



BRENT OZAR
UNLIMITED®

Lab 5: Artisanal Indexes

3.2 p1

Setting up the lab

1. Restart your SQL Server service (clears all stats)
2. Restore your StackOverflow database
3. Copy/paste and run the setup script for Lab 5
4. That's it. No running load test this time.



We're at the bottom now.

Just
once

Dedupe – reduce overlapping indexes

Eliminate – unused indexes

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

3.2 p3



And we're tuning hard problems.

It can be hard to identify when artisanal indexes are a good fit for your workload.

So I'm going to give you a simpler workload:

- Just a few stored procedures to choose from
- They might a good fit for an artisanal index
- But you still have to figure out which feature is right, and you may have to change code to get it to work

No load test generator this time.



Your mission, should you choose

1. Pick one of the stored procs at right
(just like real life, there's no comments – you have to figure out what it's doing)
2. Design the right index for it
3. If necessary, modify the query so the index gets used (you don't have to wait for your manager)
4. Post your findings in Slack

Candidates:

usp_IXReport1

usp_IXReport2

usp_IXReport3



How to know if a query gets better

Set a baseline with the original version:

- Turn on the actual query plan
- SET STATISTICS IO ON
- Use the Messages tab to get the total number of logical reads (StatisticsParser.com helps)

Do your index tuning

Run the query again, get the logical reads and actual query plan



Posting your lab work in Slack

Include:

- The original logical reads, query plan
- The index change you made (script)
- The improved logical reads, query plan

Paste plans at [PasteThePlan.com](https://PastethePlan.com)

To turn in T-SQL, click the lightning bolt,
then click Add Snippet

3.2 p7

