

# Lab 7 Template

## Screenshots

queries.sql

```
[vnagp002@xe-10 cs166_lab7_updated]$ cs166_psql -p 18769 vnagp002_lab7_DB < queries.sql
count
-----
      7854
(1 row)

totalredparts_nyc_sfo
-----
                2364580
(1 row)

supplier_name
-----
Jerry
Ted
Mickey
Alice
Bob
Carol
(6 rows)

supplier_name
-----
Jerry
Ted
Mickey
Bill
Vince
Donna
Alice
Bob
Carol
Phil
(10 rows)

UPDATE 49995
DELETE 8456
[vnagp002@xe-10 cs166_lab7_updated]$
```

measure.sh

```
• [vnagp002@xe-10 cs166_lab7_updated]$ source measure.sh
DROP TABLE
CREATE TABLE
COPY 49995
DROP TABLE
CREATE TABLE
COPY 39996
DROP TABLE
CREATE TABLE
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
DROP TABLE
CREATE TABLE
INSERT 0 1
INSERT 0 1
Query time without indexes
Query1: 8.647 ms
Query2: 19.210 ms
Query3: 40.959 ms
Query4: 25.219 ms
Query5: 87.486 ms
Query6: 15.929 ms
NOTICE: index "supplier_supplier_id" does not exist, skipping
NOTICE: index "supplier_supplier_name" does not exist, skipping
NOTICE: index "part_nyc_on_hand" does not exist, skipping
NOTICE: index "part_nyc_supplier" does not exist, skipping
NOTICE: index "part_nyc_part_number" does not exist, skipping
NOTICE: index "part_nyc_color" does not exist, skipping
NOTICE: index "part_sfo_on_hand" does not exist, skipping
NOTICE: index "part_sfo_supplier" does not exist, skipping
NOTICE: index "part_sfo_part_number" does not exist, skipping
NOTICE: index "part_sfo_color" does not exist, skipping
NOTICE: index "color_color_id" does not exist, skipping
NOTICE: index "color_color_name" does not exist, skipping
ERROR: relation "part_sfo_part_number" already exists
Query time with indexes
Query1: 0.786 ms
Query2: 16.864 ms
Query3: 32.246 ms
Query4: 21.834 ms
Query5: 288.710 ms
Query6: 14.832 ms
• [vnagp002@xe-10 cs166_lab7_updated]$
```

Don't forget to include your 2 screenshots. (one screenshot from running queries.sql, one screenshot from running measure.sh)

## Query time without indexes

	Query 1	Query 2	Query 3	Query 4	Query 5	Query 6
Trial 1	7.759	17.882	38.825	23.698	83.439	14.007
Trial 2	8.616	19.240	40.247	23.964	86.785	16.106
Trial 3	8.604	19.123	39.808	22.687	86.725	16.314
Trial 4	7.271	17.912	39.780	24.465	82.912	15.715
Trial 5	7.788	18.087	39.149	23.886	79.404	14.114
<b>Average</b>	<b>8.0076</b>	<b>18.4488</b>	<b>39.5618</b>	<b>23.74</b>	<b>83.853</b>	<b>15.2512</b>

## Query time with indexes

	Query 1	Query 2	Query 3	Query 4	Query 5	Query 6
Trial 1	0.745	15.192	30.635	20.707	266.344	14.303
Trial 2	0.783	16.939	32.282	23.026	265.035	14.679
Trial 3	0.895	17.063	32.517	22.612	263.193	14.672
Trial 4	0.824	23.6	32.588	21.640	264.562	9.891
Trial 5	0.818	16.867	32.702	22.166	264.637	14.727
<b>Average</b>	<b>0.813</b>	<b>17.9322</b>	<b>32.1448</b>	<b>22.0302</b>	<b>264.7542</b>	<b>13.6544</b>