

Outputs

Query 1: (region)
(r_name = 'EUROPE')

```
[naman@0xblad3] - (~/git/database-from-scratch/src) - [git://proj1 ✕] -  
> ./test.bin  
  
** IMPORTANT: MAKE SURE THE INFORMATION BELOW IS CORRECT **  
catalog location:      db/catalog  
tpch files dir:        tpch-dbgen/  
heap files dir:        out/  
  
select test:  
  1. load file  
  2. scan  
  3. scan & filter  
  3  
  
select table:  
  1. supplier  
  2. partsupp  
  3. part  
  4. nation  
  5. lineitem  
  6. region  
  7. orders  
  8. customer  
  6  
  
Filter with CNF for : region  
Enter CNF predicate (when done press ctrl-D):  
  (r_name = 'EUROPE')  
r_regionkey: [3], r_name: [EUROPE], r_comment: [ly final courts cajole furiously final excuse]  
selected 1 recs  
Time taken: 0.036 milliseconds!  
Calling cleanup!  
[naman@0xblad3] - (~/git/database-from-scratch/src) - [git://proj1 ✕] -  
> □
```

Query 2: (region)
(r_name < 'MIDDLE EAST') AND (r_regionkey > 1)

```
[naman@0xblad3] - (~/.git/database-from-scratch/src) - [git://proj1 x] -  
> ./test.bin  
  
** IMPORTANT: MAKE SURE THE INFORMATION BELOW IS CORRECT **  
catalog location:      db/catalog  
tpch files dir:        tpch-dbgen/  
heap files dir:        out/  
  
select test:  
  1. load file  
  2. scan  
  3. scan & filter  
  3  
  
select table:  
  1. supplier  
  2. partsupp  
  3. part  
  4. nation  
  5. lineitem  
  6. region  
  7. orders  
  8. customer  
  6  
  
Filter with CNF for : region  
Enter CNF predicate (when done press ctrl-D):  
  (r_name < 'MIDDLE EAST') AND (r_regionkey > 1)  
r_regionkey: [2], r_name: [ASIA], r_comment: [ges. thinly even pinto beans ca]  
r_regionkey: [3], r_name: [EUROPE], r_comment: [ly final courts cajole furiously final excuse]  
selected 2 recs  
Time taken: 0.044 milliseconds!  
Calling cleanup!  
[naman@0xblad3] - (~/.git/database-from-scratch/src) - [git://proj1 x] -  
> █
```


Query 3: (nation)

(n_regionkey =3) AND (n_nationkey > 10) AND (n_name > 'JAPAN')

```
[naman@0xblad3] - (~/.git/database-from-scratch/src) - [git://proj1 ✕] -  
> ./test.bin
```

**** IMPORTANT: MAKE SURE THE INFORMATION BELOW IS CORRECT ****

```
catalog location:  db/catalog  
tpch files dir:    tpch-dbggen/  
heap files dir:    out/
```

```
select test:  
  1. load file  
  2. scan  
  3. scan & filter  
  3
```

```
select table:  
  1. supplier  
  2. partsupp  
  3. part  
  4. nation  
  5. lineitem  
  6. region  
  7. orders  
  8. customer  
  4
```

Filter with CNF for : nation

Enter CNF predicate (when done press ctrl-D):

(n_regionkey = 3) AND (n_nationkey > 10) AND (n_name > 'JAPAN')

n_nationkey: [19], n_name: [ROMANIA], n_regionkey: [3], n_comment: [ular asymptotes are about the furious multipliers. express dependencies nag above the ironically ironic account]

n_nationkey: [22], n_name: [RUSSIA], n_regionkey: [3], n_comment: [requests against the platelets use never according to the quickly regular pint]

n_nationkey: [23], n_name: [UNITED KINGDOM], n_regionkey: [3], n_comment: [eans boost carefully special requests. accounts are. carefull]

selected 3 recs

Time taken: 0.088 milliseconds!

Calling cleanup!

```
[naman@0xblad3] - (~/.git/database-from-scratch/src) - [git://proj1 ✕] -  
> █
```

Query 11: (lineitem)

(l_shipdate > '1994-01-01') AND (l_shipdate < '1994-01-07') AND (l_discount > 0.05) AND (l_discount < 0.06) AND (l_quantity = 4.0)

```
[naman@0xb1ad3] - (~/git/database-from-scratch/src) - [git://proj1 x] - [63/48287]
> ./test.bin

** IMPORTANT: MAKE SURE THE INFORMATION BELOW IS CORRECT **
catalog location:      db/catalog
tpch files dir:        tpch-dbgen/
heap files dir:        out/

select test:
  1. load file
  2. scan
  3. scan & filter
  3

select table:
  1. supplier
  2. partsupp
  3. part
  4. nation
  5. lineitem
  6. region
  7. orders
  8. customer
  5

Filter with CNF for : lineitem
Enter CNF predicate (when done press ctrl-D):
  (l_shipdate > '1994-01-01') AND (l_shipdate < '1994-01-07') AND (l_discount > 0.05) AND (l_discount < 0.06) AND (l_quantity = 4.0)
selected 0 recs
Time taken: 102.542 milliseconds!
Calling cleanup!
[naman@0xb1ad3] - (~/git/database-from-scratch/src) - [git://proj1 x] -
```

