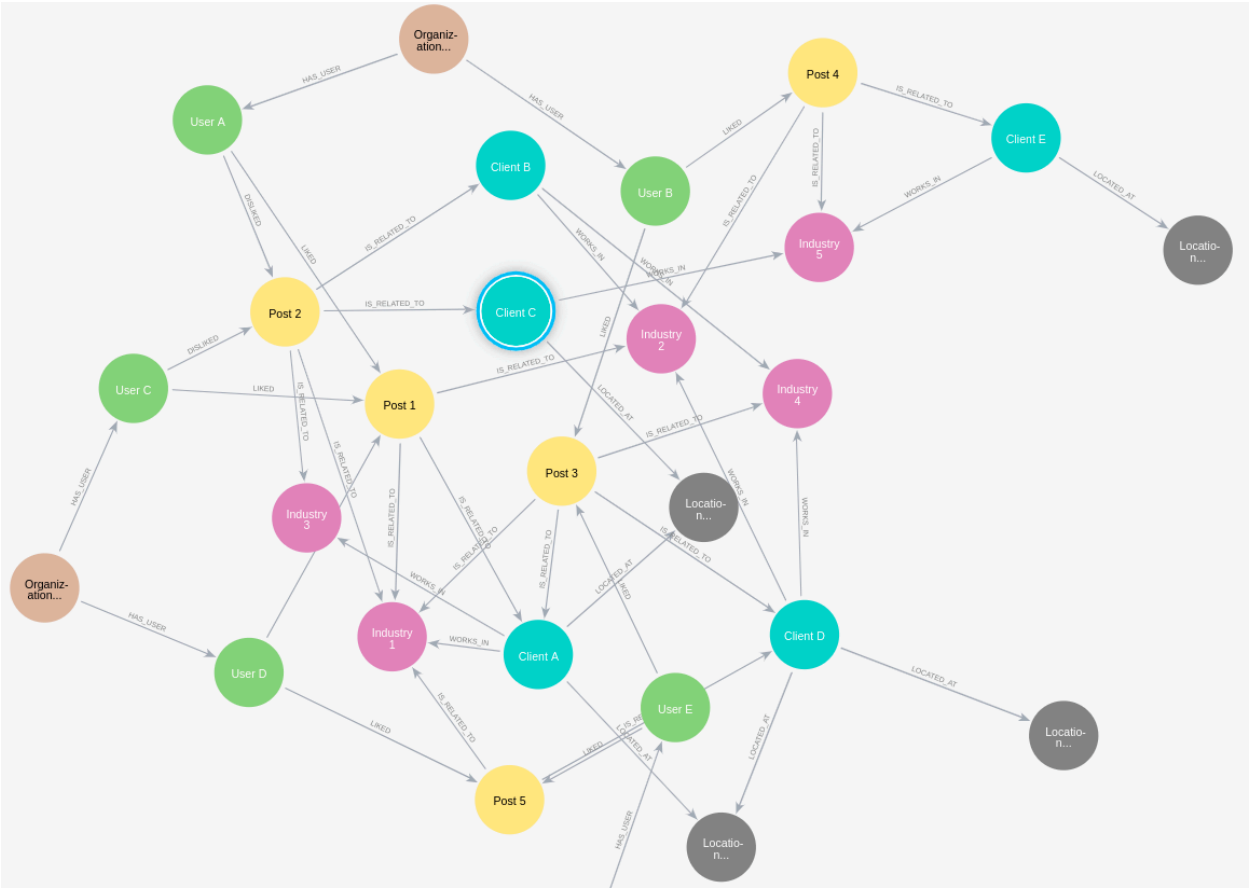
Important Links

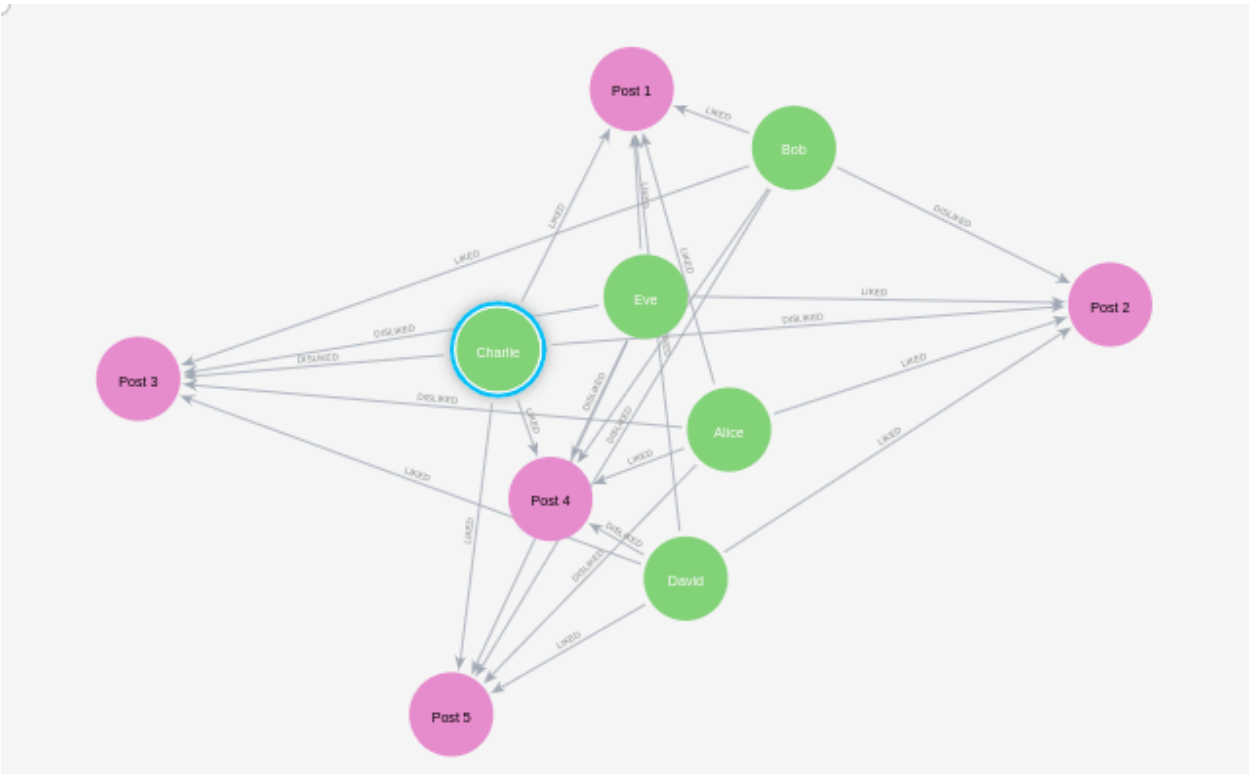
1. https://medium.com/neo4j/hands-on-with-the-neo4j-graph-data-science-sandbox-7b780be5a44f
2. https://graphacademy.neo4j.com/
3. https://neo4j.com/docs/aura/aurads/
4. https://neo4j.com/docs/apoc/current/graph-querying/
5. https://neo4j.com/docs/genai/
6. https://neo4j.com/docs/developer-tools/
7. https://medium.com/neo4j/recommender-system-using-neo4j-hands-on-part-2-557c36772c7
8. https://medium.com/neo4j/topic-extraction-with-neo4j-graph-data-science-for-better-semantic-search-c5b7f56c7715
