

Week14_Homework

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本地环境准备

系统: Mac OS

- 尝试使用brew安装Neo4j, 报错

```
/opt/homebrew/var/homebrew/linked libpng is not a valid keg
```

- 改用官网版本(Linux/Mac Executable) Link:<https://neo4j.com/deployment-center/>

 **Graph Database Self-Managed**

Enterprise-grade availability and security with scale-up and scale-out options. Run in your private cloud or public cloud infrastructure.

Enterprise Edition download includes APOC procedures, Bloom and Graph Data Science Library. Additional license keys may be required.

Older Enterprise Edition versions are available at the [Support Portal](#) after logging in.

ENTERPRISE

COMMUNITY

Neo4j 5.19.0 Released 12 April 2024

Red Hat Linux Package Neo4j 5.19.0 (rpm)

Debian / Ubuntu Package Neo4j 5.19.0 (deb)

Windows Executable Neo4j 5.19.0 (zip)

Linux / Mac Executable Neo4j 5.19.0 (tar)

- 解压完成文件

neo4j-community-5.19.0

Name	Date Modified	Size	Kind
bin	Yesterday at 13:05	--	Folder
certificates	10 Apr 2024 at 19:56	--	Folder
conf	10 Apr 2024 at 20:49	--	Folder
data	Yesterday at 13:10	--	Folder
import	10 Apr 2024 at 19:56	--	Folder
labs	10 Apr 2024 at 20:49	--	Folder
lib	10 Apr 2024 at 20:49	--	Folder
LICENSE.txt	10 Apr 2024 at 19:56	36 KB	Plain Text
licenses	10 Apr 2024 at 19:56	--	Folder
LICENSES.txt	10 Apr 2024 at 19:56	99 KB	Plain Text
logs	Yesterday at 13:10	--	Folder
NOTICE.txt	10 Apr 2024 at 19:56	11 KB	Plain Text
packaging_info	10 Apr 2024 at 19:56	52 bytes	Document
plugins	10 Apr 2024 at 20:49	--	Folder
README.txt	10 Apr 2024 at 19:56	1 KB	Plain Text
run	Yesterday at 16:39	--	Folder
UPGRADE.txt	10 Apr 2024 at 19:56	94 bytes	Plain Text

- 配套JAVA版本安装(<https://www.oracle.com/cn/java/technologies/downloads/#jdk22-mac>)

JDK 22 JDK 21 JDK 17 GraalVM for JDK 22 GraalVM for JDK 21 GraalVM for JDK 17

JDK Development Kit 22.0.1 downloads

JDK 22 binaries are free to use in production and free to redistribute, at no cost, under the [Oracle No-Fee Terms and Conditions \(NFTC\)](#).

JDK 22 will receive updates under these terms, until September 2024, when it will be superseded by JDK 23.

Linux macOS Windows

Product/file description	File size	Download
ARM64 Compressed Archive	180.03 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-aarch64_bin.tar.gz (sha256)
ARM64 DMG Installer	179.47 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-aarch64_bin.dmg (sha256)
x64 Compressed Archive	182.21 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-x64_bin.tar.gz (sha256)
x64 DMG Installer	181.65 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-x64_bin.dmg (sha256)