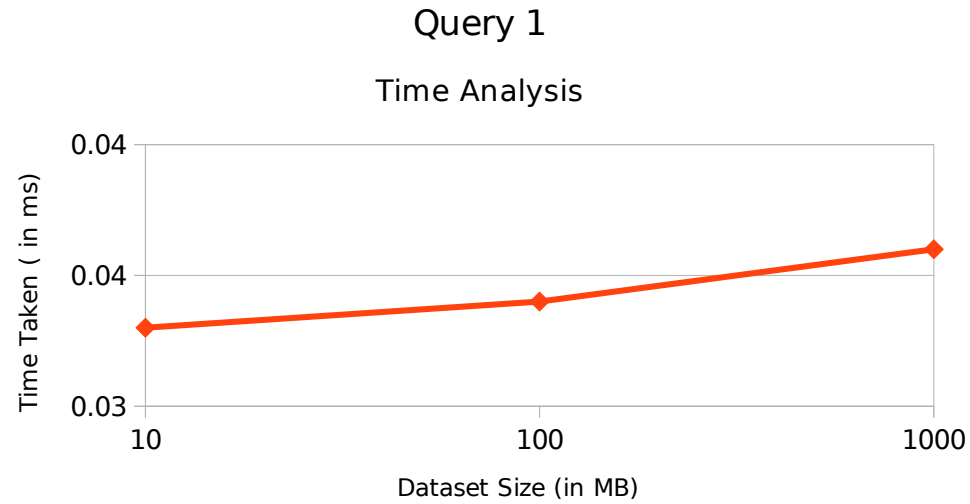

Query 12: (lineitem)

(l_orderkey > 100) AND (l_orderkey < 1000) AND (l_partkey > 100) AND (l_partkey < 5000)
AND (l_shipmode = 'AIR') AND (l_linestatus = 'F') AND (l_tax < 0.07)

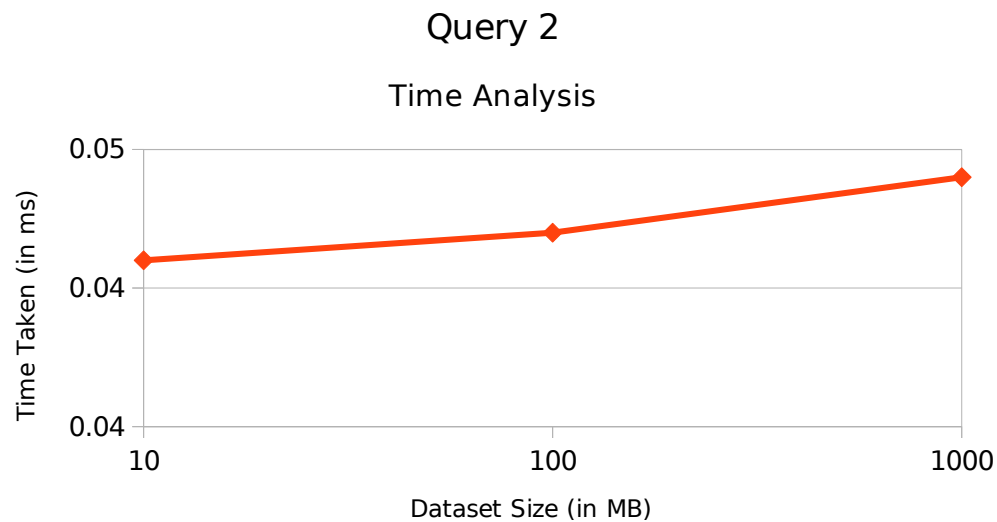
```
[naman@0xblad3] - (~/.git/database-from-scratch/src) - [git://proj1 ✕] -  
> ./test.bin  
  
** IMPORTANT: MAKE SURE THE INFORMATION BELOW IS CORRECT **  
catalog location:    db/catalog  
tpch files dir:      tpch-dbggen/  
heap files dir:      out/  
  
select test:  
  1. load file  
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  3. scan & filter  
  3  
  
select table:  
  1. supplier  
  2. partsupp  
  3. part  
  4. nation  
  5. lineitem  
  6. region  
  7. orders  
  8. customer  
  5  
  
Filter with CNF for : lineitem  
Enter CNF predicate (when done press ctrl-D):  
  (l_orderkey > 100) AND (l_orderkey < 1000) AND (l_partkey > 100) AND (l_partkey < 5000) AND (l_shipmode = 'AIR') AND (l_linestatus = 'F') A  
ND (l_tax < 0.07)  
l_orderkey: [130], l_partkey: [1739], l_suppkey: [4240], l_linenum: [2], l_quantity: [48], l_extendedprice: [78755], l_discount: [0.03], l_tax:  
[0.02], l_returnflag: [R], l_linestatus: [F], l_shipdate: [1992-07-01], l_commitdate: [1992-07-12], l_receiptdate: [1992-07-24], l_shipinstruct: [N  
ONE], l_shipmode: [AIR], l_comment: [lithely alongside of the regu]  
l_orderkey: [194], l_partkey: [2594], l_suppkey: [5095], l_linenum: [1], l_quantity: [17], l_extendedprice: [25442], l_discount: [0.05], l_tax:  
[0.04], l_returnflag: [R], l_linestatus: [F], l_shipdate: [1992-05-24], l_commitdate: [1992-05-22], l_receiptdate: [1992-05-30], l_shipinstruct: [C  
OLLECT COD], l_shipmode: [AIR], l_comment: [ regular deposi]  
selected 2 recs  
Time taken: 51.179 milliseconds!  
Calling cleanup!  
[naman@0xblad3] - (~/.git/database-from-scratch/src) - [git://proj1 ✕] -  
>   
[exec] 0:exec* 1:readme- 2:ss  
CPU:0.5%
```

