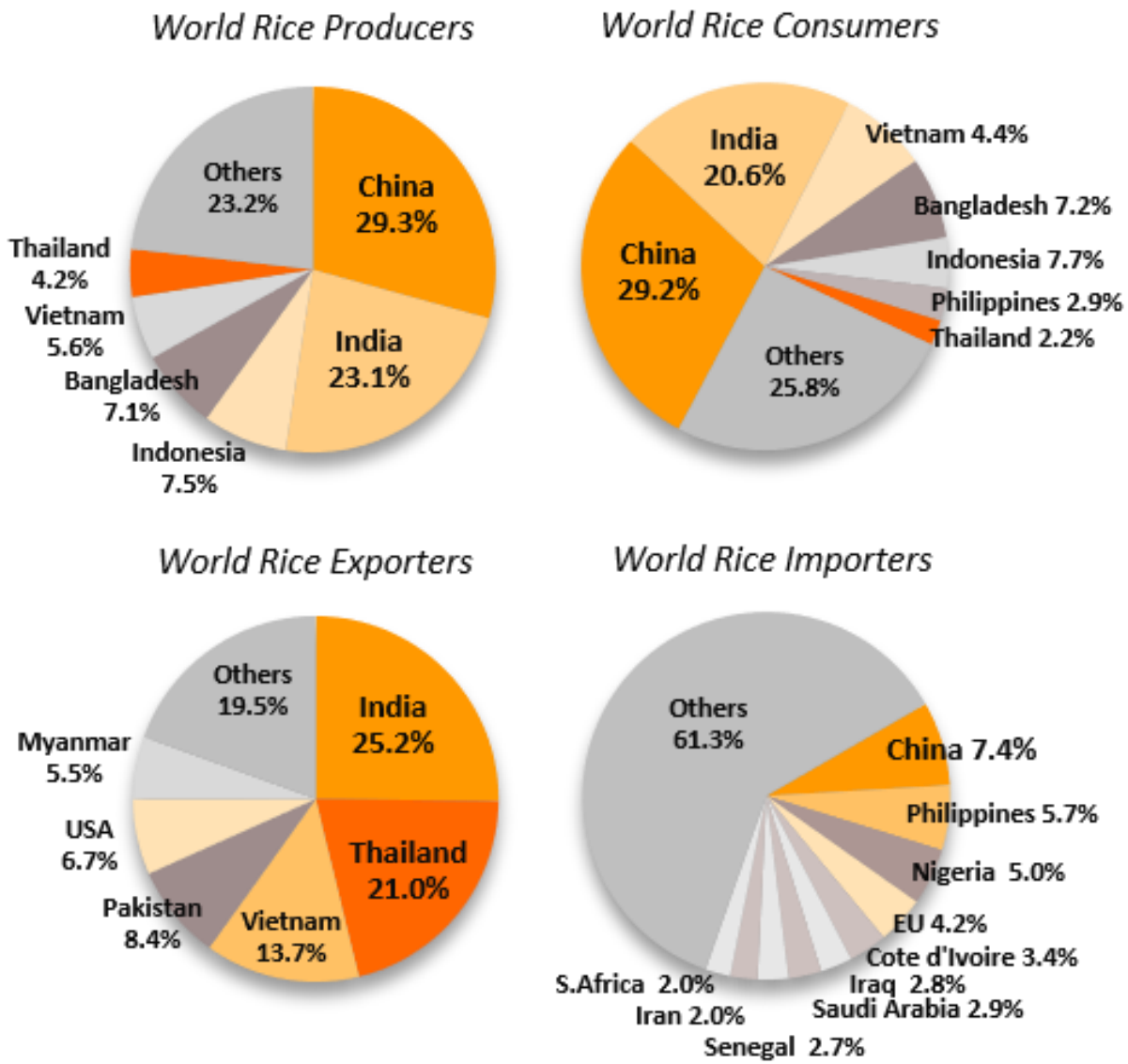
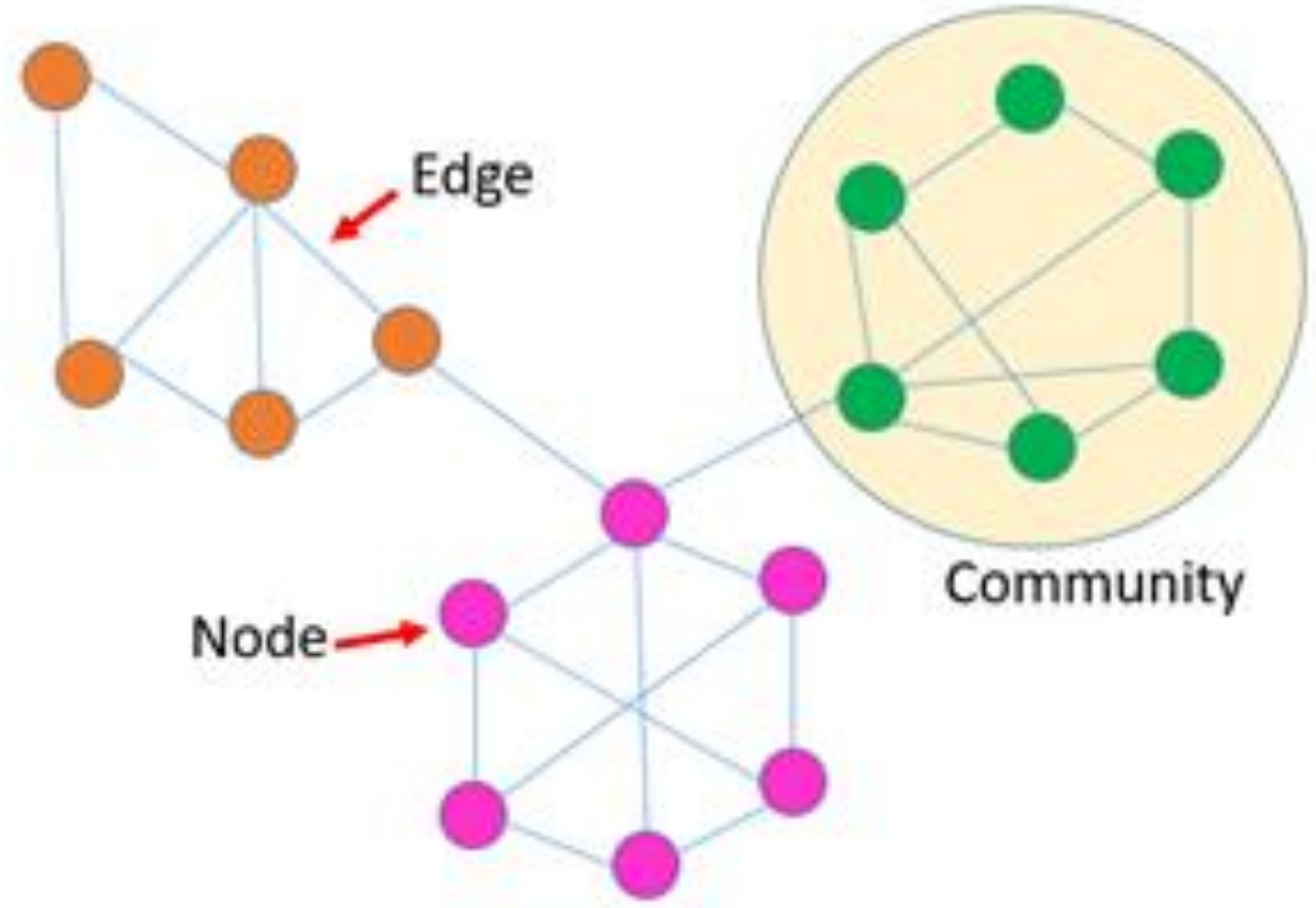
A Social Network Analytic of Asean Rices Trading

