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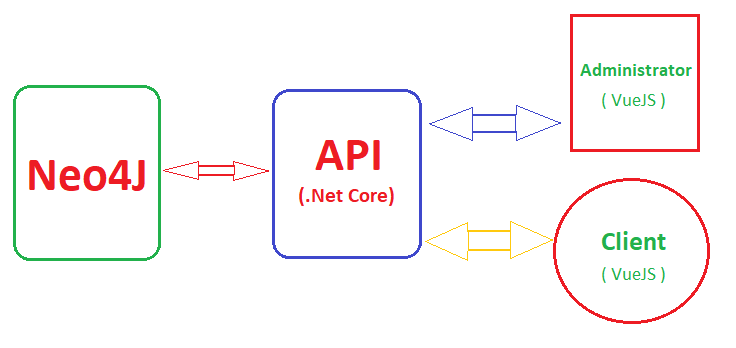
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# **Overall system infrastructure**



# **How to setup Neo4J**

1. **Step by step setup Neo4J environment**

* Install JDK <https://www.oracle.com/technetwork/java/javase/downloads/index.html> (my recommend is JDK 8)
* Download Neo4J https://neo4j.com/download-center/#releases . On this, we have three options need to be confirmed (Enterprise, Community and Desktop)
* Refer to bin folder, open cmd and type *neo4j console for* startingand login with username and password default: *neo4j*

1. **Queries**

In order to run on non-local remote, just modified some code *conf/neo4j.conf* as follow:

# To have Bolt accept non-local connections, uncomment this line:

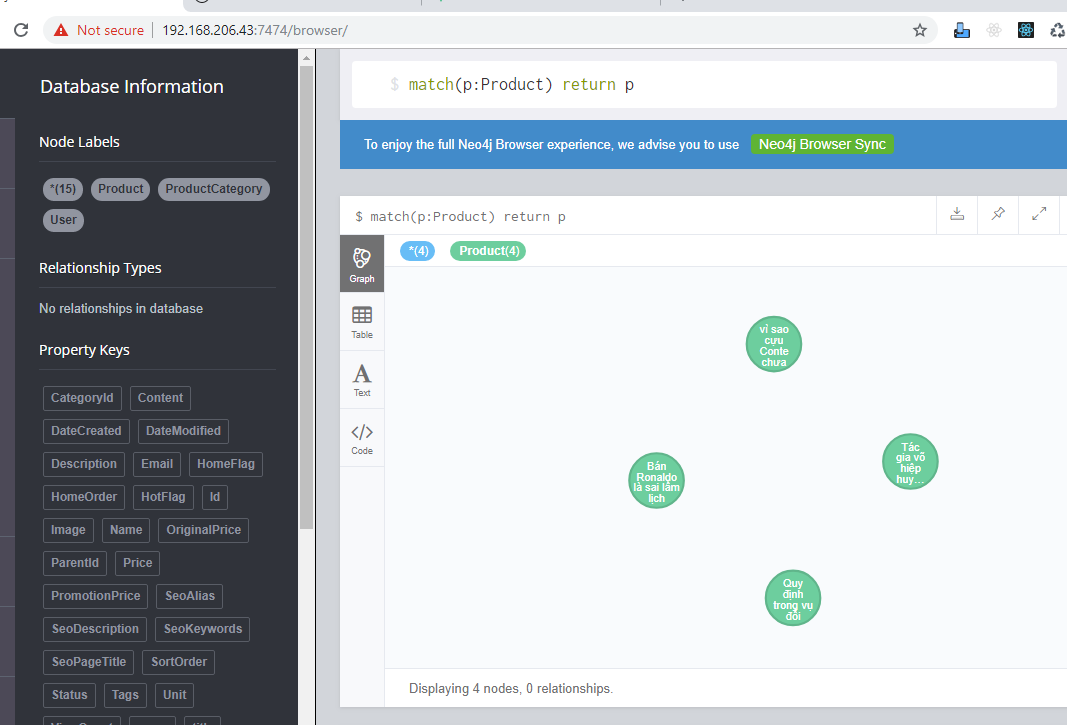
*dbms.connector.bolt.address=<your\_ip>:7687*