Analysis

Query 1: (region)
(r_name = 'EUROPE')

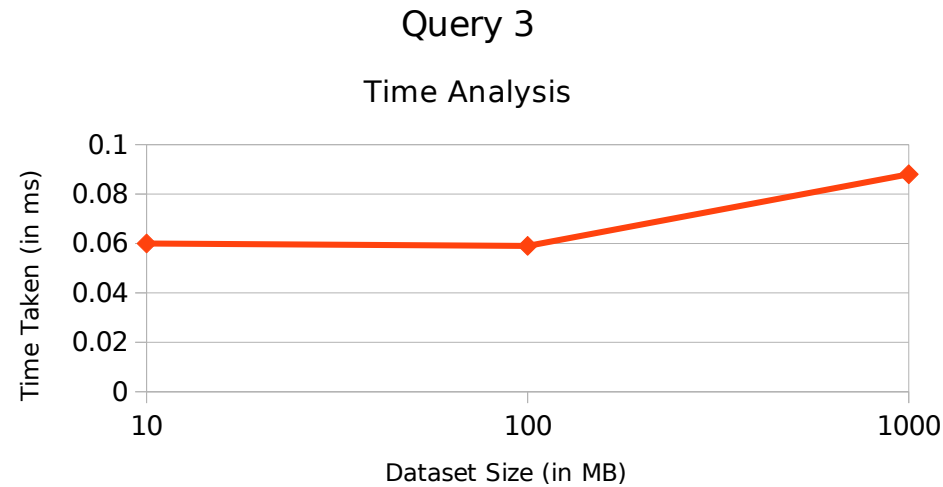


Query 2: (region)
(r_name < 'MIDDLE EAST') AND (r_regionkey > 1)



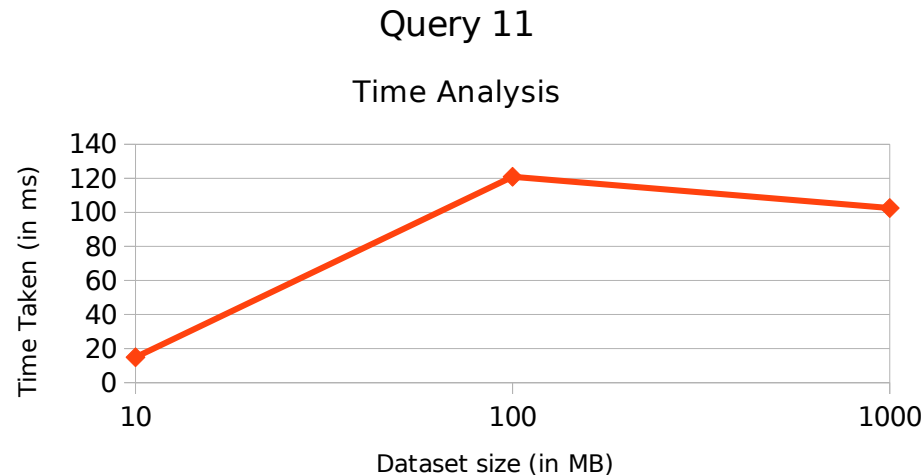
Query 3: (nation)

(n_regionkey =3) AND (n_nationkey > 10) AND (n_name > 'JAPAN')



Query 11: (lineitem)

(l_shipdate > '1994-01-01') AND (l_shipdate < '1994-01-07') AND (l_discount > 0.05) AND (l_discount < 0.06) AND (l_quantity = 4.0)



Query 12: (lineitem)

(l_orderkey > 100) AND (l_orderkey < 1000) AND (l_partkey > 100) AND (l_partkey < 5000)
AND (l_shipmode = 'AIR') AND (l_linestatus = 'F') AND (l_tax < 0.07)

