



WorkshopPLUS - Azure SQL Database Essentials

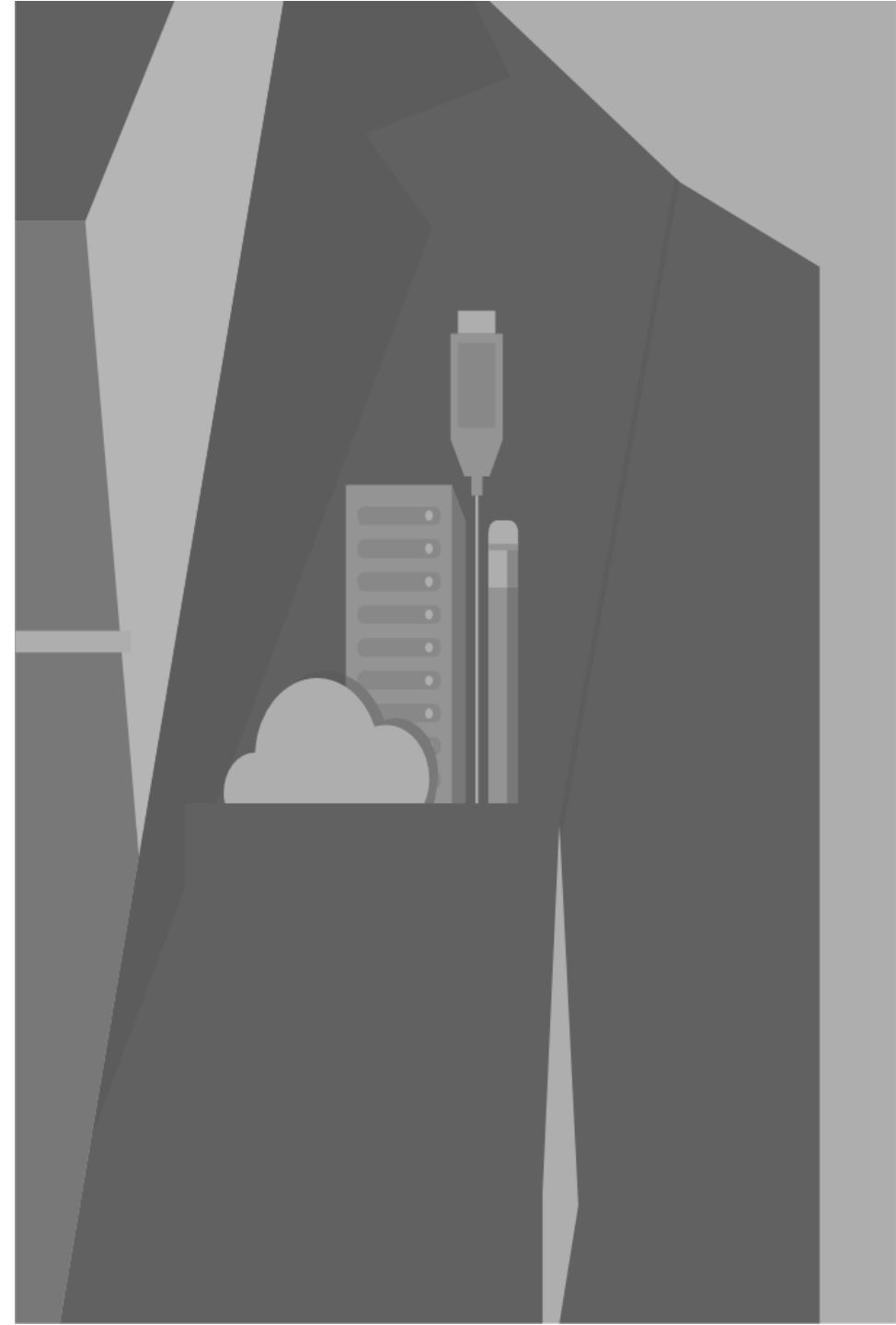


Instructor Introduction

Name

Specialty

Experience



Attendee Introductions

Name

Job/Team/Specialty/Experience

Time Zone

Expectations



Facilities

Class
hours

Building
hours

Parking

Restrooms

Meals

Phones

Messages

Recycling

Modules

Introduction to
Azure SQL
Database

Azure SQL
Database
Administration

Azure SQL
Database Business
Continuity

Manage Security
for Azure SQL
Database

Monitoring and
Tuning Azure SQL
Database

Azure SQL
Database
Migration



Objectives

After completing Azure SQL Database Essentials workshop, you will be able to:

