Cypher Code

**Creation of constraints:**

CREATE CONSTRAINT diseaseIdConstraint FOR (d:Disease) REQUIRE d.id IS UNIQUE

Added 1 constraint, completed after 267 ms.

CREATE CONSTRAINT symptomIdConstraint FOR (s:Symptom) REQUIRE s.id IS UNIQUE

Added 1 constraint, completed after 91 ms.

Index for both directly created by the creation of constraints

**Creation of nodes of symptoms and diseases:**

Python Code for generating desired cypher code is uploaded

Added 894 labels, created 894 nodes, set 3739 properties, completed after 4815 ms.

Added **3316** labels, created 3316 nodes, set 16580 properties, completed after 41574 ms.

Added 4705 labels, created 4705 nodes, set 23525 properties, completed after 83401 ms.

Added 3529 labels, created 3529 nodes, set 14116 properties, completed after 31235 ms

In total, 11550 diseases are added.

**Creation of relationships between diseases:**

(To delete any pre-existing relationships)

MATCH ()-[r]->() DELETE r

:auto LOAD CSV WITH HEADERS FROM 'file:////right\_disease\_relationships.csv' AS csvLine

CALL {

WITH csvLine

MATCH (parent:Disease {id:csvLine.parent\_id}), (child:Disease {id: csvLine.child\_id})

CREATE (child)-[:Parent\_Disease]->(parent)

} IN TRANSACTIONS OF 2 ROWS

Created 16084 relationships, completed after 14818 ms.

**Creation of relationships between symptoms and diseases:**

:auto LOAD CSV WITH HEADERS FROM 'file:////final\_dis\_symp\_relations.csv' AS csvLine

CALL {

WITH csvLine

MATCH (corres\_disease:Disease {id:csvLine.Disease\_id}), (corres\_symptom:Symptom {id: csvLine.Symptom\_id})

CREATE (corres\_disease)-[:corresponding\_Symptom]->(corres\_symptom)

} IN TRANSACTIONS OF 2 ROWS

Created 27793 relationships, completed after 24885 ms.