Figure 1: World Rice Market (2019/20)



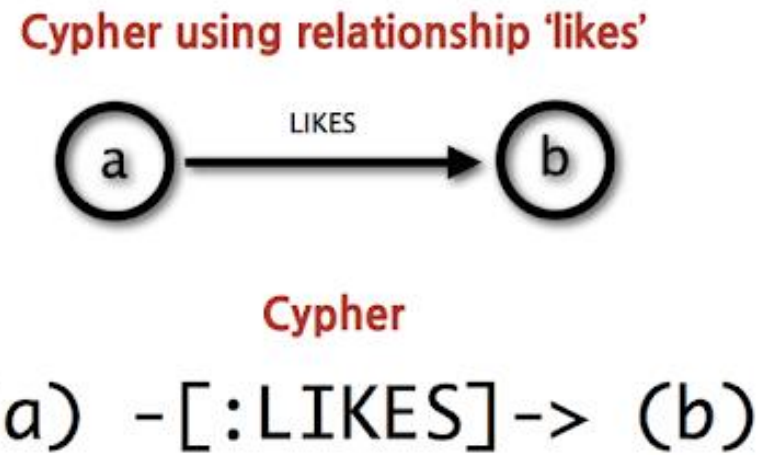
Source: U.S. Department of Agriculture (USDA)