Describe the different purchase models, service tiers compute and hardware generation

Describe the Azure Elastic Database Pool

Describe the vertical scaling options

Understand the maintenance and job scheduling

Understand the disaster recovery options

Learn the various options to manage security such as firewall rules, virtual networks

Learn how to secure data using Transparent Data Encryption and Always Encrypted

Learn the various options to monitor and troubleshoot the Azure SQL Database

Agenda Day 1

Introduction to Azure SQL Database

- Basic concepts of Azure SQL Database
- How to create Azure SQL Database
- Introduction to Elastic Database Pools

Azure SQL Database Administration

- Various Tools to Manage Azure SQL Database
- Scaling Azure SQL Databases Up and Down
- Maintenance and Scheduling Jobs



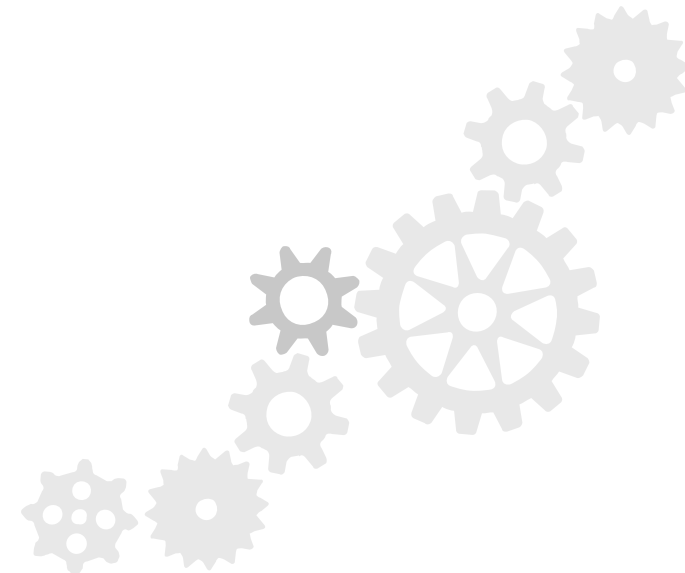
Agenda Day 2

Azure SQL Database Business Continuity

- Business Continuity Features in Azure SQL Database
- Azure SQL Database Read Scale-Out
- Disaster Recovery Features in Azure SQL Database
- Backing up and Restoring Azure SQL Database

Manage Security for Azure SQL Database

- Introduction to Azure SQL Database Security
- Implement Entra ID Security
- Manage Logins in Azure SQL Database
- Implement Firewall Rules and Virtual Networks
- Implement Transparent Data Encryption
- Implement Always Encrypted
- Implement Row Level Security
- Implement Dynamic Data Masking



Agenda Day 3

Manage Security for Azure SQL Database (Continued from Day Two)

- Implement Auditing for Azure SQL Database
- Data Discovery and Classification
- Implement Microsoft Defender for SQL

Monitoring and Tuning Azure SQL Database

- Monitoring and Troubleshooting Azure SQL Database
- Azure SQL Database Tuning using Automatic Tuning
- Monitoring Azure SQL Database Performance using Extended Events
- Configure Alerts through Azure Portal

Azure SQL Database Migration

- Steps to migrate your database to Azure SQL Database
- Fix database migration compatibility issues
- Identify the right Azure SQL Database SKU
- Migrate a compatible SQL Server database to Azure SQL Database



Lab Times - (Minutes)

M01L02Lab01 - Create an Azure SQL Database (20)

M02L01Lab01 - Various Tools to Manage Azure SQL Database (30)

M02L02Lab01 - Scale up or down an Azure SQL Database (10)

