



WorkshopPLUS - SQL Server: Features and Administration

**Microsoft Open
Workshop**

May 21st – 23rd, 2025





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Microsoft Certified Trainer (2000 - Current)

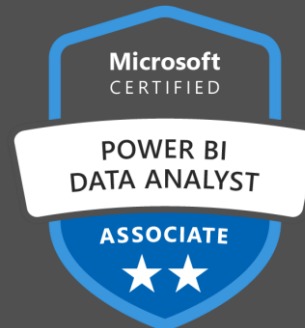
MVP: Data Platform (2016 – 2019)

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Objectives

After completing SQL Server Features and Administration workshop, you will be able to:

Learn Maintenance and configuration best practices

Monitoring performance with extended events and performance monitor.

Discuss SQL Server performance enhancements.

Learn SQL Service Account best practices.

Understand Row Level Security and Dynamic Data Masking

Understand SQL Server encryption features including Always Encrypted.

Learn different strategies for meeting HA/DR SLAs with SQL Server

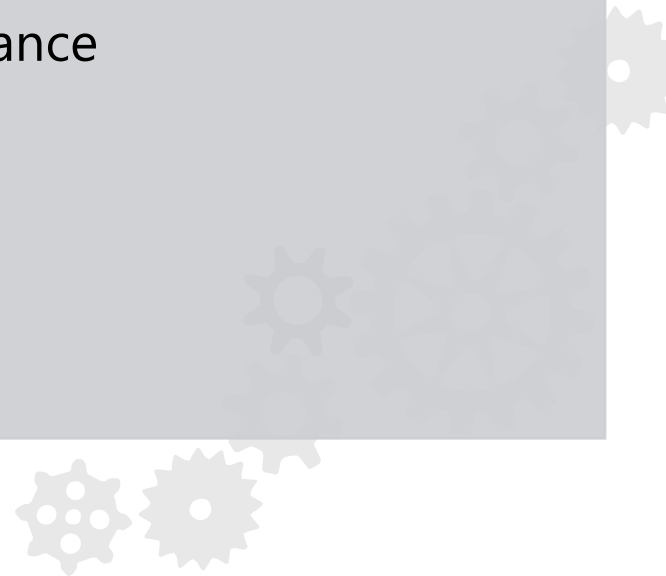
Understand the benefits of SQL Server Failover Clustering and SQL Server availability groups.

Agenda Day 1

SQL Server Configuration

- SQL Server Editions and Versions
- Windows Server Configuration
- SQL Server Configuration

Database Maintenance

- Database Configuration
 - Indexes and Statistics
 - Database Maintenance
- 
- A series of decorative gear icons of varying sizes and shades of gray, arranged in a cluster at the bottom right of the slide.

Agenda Day 2

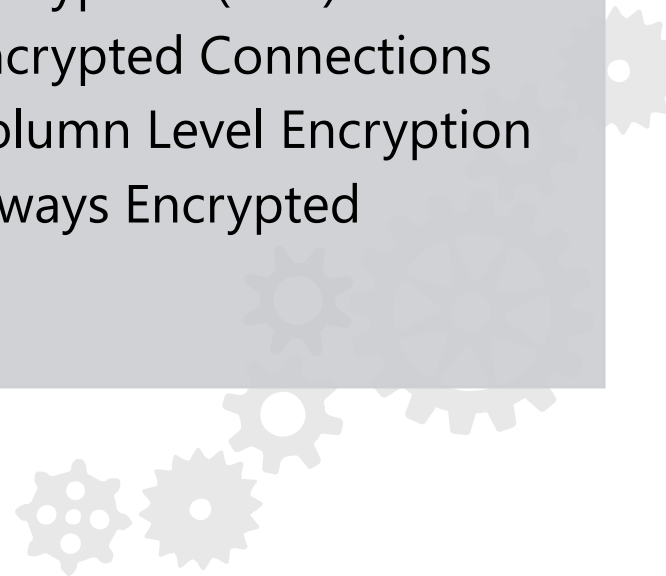
Monitoring And Troubleshooting

- Monitoring Tools
- Waits Methodology To Monitor Performance
- Execution Plans
- Query Store

