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UNLIMITED®

Lab 3: Adding Indexes with the DMVs

2.3 p1

Setting up for the lab

1. Restore your StackOverflow database (Agent job)
2. Copy & run the setup script for Lab 1
3. After the restore finishes, run:
EXEC DropIndexes;
(because this lab is about adding indexes)
4. Start SQLQueryStress with the lab #1 workload again:
 1. File Explorer, \Labs, SQLQueryStress.exe
 2. Click File, Open, \Labs\IndexLab1.json, Go



2.3 p2

My index tuning strategy

Just
once

Dedupe – reduce overlapping indexes

Eliminate – unused indexes

The D/E/A steps use
sp_BlitzIndex.

Weekly
for 1
month

Add – badly needed missing indexes

Do this only
AFTER the easy
stuff above

Tune – indexes for specific queries

Heaps – usually need clustered indexes

The T step uses
sp_BlitzCache.



2.3 p3

Time to rely on our buddy.

The DropIndexes proc dropped all your nonclustered indexes.

The load test pushed a bunch of queries through, which populated your missing index DMVs.

This time: use the missing index recommendations in sp_BlitzIndex, but think carefully about their contents.



2.3 p4

Now, add the right ones.

1. Run `sp_BlitzIndex` for missing index suggestions.
2. Think about the queries that might trigger each index. (Remember, you've seen them in your last lab.)
3. Script out changes you want to make, aiming for:
 - 5 or less indexes per table
 - 5 or less fields per index
4. Show your work in Slack. (But you don't have to wait for permission to run it – run 'em as you go, because it takes a while to add new indexes.)



2.3 p5

How I'd budget this hour

Run `sp_BlitzIndex`, and keep that window open. (As you create indexes, the suggestions will vanish.)

- **15 minutes to work on one table:** combine the index recommendations for it, script 'em, run 'em.
- **Repeat for 2-3 tables.** Run 'em as you go.
- **Start the load test again.** Let it run for several minutes, and make sure your indexes get used.



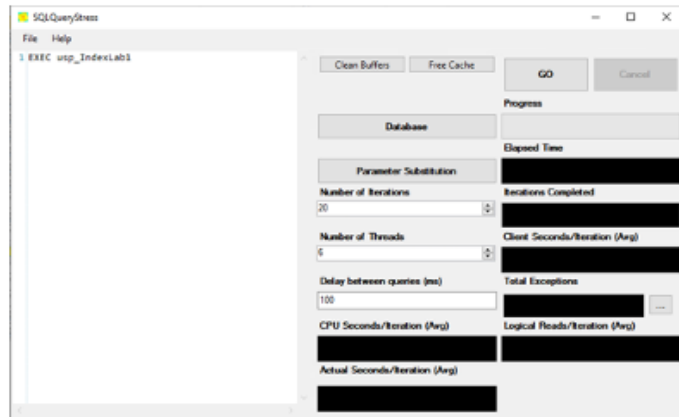
2.3 p6

Stop your load generator now.

Click Cancel and close SQLQueryStress.

If it won't close, you may need to kill it and its queries.

(Make sure it doesn't show up in Task Manager either.)

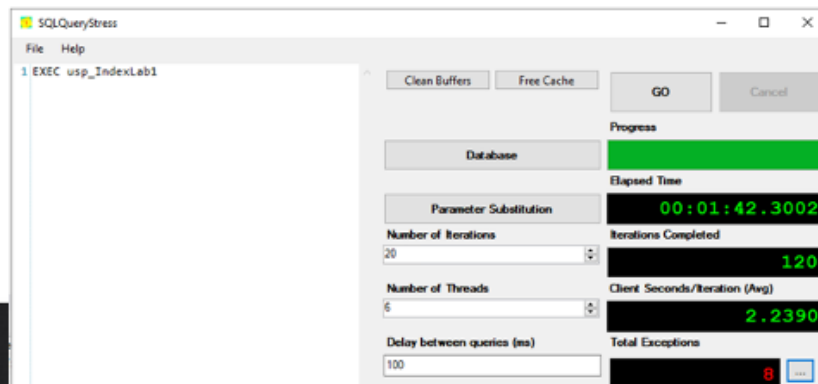


2.3 p7

Bonus points: rerun the load test.

If you've done a good job of adding indexes, the workload should finish in 1-2 minutes.

Some exceptions are expected, and that's okay.



2.3 ps