9. https://medium.com/neo4j/k-means-clustering-with-neo4j-b0ec54bf0103
10. https://sandbox.neo4j.com/?usecase=graph-data-science
11. Industry Projects - https://neo4j.com/graphgists/ (Most IMP)
12. https://neo4j.com/docs/graph-data-science/current/
13. https://neo4j.com/docs/graph-data-science/current/algorithms/node-similarity/#algorithms-node-similarity-syntax (IMP)
14. https://neo4j.com/docs/graph-data-science/current/algorithms/knn/#algorithms-knn-introduction-metrics (IMP)

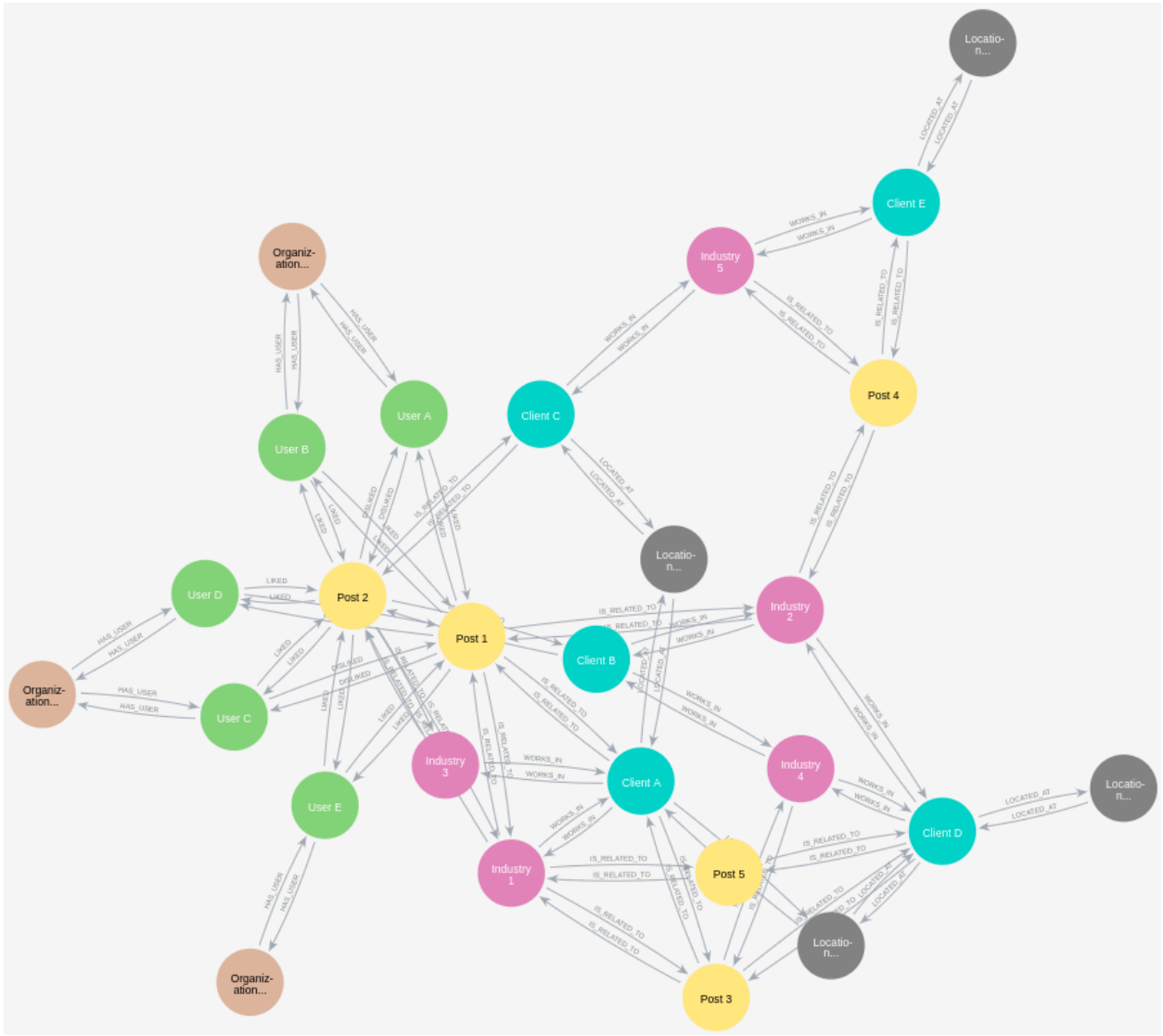
Important for getting the predictions in the weighted graph