# HTTPS Connector. There can be zero or one HTTPS connectors.

*dbms.connector.https.enabled=true*

*dbms.connector.https.listen\_address=<your\_ip>:7473*

Ex: Match(p:Product) return p



# **How to setup API**

1. **Step by step setup .Net Core**

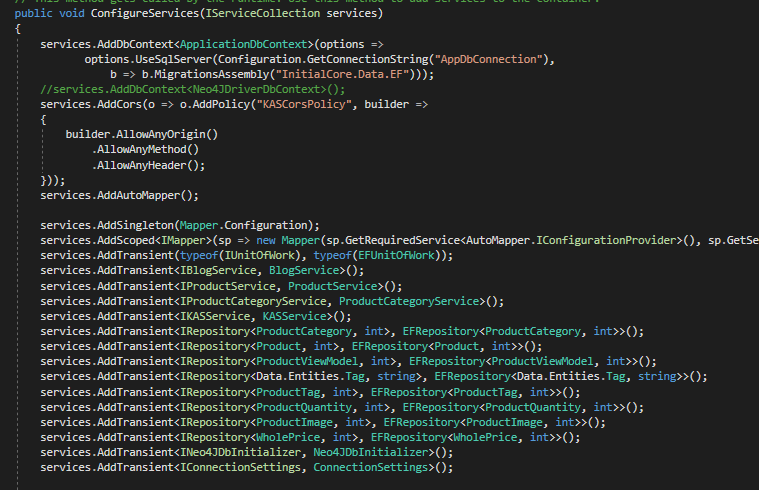
* Link download: <https://visualstudio.microsoft.com/downloads/>
* Opening folder contain .Net core source code, remove *obj* folder. Come back to top file, type cmd: *dotnet restore*

1. **Introduce information infrastructure**

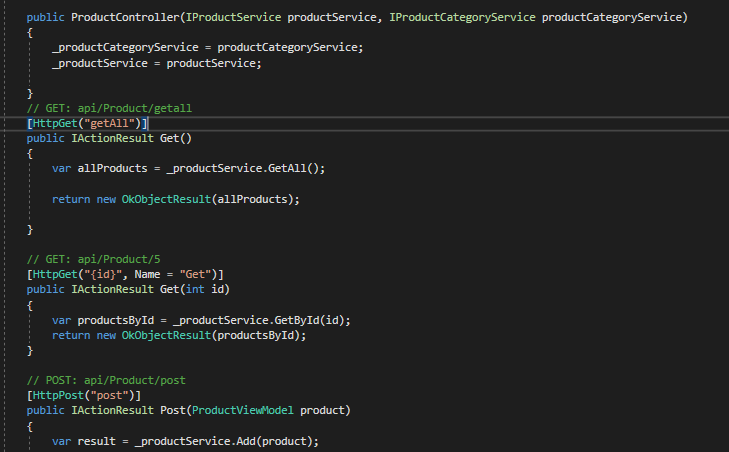
There have five layers in project including: Presentation, Service, Domain, Infrastructure and UnitTest.

* **Presentation** : include RESTfulAPI

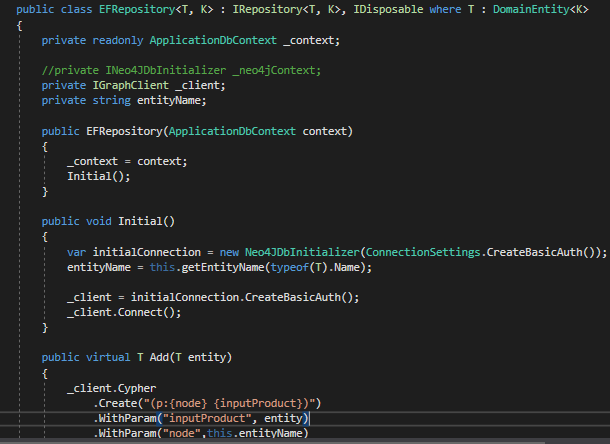
At *Startup.cs*, to register some ServiceCollection.



