# Results for following data:

10000 customer

100000 invoice

100000 target

10000 work

100000 item

100000 worktype

100000 useditem

100000 workhours

1000000 workinvoice

1000000 worktarget

100 sequential invoices

# Short query, workhours price

Executing SQL Query: SELECT (price \* hours \* workhours.discount) as price FROM worktype,workhours,work WHERE worktype.id=workhours.worktypeId AND workhours.workId=work.id; in 2 databases with 10 iterations.

Query in url jdbc:mariadb://127.0.0.1:3306/ returned 100000 rows.

Query in url jdbc:mysql://127.0.0.1:3307/ returned 100000 rows.

Results for MySQL version 5.1.41

Smallest number in resultset: 360 ms.

Biggest number in resultset: 424 ms.

Content of the results table:

Index 0: 360.

Index 1: 361.

Index 2: 361.

Index 3: 362.

Index 4: 362.

Index 5: 362.

Index 6: 364.

Index 7: 365.

Average time for query: 362.0 ms.

Results for MariaDB version 10.4.11-MariaDB

Smallest number in resultset: 135 ms.

Biggest number in resultset: 151 ms.

Content of the results table:

Index 0: 136.

Index 1: 138.

Index 2: 140.

Index 3: 142.

Index 4: 143.

Index 5: 144.

Index 6: 145.

Index 7: 149.

Average time for query: 142.0 ms.

Executing Cypher Query: MATCH (wt:worktype)-[h:WORKHOURS]->(w:work) RETURN (h.hours\*h.discount\*wt.price) as price; with 10 iterations.

Cypher query returned: 100000 records.

Smallest number in resultset: 223 ms.

Biggest number in resultset: 829 ms.

Content of the results table:

Index 0: 224.

Index 1: 224.

Index 2: 224.

Index 3: 225.

Index 4: 229.

Index 5: 235.

Index 6: 237.

Index 7: 254.

Average time for query: 231.0 ms.

# Long query, work price

Executing SQL Query: SELECT (price \* hours \* workhours.discount) + (purchaseprice \* amount \* useditem.discount) as price FROM worktype,workhours,work,useditem,item WHERE worktype.id=workhours.worktypeId AND workhours.workId=work.id AND work.id=useditem.workId AND useditem.itemId=item.id in 2 databases with 10 iterations.

Query in url jdbc:mariadb://127.0.0.1:3306/ returned 1000000 rows.

Query in url jdbc:mysql://127.0.0.1:3307/ returned 1000000 rows.

Results for MySQL version 5.1.41

Smallest number in resultset: 4765 ms.

Biggest number in resultset: 6396 ms.

Content of the results table:

Index 0: 4798.

Index 1: 4800.

Index 2: 4820.

Index 3: 4839.

Index 4: 4983.

Index 5: 5032.

Index 6: 5052.

Index 7: 5065.

Average time for query: 4923.0 ms.

Results for MariaDB version 10.4.11-MariaDB

Smallest number in resultset: 1394 ms.

Biggest number in resultset: 2386 ms.

Content of the results table:

Index 0: 1398.

Index 1: 1398.

Index 2: 1401.

Index 3: 1402.

Index 4: 1408.

Index 5: 1825.

Index 6: 2229.

Index 7: 2384.

Average time for query: 1680.0 ms.

Executing Cypher Query: MATCH (wt:worktype)-[h:WORKHOURS]->(w:work)-[u:USED\_ITEM]->(i:item) RETURN (h.hours\*h.discount\*wt.price)+(u.amount\*u.discount\*i.purchaseprice) with 10 iterations.

Smallest number in resultset: 10 ms.

Biggest number in resultset: 5226 ms.

Content of the results table:

Index 0: 3237.

Index 1: 3238.

Index 2: 3241.

Index 3: 3269.

Index 4: 3294.

Index 5: 3367.

Index 6: 3391.

Index 7: 3578.

Average time for query: 3326.0 ms.

# Query with defined key, work of invoice

Executing SQL Query: SELECT \* FROM invoice,workinvoice,work WHERE invoice.id=workinvoice.workId AND workinvoice.workId=work.id AND invoice.id=0 in 2 databases with 10 iterations.

Query in url jdbc:mariadb://127.0.0.1:3306/ returned 94 rows.

Query in url jdbc:mysql://127.0.0.1:3307/ returned 94 rows.

Results for MySQL version 5.1.41

Smallest number in resultset: 0 ms.

Biggest number in resultset: 24 ms.

Content of the results table:

Index 0: 0.

Index 1: 0.

Index 2: 1.

Index 3: 1.

Index 4: 1.

Index 5: 1.

Index 6: 1.

Index 7: 1.

Average time for query: 0.0 ms.

Results for MariaDB version 10.4.11-MariaDB

Smallest number in resultset: 0 ms.

Biggest number in resultset: 64 ms.

Content of the results table:

Index 0: 1.

Index 1: 1.

Index 2: 1.

Index 3: 2.

Index 4: 2.

Index 5: 2.

Index 6: 2.

Index 7: 7.

Average time for query: 2.0 ms.