Security – General

- Authentication and Authorization
- Row Level Security
- Dynamic Data Masking
- SQL Server Auditing

Security - Encryption

- Backup Encryption
 - Transparent Data Encryption (TDE)
 - Encrypted Connections
 - Column Level Encryption
 - Always Encrypted
- 

Agenda Day 3

SQL Server High Availability

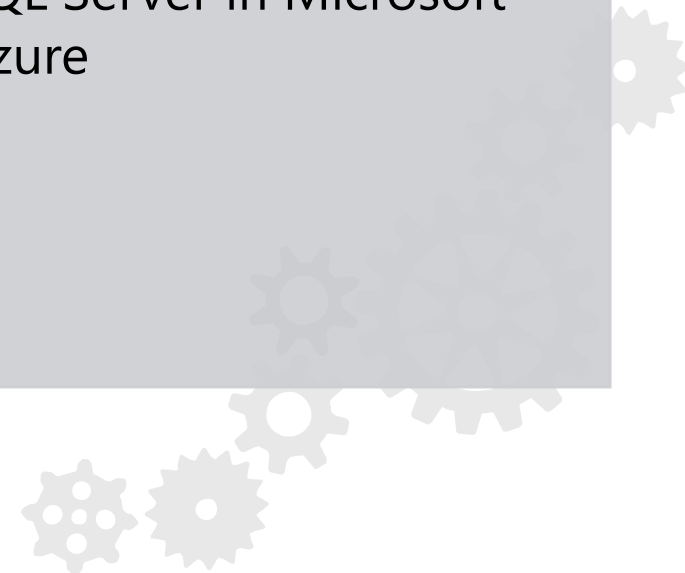
- Defining High Availability and Disaster Recovery
- Introduction to Failover Cluster Instances
- Introduction to Availability Groups

SQL Server Disaster Recovery

- Disaster Recovery
- Backups
- Restores
- Backup Features

SQL Server Platform Choices

- SQL Server on Linux
- SQL Server on Containers
- SQL Server in Microsoft Azure



Follow-up workshops

SQL Server Performance Tuning and Optimization (4-days)

SQL Server Security Essentials (3-days)

SQL Server: Always On Availability Groups

- Setup and Configuration (3-days)
- Monitoring and Troubleshooting (3-days)

Azure SQL Database Essentials (3-days)

Several decorative gear icons of varying sizes are scattered in the bottom right corner of the slide, adding a technical or mechanical theme to the design.

Get Ready to Participate

Close email and Update Status

Make it interactive

Check all equipment

Be Respectful of Others



Attendee Introductions

Name

Job/Team/Specialty

Time Zone

Experience

Expectations



Five Star Service

We strive to respond to your feedback and use it to improve our business and ultimately to improve your experience with us.




Thank you!



Look for this survey in your inbox:

It will come from Microsoft Surveys
<noreply.survey@email2.microsoft.com>

Take the survey | [View it online](#)

 Microsoft

What do you think about Microsoft Proactive Support services?

Microsoft is committed to providing the highest quality support services to our customers. Take a **2-minute survey** to help us understand what's going well, and what we can do better.

This survey is specific to your **Proactive Support services delivery**:


Overall, how satisfied are you with your recent experience with the Microsoft Proactive Support Services delivery?

- ☐ [Very satisfied](#)
- ☐ [Somewhat satisfied](#)
- ☐ [Somewhat dissatisfied](#)
- ☐ [Very dissatisfied](#)
- ☐ [Do not know](#)

Thanks for your feedback. If you need help, please [contact us](#).