1. https://neo4j.com/docs/graph-data-science/current/algorithms/bellman-ford-single-source/#:~:text=The%20Neo4j%20GDS%20Library%20provides,Path%20Faster%20Algorithm%20(SPFA).
2. https://neo4j.com/docs/graph-data-science/current/management-ops/graph-creation/graph-project/
3. https://neo4j.com/docs/graph-data-science/current/algorithms/all-pairs-shortest-path/
4. https://neo4j.com/docs/graph-data-science/current/getting-started/fastrp-knn-example/
5. https://neo4j.com/docs/graph-data-science/current/model-catalog/
6. https://neo4j.com/docs/graph-data-science/current/pipeline-catalog/pipeline-catalog/
7. https://neo4j.com/docs/graph-data-science/current/machine-learning/machine-learning/
8. https://medium.com/neo4j/link-prediction-with-neo4j-part-1-an-introduction-713aa779fd9
9. https://neo4j.com/docs/graph-data-science/current/algorithms/astar/
10. https://neo4j.com/docs/cypher-manual/current/patterns/concepts/#shortest-path
11. https://github.com/cj2001/bite_sized_data_science (IMP)
12. https://neo4j.com/video/bite-sized-neo4j-for-data-scientists/ (IMP)
13. https://neo4j.com/blog/neo4j-databricks-connector/ (IMP)

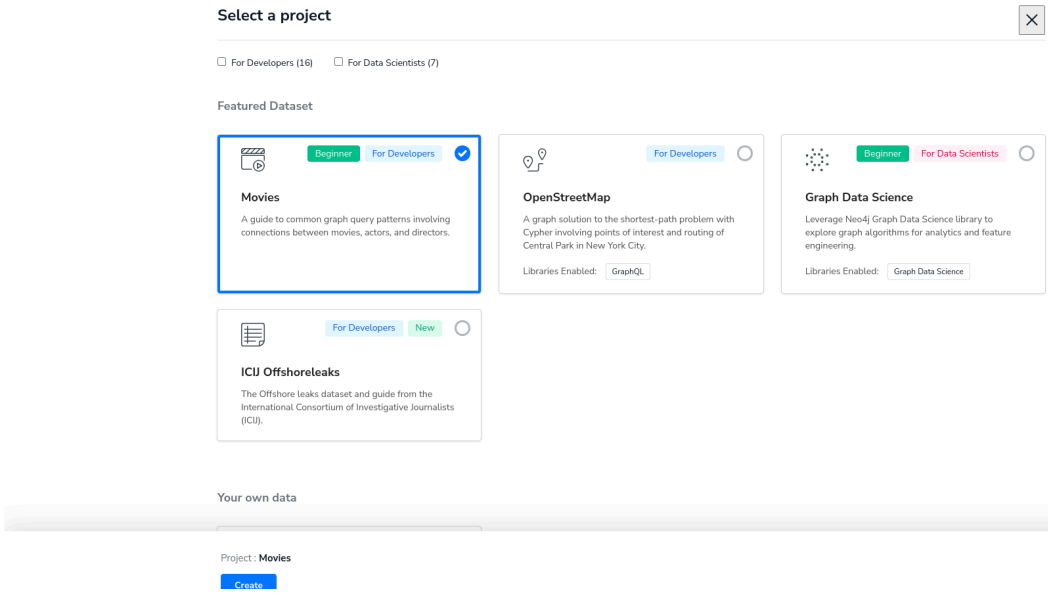
Some Sample Graph that were made


Organiz-ation...
User A
Client B
User B
Post 4
Client E
Industry 5
Locatio-n...
Post 2
Client C
Industry 2
User C
Post 1
Industry 4
Post 3
Locatio-n...
Industry 3
Organiz-ation...
Industry 1
Client A
Client D
User D
User E
Locatio-n...
Post 5
Locatio-n...
HAS_USER
LIKED
DISLIKED
IS_RELATED_TO
WORKS_IN
LOCATED_AT


