

Connecting to Neo4j

The website for Neo4j has lots of resources and one of those is instructions on how to use a programming language to connect to the database. The graph database Neo4j can be connected to with several programming languages. Although the ones that are officially supported by Neo4j is .Net, Java, JavaScript, and Python. Before connecting to Neo4j through a programming language there are a few prerequisites. The first one is to have a good comprehension of the graph database concepts. The second is to have Neo4j 3.0 installed on the computer that will be used for programming. The third and final thing is to have a working knowledge of Neo4js Cypher Query Language.

The connection from the programming language and Neo4j uses a binary protocol, called Bolt. Neo4j makes the process minimal and idiomatic with the chosen programming language. Here is an example of connecting to the database using Python:

```
pip install neo4j-driver
from neo4j.v1 import GraphDatabase, basic_auth

driver = GraphDatabase.driver("bolt://localhost:7687",
                              auth=basic_auth("neo4j", "neo4j"))
session = driver.session()

session.run("CREATE (a:Person {name: {name}, title: {title}})", {"name": "Arthur", "title": "King"})

result = session.run("MATCH (a:Person) WHERE a.name = {name} "
                    "RETURN a.name AS name, a.title AS title",
                    {"name": "Arthur"})

for record in result:
    print("%s %s" % (record["title"], record["name"]))

session.close()
```

There are other programming languages that can be used to connect to Neo4j, they are just not supported by Neo4j. They are instead made by the community that use Neo4j. The languages include Spring, Neo4j-OGM, Ruby, PHP, R, Go, Erlang/Elixir, C/C++, Clojure, Perl, and Haskell. Chris Leishman is the Neo4j user who wrote a full featured c-client library, which allows Neo4j to be accessed and used within a C or C++ program. Although Neo4j does not support the library or the drivers that go along with it. All the material is hosted on github.com for anyone to use.