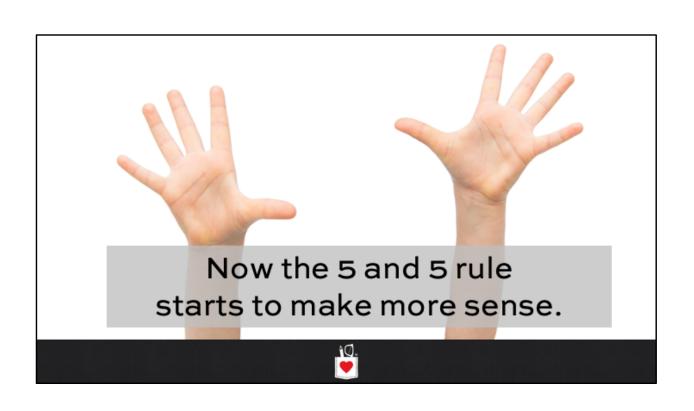


# Lab 4 Lessons Learned

# Goal: the smallest number of indexes necessary to support your workload.





### The Goldilocks problem

#### Too many indexes:

D/U/I operations take longer, and trigger blocks.

#### Too many fields on each index:

Every index has to get touched when its fields change, so we end up having to lock more objects for a D/U/I.

#### Not enough indexes:

D/U/I's have to do a table scan, locking the whole thing, and SQL Server can't estimate row counts.



### 5/5 isn't carved in stone.

When you see LCK% waits on your server, maybe you don't have enough indexes, or maybe you have too many.

(It could also be crappy code.)

Got >10 indexes? Start shedding weight.

Got no indexes? Add some to support your D/U/I's.



# Setting up for lab 5

- 1. Restart your SQL Server service (to clear all stats)
- 2. Restore your StackOverflow database (Agent job)
- 3. Copy & run the setup script for Lab 5
- 4. That's it. No running load test this time.