At Controller, to declare some API classes and inject some dependency injections via interface



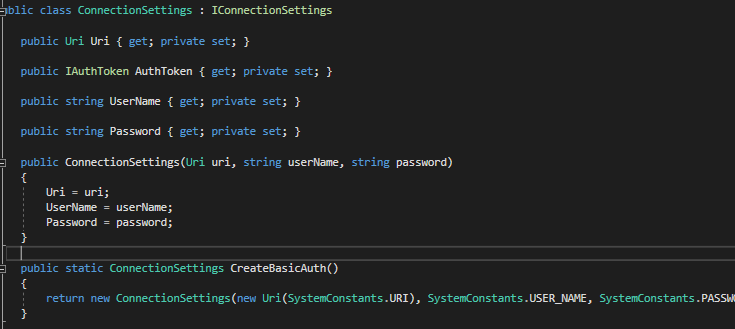
* **Service**:
  + create a couple of interfaces and to implement them based on Implementation and Interfaces folder
  + Auto mapper
* **Domain**: include Data, Data.EF and Settings
  + Data: to initial entities, enums, interface in advance, ViewModels and IRespository necessary.
  + Data.EF: to create repository base based on EFRepository which will implement from IRepository



* + Settings:

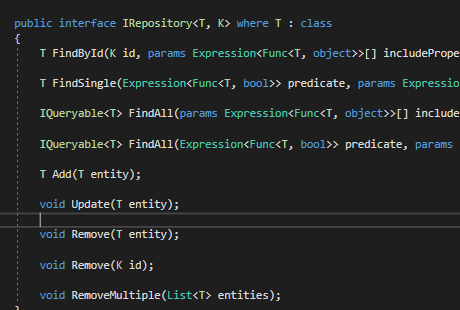
Install **Neo4jClient** package

To setup connection string parameters and graph client in order to reach into **Neo4J**



* **Infrastructure**: base infrastructure and some utilities
  + Base infrastructure

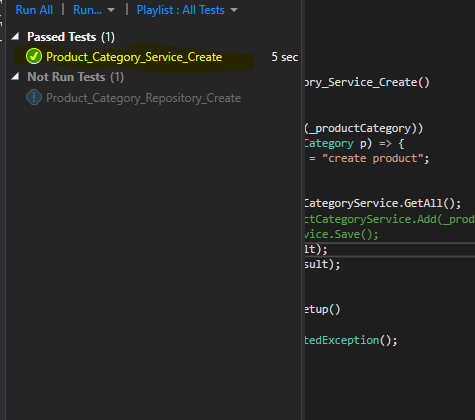
To create IUnitOfWork.cs and IRepository.cs interface



* + Some utilities: Constants, Dtos, Extensions and Helpers
* **UnitTest**: test Repository and Service

To install **Moq** package

At Service:

* + To inject Mock<IRepository<your\_model>, int> \_mockProduct; and Mock<IUnitOfWork> \_ mockUnitOfWork;
  + To Initialize test
  + To create test method
  + Successful: 

