#!/usr/bin/env python

# coding: utf-8

# In[95]:

from py2neo import Graph, Node, Relationship

# In[96]:

g=Graph("bolt://localhost:7687",password="user")

# In[97]:

g.run("MATCH (n) DETACH DELETE n")

#g.run("MATCH(n) WITH n LIMIT 500000 DETACH DELETE n RETURN count(\*);")

#g.run("CALL apoc.schema.assert({}, {})")

#g.run("MATCH ()-[r:belongs\_to]->() DELETE r")

# # CREATING PLAYER NODES

# In[98]:

query1= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (player:Player{name:row.Name})

ON CREATE SET player.position = row.Position

'''

# In[99]:

g.run(query1)

# # CREATING COUNTRY NODES

# In[100]:

query2= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (country:Country{name:row.Player\_nationality})

'''

# In[101]:

g.run(query2)

# # CREATING CLUB NODES

# In[102]:

query3= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (club:Club{name:row.Team\_from})

'''

# In[103]:

g.run(query3)

# In[104]:

query4= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (club:Club{name:row.Team\_to})

'''

# In[105]:

g.run(query4)

# # CREATING LEAGUES NODES

# In[106]:

query5= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (league:League{name:row.League\_from})

'''

# In[107]:

g.run(query5)

# In[108]:

query6= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (league:League{name:row.League\_to})

'''

# In[109]:

g.run(query6)

# # CREATING TRANSFER NODES

# In[110]:

query= '''

USING PERIODIC COMMIT

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS row

MERGE (transfer:Transfer{

id: row.ID,

season: row.Season,

fee: row.Transfer\_fee

})

'''

# In[111]:

g.run(query)

# # CREATING NATIONALITY EDGES

# In[112]:

query7 = '''

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS csvLine

MATCH (pl:Player), (co:Country)

WHERE pl.name = csvLine.Name AND co.name = csvLine.Player\_nationality

MERGE (pl) -[r:nationality]-> (co)

'''

# In[113]:

g.run(query7)

# # CREATING PLAYS\_IN EDGES

# In[114]:

query8 = '''

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS csvLine

MATCH (cl:Club), (le:League)

WHERE cl.name = csvLine.Team\_from AND le.name = csvLine.League\_from

MERGE (cl) -[r:plays\_in]-> (le)

'''

g.run(query8)

# In[115]:

query9 = '''

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS csvLine

MATCH (cl:Club), (le:League)

WHERE cl.name = csvLine.Team\_to AND le.name = csvLine.League\_to

MERGE (cl) -[r:plays\_in]-> (le)

'''

# In[116]:

g.run(query9)

# # CREATING TRANSFER -> TEAMFROM/TO EDGES

# In[117]:

query10 = '''

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS csvLine

MATCH (tr:Transfer), (cl:Club)

WHERE tr.id = csvLine.ID AND cl.name = csvLine.Team\_from

MERGE (tr) -[r:teamFrom]-> (cl)

'''

# In[118]:

g.run(query10)

# In[119]:

query11 = '''

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS csvLine

MATCH (tr:Transfer), (cl:Club)

WHERE tr.id = csvLine.ID AND cl.name = csvLine.Team\_to

MERGE (tr) -[r:teamTo]-> (cl)

'''

# In[120]:

g.run(query11)

# # CREATING TRANSFER -> PLAYER\_INVOLVED EDGES

# In[125]:

query12 = '''

LOAD CSV WITH HEADERS FROM "file:///transfers.csv" AS csvLine

MATCH (tr:Transfer), (pl:Player)

WHERE tr.id = csvLine.ID AND pl.name = csvLine.Name

MERGE (tr) -[r:playerInvolved]-> (pl)

SET r.Age=csvLine.Age, r.MarketValue = csvLine.Market\_value

'''

# In[126]:

g.run(query12)

# In[ ]: