Lab 4: Advanced Rewrites

2.5 p1

Setting up for lab 4

1. Restart your SQL Server service (clears all stats)

2. Restore your StackOverflow database (Agent job)

3. Copy & run the setup script for Lab 4.

4. Start SQLQueryStress with QueryLab4.json
   (or, feeling overwhelmed? Tune mqt_Lab4_Level1)

In this one, you may even need
sp_BlitzWho or sp_WhoIsActive.

2.5 p2

These aren't too hard to learn:

- Dynamic SQL to solve multi-param search procs

- Pagination to reduce result depth

- SELECT * tuning to reduce result width

- Advanced CTE filtering to do preprocessing

- Making user-defined functions go inline

(Granted, they're not *easy* – but they're not terrible.)

2.5 p3

But *implementation* is slower:

- Reviewing a query & its plan

- Understanding what its problem area is

- Choosing the right tool to fix it

- Implementing the fix

- Measuring to make sure performance got better

Doing all this for one query can take an hour or more.

2.5 p4

So pick your battles here.

10 minutes – sp_BlitzCache & query review: run sp_BlitzCache, poke around in the top resource-using queries, look for queries you can tune and make a difference.

45-90 minutes – tune 1 query: run it, get the actual plan (if possible), change the query/indexes/stats, get the new actual plan (if possible).

5 minutes – homework: report your work in Slack.

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