

Lab 36

Classroom Activity: Getting started with single databases in Azure SQL Database

Task: Create an Azure SQL Database single database

You can create a single database in Azure SQL Database using either the Azure portal, a PowerShell script, or an Azure CLI script. You then query the database using **Query editor** in the Azure portal.

Prerequisite

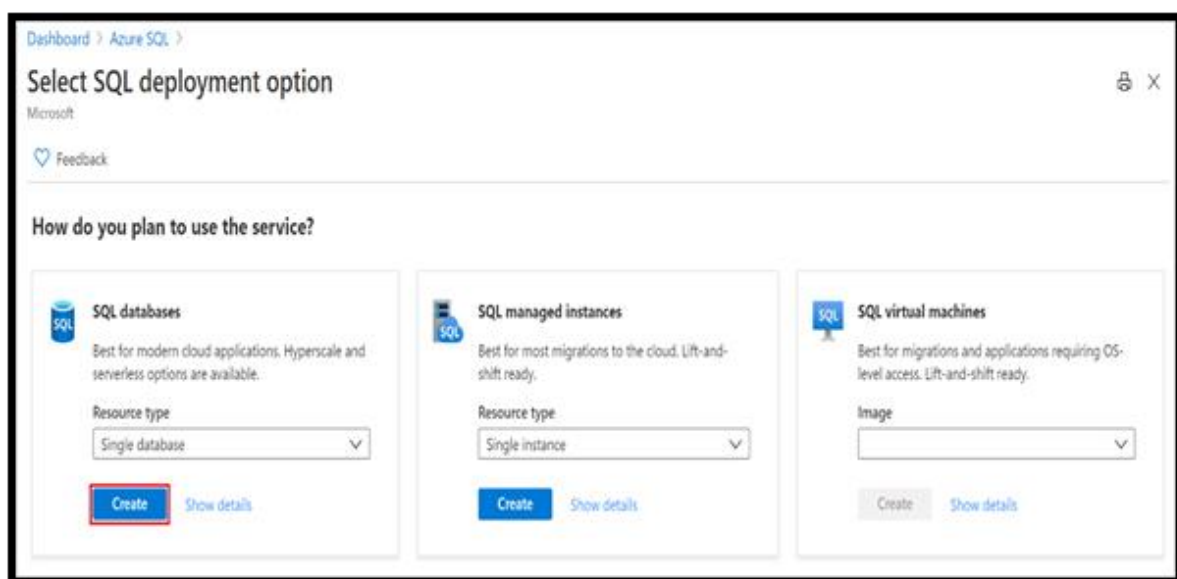
- An active Azure subscription. If you don't have one, create a free account.

Create a single database

This quickstart creates a single database in the serverless compute tier.

To create a single database in the Azure portal this quickstart starts at the Azure SQL page.

1. Browse to the Select SQL Deployment option page.
2. Under **SQL databases**, leave **Resource type** set to **Single database**, and select **Create**.



3. On the **Basics** tab of the **Create SQL Database** form, under **Project details**, select the desired Azure **Subscription**.
4. For **Resource group**, select **Create new**, enter *myResourceGroup*, and select **OK**.
5. For **Database name** enter *mySampleDatabase*.
6. For **Server**, select **Create new**, and fill out the **New server** form with the following values:
 - **Server name**: Enter *mysqlserver*, and add some characters for uniqueness. We can't provide an exact server name to use because server names must be globally unique for all servers in Azure, not just unique within a subscription. So enter something like *mysqlserver12345*, and the portal lets you know if it is available or not.
 - **Server admin login**: Enter *azureuser*.
 - **Password**: Enter a password that meets requirements, and enter it again in the **Confirm password** field.
 - **Location**: Select a location from the dropdown list.Select **OK**.

Home > Azure SQL > Select SQL deployment option > Create SQL Database >

Configure

Feedback

Looking for basic, standard, premium?

