If you know someone who you think would benefit from being an Insider, feel free to forward this PDF to them so they can sign up here.

Quick Tips for our Insider friends!

Hey Insiders,

This newsletter is coming to you from Redmond where we've just arrived home from our five-week conference and teaching trip. We have a couple of weeks here to recharge before heading off to London to do it all again!

Speaking of London, the two classes coming up in June (and one in Dublin in October) will be **our last European classes until 2018** because of scheduling conflicts and obligations in 2017, so make sure you come along if you don't want to wait! After another incredibly successful delivery, we've added an IEPDS class on data science, R, and data mining to our Chicago lineup in November. This is one of the next big things in data and a must for those of you looking to expand your knowledge/resume!

Our Fall classes are also starting to fill up, be sure to book your Immersion Event in advance to avoid the class you want selling out – all the schedule details are here.

We have a special offer running through May and June, where any client – new and existing – can get a **single-instance health check for only US$2,500**, which is more than 1/3 off the normal price! Details about why our health checks are so cost-effective are here.

And some **exciting news** – I've finally released my comprehensive wait stats and latch classes library! Check out the details here.

The latest book I've read is Robert D. Kaplan's *Monsoon: The Indian Ocean and the Future of American Power*. This is an excellent book that examines the geopolitics of the Indian Ocean, with commentary on how developments may force the U.S. to take more of an interest in the region. It examines many of the littoral countries around the ocean (including Oman, Pakistan, India, Bangladesh, Burma, Sri Lanka, Indonesia) from a historical perspective and how the ocean is important to them now and in the future. This book was written before his *Asia's Cauldron: The South China Sea and the End of a Stable Pacific* that I read last year, and is just as interesting and well written. Highly recommended!

Note: you can get all the prior Insider newsletters here.

The Curious Case of…

We've added this new section to the newsletter to explain problems we've found on client systems recently; it might be something you're experiencing too.

Glenn took on a new client recently that was complaining of regular poor performance at 8pm each night. After some investigation it turned out that at that time of day, they were doing excessive, unnecessary index maintenance and also running *DBCC CHECKDB* at the same time, all on a shared SAN that was underpowered for the resulting I/O load.

Glenn helped them streamline their index maintenance to be only for indexes that needed it and that would help workload performance, and completely offloaded the consistency-checking workload using a backup-copy-restore-CHECKDB method. This had the added benefit of allowing them to verify their backups, which they weren't doing regularly or correctly.

Always make sure that regular maintenance is scheduled to avoid overloading the system, and be sure to make it as efficient as possible. "Sledgehammer maintenance" may work well with small databases but it's horribly inefficient and it will come back as a problem later! And when something seems to go wrong at the same time every day, be sure to check your scheduled jobs.

Paul's Ponderings

Over the last four weeks it's been our pleasure to teach more than 160 people in our various Immersion Events. In the specific classes where I've been one of the instructors (for over 100 of the students!), it's always interesting to hear the backgrounds of the people we have in class, especially with regard to their motivation for attending as well as their approach to problem solving.

Every so often I come across someone who isn't that interested in learning how to solve problems, but wants to know what 'the answer' is, luckily there were only a couple of those over the last month. I was going to write an editorial about that, then remembered that I wrote one back in January 2012, so I took that text and added some comments from four more years of teaching experience.

Enjoy!

As anyone who teaches will know, there are quite a variety of personalities you encounter when teaching classes, and a lot of variety in the goals of people attending classes.

One of the things I find most annoying, and thankfully it doesn't happen very often, is when someone in a class is only interested in finding 'the answer' and doesn't care about anything else.

[Update 2016: Do I still find this annoying? I guess I'm more dismayed than annoyed these days, as I know the person is likely to face a similar problem in future, where the answer they got from

class won't apply and if they didn't learn the methodology or reasoning to arrive at the answer, they'll be unable to work out how to solve the new problem.]

The same thing happens on internet forums and in emails I receive. Two prime examples are people dealing with database corruption and people dealing with out-of-control transaction logs. Often they want to know only how to recover from corruption and how to shrink the transaction log, respectively.

[Update 2016: Corruption is still an issue here, but log shrinking doesn't seem to crop up much anymore. Nowadays it's more common for people to want to know exactly what caused a particular performance problem just from looking at some wait stats data.]

Now that information is useful but it doesn't help prevent the problem from recurring in future – and in both these examples the problem is highly likely to recur (in my experience) if the only action taken is corrective rather than preventative.