M02L03Lab01 - Elastic Database Jobs (30)

M03L01Lab01 - Point in time restore of an Azure SQL Database (20)

M03L02Lab01 - Configure Geo Replication for an Azure SQL Database (20)

M04L06Lab01 - Implement Always Encrypted (20)

M04L07Lab01 - Implement Row Level Security (10)

M04L10Lab01 - Vulnerability Assessment (20)

M05L02Lab01 - Monitoring Query Performance using Query Performance Insights (15)

M05L05Lab01 - Monitoring Azure SQL Database Performance using Extended Events (10)

M06L05Lab01 - Migrate a Compatible SQL Server Database to Azure SQL Database (30)

Attendee Introductions

Name

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Get Ready to Participate

Close email and Update Status

Make it interactive

Check all equipment

Be Respectful



Connect to Lab environment

The training key is only need to perform the virtual labs.

- The classroom will be setup through a Teams meeting

Using a web browser.

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

Sign in with your Microsoft account not Corporate AD account

- Microsoft Account (Live ID)
- If you do not have one, then create it here: <http://live.com>

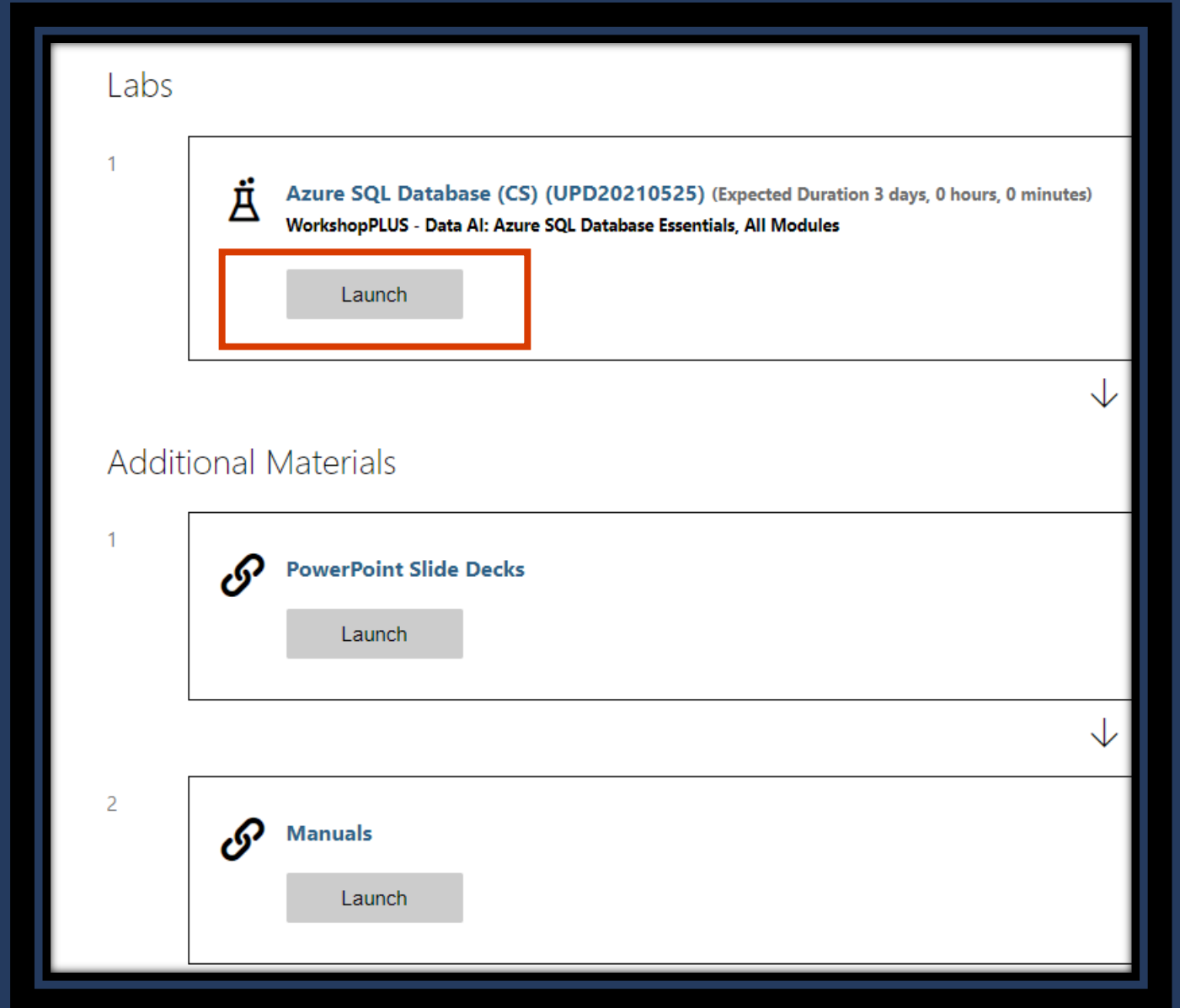
Training Key

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

Class Resources


Virtual Lab Environment, Slides
Decks, Lab Manuals, and Demo
Files

In the Labs section, click Launch



Labs

1


 **Azure SQL Database (CS) (UPD20210525)** (Expected Duration 3 days, 0 hours, 0 minutes)
WorkshopPLUS - Data AI: Azure SQL Database Essentials, All Modules

[Launch](#)

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Additional Materials


1

 **PowerPoint Slide Decks**

[Launch](#)

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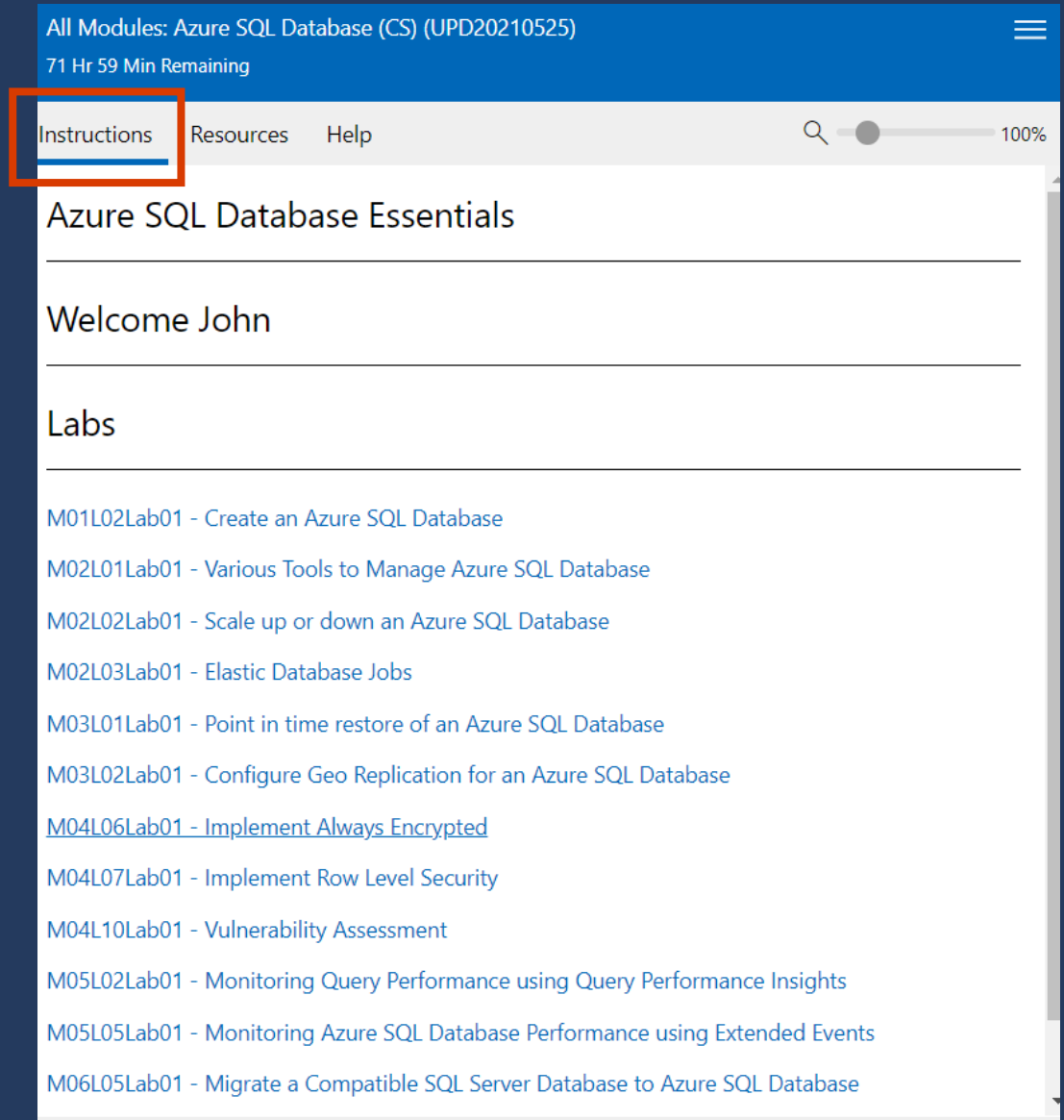
2

