

DAT247x

# Managing Database Operations

## Lab 02 | Troubleshooting SQL Server

Estimated time to complete this lab is 60 minutes

### Overview

You need to be able to resolve common issues with SQL Server processes and services at the time they are occurring.

*The labs in this course are accumulative. You cannot complete the following labs if this lab has not been successfully completed.*

### What You'll Need

To complete this lab, you will need the following:

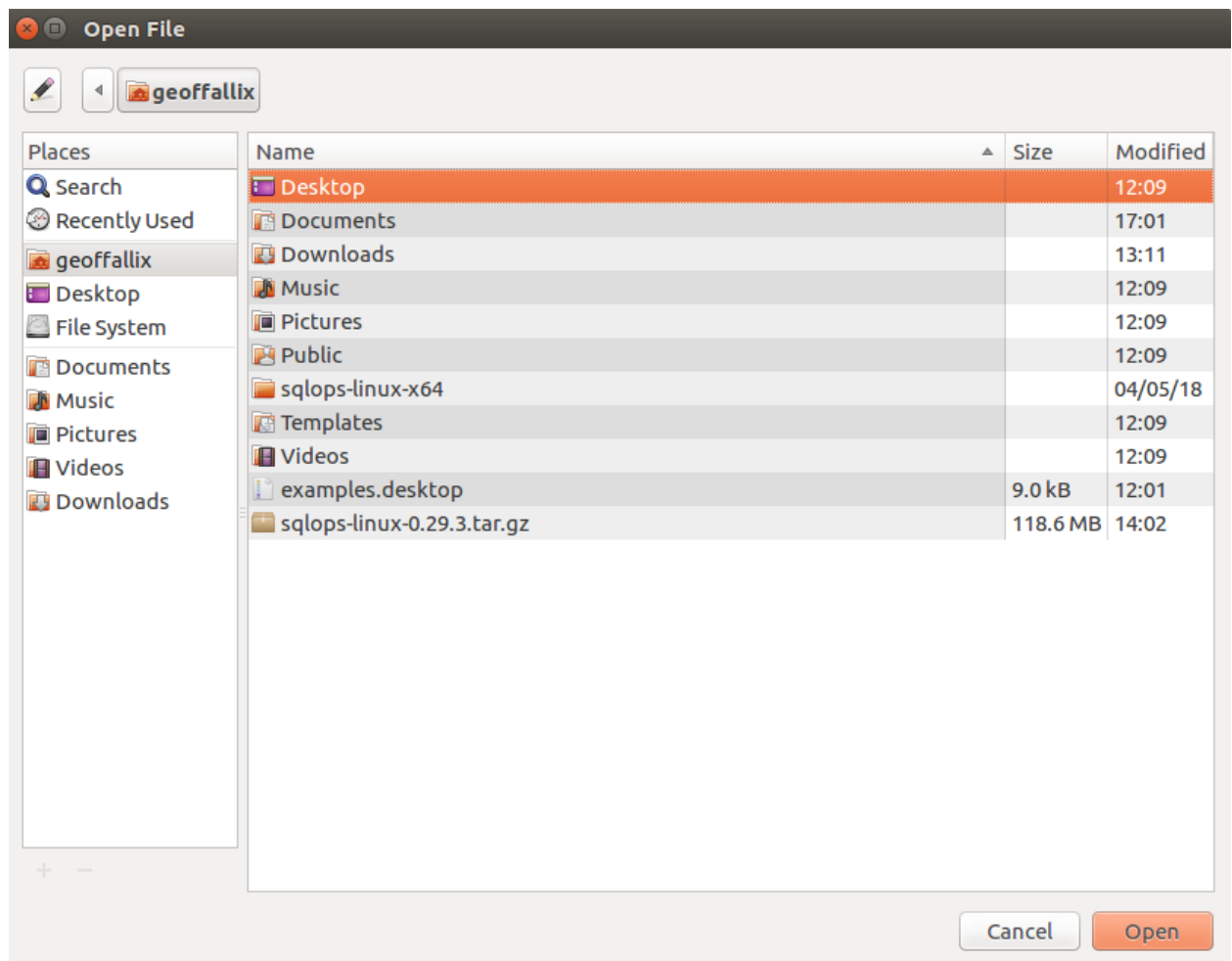
- High-speed and reliable internet connectivity (for remote connections to the VM)
- A second monitor is recommended (for the Remote Desktop connection)
- A Microsoft account (such as one used for outlook.com, Hotmail, or other Microsoft services)
- A Microsoft Azure subscription
- To have completed the previous labs in this course.