Social Network Analytic



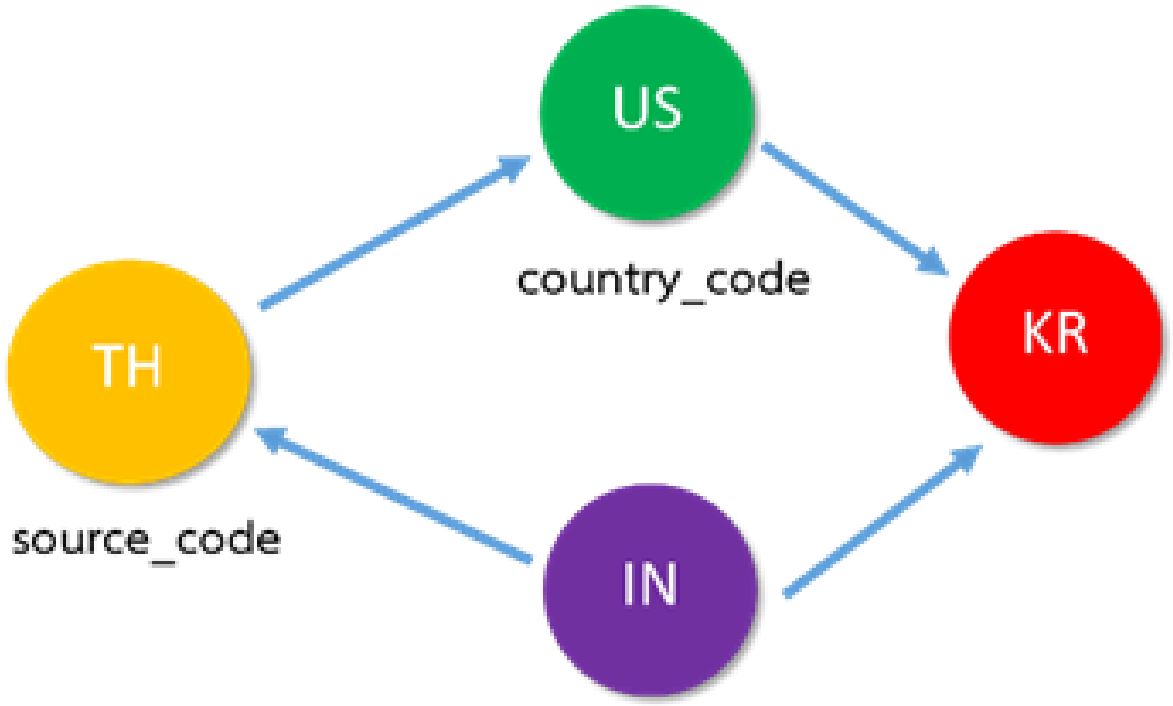
Neo4J Application

ภาษาในการคิวรี่ที่เรียกว่า “Cypher”



คำสั่งพื้นฐานของ Cypher ได้แก่

- MATCH ใช้สำหรับอ่านข้อมูล เหมือนการ SELECT
- RETURN ใช้สำหรับการรับข้อมูลจากการ MATCH



