

55369 - Provisioning Databases on SQL Server

Module 1: Understand the components of SQL Server

Lessons :

1. Overview of the SQL Server platform
2. Understand the architecture of SQL Server
3. Configure services, accounts, and networking

Lab 1: No Lab

Module 2: Install a SQL Server system

Lessons :

1. Plan your SQL Server installation
2. Plan the temporary database
3. Install SQL Server manually
4. Install SQL Server automatically

Lab 1: Install SQL Server

- Prepare for the installation
- Install the database server
- Check your installation
- Perform an unattended installation

Module 3: Upgrade your SQL Server

Lessons :

1. Satisfy the requirements for a SQL Server upgrade
2. Plan to upgrade the SQL Server services you have installed
3. Perform a side-by-side upgrade

Lab 1: Perform a SQL Server upgrade

- Set up database users
- Restore the database and transaction logs
- Complete post-upgrade tasks

Module 4: Configure your databases and data files

Lessons :

1. Overview of SQL Server data storage
2. Configure system database storage
3. Configure user database storage
4. Move databases
5. Set up the buffer pool extension

Lab 1: Configure database storage

- Configure the temporary database
- Configure new databases
- Attach a database

Module 5: Maintain your databases

Lessons :

1. Maintain the integrity of your databases
2. Optimize performance by using indexes
3. Use Database Maintenance Plans

Lab 1: Maintain your databases

- Check your data integrity
- Defragment databases by rebuilding indexes
- Manage database using Database Maintenance Plans

Module 6: Configure storage to support SQL Server databases

Lessons :

1. Optimize the performance of SQL Server by configuring storage
2. Use a network fileshare to store files for SQL Server
3. Store SQL Server files in the Cloud
4. Use SQL Server Stretch Database

Lab 1: Set up Stretch Database

- Execute the Stretch Database Advisor

- Set up Stretch Database for a database table

Module 7: Design a cloud-based installation of SQL Server

Lessons :

1. IaaS and PaaS database options in Microsoft Azure
2. Use Azure Virtual Machines to host databases
3. Azure SQL Database security
4. Set up database in Azure SQL Database

Lab 1: Set up a database in Azure SQL Database

- Design a cloud database deployment
- Set up Azure SQL Database
- Configure firewall rules for a cloud database

Module 8: Move databases into the cloud

Lessons :

1. Test your databases before a migration
2. Database compatibility with Azure SQL Database
3. Migrate a database into the cloud

Lab 1: Move a database to Azure SQL Database

- Ensure that the database is compatible with Azure SQL Database
- Move the database into the cloud

Module 9: Use an Azure Virtual Machine to host SQL Server

Lessons :

1. Set up an instance of SQL Server on an Azure Virtual Machine
2. Move a database to an Azure Virtual Machine

Lab 1: Set up a SQL Server instance in the cloud

- Create a Virtual Machine in Azure
- Move a database to the Virtual Machine
- Connect clients to the Virtual Machine

Module 10: Administer databases hosted in Microsoft Azure

Lessons :

1. Secure your deployment of Azure SQL Database
2. Set up Azure Storage to support databases
3. Automate administration tasks

Lab 1: Administer cloud databases in Azure

- Use data masks to protect personal data
- Automate an administration task