本地运行

- 1. 运行终端进入Neo4j文件夹下的bin文件

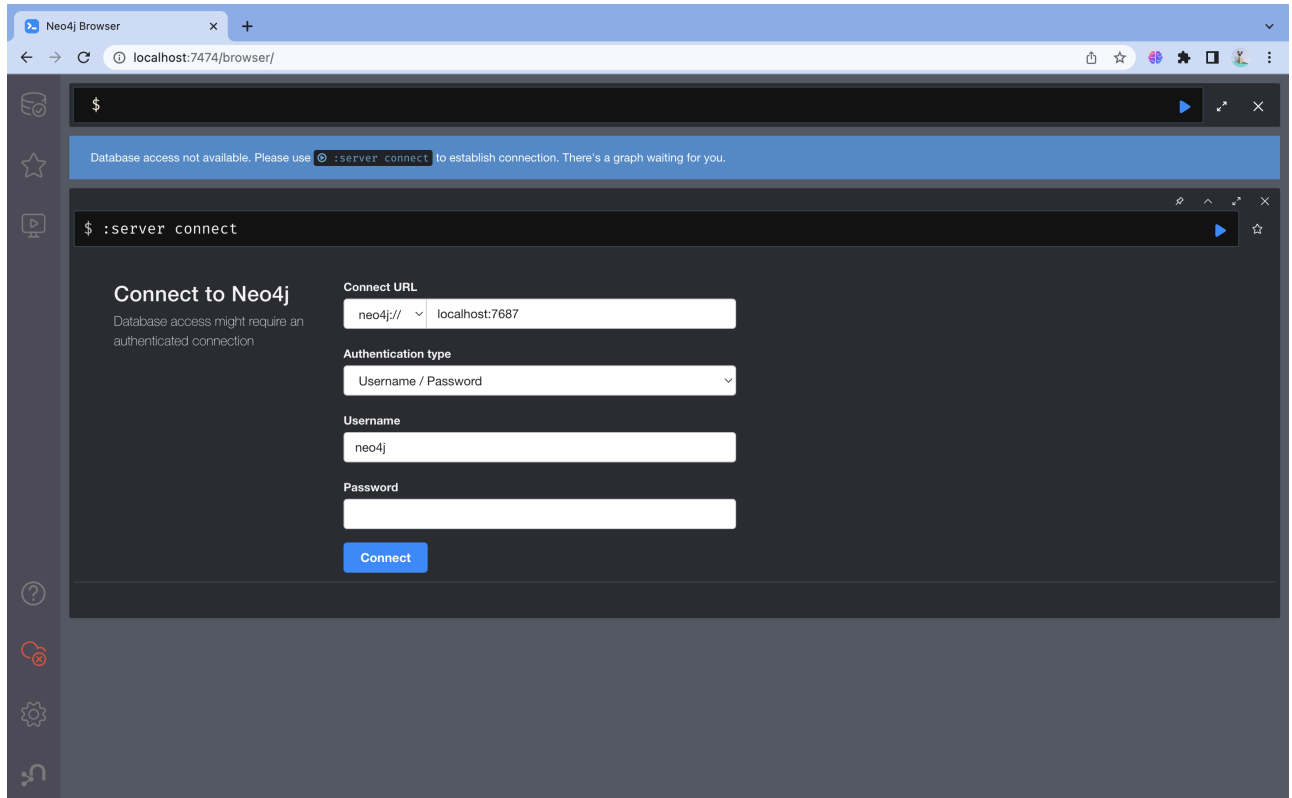
```
cd (neo4j路径/bin)
```

- 2. 输入 ./neo4j start 激活neo4j本地化

- 如何确保neo4j已正常激活?