กำหนด Node , Edge และ Relationship

Node : Source code , country code

Edge : import export

Relation : Rice Trading

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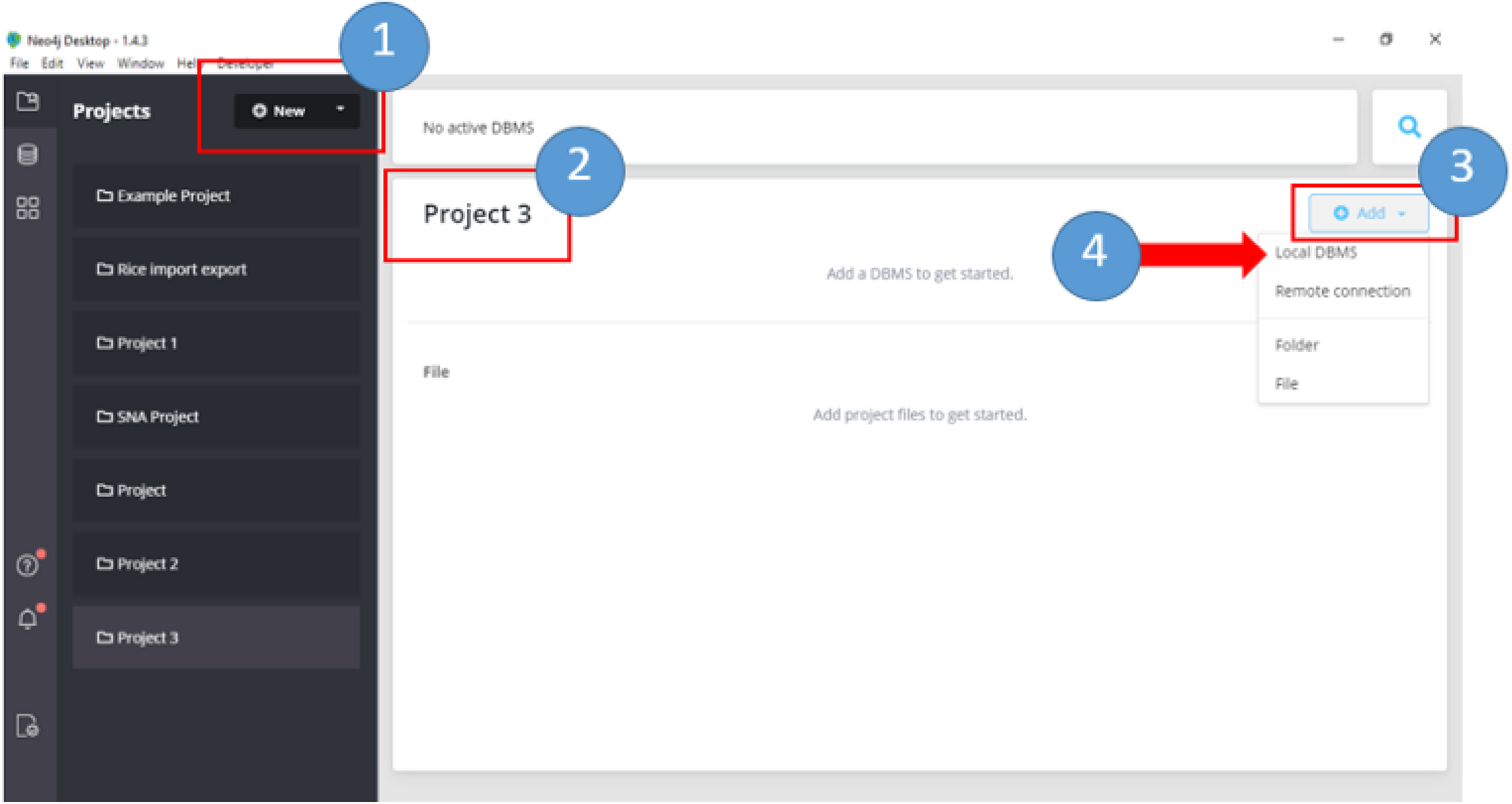
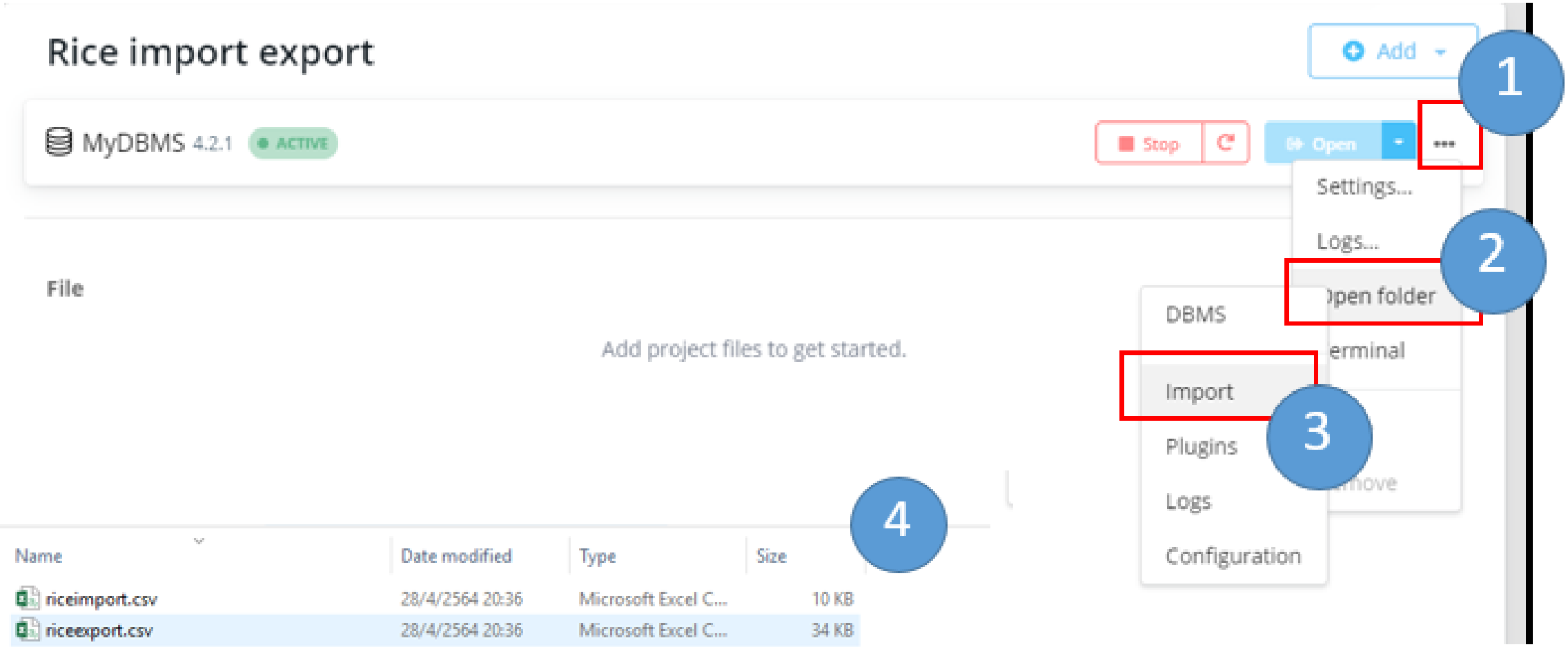
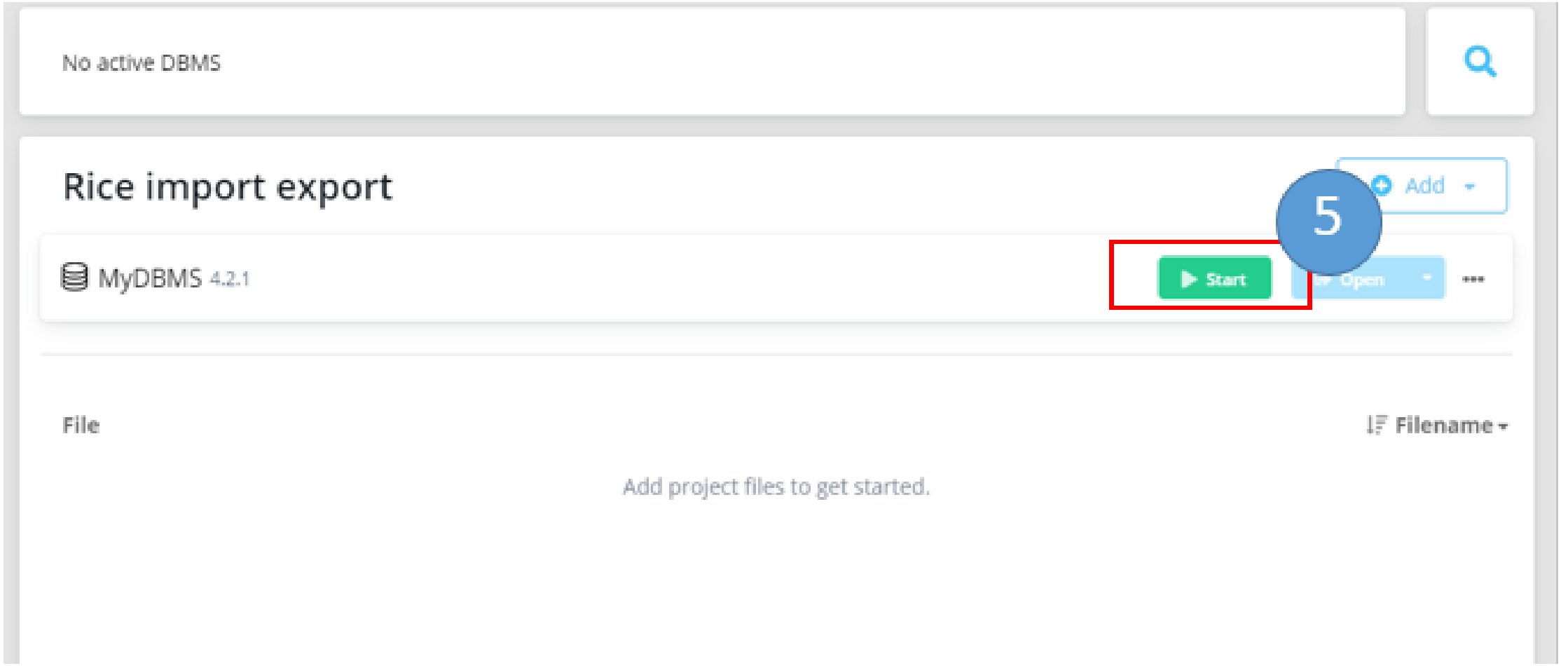
Are you a Startup?