Post 1
Bob
Eve
Post 2
Charlie
Post 3
Alice
Post 4
David
Post 5
LIKED
DISLIKED



Different Available Templets


Select a project
For Developers (16)
For Data Scientists (7)
Featured Dataset
Beginner
For Developers
Movies
A guide to common graph query patterns involving connections between movies, actors, and directors.
For Developers
OpenStreetMap
A graph solution to the shortest-path problem with Cypher involving points of interest and routing of Central Park in New York City.
Libraries Enabled:
GraphQL
Beginner
For Data Scientists
Graph Data Science
Leverage Neo4j Graph Data Science library to explore graph algorithms for analytics and feature engineering.
Libraries Enabled:
Graph Data Science
For Developers
New
ICIJ Offshoreleaks
The Offshore leaks dataset and guide from the International Consortium of Investigative Journalists (ICIJ).
Your own data
Project : Movies
Create

For Developers

Stack Overflow

Stack Overflow questions, answers, tags, and comments and the relationships between them

For Data Scientists

Fraud Detection

Fraud detection with the Paysim financial dataset, Neo4j Graph Data Science, and Neo4j Bloom

Libraries Enabled: Graph Data Science

For Data Scientists

Contact Tracing

Explore contact tracing using a synthetic dataset of places, persons, and visits.

Libraries Enabled: Graph Data Science

For Developers

ICIJ FinCEN Files Investigation

The FinCEN Files investigation explores large volumes of suspicious SAR filings between entities around the globe.

For Developers

Entity Resolution

Entity Resolution, Record Linkage and Similarity wise recommendation with Neo4j

For Developers

Healthcare Analytics

Load and analyze FDA Adverse Event Reporting System (FAERS) data with Neo4j

For Developers

Cybersecurity

Cybersecurity, Active Directory environment auditing and analysis of possible attack paths using graph

For Data Scientists

Russian Twitter Trolls

Explore data released by NBC News from their investigation into Russian Twitter Trolls around the 2016 US election.

Libraries Enabled: Graph Data Science

For Developers

Paradise Papers by ICIJ

The Paradise Papers dataset and guide from the International Consortium of Investigative Journalists (ICIJ).

Your own data

For Data Scientists

Blank Sandbox - Graph Data Science

Leverage Neo4j Graph Data Science library to explore graph algorithms for analytics and feature engineering.

Pre-built data

For Developers

Crime Investigation

Explore connections in crime data using the POLE - Person, Object, Location, Event - model in a public dataset from Manchester, U.K.

Libraries Enabled: Graph Data Science

For Developers

Network and IT Management

Dependency and root cause analysis + more for network and IT management

For Developers

Twitter

Graph your Twitter network! This Sandbox will show you your tweets, mentions and more.

Libraries Enabled: GraphQL

For Data Scientists

Bloom Visual Discovery

Neo4j Bloom is a graph exploration application for visually interacting with graph data.

Libraries Enabled: Graph Data Science

For Developers

Women's World Cup 2019

Explore the data behind the Women's World Cup with our World Cup Graph.

For Developers

Recommendations

Generate personalized real-time recommendations using a dataset of movie reviews.

Libraries Enabled: GraphQL Graph Data Science

For Developers

Yelp Public Data

Explore businesses, reviews, and users from Yelp's public dataset.