Executing Cypher Query: MATCH (i:invoice { invoiceId:0 })-[wi:WORK\_INVOICE]->(w:work) RETURN \* with 10 iterations.

Cypher query returned: 10 records.

Smallest number in resultset: 17 ms.

Biggest number in resultset: 197 ms.

Content of the results table:

Index 0: 45.

Index 1: 45.

Index 2: 45.

Index 3: 46.

Index 4: 46.

Index 5: 46.

Index 6: 60.

Index 7: 75.

Average time for query: 51.0 ms.

# Aggregate query, invoice price

Executing SQL Query: SELECT q1.invoiceId AS invoiceId, sum(q2.price) AS invoicePrice FROM (SELECT invoice.id AS invoiceId, work.id AS workId FROM invoice, workinvoice, work WHERE invoice.id=workinvoice.invoiceId and workinvoice.workId=work.id ) AS q1, (SELECT work.id AS workId, SUM((worktype.price \* workhours.hours \* workhours.discount) + (item.purchaseprice \* useditem.amount \* useditem.discount)) AS price FROM worktype,workhours,work,item,useditem WHERE worktype.id=workhours.worktypeid AND workhours.workid=work.id AND work.id=useditem.workid AND useditem.itemid=item.id GROUP BY work.id) AS q2 WHERE q1.workId = q2.workId GROUP BY q1.invoiceId in 2 databases with 10 iterations.

Query in url jdbc:mariadb://127.0.0.1:3306/ returned 100000 rows.

Query in url jdbc:mysql://127.0.0.1:3307/ returned 100000 rows.

Results for MySQL version 5.1.41

Smallest number in resultset: 238743 ms.

Biggest number in resultset: 260950 ms.

Content of the results table:

Index 0: 242400.

Index 1: 243189.

Index 2: 243308.

Index 3: 243982.

Index 4: 244965.

Index 5: 246220.

Index 6: 246379.

Index 7: 252190.

Average time for query: 245329.0 ms.

Results for MariaDB version 10.4.11-MariaDB

Smallest number in resultset: 4773 ms.

Biggest number in resultset: 8201 ms.

Content of the results table:

Index 0: 4776.

Index 1: 4778.

Index 2: 4785.

Index 3: 4788.

Index 4: 4821.

Index 5: 4824.

Index 6: 4842.

Index 7: 6158.

Average time for query: 4971.0 ms.

Executing Cypher Query: MATCH (inv:invoice)-[:WORK\_INVOICE]->(w:work)<-[h:WORKHOURS]-(wt:worktype) WITH inv, w, SUM(wt.price\*h.hours\*h.discount) as workTimePrice OPTIONAL MATCH (w)-[u:USED\_ITEM]->(i:item) WITH inv, workTimePrice + SUM(u.amount\*u.discount\*i.purchaseprice) as workItemPrice RETURN inv, sum(workItemPrice) as invoicePrice with 10 iterations.

Cypher query returned: 100000 records.

Smallest number in resultset: 11 ms.

Biggest number in resultset: 51889 ms.

Content of the results table:

Index 0: 48587.

Index 1: 48676.

Index 2: 48678.

Index 3: 48741.

Index 4: 48762.

Index 5: 48834.

Index 6: 49331.

Index 7: 49405.

# Average time for query: 48876.0 ms.

# Recursive query, invoices related to invoice id 102091

Recursive query, invoices related to invoice id 102091

Executing SQL Query: SELECT id,customerid,state,duedate,previousinvoice FROM (SELECT \* FROM invoice ORDER BY previousinvoice, id) invoices\_sorted, (SELECT @pv := '102091') initialisation WHERE find\_in\_set(previousinvoice, @pv) AND length(@pv := concat(@pv, ',', id)) in 2 databases with 10 iterations.

Query in url jdbc:mariadb://127.0.0.1:3306/ returned 100 rows.

Query in url jdbc:mysql://127.0.0.1:3307/ returned 100 rows.

Results for MySQL version 5.1.41

Smallest number in resultset: 66 ms.

Biggest number in resultset: 84 ms.

Content of the results table:

Index 0: 66.

Index 1: 67.

Index 2: 67.

Index 3: 68.

Index 4: 68.

Index 5: 68.

Index 6: 70.

Index 7: 70.

Average time for query: 68.0 ms.

Results for MariaDB version 10.4.11-MariaDB

Smallest number in resultset: 32 ms.

Biggest number in resultset: 52 ms.

Content of the results table:

Index 0: 32.

Index 1: 33.

Index 2: 34.

Index 3: 34.

Index 4: 34.

Index 5: 34.

Index 6: 36.

Index 7: 37.

Average time for query: 34.0 ms.

Executing Cypher Query: MATCH (i:invoice { invoiceId:102091 })-[p:PREVIOUS\_INVOICE \*0..]->(j:invoice) RETURN \* with 10 iterations.

Smallest number in resultset: 12 ms.

Biggest number in resultset: 98 ms.

Content of the results table:

Index 0: 50.

Index 1: 50.

Index 2: 50.

Index 3: 50.

Index 4: 58.

Index 5: 58.

Index 6: 60.

Index 7: 68.

Average time for query: 55.0 ms.