Neo4j Desktop - 1.4.3
File Edit View Window Help Developer
Projects
New
Example Project
Rice import export
Project 1
SNA Project
Project
Project 2
Project 3
No active DBMS
Project 3
Add a DBMS to get started.
Add
Local DBMS
Remote connection
Folder
File
File
Add project files to get started.
1
2
3
4

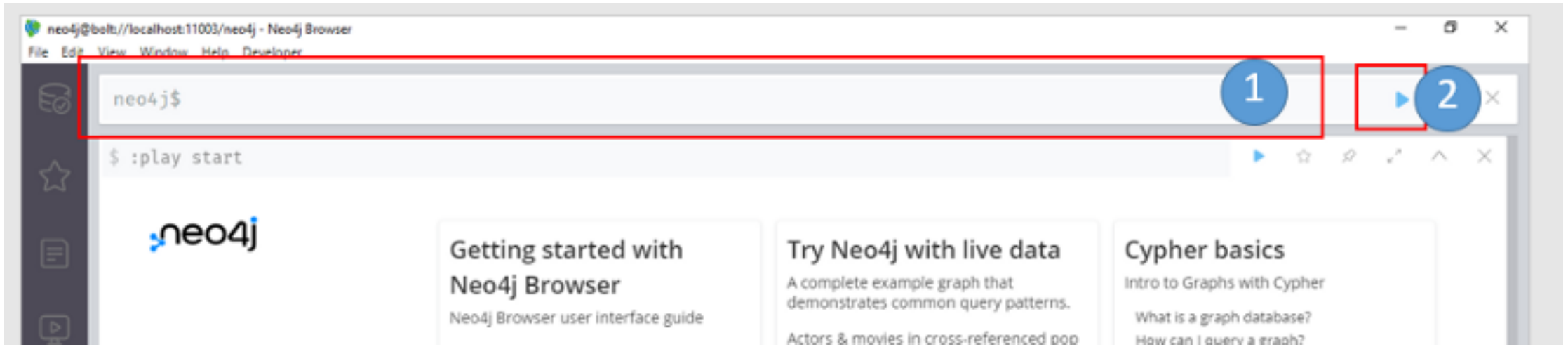

Rice import export
Add
1
MyDBMS 4.2.1
ACTIVE
Stop
Open
Settings...
Logs...
2
File
Open folder
DBMS
erminal
Add project files to get started.
Import
3
Plugins
Logs
Configuration
4
Name
Date modified
Type
Size
niceimport.csv
28/4/2564 20:36
Microsoft Excel C...
10 KB
niceexport.csv
28/4/2564 20:36
Microsoft Excel C...
34 KB


No active DBMS
Rice import export
Add
5
MyDBMS 4.2.1
Start
Open
File
Filename
Add project files to get started.

Rice import export

Add

MyDBMS 4.2.1 ACTIVE


neo4j@bolt://localhost:11003/neo4j - Neo4j Browser
File Edit View Window Help Developer
neo4j$
1
2
$:play start
neo4j
Getting started with Neo4j Browser
Neo4j Browser user interface guide
Try Neo4j with live data
A complete example graph that demonstrates common query patterns.
Actors & movies in cross-referenced pop
Cypher basics
Intro to Graphs with Cypher
What is a graph database?
How can I query a graph?

neo4j@bolt://localhost:7687/neo4j - Neo4j Browser

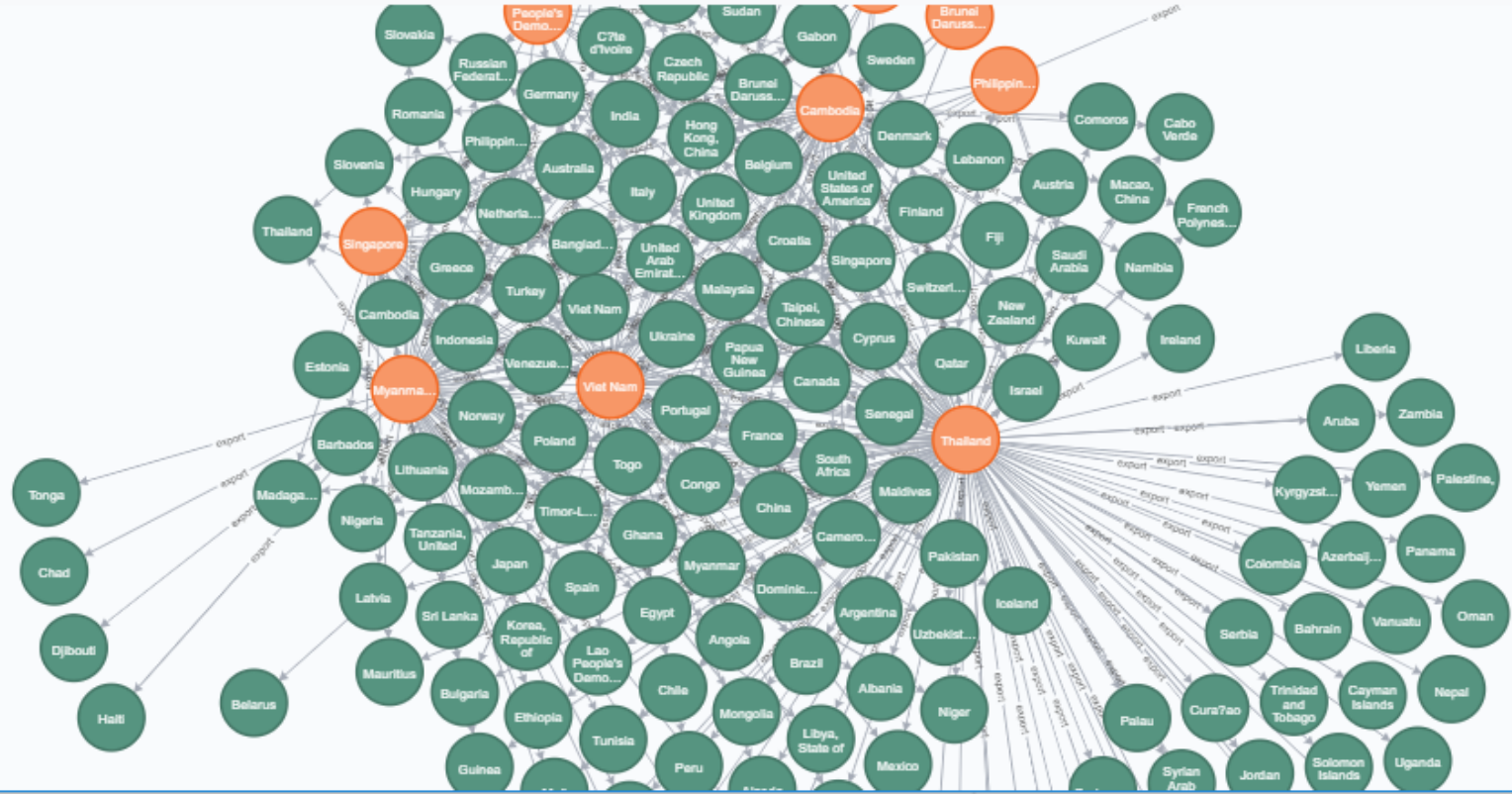
File Edit View Window Help Developer

```
1  LOAD CSV WITH HEADERS FROM "file:///riceexport.csv" AS fileexport
2
3  MERGE (ss:ssource {ssource: fileexport.source_code})
4  MERGE (sc:scountry {scountry: fileexport.country_code})
5  MERGE (ss)<-[ex:export]-(sc)
6
7  return ss,ex,sc
```