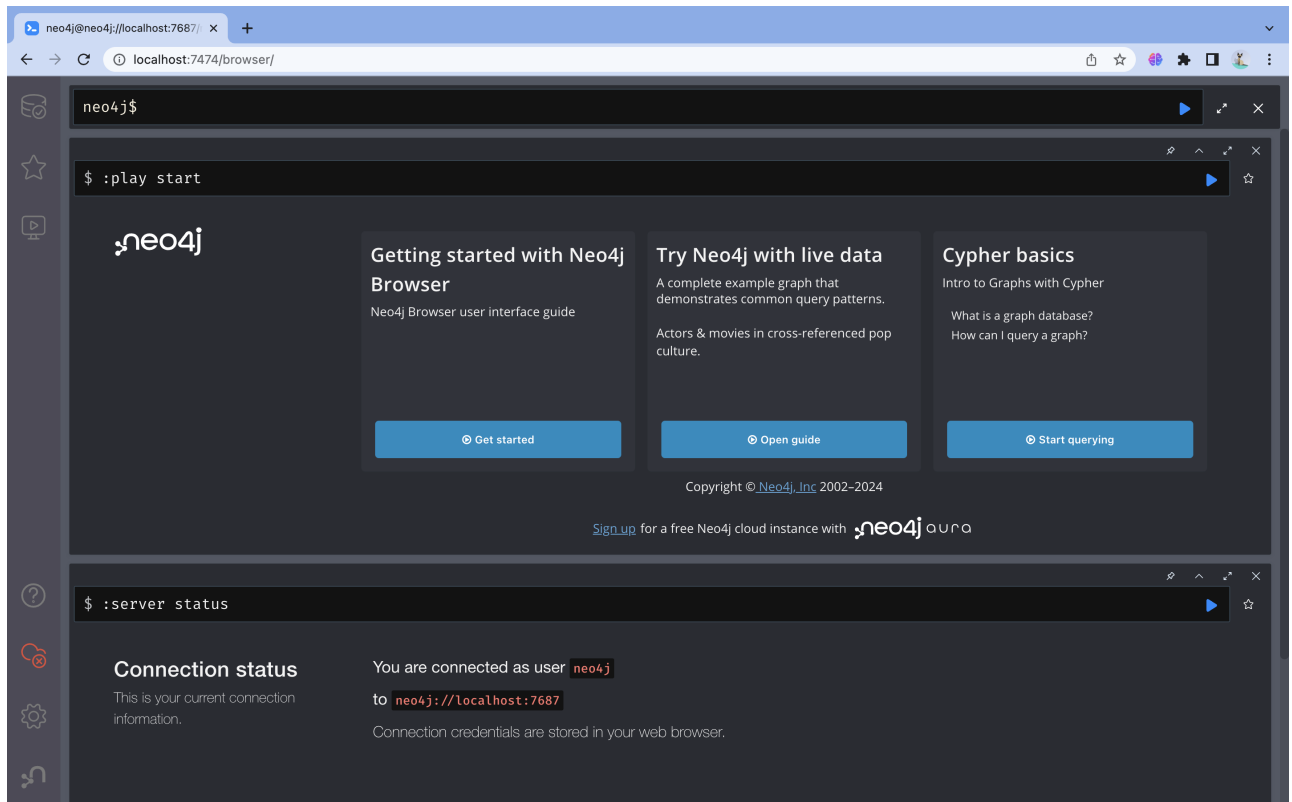
```
[Directories in use:
home: /neo4j-community-5.19.0
config: /neo4j-community-5.19.0/conf
logs: /neo4j-community-5.19.0/logs
plugins: /neo4j-community-5.19.0/plugins
import: /neo4j-community-5.19.0/import
data: /neo4j-community-5.19.0/data
certificates: /neo4j-community-5.19.0/certificates
licenses: /neo4j-community-5.19.0/licenses
run: /neo4j-community-5.19.0/run
Starting Neo4j.
WARNING! You are using an unsupported Java runtime.
* Please use Java(TM) 17 or Java(TM) 21 to run Neo4j.
* Please see https://neo4j.com/docs/ for Neo4j installation instructions.
Started neo4j (pid:73997). It is available at http://localhost:7474
There may be a short delay until the server is ready.
```

