

## Module 8 - Lab 2: Add an Azure SQL Database to an autofailover group

? A failover group is a declarative abstraction layer that allows you to group multiple geo-replicated databases. Learn to configure a failover group for an Azure SQL Database and test failover using the Azure portal. In this lab, you'll learn how to:

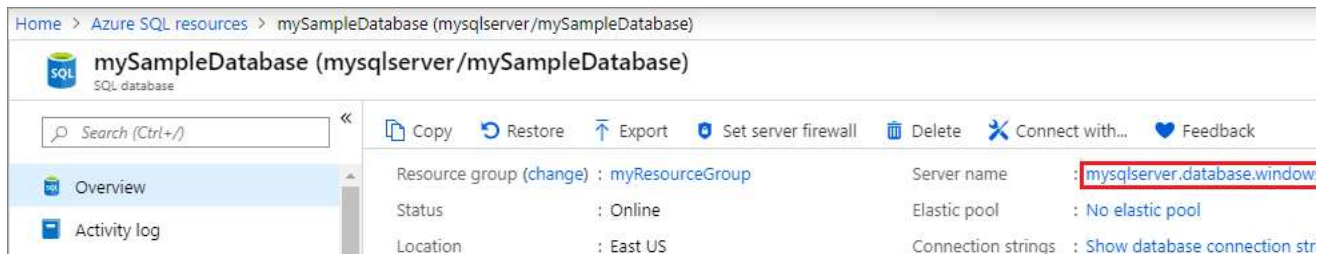
- Create your failover group and add your database to it using the Azure portal.

### Task 1: Create your failover group and add your database to it using the Azure portal.

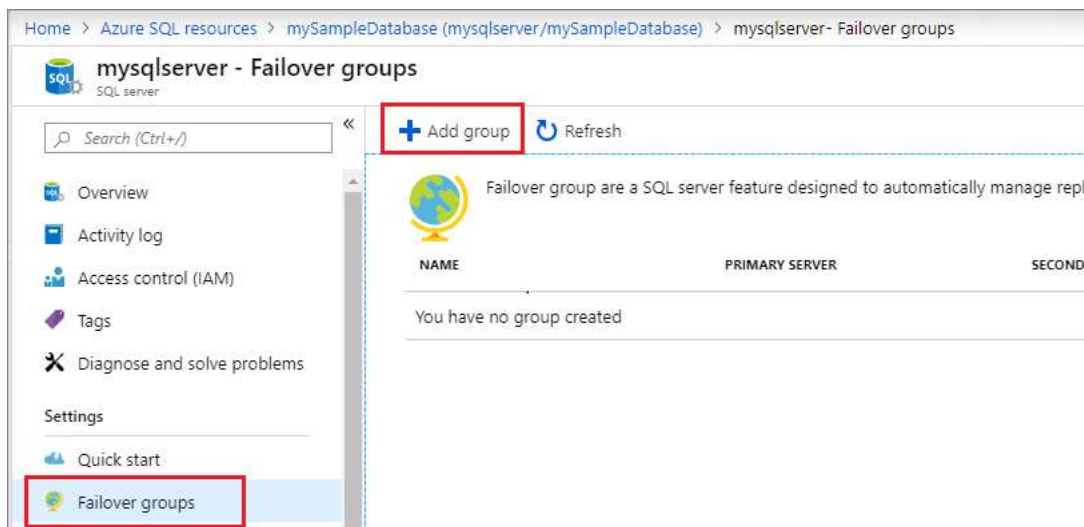
- ☐ 1. Select **Azure SQL** in the left-hand menu of the Azure portal. If **Azure SQL** isn't in the list, select **All services**, then type Azure SQL in the search box.

**i (Optional)** Select the star next to **Azure SQL** to favorite it and add it as an item in the left-hand navigation.

- ☐ 2. Select the database created in lab 1, such as **mySampleDatabase**.
- ☐ 3. Failover groups can be configured at the server level. Select the name of the server under **Server name** to open the settings for the server.



- ☐ 4. Select **Failover groups** under the **Data Management** pane, and then select **Add group** to create a new failover group.



- ☐ 5. On the **Failover Group** page, enter or select the following values, and then select **Create**:
- **Failover group name**: Type in a unique failover group name, such as **failovergrouptutorial**.
  - **Secondary server**: Select the option to **configure required settings** and then choose to **Create a new server**. Alternatively, you can choose an already-existing server as the secondary server. After entering the following values, select **Select**.
    - **Server name**: Type in a unique name for the secondary server, such as **mysqlsecondary**.
    - **Server admin login**: Type **azureuser**.
    - **Password**: Enter **IZuoYRaJKO6XPNRo**.
    - **Location**: **West US**. This location can't be the same location as your primary server.

