Lab 4: Planning the Work

In which you don't have to actually FIX things, but you gotta talk about what you wanna fix.

2.5 p1

Setting up for the lab

1. Restart the SQL Server service (clears stats)

2. Restore your StackOverflow database

3. Copy & run the Lab 4 setup script, will take 1-3 mins

4. Start SQLQueryStress:
   1. File Explorer, D:\Labs, run SQLQueryStress.exe
   2. Click File, Open, D:\Labs\ServerLab4.json
   3. Set "Number of Threads" based on your CPUs
   4. Click Go

2.5 p2

You have a (?) VM.

We're going to use the StackOverflow database,
but the rest of your server is a mystery.

Don't take anything for granted.

2.5 p3

What you're going to see

In SQLQueryStress, "Iterations Completed" won't move very quickly. (Or at all.)

Take long samples of waits:
sp_BlitzFirst @Seconds = 60, @ExpertMode = 1

See what queries are causing those waits:
sp_BlitzCache @SortOrder = 'reads'

Investigate to see if indexes will help

2.5 p4

How I'd spend this hour

- Setup: 5-10 minutes

- Review current state: 20-30 minutes
  - Server health check with sp_Blitz
  - Wait stats now with sp_BlitzFirst
  - Make your game plan for what you want to do

- Post your assessment in Slack, and I'll review it.

2.5 p5

Sample assessment

SQL2019A is heavily overloaded, and it's spending most of its time waiting on reads from storage.

After briefly reviewing queries & indexes involved in the reads, the next step is:

- Tune usp_UpdateUserComments to fix sargability

- Design better nonclustered indexes for dbo.Users

2.5 p6