# **How to setup Administrator, Client page**

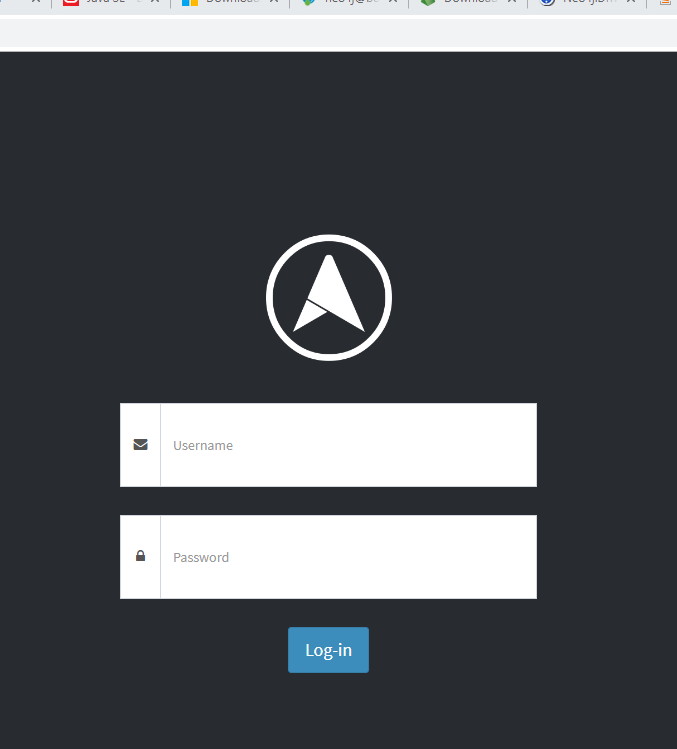
1. **How to setup VueJS**

* Install NodeJS : <https://nodejs.org/en/download/>
* Download source VueJS from git: *git clone <your\_link>*
* At top folder, just type*: npm install*
* In order to run app: *npm run dev*

1. **Introduce system**

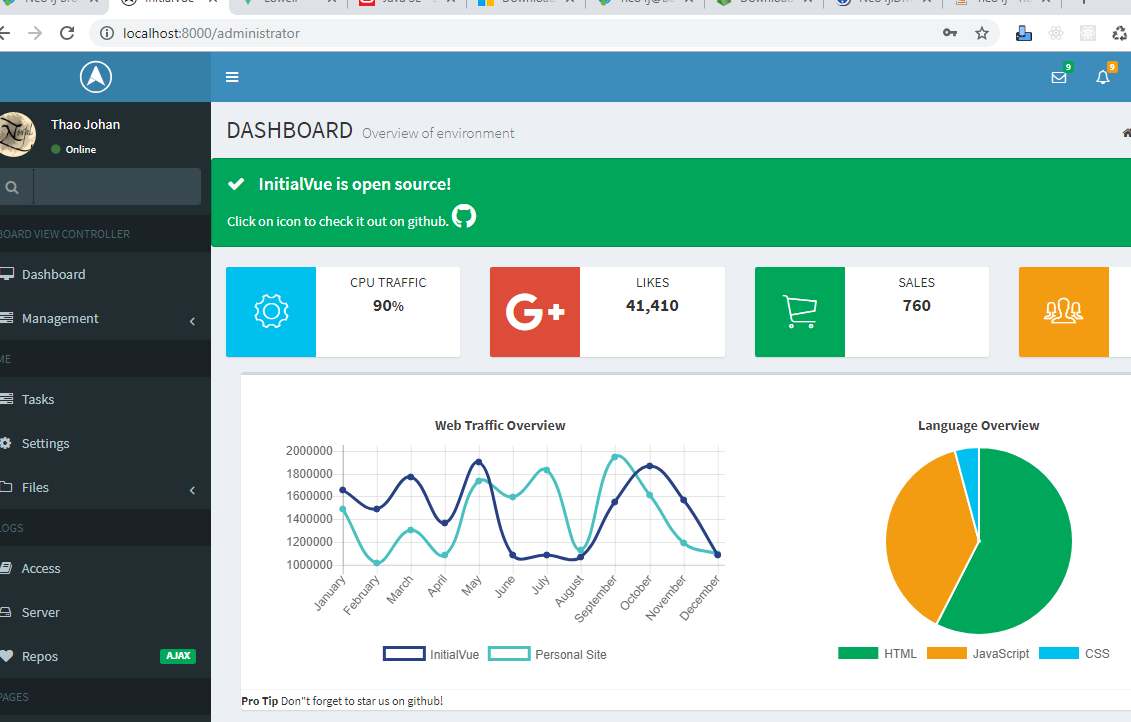
### **Administrator: *http://192.168.206.43:8000***