# Exercise 1: Troubleshoot and Resolve a SQL Login Issue

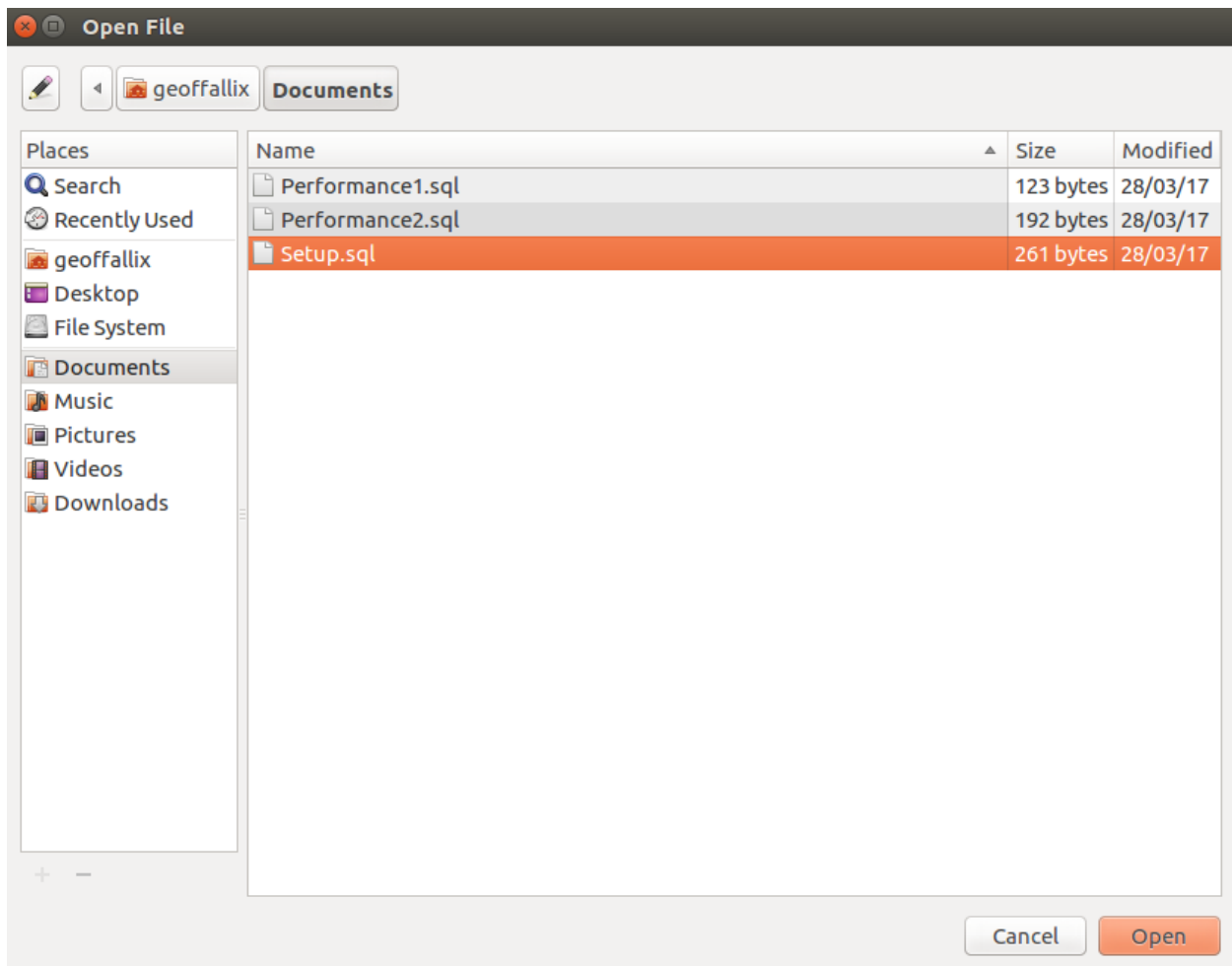
Users of the Promote application are complaining that it can no longer connect to the server. The application connects using the SQL login **PromoteApp**.

## Prepare the Lab Environment

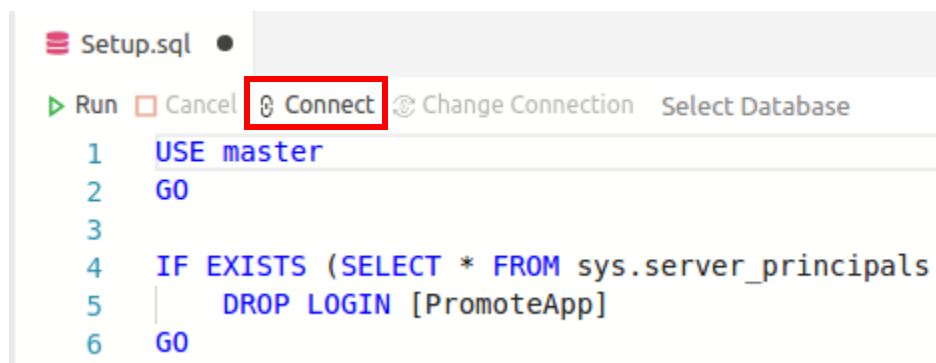
1. Start Operations Studio.
2. Press CTRL+O.
3. Click **Documents** and click **Open**.



- Click **Setup.sql** and click **Open**.



- Click **Connect**.



