

Cocoa Recommendation System (Local Installation Guide)

Prerequisites

Ensure you have the following installed on your system:

- Visual Studio Code (Mainly used this)
- Neo4j Database (AuraDB and Neo4j Desktop)
- Node.js and npm
- Java Development Kit (JDK)
- Maven
- .NET SDK
- Python

Visual Studio Code Extensions

Install via Visual Studio Code Marketplace

1. **.NET Extension Pack**
2. **.NET Install Tool**
3. **Maven for Java**
4. **Extension Pack for Java**
5. **Extension Pack for Java Auto Config**
6. **Spring Boot Extension Pack**
7. **React Native Tools**
8. **Project Manager for Java**

Neo4j Database

- **Neo4j Desktop** (for accessing Neo4j graph databases): Download and install from here.
<https://neo4j.com/product/developer-tools/>
1. To set up a Neo4j graph database, open the Neo4j Desktop app.
 2. Click create project. Then click add either local DBMS (set up locally) or Remote Connection (for online database connection). Either way is preferable.
 3. On the Neo4J Desktop app, click start to initialize the local dbms to create the default Neo4j file.
 4. Open the file “Data” and run the Python script to run a script inserting the data into the database. (adjust the Python script for your file directory, and neo4j database credentials)
 5. After the script completed, click “Open” to see the database. (by default, it will open Neo4j Browser)
 6. There, you can see the uri of your database is set up.

Back End (Spring Boot)

- **Install Java Development Kit (JDK)**. Download and install JDK 17 from <https://www.oracle.com/my/java/technologies/downloads/#java17>
- **Install Maven**. Download and install Maven 3.8.1 or later from [Maven Download](#).
- **Install Neo4j**. Ensure you have Neo4j version 4.x or later. You can download Neo4j Desktop from here.
- **.NET SDK**. Download and install .NET 8.0 SDK from [Microsoft .NET](#)

1. Go to the project repository.
2. Run “mvn clean install” to install the required dependencies.
3. To start the application, run “mvn spring-boot:run”
4. To check its status, go to the link <http://localhost:8080/api/swagger-ui/index-html> (this is the default value. Adjust the port the port in application.yml)
5. Execute the health-check-controller get method to test the connection.

Front End (React)

- **Install Node.js and npm**

1. Download and install Node.js (includes npm) from [Node.js official site](https://nodejs.org/en/). Ensure you install version 20.13.1 for Node.js and 10.5.2 for npm.

- **Set up the React project**

1. Navigate to your project directory.
2. Run “npm install” to install required dependencies.
3. Start the development server with “npm start”.
4. The application will be available at <http://localhost:3000>

Summary

By following the above steps, you will set up the necessary development environment locally. Ensure all versions match the specified requirements to avoid compatibility issues.