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 Microsoft

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

Connect to Lab environment

Prerequisites and Overview

Using the desktop version of IE go to

- <https://aka.ms/premiereducation>

Sign in with your Microsoft account

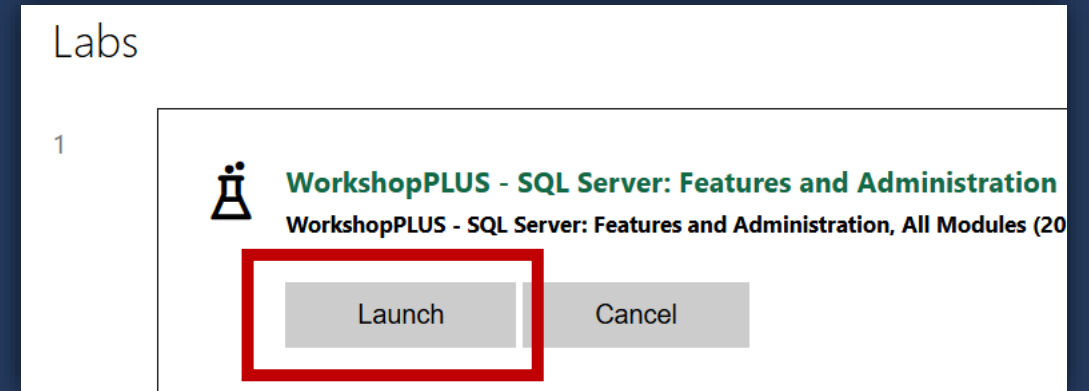
- Live ID or Azure ID
- If you do not have one, then create it here:
- <http://live.com>

Training Key

- WorkshopPLUS -> My Training (Select at the top)
- Select Redeem Training Key
- Enter Training Key