- 打开浏览器，将红线部分粘贴至网址框



初始登陆用户名&密码均为 neo4j 进入后重新设置

- Neo4j环境准备完毕



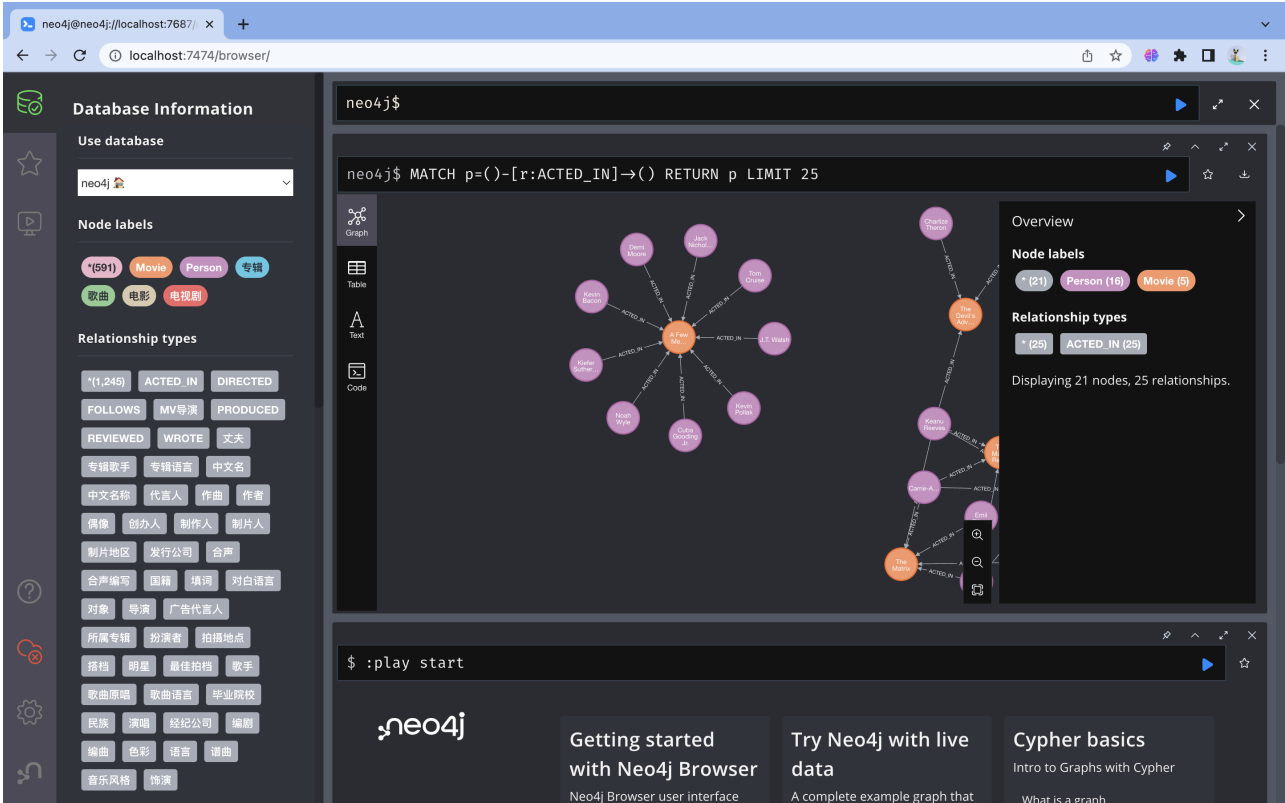
- 3. Python文件数据库导入 库准备 & 代码调试(修改部分代码) **build_graph.py**

```
from neo4j import GraphDatabase
#连接图数据库
graph = GraphDatabase.driver("bolt://localhost:7687",auth=
("neo4j","*****"))
#执行建表脚本
with graph.session() as session:
    session.run(cypher)
```

graph_qa_base_on_sentence_match.py

```
#将带有tokens的模板替换成真实词
#string:%ENT1%和%ENT2%是%REL%关系吗
#combination: {"%ENT1%":"word1", "%ENT2%":"word2", "%REL%":"word"}
def replace_token_in_string(self, string, combination):
    ic(string)
    ic(combination)
    for key, value in combination.items():
        string = string.replace(key, str(value)) -> #避免value值为空类型
为dict报错
    return string
#对外提供问答接口
for templet, cypher, score, answer in templet_cypher_score:
    -> #由于graph代码调整, 这里需要做配套调整
        with self.graph.session() as session:
            graph_search_result = session.run(cypher).data()
```

- 完成截图



- neo4j 关闭

`./neo4j stop`