For Developers

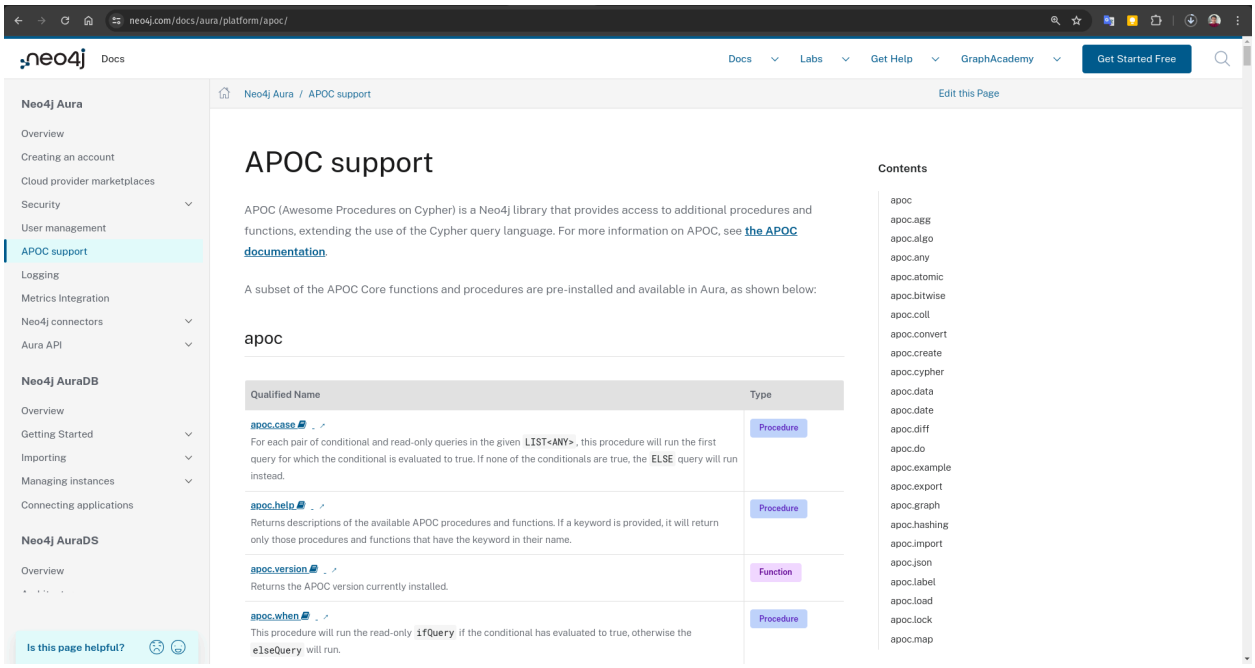
Citations

Citations

For Data Scientists

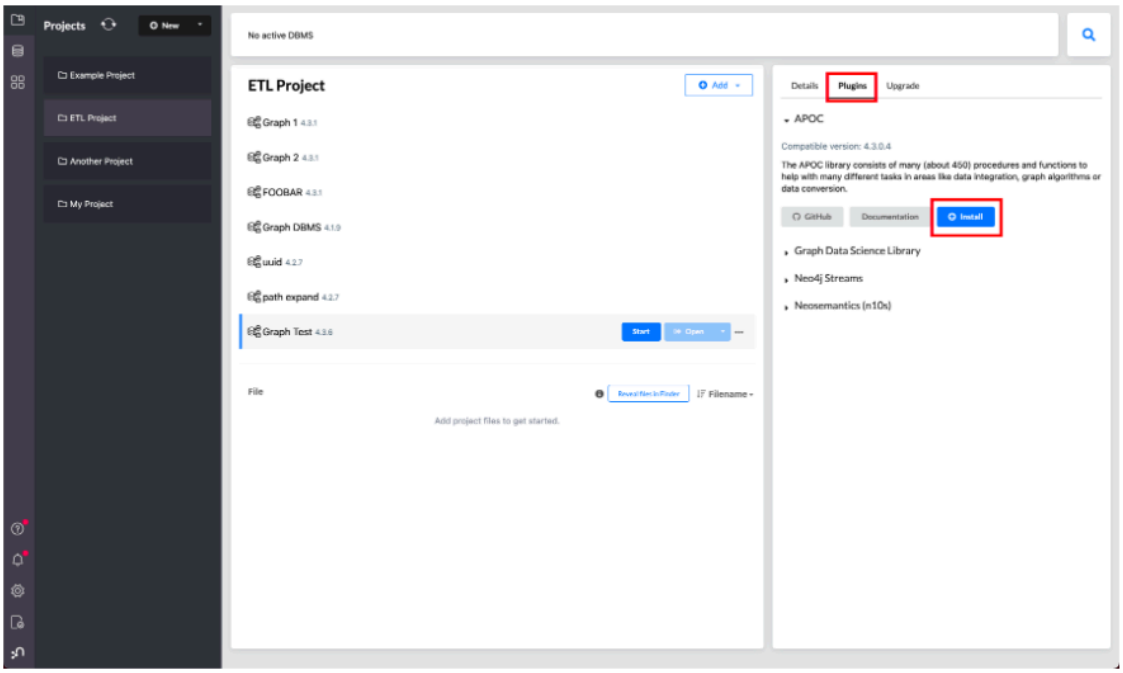
Twitch

Learn how to perform a network analysis by using Cypher and Graph Data Science algorithms



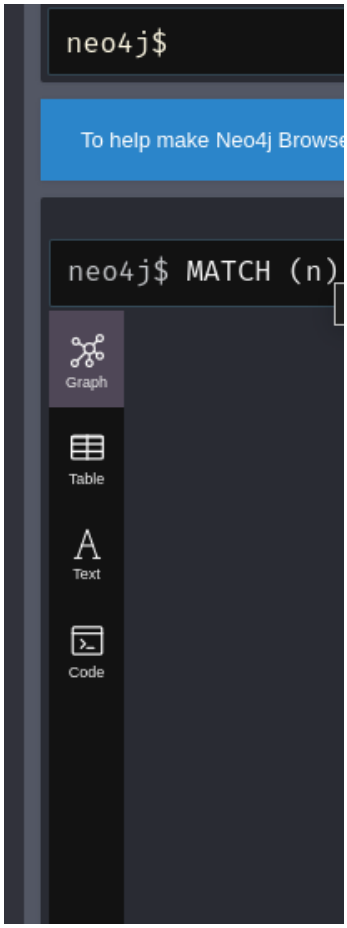
Neo4j Desktop

APOC can be installed with **Neo4j Desktop**, after creating your database, by going to the `Manage` screen, and then the `Plugins` tab. Click `Install` in the APOC box and wait until you see a green check mark near "APOC".