**⚠ Note**: The server login and firewall settings must match that of your primary server.

Home > Azure SQL resources > mySampleDatabase (mysqlserver/mySampleDatabase) > mysqlserver - Failover groups > Failover group > Ser

### Failover group

Create a failover group to automatically failover databases in it.

\* Failover group name  
failovergrouptutorial ✓  
.database.windows.net

\* Secondary server  
Configure required settings >

Read/Write failover policy  
Automatic

Read/Write grace period (hours)  
1 hours

Database within the group  
Select databases to add

### Server

+ Create a new server

### New server

\* Server name  
mysqlsecondary ✓  
.database.windows.net

\* Server admin login  
azureuser ✓

\* Password  
..... ✓

\* Confirm password  
..... ✓

\* Location  
East US

☒ Allow Azure services to access server

- **Databases within the group:** Once a secondary server is selected, this option becomes unlocked. Select it to **Select databases to add** and then choose the database you created in section 1. Adding the database to the failover group will automatically start the geo-replication process.

Home > Azure SQL resources > mySampleDatabase (mysqlserver/mySampleDatabase) > mysqlserver - Failover groups > Failover group > Databases

### Failover group

Create a failover group to automatically failover databases in it.

\* Failover group name  
failovergrouptutorial ✓  
.database.windows.net

\* Secondary server  
mysqlsecondary (East US) >

Read/Write failover policy  
Automatic

Read/Write grace period (hours)  
1 hours

Database within the group  
Select databases to add >

### Databases

for failover group

Select all Selected/0/1

Filter items...

NAME	ROLE	SECONDARY SERVER
mySampleDatabase		

Summary  
Databases on secondary (excluding ones in Elastic Pools)  
Elastic Pools on secondary server

Monthly cost

## Task 2: Test failover using the Azure portal.

? In this task, you'll fail your failover group over to the secondary server, and then fail back using the Azure portal.

- ☐ 1. Select **Azure SQL** in the left-hand menu of the Azure portal. If **Azure SQL** isn't in the list, select **All services**, then type Azure SQL in the search box. (Optional) Select the star next to **Azure SQL** to favorite it and add it as an item in the left-hand navigation.
- ☐ 2. Select the database created in task 1, such as **mySampleDatabase**.
- ☐ 3. Select the name of the server under **Server name** to open the settings for the server.

Home > Azure SQL resources > mySampleDatabase (mysqlserver/mySampleDatabase)

mySampleDatabase (mysqlserver/mySampleDatabase)

SQL database

Search (Ctrl+/)

- Overview
- Activity log

Copy Restore Export Set server firewall Delete Connect with... Feedback

Resource group (change) : myResourceGroup

Status : Online

Location : East US

Server name : mysqlserver.database.window

Elastic pool : No elastic pool

Connection strings : Show database connection str

- ☐ 4. Select **Failover groups** under the **Settings** pane and then choose the failover group you created in section 2.

Home > Azure SQL resources > mySampleDatabase (mysqlserver/mySampleDatabase) > mysqlserver - Failover groups

### mysqlserver - Failover groups

SQL server

Search (Ctrl+/)

+ Add group Refresh

Failover group are a SQL server feature designed to automatically manage

NAME	PRIMARY SERVER	SECONDARY SERVER
failovergrouptutorial	mysqlserver	mysqlsecondary

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems  
Settings  
Quick start  
**Failover groups**  
Manage Backups  
Active Directory admin  
SQL databases  
SQL elastic pools  
Deleted databases

- ☐ 5. Review which server is primary and which server is secondary.
- ☐ 6. Select **Failover** from the task pane to fail over your failover group containing your sample database.
- ☐ 7. Select **Yes** on the warning that notifies you that TDS sessions will be disconnected.

Home > Azure SQL resources > mySampleDatabase (mysqlserver/mySampleDatabase) > mysqlserver - Failover groups

### failovergrouptutorial

failover-sqlserver

Save Discard Add databases Edit configuration Remove databases **Failover** Forced Failover Delete

Configuration details Databases within group Databases selected to be added (0) Databases selected for removal (0)

SERVER	ROLE	READ/WRITE FAILOVER POLICY
mysqlserver (West US)	Primary	Automatic
mysqlsecondary (East US)	Secondary	

- ☐ 8. Review which server is now primary and which server is secondary. If failover succeeded, the two servers should have swapped roles.
- ☐ 9. Select **Failover** again to fail the servers back to their original roles.

#### ✓ Congratulations!

In this lab, you added a database in Azure SQL Database to a failover group, and tested failover. You learned how to:

- Create a database in Azure SQL Database
- Create a failover group for the database between two servers.

- Test failover.
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