



**BRENT OZAR**  
UNLIMITED®

## Lab 4 Lessons Learned

2.6 p1

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

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## 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.

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