6. Enter the IP address of your server in Server, your **User name**, and **Password**, and click **Connect**.

Connection type: Microsoft SQL Server

Server: 65.52.70.253

Authentication type: SQL Login

User name: sa

Password: .....

☒ Remember password

Database: <Default>

Server group: <None>

Advanced...

Connect Cancel

7. **Click Run.**

## Review the Exercise Scenario

- Review the exercise scenario; make sure you understand the problem you are trying to resolve.

## Troubleshoot and Resolve the Issue

- Use Operations Studio to investigate and resolve the problem with the **PromoteApp** login.

**Lab Check – You will need these answers for the module quiz – write them down!**

### Lab 02 ► Troubleshooting SQL Server

What was the cause of the connection problem?



## Exercise 2: Troubleshoot and Resolve a Performance Issue

Users of the **SalesSupport** application are reporting that the application has suddenly stopped responding; the **SalesSupport** administrator asks you to investigate, because the application log contains several recent messages reporting that queries run against the **AdventureWorks** database have timed out.

### Simulate the Issue

1. Start two Terminal apps.
2. In the first Terminal app, type the following command and press Enter:  
`sqlcmd -S type the IP address of your server -Usa -Ptype your password -d AdventureWorks2016 -q "BEGIN TRAN; UPDATE Purchasing.ShipMethod SET name = N'XRQ - TRUCK' WHERE shipmethodid = 1;"`
3. In the second Terminal app, type the following command and press Enter:  
`sqlcmd -S type the IP address of your server -Usa -Ptype your password -d AdventureWorks2016 -q " BEGIN TRAN; SELECT * FROM Purchasing.ShipMethod AS sm WITH (REPEATABLE READ) JOIN Sales.SalesOrderHeader AS soh ON sm.shipmethodid = soh.shipmethodid; COMMIT;"`

### Review the Exercise Scenario

- Review the exercise scenario; make sure you understand the problem you are trying to resolve.

### Troubleshoot and Resolve the Issue

1. Start SQL Operations Studio and connect to the localhost server.
2. Right click your server and click **New query**.
3. In the query window, type the following command and click **Run**:  
`sp_who2`
4. Notice that for one of the rows the value of the **Status** column is **SUSPENDED**, and that another row has a value in the **BlkBy** column.
5. Notice that the **ProgramName** for both the blocked and blocking rows is **SQLCMD**.

**Lab Check – You will need these answers for the module quiz – write them down!**

#### Lab 02 ► Troubleshooting SQL Server

What is the value in the Blocked By column for the row that has a value?

6. Open a third Terminal app.
7. In the third Terminal app, type the following command and press Enter:  
`sqlcmd S type the IP address of your server -Usa -Ptype your password -d AdventureWorks2016 -q "KILL Type the BlkBy value from the previous task"`
8. Notice that the second SQLCMD has completed.
9. Close all of the Terminal apps.

*You have now completed the lab.*

*If you are not immediately continuing with the next lab, you should complete the **Finishing Up** exercise to shut down and stop the VM.*

# Finishing Up

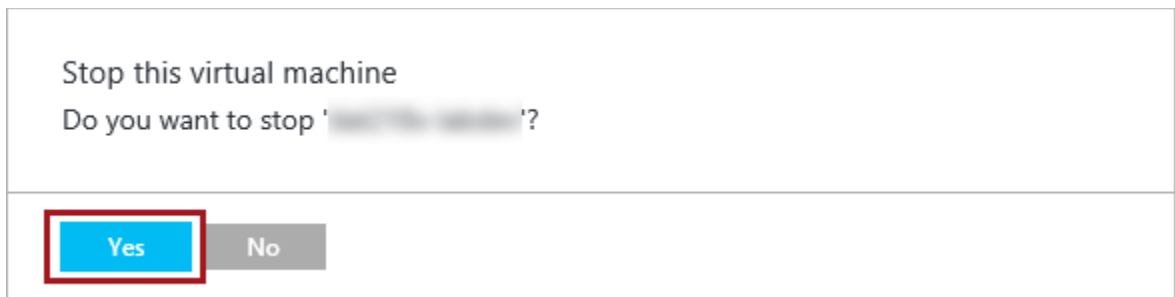
In this exercise, you will shut down and stop the VMs.

1. Deallocate the Linux VM by clicking **Stop**.

*Deallocation will take some minutes to complete, and also extends the time required to restart the VM. Consider deallocating the VM if you want to reduce costs, or if you choose to complete the next lab after an extended period.*

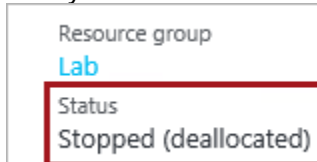


2. When prompted to stop the VM, click **Yes**.



*The deallocation can take several minutes to complete.*

3. Verify that the VM status updates to **Stopped (Deallocated)**.



*In this state, the VM is now not billable—except for a relatively smaller storage cost. Note that a deallocated VM will likely acquire a different IP address the next time it is started.*