 **Manuals**

[Launch](#)

Lab environment

Lab Instructions are shown on the right side of the virtual machine.



The screenshot shows a web application interface for 'All Modules: Azure SQL Database (CS) (UPD20210525)'. The top blue header bar contains the title and a hamburger menu icon. Below the header, a navigation bar has three tabs: 'Instructions' (highlighted with an orange box), 'Resources', and 'Help'. To the right of the tabs is a search icon and a zoom slider set to 100%. The main content area is titled 'Azure SQL Database Essentials' and includes a 'Welcome John' message. Below this is a section titled 'Labs' which lists twelve lab modules, each with a blue link: M01L02Lab01 - Create an Azure SQL Database, M02L01Lab01 - Various Tools to Manage Azure SQL Database, M02L02Lab01 - Scale up or down an Azure SQL Database, M02L03Lab01 - Elastic Database Jobs, M03L01Lab01 - Point in time restore of an Azure SQL Database, M03L02Lab01 - Configure Geo Replication for an Azure SQL Database, M04L06Lab01 - Implement Always Encrypted, M04L07Lab01 - Implement Row Level Security, M04L10Lab01 - Vulnerability Assessment, M05L02Lab01 - Monitoring Query Performance using Query Performance Insights, M05L05Lab01 - Monitoring Azure SQL Database Performance using Extended Events, and M06L05Lab01 - Migrate a Compatible SQL Server Database to Azure SQL Database.

