

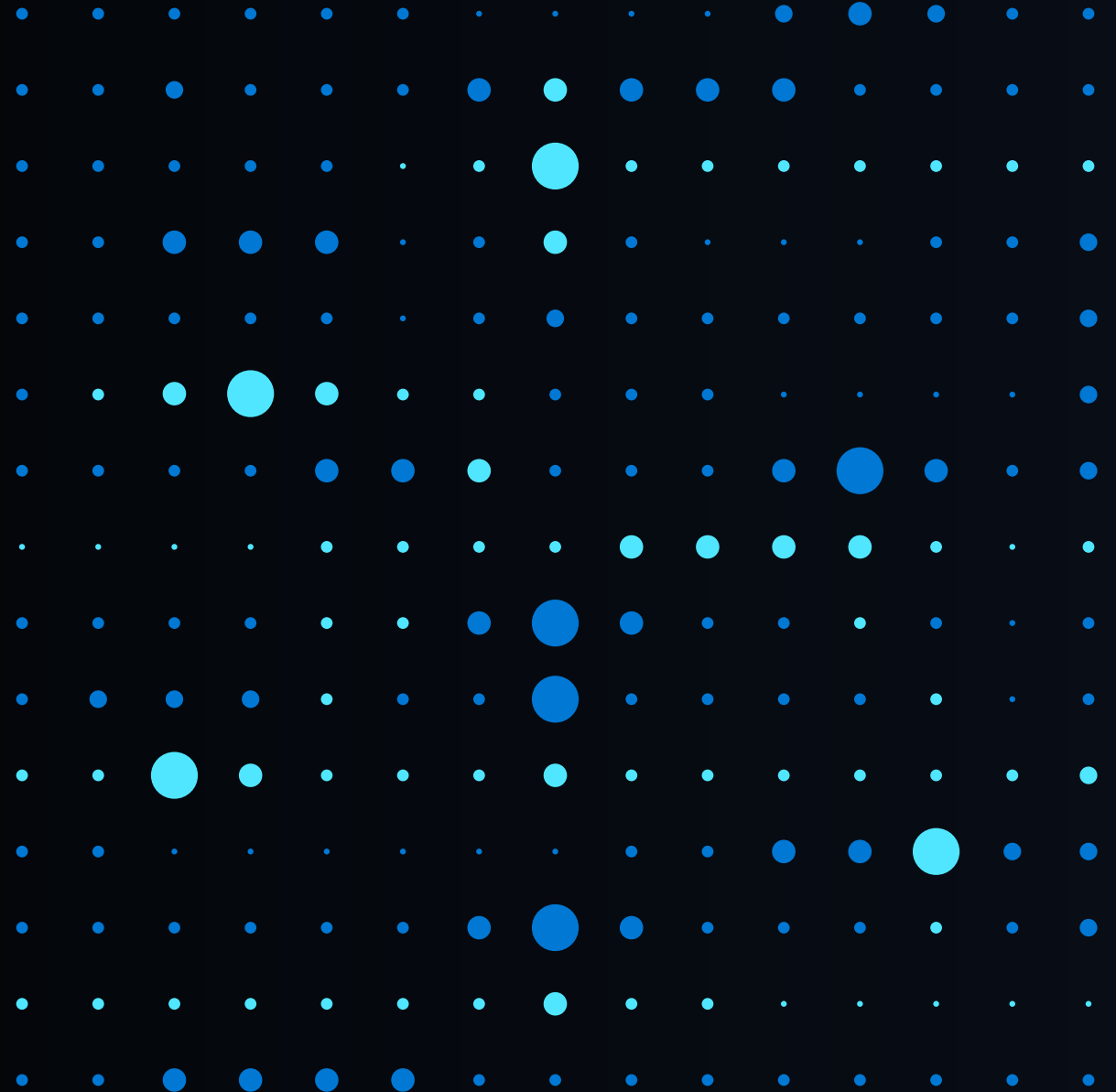


Activate Azure SQL Performance Tuning and Optimization

California Department of
Housing and Development

December 16th – 19th, 2024

9:00am – 4:00pm PST





John Deardurff

Senior Cloud Solution Architect (Global Delivery)

Microsoft Certified Trainer (2000 - Current)

MVP: Data Platform (2016 – 2018)

Email: John.Deardurff@Microsoft.com

Twitter: [@SQLMCT](https://twitter.com/SQLMCT)

Website: www.SQLMCT.com

GitHub: github.com/SQLMCT



Engagement Overview

The Activate Azure SQL Performance Tuning and Optimization offering is intended to educate customers on how to optimize their Azure SQL Virtual Machine (VM), Azure SQL Database (DB), or Azure SQL Managed Instance (MI) environments. The program is designed to educate and discuss customer needs.