Graph | Table | Text | Code

*(169) ssource(159) scountry(10)

*(436) export(436)



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File Edit View Window Help Developer

```
1 match (ss)←[ex:export]-(sc)
2 return sc,count(ex)
3 order by count(ex) desc
```

Graph Table Text Code

"sc"	"count(ex)"
{"scountry":"Thailand"}	149
{"scountry":"Myanmar"}	81
{"scountry":"Viet Nam"}	78
{"scountry":"Cambodia"}	58
{"scountry":"Singapore"}	28
{"scountry":"Lao People's Democratic Republic"}	16
{"scountry":"Philippines"}	10
{"scountry":"Indonesia"}	8
{"scountry":"Malaysia"}	5
{"scountry":"Brunei Darussalam"}	3

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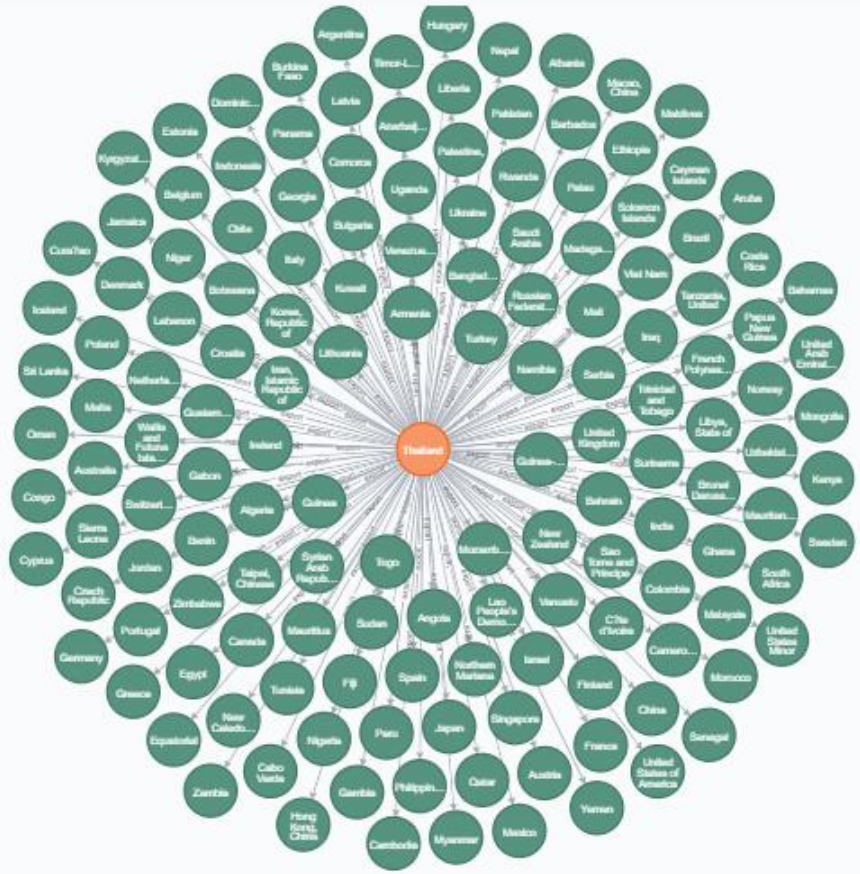
File Edit View Window Help Developer

```
1 MATCH (T:scountry),(S:ssource)
2 where T.scountry = 'Thailand'
3 return T,S
```

Graph | Table | Text | Warn | Code

*(160) scountry(1) ssource(159)

*(149) export(149)



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File Edit View Window Help Developer

```
1 MATCH (T:scountry),(S:ssource)
2 where T.scountry = 'Singapore'
3 return T,S
```

Graph | Table | Text | Warn | Code

*(160) scountry(1) ssource(159)

*(28) export(28)

Dominic...