All Modules: Azure SQL Database (CS) (UPD20210525)
71 Hr 59 Min Remaining

Instructions Resources Help

Azure SQL Database Essentials

Welcome John

Labs

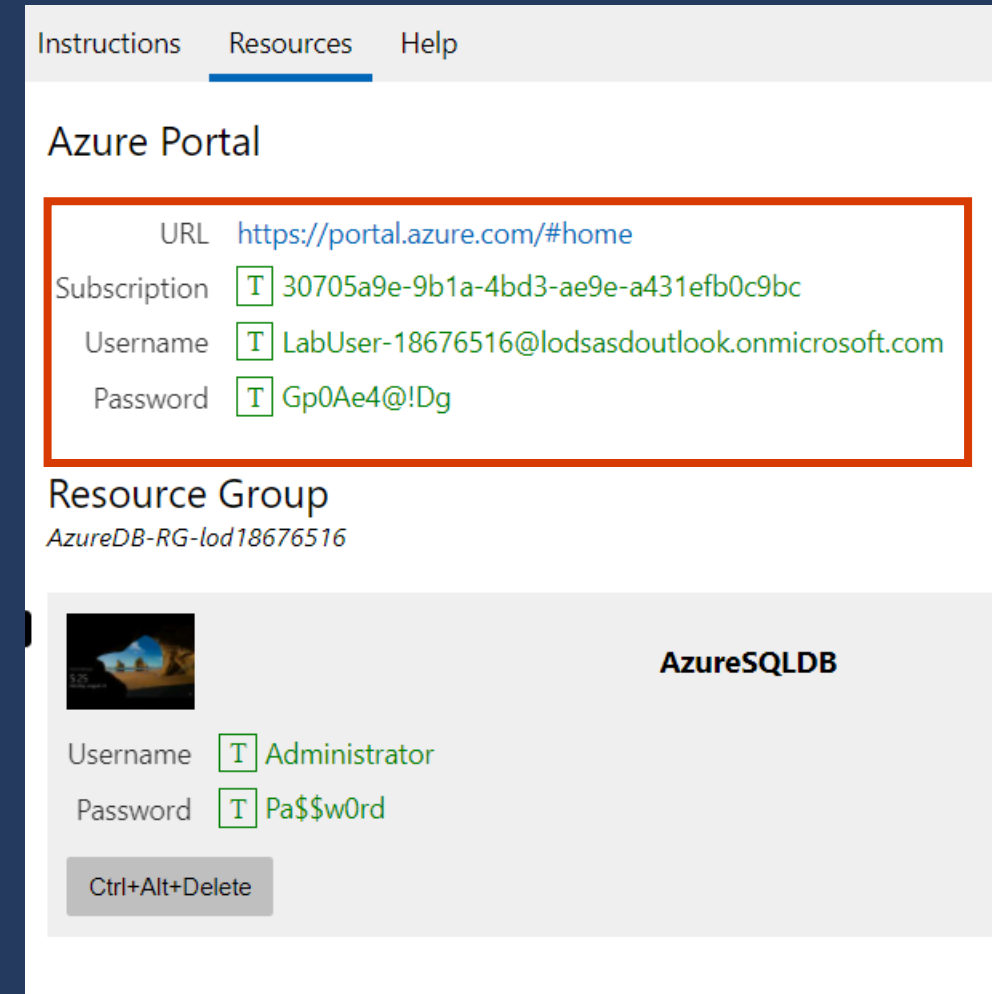
- [M01L02Lab01 - Create an Azure SQL Database](#)
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Azure Portal Environment

You must access from the Azure Virtual Machine.

Each lab has a unique Subscription, Username, and Password

You can click on the **T** next to Username and Password to paste in the virtual machine.



The screenshot displays the Azure Portal interface. At the top, there are tabs for 'Instructions', 'Resources', and 'Help'. Below these, the 'Azure Portal' section is visible. A red rectangular box highlights the connection details for an Azure SQL Database. These details include:

- URL: <https://portal.azure.com/#home>
- Subscription: **T** 30705a9e-9b1a-4bd3-ae9e-a431efb0c9bc
- Username: **T** LabUser-18676516@lodsasdoutlook.onmicrosoft.com
- Password: **T** Gp0Ae4@!Dg

Below the highlighted section, the 'Resource Group' is listed as 'AzureDB-RG-lod18676516'. Underneath, there is a card for 'AzureSQLDB'. This card includes:

- A small icon representing the database.
- Username: **T** Administrator
- Password: **T** Pa\$\$w0rd
- A button labeled 'Ctrl+Alt+Delete'.

Virtual Machine Lab Environment

Use the Ctrl+Alt+Delete button to logon to the virtual machine.

You can click on the **T** next to Username and Password to paste in the virtual machine.

[Instructions](#) [Resources](#) [Help](#)

Azure Portal

URL <https://portal.azure.com/#home>


Subscription **T** 30705a9e-9b1a-4bd3-ae9e-a431efb0c9bc

Username **T** LabUser-18676516@lodsasdoutlook.onmicrosoft.com

Password **T** Gp0Ae4@!Dg

Resource Group

AzureDB-RG-lod18676516

**AzureSQLDB**

Username **T** Administrator

Password **T** Pa\$\$w0rd

Ctrl+Alt+Delete

Lab Time Remaining

- Select **Save** before leaving the Lab environment.
- If you click **End** the lab will reset.
- You can save up to 5 labs for up to 7 days.
- The lab environment is available for 180 days.
- Split Windows will allow you to move the instructions to a separate screen.