This service is not only for DBAs, but also every role that could take advantage of this Activate would participate of this delivery.

Scoping Questions?

What are the days and times for the engagement?



What is the goal for this engagement?



What is the current Azure SQL Environment?

Azure SQL DB

Azure SQL VM

Azure SQL MI

Agenda Day 1

Module 1: Introduction to Azure SQL



Basic concepts of Azure SQL



Create an Azure SQL Database



Working with Managed Instances



Business Continuity Features



Agenda Day 2

Module 2: Access and Permissions



Implement Entra ID Security



Manage Logins in Azure SQL

Module 3: Transactions and Concurrency



SQL Server Transactions



SQL Server Locking



Blocking and Deadlocking



Agenda Day 3

Module 4: Indexing and Statistics



Indexing Internals



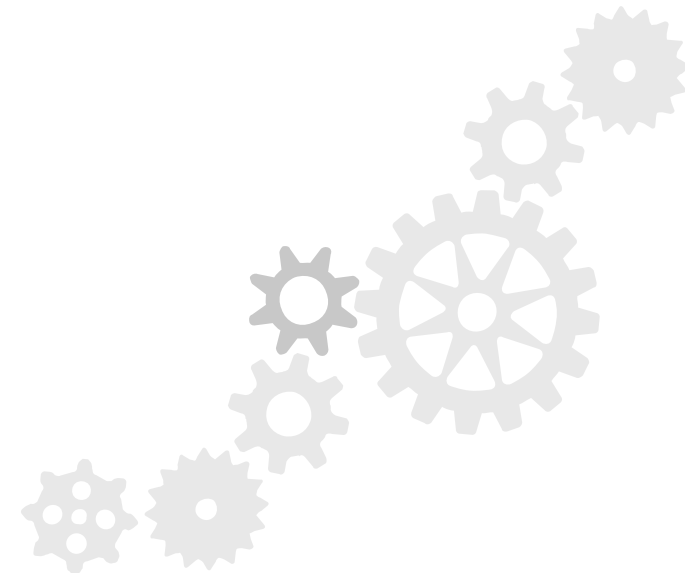
Indexing Strategies



Index Monitoring and
Fragmentation



Statistics Overview



Agenda Day 4

Module 5: SQL Server Query Execution and Plans

SQL Server Query Execution Plans

Query Plan Analysis

SQL Server Plan Cache Internals

Troubleshooting with Query Store

Module 6: Azure SQL Performance Tuning

Alerts and Metrics

Query Performance Insights

Automatic Tuning

Database Reports

Azure SQL Database Watcher



Attendee Introductions

Name

Job/Team/Specialty

Time Zone

Experience

Expectations



Dankie Faleminderit **Shukran** Chnorakaloutioun Hvala Blagodaria

Děkuji **Tak** Dank u Tānan Kiitos **Merci** Danke Ευχαριστώ A dank

Mahalo מודה. **Dhanyavād** Köszönöm Takk Terima kasih **Grazie** Grazzi

Thank you!

감사합니다 Paldies Choukrane Ačiū **Благодарам** ありがとうございます

谢谢 Баярлалаа **Dziękuję** Obrigado Mulțumesc **Спасибо** Ngiyabonga

Ďakujem Tack Nandri Kop khun **Teşekkür ederim** Дякую Хвала Diolch

Recommended Links – Azure SQL Database

Welcome to the Azure SQL Database Essentials Workshop.

Below you will find some additional information to help continue your learning journey.

- [Azure SQL documentation](#)
- [Microsoft Learn: Azure Data](#)
- [Try the Azure SQL Workshop](#)
- [Azure SQL for Beginners](#)
- [Azure Database Support Blog](#)
- [What's new? - Azure SQL Database](#)
- [Physical security of Azure datacenters](#)
- [Microsoft Azure Sustainability](#)
- [Choosing the Correct Tools](#)
- [Identify Correct Azure SQL SKU](#)
- [Plan and manage costs for Azure SQL Database](#)
- [Azure Database Migration Guides](#)
- [Azure SQL Capacity Planning](#)
- [Resource management in Azure SQL Database](#)
- [Create and configure a database watcher](#)
- [Monitoring and performance tuning Azure SQL DB](#)
- [Performance tuning guidance for Azure SQL DB](#)
- [General availability: Elastic Jobs in Azure SQL Database](#)
- [Automate Azure SQL Database indexes and statistics](#)
- [Autoscaling Azure SQL Databases using Runbooks and Alerts](#)
- [Cloud business continuity - disaster recovery](#)
- [High availability - Azure SQL Database](#)
- [Zone redundancy for Azure SQL Database](#)
- [Data Integrity in Azure SQL Database](#)
- [Restore a database from a backup in Azure SQL DB](#)