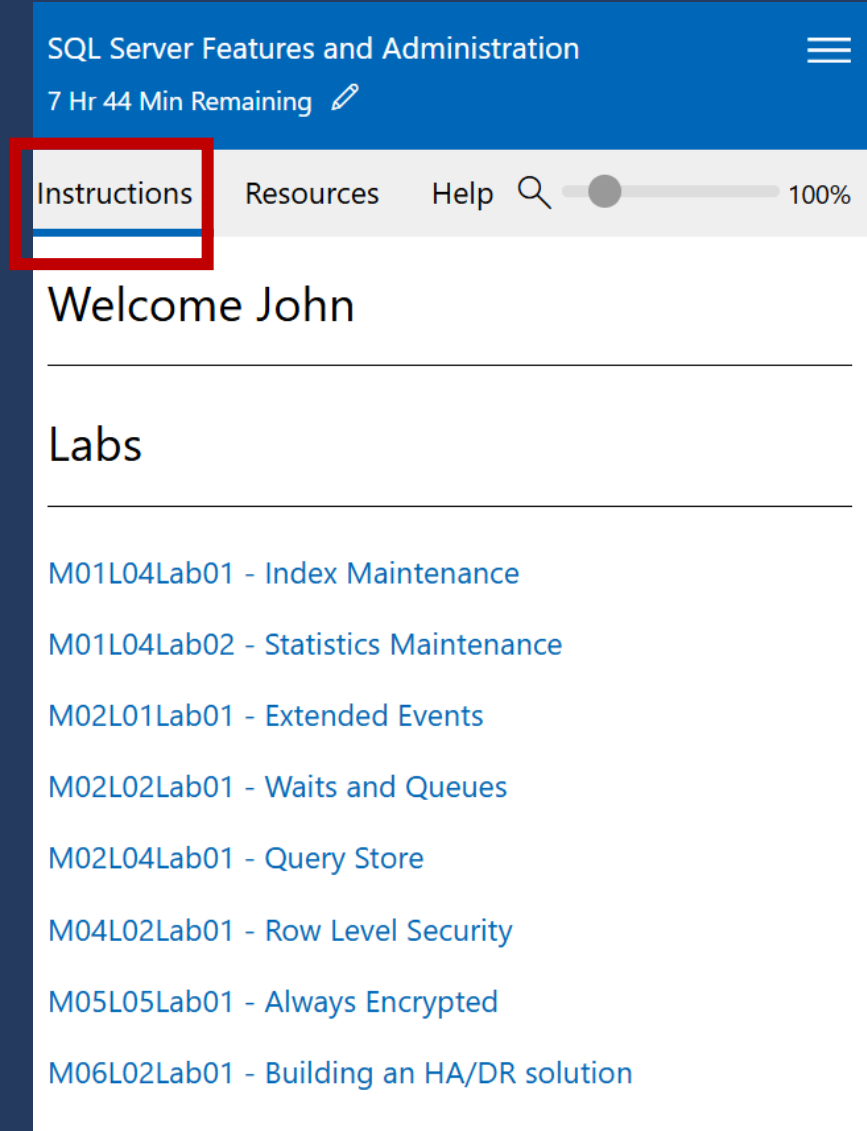
Launch Lab

In the Labs section, click Launch



Lab Instructions

The first page show the lab instructions.



The screenshot displays the 'SQL Server Features and Administration' interface. The top blue header contains the title and a timer showing '7 Hr 44 Min Remaining'. Below the header is a navigation bar with 'Instructions', 'Resources', and 'Help' tabs. The 'Instructions' tab is highlighted with a red rectangular box. To the right of the tabs is a search icon and a progress slider set to 100%. The main content area shows a 'Welcome John' message, followed by a 'Labs' section header. Below this, a list of lab titles is displayed: 'M01L04Lab01 - Index Maintenance', 'M01L04Lab02 - Statistics Maintenance', 'M02L01Lab01 - Extended Events', 'M02L02Lab01 - Waits and Queues', 'M02L04Lab01 - Query Store', 'M04L02Lab01 - Row Level Security', 'M05L05Lab01 - Always Encrypted', and 'M06L02Lab01 - Building an HA/DR solution'.

