# Single

## Query1

Match (n:DiagnosticTest) where n.name =~ '(?i).\*liver.\*' return n

Started streaming 7 records after 1 ms and completed after 3 ms.

## Query2

Match (n:Disease) where n.name =~ '(?i).\*liver.\*' return n

Started streaming 83 records after 1 ms and completed after 77 ms.

## Query3

Match (x) where (any(prop in keys(x) where x[prop] =~ '(?i).\*liver.\*')) return x

Started streaming 1059 records after 4 ms and completed after 834 ms, displaying first 1000 rows.

# Double

## Query4

Match (n:Disease)-[]-(t:Treatment) where n.name =~ "(?i).\*breast cancer.\*" return n

Started streaming 40 records after 1 ms and completed after 36 ms.

## Query5

Match (n:Disease)-[]-(t:DiagnosticTest) where n.name =~ "(?i).\*breast cancer.\*" return n

Started streaming 30 records in less than 1 ms and completed after 82 ms.

## Query6

Match (n:Disease)-[]-(t:Gene) where n.name =~ "(?i).\*breast cancer.\*" return n

Started streaming 1036 records after 2 ms and completed after 276 ms, displaying first 1000 rows.

# Triple

## Query7

Match (d:DiagnosticTest)-[]-(n:Disease)-[]-(s:Symptom) where n.name =~ "(?i).\*deficiency.\*" return d,s

Started streaming 19 records after 2 ms and completed after 7 ms.

## Query8

Match (d:DiagnosticTest)-[]-(n:Disease)-[]-(s:Treatment) where n.name =~ "(?i).\*periodontitis.\*" return d,s

Started streaming 45 records after 1 ms and completed after 13 ms.

## Query9

Match (d:DiagnosticTest)-[]-(n:Disease)-[]-(s:Behaviour) where n.name =~ "(?i).\*arteriosclerosis.\*" return d,s

Started streaming 130 records after 1 ms and completed after 7 ms.

# Triangles

## Query10

match (g:Gene)-[:associatedWith]-(x:Disease)-[:falseStructureCauses]-(p:Protein)-[:encodes]-(g) where x.name =~ '(?i).\*type 1 diabetes.\*' return g,p

Started streaming 6 records after 3 ms and completed after 155 ms.

## Query11

match (g:Gene)-[:associatedWith]-(x:Disease)-[:falseStructureCauses]-(p:Protein)-[:encodes]-(g) where x.name =~ '(?i).\*hypothermia.\*' return g,p

Started streaming 12 records after 1 ms and completed after 114 ms.

## Query12

match (g:Gene)-[:associatedWith]-(x:Disease)-[:falseStructureCauses]-(p:Protein)-[:encodes]-(g) where x.name =~ '(?i).\*skin cancer.\*' return g,p

Started streaming 60 records after 1 ms and completed after 112 ms.

# Growing Star

## Query13

match (x:Disease)-[]-(y1:Symptom) where y1.name =~ '(?i).\*fever.\*' with x,y1 match (x)-[]-(y2:Symptom) where y2.name =~ '(?i).\*fatigue.\*' return x

Started streaming 15 records after 10 ms and completed after 12 ms.

## Query14

match (x:Disease)-[]-(y1:Symptom) where y1.name =~ '(?i).\*fever.\*' with x,y1 match (x)-[]-(y2:Symptom) where y2.name =~ '(?i).\*fatigue.\*' with x,y1,y2 match (x)-[]-(y3:Symptom) where y3.name =~ '(?i).\*anorexia.\*' return x

Started streaming 6 records after 2 ms and completed after 4 ms.

## Query15

match (x:Disease)-[]-(y1:Symptom) where y1.name =~ '(?i).\*fever.\*' with x,y1 match (x)-[]-(y2:Symptom) where y2.name =~ '(?i).\*fatigue.\*' with x,y1,y2 match (x)-[]-(y3:Symptom) where y3.name =~ '(?i).\*anorexia.\*' with x,y1,y2,y3 match (x)-[]-(y4:Symptom) where y4.name =~ '(?i).\*diarrhea.\*' return x

Started streaming 1 records after 4 ms and completed after 7 ms.

# Top Hub

## Query16

MATCH (a:DiagnosticTest)-[]-(b:Disease) with b, COLLECT(a) as diagnosticTests ORDER BY SIZE(diagnosticTests) DESC return b limit 5

Started streaming 5 records after 84 ms and completed after 84 ms.

## Query17

MATCH (a:Treatment)-[]-(b:Disease) with b, COLLECT(a) as treatments ORDER BY SIZE(treatments) DESC return b limit 5

Started streaming 5 records after 7 ms and completed after 7 ms.

## Query18

MATCH (a:Gene)-[]-(b:Disease) with b, COLLECT(a) as genes ORDER BY SIZE(genes) DESC return b limit 5

Started streaming 5 records after 40 ms and completed after 40 ms.

# Max Overlap

## Query19

match (d1:Disease)-[]-(s:Symptom)-[]-(d2:Disease) where d1.name =~ '(?i).\*gastroenteritis.\*' with d2, COLLECT(s) as symptoms ORDER BY SIZE(symptoms) DESC return d2 limit 5

Started streaming 5 records after 3 ms and completed after 3 ms.

## Query20

match (d1:Disease)-[]-(s:Treatment)-[]-(d2:Disease) where d1.name =~ '(?i).\*hypertension.\*' with d2, COLLECT(s) as treatments ORDER BY SIZE(treatments) DESC return d2 limit 5

Started streaming 5 records after 12 ms and completed after 12 ms.

## Query21

match (d1:Disease)-[]-(s:ResearchPaper)-[]-(d2:Disease) where d1.name =~ '(?i).\*pulmonary hemosiderosis.\*' with d2, COLLECT(s) as researchPapers ORDER BY SIZE(researchPapers) DESC return d2 limit 5

Started streaming 1 records after 41 ms and completed after 41 ms.