General Purpose	Hyperscale	Business Critical
Scale compute and storage options	On-demand scalable storage	High transaction rate and high reliability
500 - 20,000 OPS 1-10 ms latency	500 - 20,000 OPS 1-10 ms latency	5,000 - 20,000 OPS 1-10 ms latency

Compute tier

Provisioned
 Compute resources are pre-allocated
 Billed per hour based on vCores configured

Serverless
 Compute resources are auto-scaled
 Billed per second based on vCores used

Compute Hardware

Click "Change configuration" to see details for all hardware generations available including memory optimized and compute optimized options

Hardware Configuration

Gen5
up to 40 vCores, up to 128 GB memory
[Change configuration](#)

Max vCores

1 2 4 8 16 32 64 128 256 512 1024 2048 4096 8192 16384 32768 65536 131072 262144 524288 1048576 2097152 4194304 8388608 16777216 33554432 67108864 134217728 268435456 536870912 1073741824 2147483648 4294967296 8589934592 17179869184 34359738368 68719476736 137438953472 274877906944 549755813888 1099511627776 2199023255552 4398046511104 8796093022208 17592186044416 35184372088832 70368744177664 140737488355328 281474976710656 562949953421312 1125899906842624 2251799813685248 4503599627370496 9007199254740992 18014398509481984 36028797018963968 72057594037927936 144115188075855872 288230376151711744 576460752303423488 1152921504606846976 2305843009213693952 4611686018427387904 9223372036854775808 18446744073709551616 36893488147419103232 73786976294838206464 147573952589676412928 295147905179352825856 590295810358705651712 1180591620717411303424 2361183241434822606848 4722366482869645213696 9444732965739290427392 18889465931478580854784 37778931862957161709568 75557863725914323419136 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Dashboard > Azure SQL > Select SQL deployment option >

Create SQL Database

Microsoft
provision with smart defaults, or visit each tab to customize. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ [Create new](#)

Database details

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name * ✓

Server * ⓘ [Create new](#)

Want to use SQL elastic pool? * ⓘ ☐ Yes ☒ No

Compute + storage * ⓘ

General Purpose
Serverless, Gen5, 1 vCore, 32 GB storage
[Configure database](#)

[Review + create](#) [Next : Networking >](#)

11. On the **Networking** tab, for **Connectivity method**, select **Public endpoint**.
12. For **Firewall rules**, set **Add current client IP address** to **Yes**. Leave **Allow Azure services and resources to access this server** set to **No**.
13. Select **Next: Additional settings** at the bottom of the page.

Create SQL Database

Microsoft

[Basics](#) [Networking](#) [Additional settings](#) [Tags](#) [Review + create](#)

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'mysqlserver-12' and all databases it manages. [Learn more](#)

Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. Choosing no access creates with defaults and you can configure connection method after server creation. [Learn more](#)

Connectivity method *

☐ No access

☒ Public endpoint

☐ Private endpoint (preview)

Firewall rules

Setting 'Allow Azure services and resources to access this server' to Yes allows communications from all resources inside the Azure boundary, that may or may not be part of your subscription. [Learn more](#)

Setting 'Add current client IP address' to Yes will add an entry for your client IP address to the server firewall.

Allow Azure services and resources to access this server *

☒ No ☐ Yes

Add current client IP address *

☐ No ☒ Yes

[Review + create](#) [< Previous](#) [Next : Additional settings >](#)

14. On the **Additional settings** tab, in the **Data source** section, for **Use existing data**, select **Sample**. This creates an AdventureWorksLT sample database so there's some tables and data to query and experiment with, as opposed to an empty blank database.
15. Optionally, enable Azure Defender for SQL.
16. Optionally, set the maintenance window so planned maintenance is performed at the best time for your database.
17. Select **Review + create** at the bottom of the page:

Microsoft Azure

Search resources, services, or documentation

Home > servercontoso >

Create SQL Database

Microsoft

Basics Networking **Additional settings** Tags Review + create

Customize additional configuration parameters including collation & sample data.

Data source

Start with a blank database, restore from a backup or select sample data to populate your new database.

Use existing data *

None

Backup

Sample

AdventureWorksLT will be created as the sample database.

Database collation

Database collation defines the rules that sort and compare data, and cannot be changed after database creation. The default database collation is SQL_Latin1_General_CP1_CI_AS. [Learn more](#)

Collation ⓘ SQL_Latin1_General_CP1_CI_AS

Azure Defender for SQL

Protect your data using Azure Defender for SQL, a unified security package including vulnerability assessment and advanced threat protection for your server. [Learn more](#)

Advanced Data Security costs 15 USD/server/month.

Enable Azure Defender for SQL * ⓘ

Enable

Not now

Maintenance window

Select a preferred maintenance window from the drop down. Please note, during a maintenance event, Azure SQL Database are fully available and accessible but some of the maintenance updates require a failover as Azure takes SQL DB instances offline for a short time to apply the maintenance updates. If the database is part of elastic pool, the maintenance configuration of elastic pool will be applied. [Learn more](#)

Maintenance window System default

Review + create

< Previous

Next : Tags >

18. On the **Review + create** page, after reviewing, select **Create**.