SQL Server Features and Administration

7 Hr 44 Min Remaining

Instructions Resources Help

Welcome John

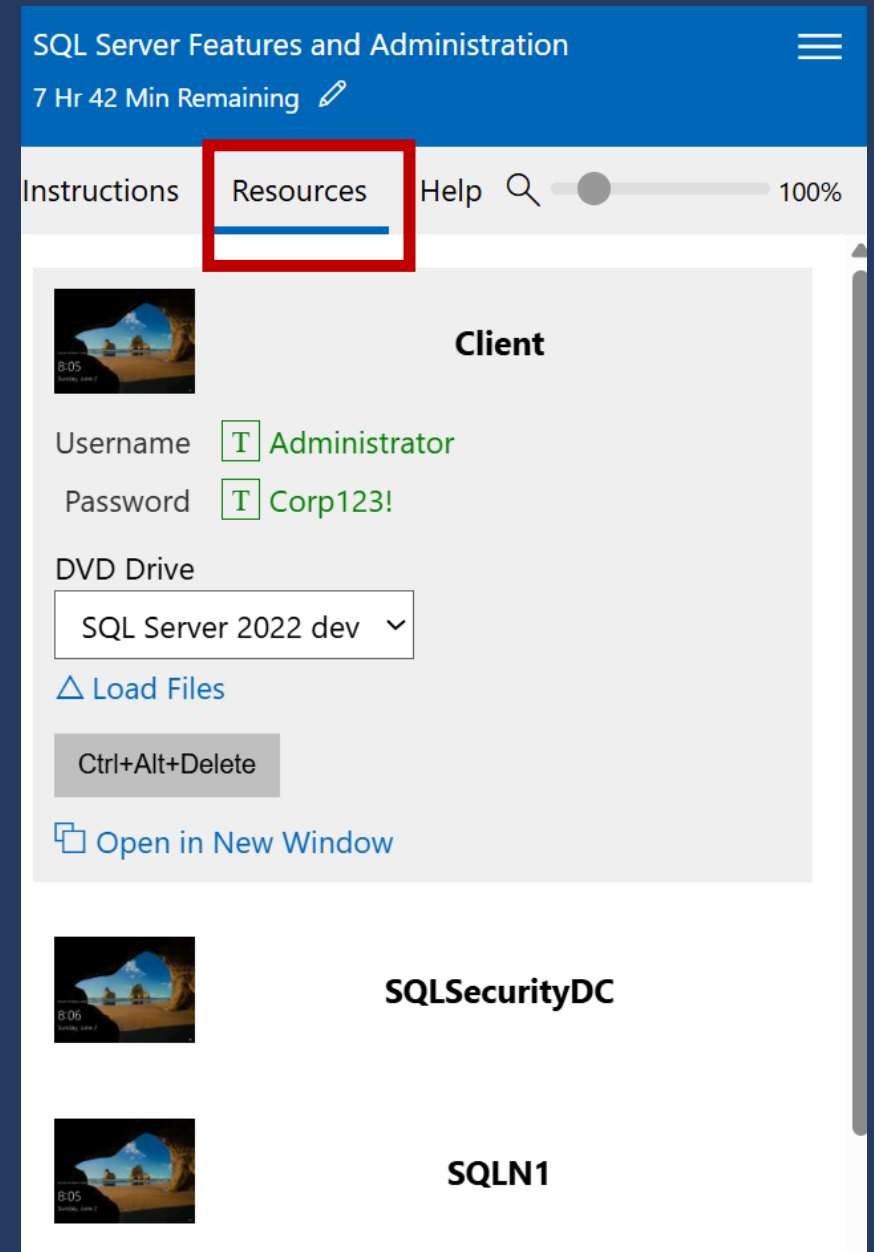
Labs

- M01L04Lab01 - Index Maintenance
- M01L04Lab02 - Statistics Maintenance
- M02L01Lab01 - Extended Events
- M02L02Lab01 - Waits and Queues
- M02L04Lab01 - Query Store
- M04L02Lab01 - Row Level Security
- M05L05Lab01 - Always Encrypted
- M06L02Lab01 - Building an HA/DR solution

Lab environment LOD

Click on the resources tab to switch between your virtual machines and to Login.

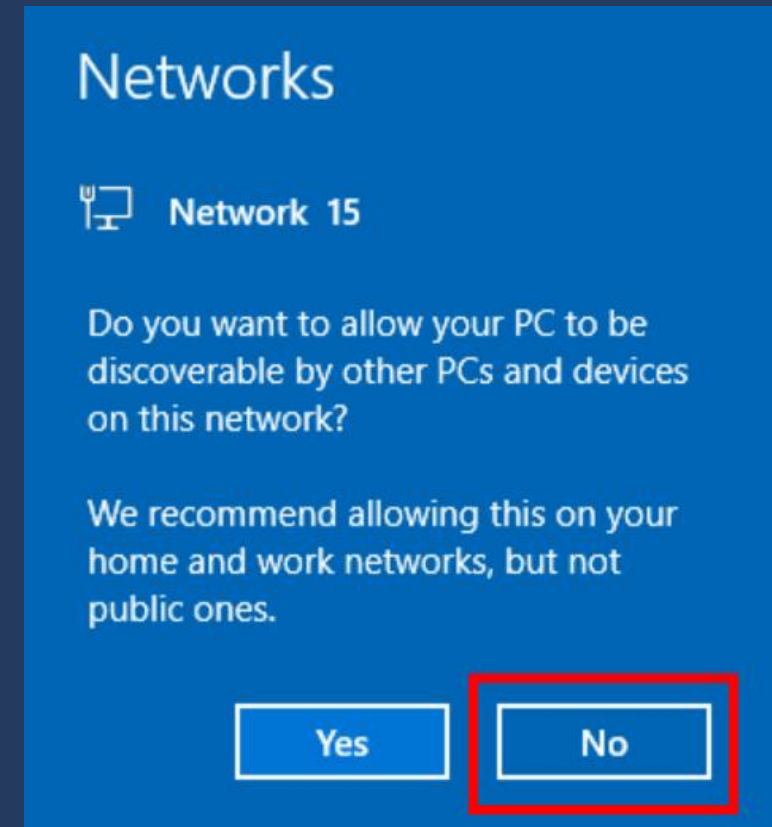
The **Green T** will paste in login information



