In this assignment, you will use the Dev01 environment to demonstrate:

1. Launch VSCode and add a terminal.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Start/stop Cassandra from the VScode terminal.

service cassandra start

service cassandra stop

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Create a Jupyter Lab Notebook (in VScode) and use Python to accomplish the following (steps 4 through 9):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Connect to the Cassandra Database

from cassandra.cluster import Cluster

object = Cluster()

session = object.connect()

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Create a keyspace called m14.

session.execute("CREATE KEYSPACE IF NOT EXISTS m14 WITH REPLICATION = {'class':'SimpleStrategy','replication\_factor':'1'}")

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Create a table in this keyspace that will be used to store inventory information. This will include the fields, SKU (which is shown for stock keeping unit), name (short name for the product), description (longer description of the product), warehouse\_num (the warehouse number where the product is stored)

Session.execute("""CREATE TABLE IF NOT EXIST m14.storage(

SKU TEXT,

NAME TEXT,

DESCRIPTION TEXT,

WAREHOUSE\_NUMBER INT,

PRIMARY KEY(SKU))

""")

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Populate several rows of data into your inventory table.

pd

df = pd.read\_csv("table.csv")

for index,row in df.iterrows():

session.execute(f""" INSERT INTO m14.storage (SKU,NAME,DESCRIPTION,WAREHOUSE\_NUMBER)

VALUES({row[0]},{row[1]},{row[2]},{row[3]})

""")

output = session.execute("SELECT \* FROM m14.storage")

for i in output:

print(rows)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Create an index on warehouse\_num.

session.execute("CREATE INDEX index ON m14.storage(WAREHOUSE\_NUMBER)")

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Search for all products located at a given location (for instance - if you created two rows with location 123, list all products at location 123)

output = session.execute("SELECT \* FROM m14.storage WHERE WAREHOUSE\_NUMBER=1234")

for i in output:

print(rows)