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Fundamentals of Query Tuning

Up first: intros & logistics.

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Op1



BRENT OZAR
UNLIMITED

99-05: dev, architect, DBA
05-08: DBA, VM, SAN admin
08-10: MCM, Quest Software
Since: consulting DBA

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Op2

Introduce yourself in Slack:

	Developer	Development DBA	Production DBA
Write C#, Java code	Daily		
Build queries, tables	Daily	Sometimes	
Tune queries	Sometimes	Daily	
Design indexes		Daily	
Monitor performance		Daily	Sometimes
Troubleshoot outages			Daily
Manage backups, jobs			Daily
Install, config SQL			Sometimes
Install, config OS			Sometimes

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Slack pro tips

Accidentally close your browser? Want to share screenshots? Lots of pro tips: BrentOzar.com/slack

To share code or T-SQL, click the + sign next to where you type text in, and choose “code or text snippet.”

To share files, upload at [Imgur.com](https://imgur.com), paste URL here.

No direct messages please.

Keep the questions on-topic.

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Instant Replay & lab scripts

For a year from your purchase, paid students can:

- Watch the class recordings
- Download the scripts
- Re-run the labs on your local machine

Problems or questions?

Leave a comment on the relevant module.

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Live streaming tips & tricks

You can adjust video quality at the bottom right

You can pause if you need to walk away, but once you pause, you'll be behind the other students, and the live Q&A, polls, etc won't make sense

If your video stream seems 20-30 seconds behind, or you lose connection, try refreshing your browser

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We're going to cover

- How SQL Server builds plans in phases
- How to find the right slow queries to tune
- How parameters influence cached plans
- How to improve estimation accuracy
- 5 common T-SQL antipatterns
(and how they wreck cardinality)

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We're using Stack Overflow data.

Open source, licensed with Creative Commons

XML dump: archive.org/details/stackexchange

SQL Server db: BrentOzar.com/go/querystack

StackOverflow2013 database (50GB)
(but you can use newer/larger ones too –
it'll just take longer to create indexes)

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About my setup

SQL Server 2019
(but the database will usually
be in 2017 compat level)

SQL Server Management Studio 18

StackOverflow2013 50GB database

VM with 4 cores, 30GB RAM

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Let's do this!

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