Neo4j gds community service installation

1. https://neo4j.com/deployment-center/?ref=subscription#gds-tab
2. Goto Graph Data Science Self-Managed
3. In that go to the community version
4. Select debian and then download
5. Open terminal at the downloaded location
6. Check java version of system and it should be java 17: java –version
7. Change the java version to the java 17 by: sudo apt install openjdk-17-jdk openjdk-17-jre
8. Set: sudo update-java-alternatives --jre --set java-1.17.0-openjdk-amd64
9. After downloading .deb file: sudo dpkg -i neo4j_5.20.0_all.deb
10. Check by: neo4j command
11. Visit: `http://localhost:7474/`
12. Make default authenticated login by user and password as neo4j, then change the password
13. Now it is available for use at the above-mentioned link
14. One can change the view of the data with help of the shown panel

15. 

16. Download the neo4j Desktop for UI based view and then write the command at the place where it is located: chmod +x neo4j-desktop-1.5.9-x86_64.AppImage
17. To start the app: ./neo4j-desktop-1.5.9-x86_64.AppImage (https://neo4j.com/download-thanks-desktop/?edition=desktop&flavour=linux&release=1.5.9&offline=true)
18. Or setup the shortcut by
    To create a shortcut for an application in Linux, you typically create a .desktop file in the ~/.local/share/applications/ directory. Below are the steps and commands to create a shortcut for the application you are starting with the command ./neo4j-desktop-1.5.9-x86_64.AppImage.

    Create the .desktop file:
    Use a text editor like nano to create a new .desktop file.

    bash
    Copy code
    nano ~/.local/share/applications/neo4j-desktop.desktop
    Edit the .desktop file:

Add the following content to the file. This configuration assumes the neo4j-desktop-1.5.9-x86_64.AppImage file is located in your home directory. Adjust the Exec and Icon paths if necessary.

ini
Copy code
[Desktop Entry]
Name=Neo4j Desktop
Comment=Start Neo4j Desktop
Exec=/home/your_username/path_to_appimage/neo4j-desktop-1.5.9-x86_64.AppImage
Icon=/home/your_username/path_to_appimage/neo4j-desktop-icon.png
Terminal=false
Type=Application
Categories=Development;Database;
Replace /home/your_username/path_to_appimage/ with the actual path to your neo4j-desktop-1.5.9-x86_64.AppImage file and the icon file (if you have one). If you don't have an icon file, you can download one or omit the Icon line.

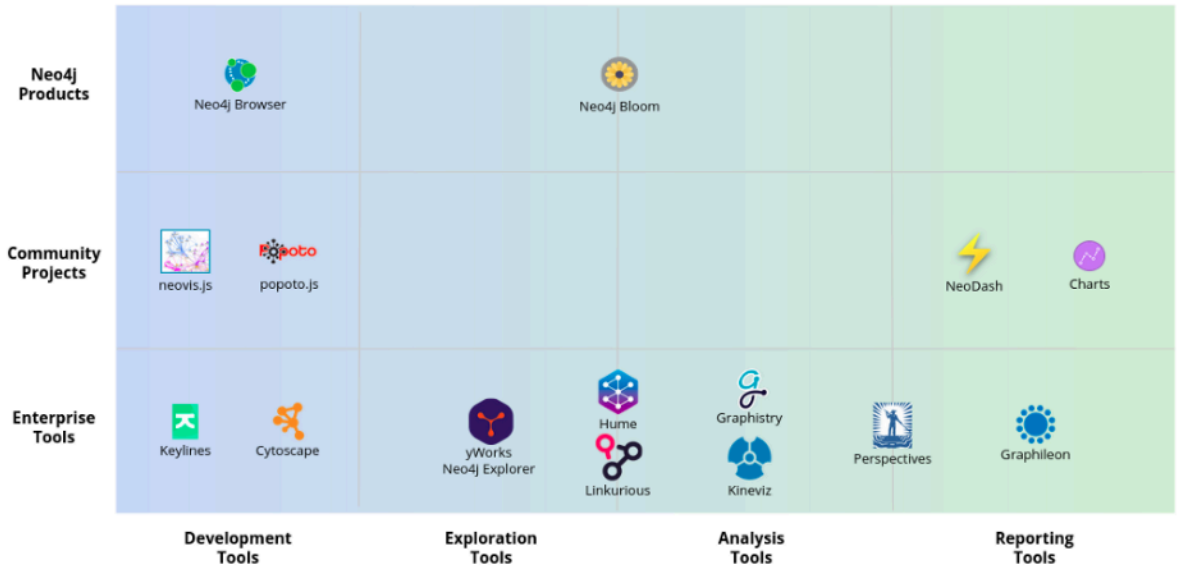
Save and close the file:

