WorkshopPLUS - Data AI:
Azure Synapse **SQL Pool** Essentials

WorkshopPLUS

Duration: 3 days | **Focus Area:** Availability and Business Continuity | **Difficulty**: Level 300

Overview

This course primary focus is on Azure Synapse "**SQL Pool**". This course will help you to monitor, administer, optimize and operate an Azure Synapse SQL Pool. It is SQL analytics platform that lets you scale compute and storage elastically and independently, with a massively parallel processing architecture. Azure Synapse Analytics is a limitless analytics service that brings together enterprise-grade data warehousing with Big Data Analytics.

This workshop is targeted at SQL Server Architects, Database Administrators, IT professionals, SQL Server support staff and DevOps Engineers.

Objectives

After attending this Workshop, students will be able to:

* Understand Massive Parallel Processing Basics
* Understand Synapse SQL Pool Architecture
* Understand Synapse SQL Pool Clients and Tools
* Understand Loading Data into Synapse SQL Pool
* Understand Synapse Security Best Practices
* Understand storage, elasticity and scaling

Key Takeaways

Course Material

* The course material is geared to cover key topics that are a must for anyone interacting and managing Azure Synapse SQL Pool.

* After this course you should have a high level of confidence in administering Azure Synapse SQL Pool.

Hands-on Labs

* Most of the concepts covered above will be supported by hands-on labs and demos.

* Attendees have access to resources and labs for up to 6 months after workshop completion.

Pre-requisites

Before attending this workshop, it is highly recommended that you meet the following criteria:

* Some basic knowledge of the Microsoft Azure platform.
* Be familiar with maneuvering around Azure portal.

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Detail Agenda

Day 1

Module 1 - Architecture
- Synapse Pool Architecture
- Data Distribution Overview
- Workloads
- Clients and Tools

Module 2 – Data Load
- Loading data to Azure Synapse SQL Pool
- Migrating an existing database to Azure Synapse SQL Pool

Day 2

Module 3 – Designing for Performance
- Difference to SQL Server
- Data Distribution
- Hash Distribution Keys
- Round-Robin & Replicated Tables
- Indexing Options
- Views
- Materialized Views

Module 4 – Security
- Connection Security
- Authentication
- Authorization
- Securing Data

Day 3

Module 5 – Administration, Managing and Monitoring
- Managing Workload
- Monitoring Workload
- Monitoring Database Objects

Hardware Requirements

- An Intel Core-i5-based PC
- USB port
- Microsoft/Windows Live ID to connect to the virtual environment
- 4 GB RAM
- 128 GB HDD

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- Windows 7 SP1 or later
- Office 2013 Professional Plus
- Internet access with at least 1 Mbps bandwidth per student.

Synapse Offerings

Other Synapse offerings that might interest you:

- Optimize Azure Synapse SQL Pools

- Activate Data Warehouse Migration and Modernization - Azure Synapse SQL pool

NEXT STEPS: If you are interested in any of the Synapse offerings, contact your Microsoft Account Representative.

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