Ghana

Saudi Arabia

Cayman Islands

Congo

France

Djibouti

Senegal


neo4j@bolt://localhost:7687/neo4j - Neo4j Browser
File Edit View Window Help Developer
neo4j$ match (ss)←[ex:export]-(sc) return ss,count(ex) order by count(ex) desc
Graph
Table
Text
Code
"ss" | "count(ex)"
{"ssource":"Australia"} | 8
{"ssource":"United States of America"} | 7
{"ssource":"Singapore"} | 7
{"ssource":"Malaysia"} | 7
{"ssource":"United Kingdom"} | 7
{"ssource":"Hong Kong, China"} | 7
{"ssource":"Germany"} | 6
{"ssource":"Brunei Darussalam"} | 6
{"ssource":"Belgium"} | 6
{"ssource":"China"} | 6
{"ssource":"Italy"} | 6
{"ssource":"Netherlands"} | 5
{"ssource":"Togo"} | 5
{"ssource":"Indonesia"} | 5
Activate Windows
Go to Settings to activate Windows.
MAX COLUMN WIDTH:

neo4j@bolt://localhost:7687/neo4j - Neo4j Browser

File Edit View Window Help Developer

```
1 MATCH (T:scountry),(S:ssource)
2 where S.ssource = 'Australia'
3 return T,S
```

Graph | Table | Text | Warn | Code

*(11) scountry(10) ssource(1)

*(8) export(8)

neo4j@bolt://localhost:7687/neo4j - Neo4j Browser

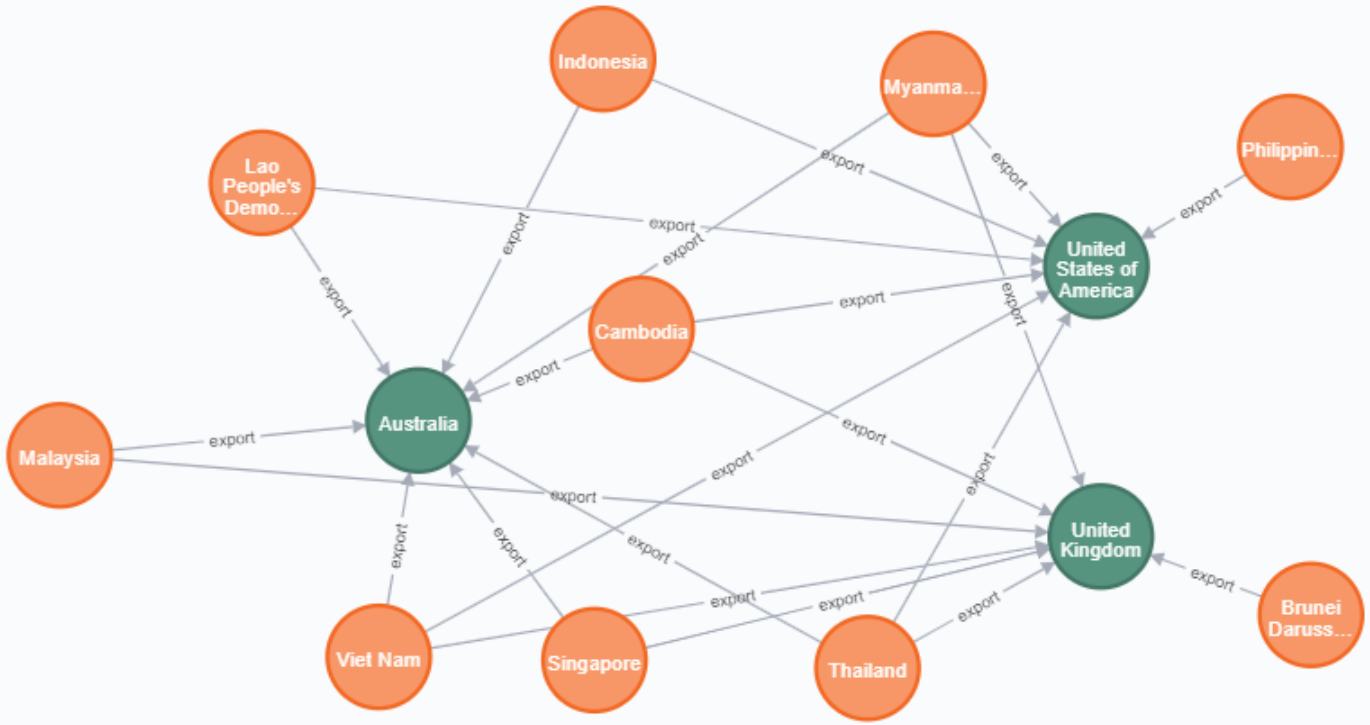
File Edit View Window Help Developer

```
1 MATCH (T:scountry),(S:ssource)
2 where S.ssource = 'Australia' or S.ssource = 'United States of America'
3 or S.ssource = 'United Kingdom'
4 return T,S
```

Graph Table Text Warn Code

*(13) scountry(10) ssource(3)

*(22) export(22)



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File Edit View Window Help Developer

```
1 MATCH (T:scountry),(S:ssource)
2 where S.ssource = 'Singapore' or S.ssource = 'Malaysia'
3 return T,S
```

Graph | Table | Text | Warn | Code

*(12) scountry(10) ssource(2)

*(14) export(14)