In nano, press Ctrl+O to write the changes and then Ctrl+X to exit the editor.
Make the AppImage executable (if not already executable):

bash
Copy code
chmod +x
/home/your_username/path_to_appimage/neo4j-desktop-1.5.9-x86_64.AppImage
Refresh the desktop database:
Some desktop environments require a refresh to recognize new .desktop files.

bash
Copy code
update-desktop-database ~/.local/share/applications/
After following these steps, you should see Neo4j Desktop in your application menu. You can then launch it like any other application installed on your system.

Extra



A structured view of the visualization tool landscape.

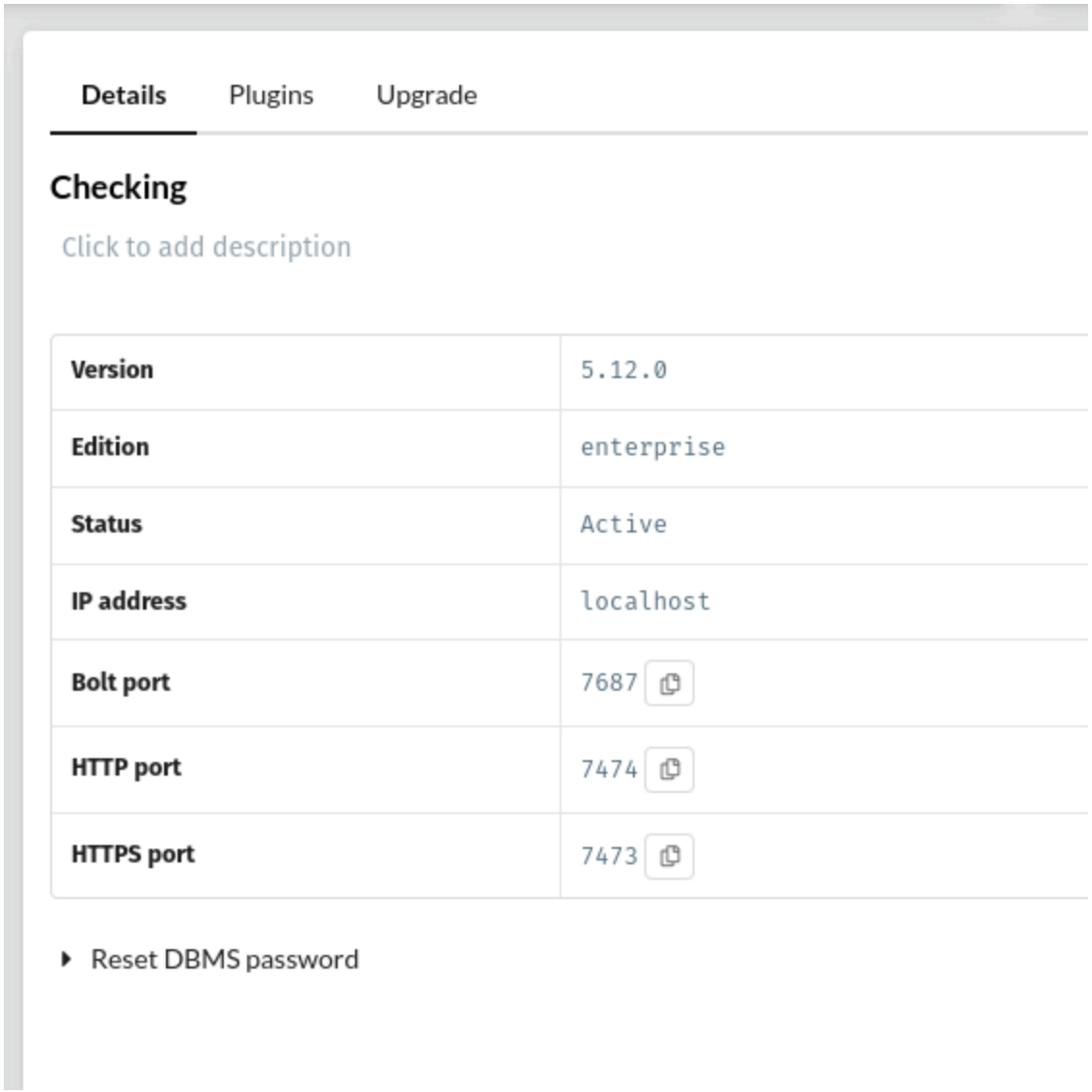
Conflicts occurred

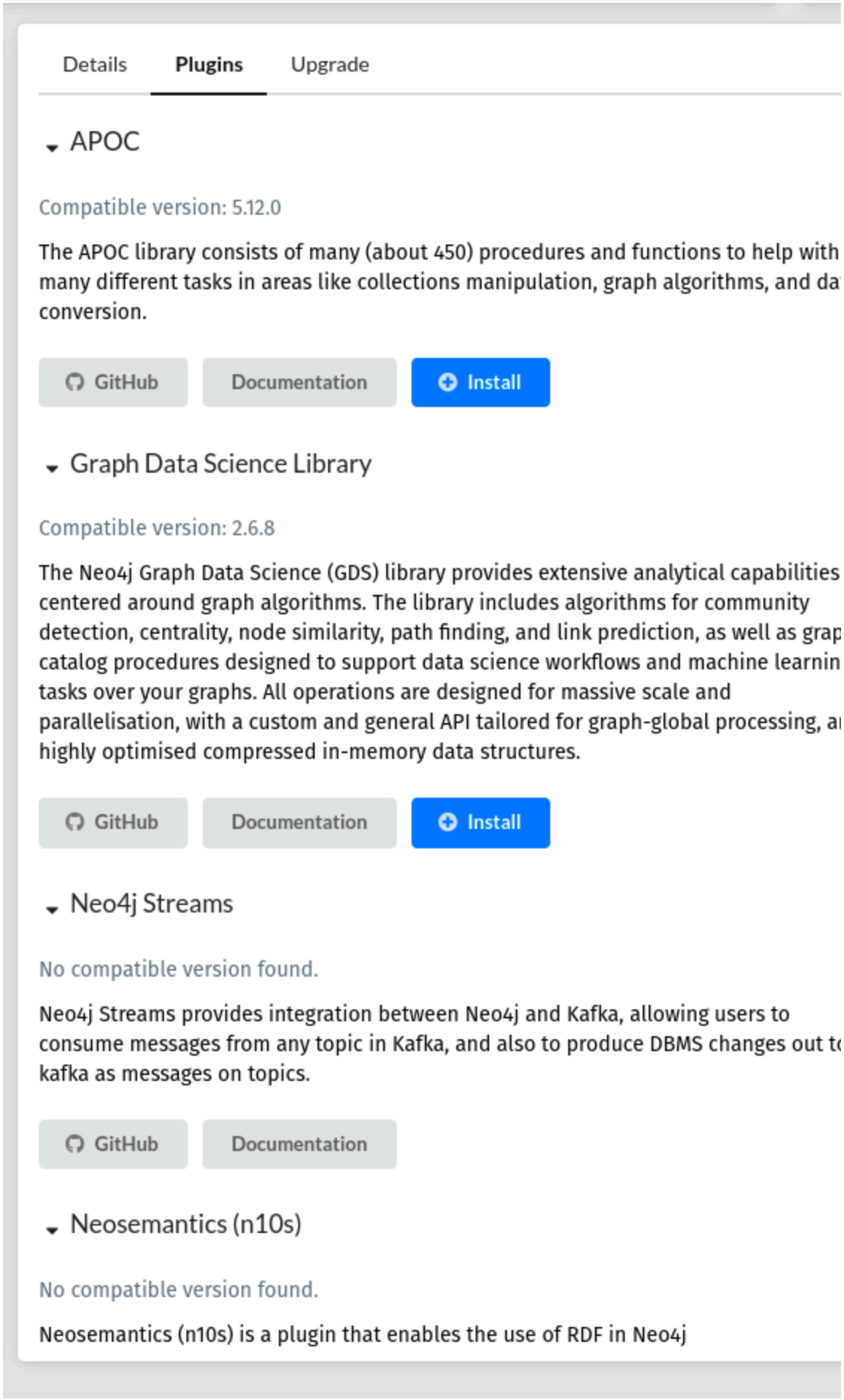
DBMS **Movie DBMS** can not be started due to conflicts with external processes.

To fix this problem, let us change these port configurations:

- **bolt**: 7687 → 7689
- **http**: 7474 → 7475

Cancel | Fix configuration


Details
Plugins
Upgrade
Checking
Click to add description
Version
5.12.0
Edition
enterprise
Status
Active
IP address
localhost
Bolt port
7687
HTTP port
7474
HTTPS port
7473
Reset DBMS password


Details
Plugins
Upgrade
APOC
Compatible version: 5.12.0
The APOC library consists of many (about 450) procedures and functions to help with
many different tasks in areas like collections manipulation, graph algorithms, and da
conversion.
GitHub
Documentation
Install
Graph Data Science Library
Compatible version: 2.6.8
The Neo4j Graph Data Science (GDS) library provides extensive analytical capabilities
centered around graph algorithms. The library includes algorithms for community
detection, centrality, node similarity, path finding, and link prediction, as well as grap
catalog procedures designed to support data science workflows and machine learnin
tasks over your graphs. All operations are designed for massive scale and
parallelisation, with a custom and general API tailored for graph-global processing, a
highly optimised compressed in-memory data structures.
GitHub
Documentation
Install
Neo4j Streams
No compatible version found.
Neo4j Streams provides integration between Neo4j and Kafka, allowing users to
consume messages from any topic in Kafka, and also to produce DBMS changes out t
kafka as messages on topics.
GitHub
Documentation
Neosemantics (n10s)
No compatible version found.
Neosemantics (n10s) is a plugin that enables the use of RDF in Neo4j