Lab environment LOD Network Settings

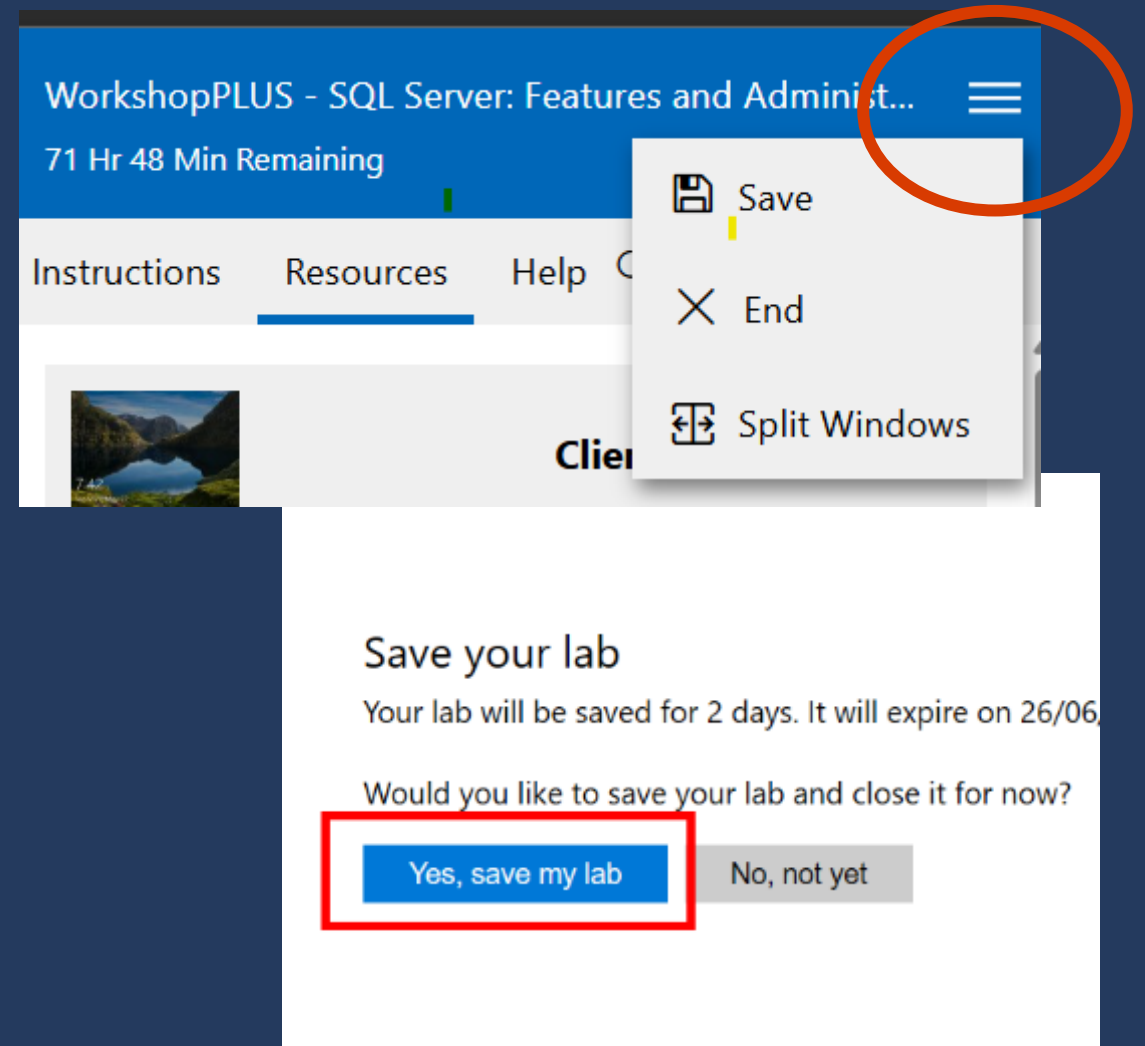
Select Yes or No to allow the server to be discoverable.

It doesn't matter in this training environment.



LOD Lab Time Remaining

Ensure you select Save before leaving the LOD environment. This pauses the time remaining to complete the Labs.



Lab environment

You can also use the lightning bolt in the top left corner to paste code from outside your virtual machine into your lab environment.