* **Login page**

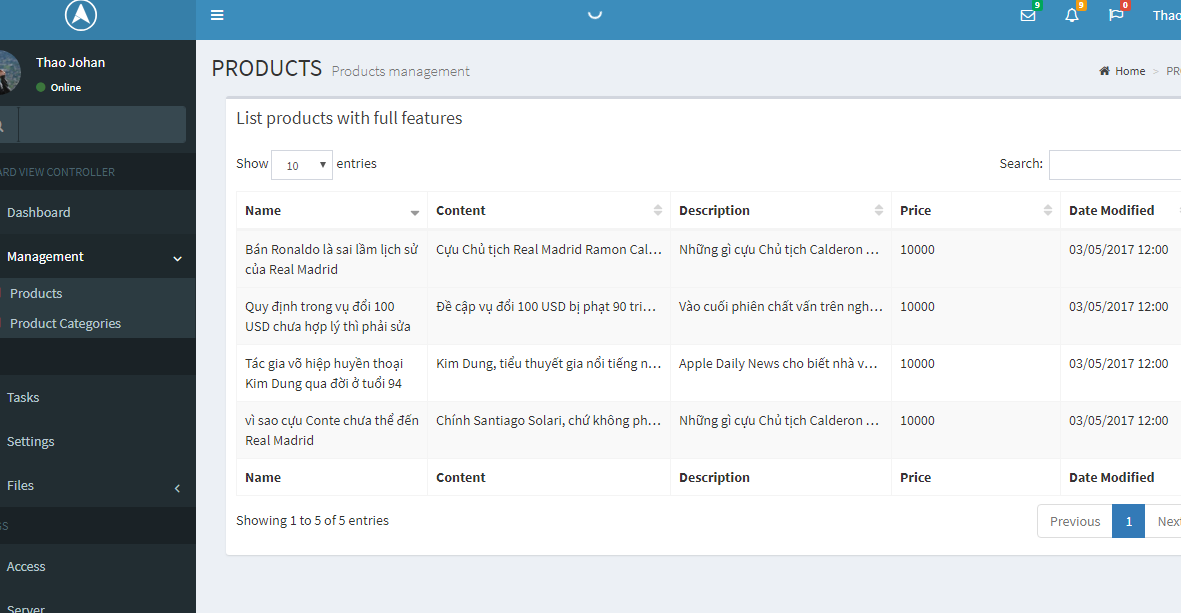


* **Administrator page:**

Home

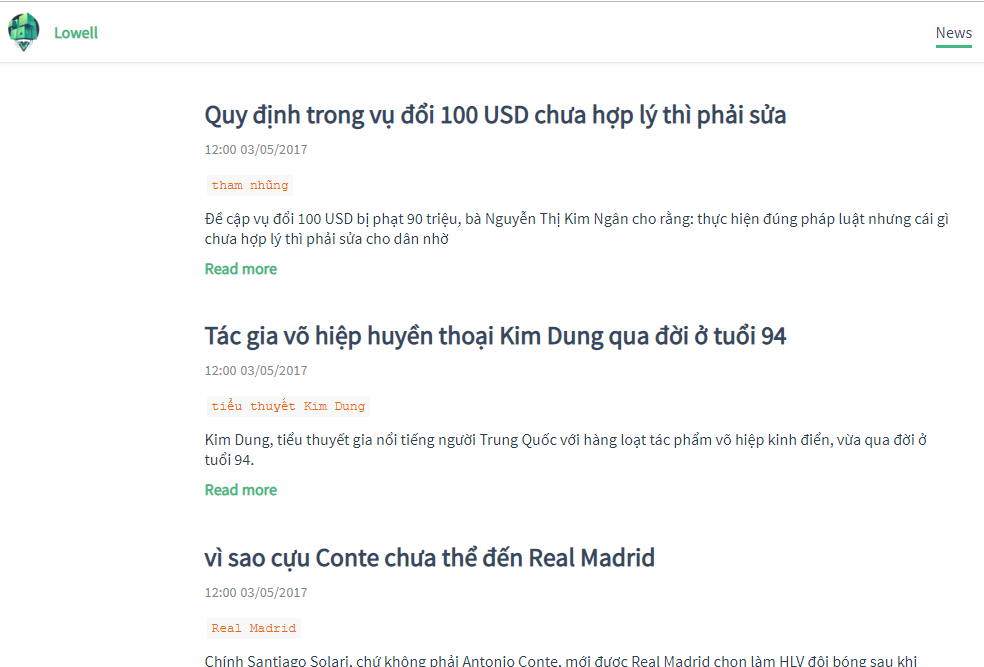


Products Management



### **Client: *http://192.168.206.43:8001***

* **List of News**



* **Detail of News**