It could very well be that these people are under the gun from management to get the problem solved, it could be that they don't care about the underlying cause, or that they're quite out of their depth and wouldn't understand the underlying cause without spending a lot of time getting the requisite background knowledge. There can be extenuating circumstances I guess.

But in a class environment I think it's inexcusable. The whole point of being in a class is to understand how to find the answer for yourself, so that you can determine 'the answer' over and over again using the knowledge and skills you've learned.

[Update 2016: I still believe this.]

This follows-on from my 'learning' discussion in the [previous newsletter](#). If you want to learn something about SQL Server, go a bit deeper and find out *why* the answer is what it is – the knowledge will be much more powerful and repeatedly applicable in diverse situations than just knowing 'the answer' for one situation. This is what the Microsoft Certified Master certification is all about.

[Update 2016: And this – understanding how SQL Server works is the key to increasing your skills in many cases. *R.I.P. the MCM certification as that still existed when I wrote this original editorial.* Although Microsoft said they'd work on a replacement, it's clear that was just placatory noise.]

If you can explain the 'why' as well as the answer, you'll also find yourself able to successfully argue technical matters with co-workers – a very useful skill!

One of the ways I learn is to look at forums or twitter #sqlhelp posts where I don't know the answer and then play around with SQL Server until I find the answer and get a good understanding of the background knowledge. Often I'll then blog about what I've learned. Of course, when I had source code access at Microsoft this was certainly easier…

[Update 2016: One of things I told a bunch of my mentees last year was to lurk on various question forums and try to figure out the answers from experimentation. This is how I've populated some of the entries in my wait stats library when I can't remember what a particular piece of code does. And I still wish I had source code access again…]

Call to action: Next time you have to solve a problem with SQL Server, try not to stop when you find 'the answer'. Try to find some time to dig into the problem a bit deeper and figure out the *why* of the answer too. If you can make this second nature then you'll find your mastery of SQL Server increasing quickly. Consider taking just 10-15 minutes each day to learn something new or refresh yourself on something that's a bit rusty…

Video Demo

For this newsletter I've pulled a demo from Erin's latest Pluralsight course *SQL Server: Understanding and Using DBCC Commands*. In the demo, Erin shows how to use the *DBCC CHECKCONSTRAINTS* command that allows you to valid one or more constraints. Any time a repair is run against a database, if a table that was repaired has any (or is involved in any) constraints, this command must be run to check the constraint.

The video is about 3.5 minutes long and you can get it in MOV format here.

The demo code is available here.

Enjoy!

SQLskills Offerings

Our 2016 classes are all open for registration (listed below), including three new classes in Chicago in November added because of popularity. We hope to see you at a class or a conference this year!

To help your boss understand the importance of focused, technical training, we've also added a few items to help you justify spending your training dollars with us:

- Letter to your boss explaining why SQLskills training is worthwhile
- Community blog posts about our classes
- Immersion Event FAQ

Upcoming Immersion Events

London, UK (*returning to London in 2018 **NOT 2017***)

- **IEPTO1:** Immersion Event on Performance Tuning and Optimization – Part 1
  - June 13-17

- **IEPTO2:** Immersion Event on Performance Tuning and Optimization – Part 2
  - June 20-24

Bellevue, WA

- **IEPTO1:** Immersion Event on Performance Tuning and Optimization – Part 1
  - September 12-16
- **IEBI:** Immersion Event on Business Intelligence
  - September 19-22 **Just added!!**
- **IEPTO2:** Immersion Event on Performance Tuning and Optimization – Part 2
  - September 19-23
- **IESSIS2:** Immersion Event on Advanced SQL Server Integration Services
  - September 19-22 **New course!!**

Dublin, Ireland

- **IEPTO1:** Immersion Event on Performance Tuning and Optimization – Part 1
  - October 3-7

Chicago, IL

- **IE0**: Immersion Event for Junior/Accidental DBAs
  - November 7-9 **Just added!!**
- **IEPTO1**: Immersion Event on Performance Tuning and Optimization – Part 1
  - November 7-11 **Just added!!**
- **IEPDS**: Immersion Event on Practical Data Science
  - November 7-11 **Just added!!**

Click here for the main Immersion Event Calendar page that allows you to drill through to each class for more details and registration links.

Summary

We hope you've enjoyed this issue - we really enjoy putting these together.

If there is anything else you're interested in, we'd love to hear from you - drop us a line.

Thanks,
Paul and Kimberly

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