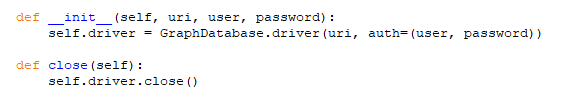
Systems Research Documentation – Created By: Alexander Kostoff

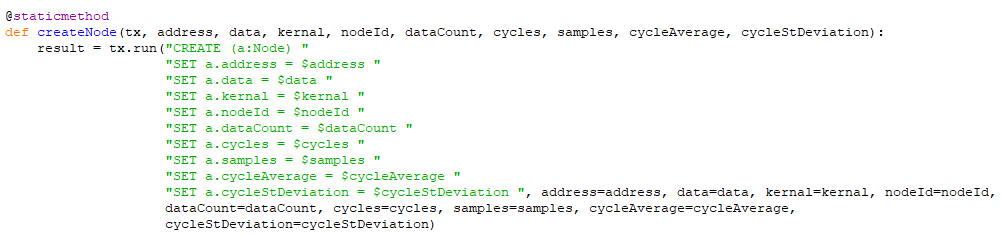
This program takes in data from a file that contains the processes of an application and inserts them into a graph database. The graph data used is neo4j.

The neo4j class integrates python with the neo4j database:

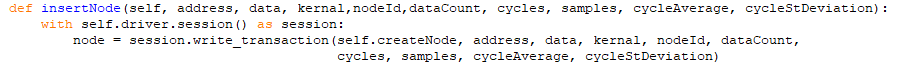
The first methods initialize the connection to the neo4j server and close the connections when they are called:



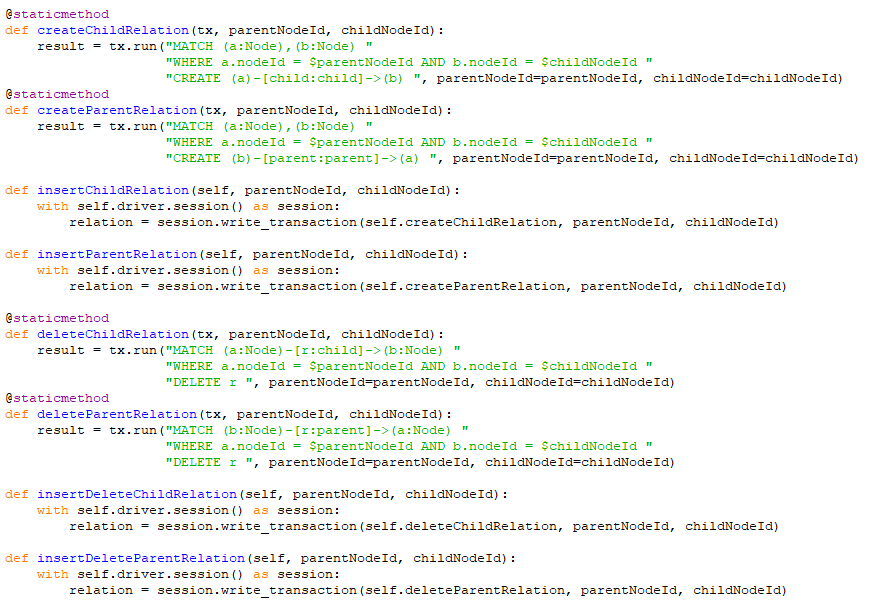
The node insertion is separated into 2 functions, one that contains the query that is in the Cypher Query Language that neo4j uses and another one that takes the data and uses the query code to write to the database.

Contains query: 

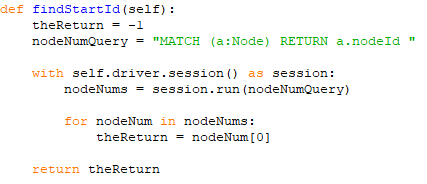
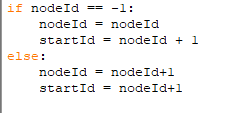
Writing is done using the query and the information is passed into this function:



Queries used for creating and deleting parent and child relationships are important and are done with queries. The writing function is called, and the values passed are used in the query:



The findStartId function is very important for inserting multiple trees. The start id is found in the database and is made the nodeId. To sperate different trees, the nodeId on the roots are 2 increments above the last nodeId:



All functions that are commented with NOT USED, work but have no use in the program.