

Quickstart: Create a single database in Azure SQL Database using the Azure portal

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Creating a [single database](#) is the quickest and simplest deployment option for creating a database in Azure SQL Database. This quickstart shows you how to create and then query a single database using the Azure portal.

If you don't have an Azure subscription, [create a free account](#).

For all steps in this quickstart, sign in to the [Azure portal](#).

Create a single database

A single database can either be created in the provisioned or serverless (preview) compute tier.

- A single database in the provisioned compute tier has a defined amount of pre-allocated compute resources plus a set of memory and storage resources using one of two [purchasing models](#).
- A single database in the serverless compute tier has a range of compute resources that are auto-scaled plus a specified amount of memory per core, and a specified amount of storage resources and is only available in the [vCore-based purchasing models](#).

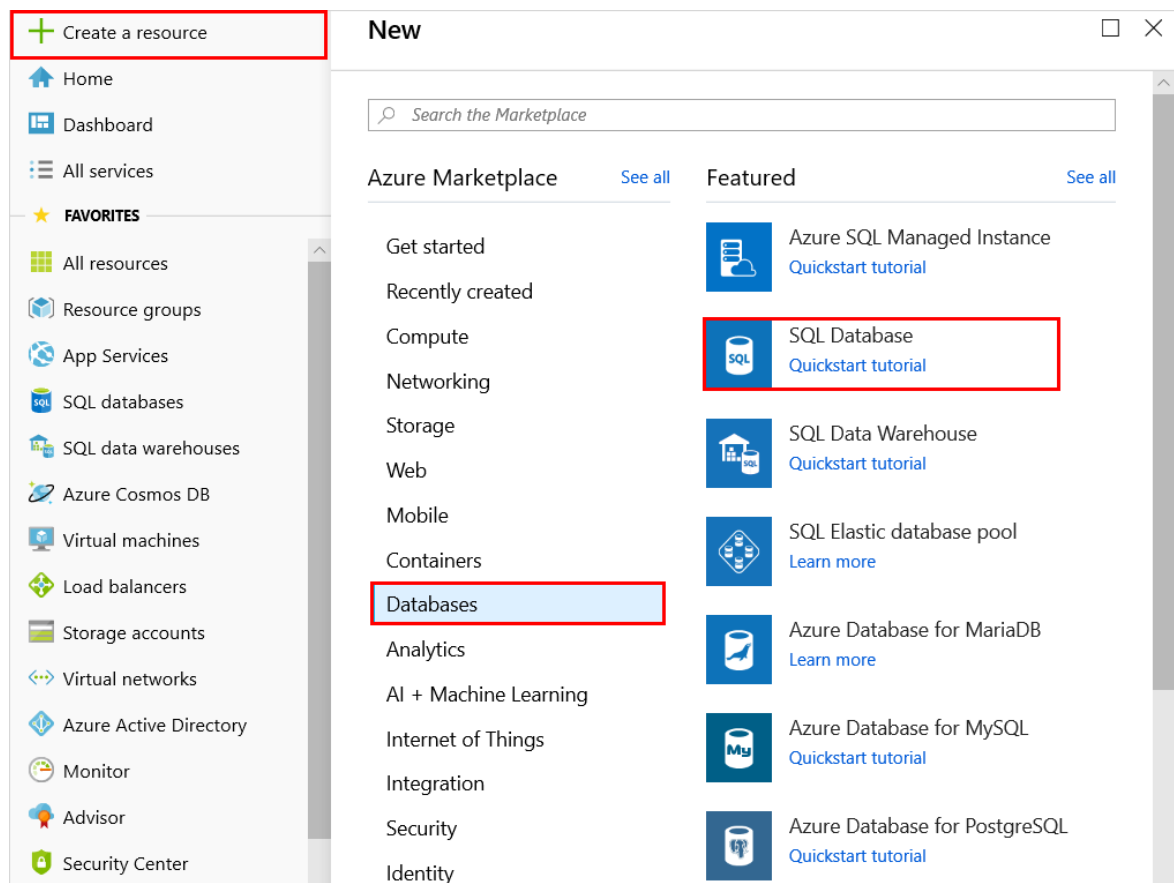
When you create a single database, you also define a [SQL Database server](#) to manage it and place it within [Azure resource group](#) in a specified region.

Note

This quickstart uses the [vCore-based purchasing model](#) and the [serverless](#) compute tier, but the [DTU-based purchasing model](#) is also available.

To create a single database containing the AdventureWorksLT sample data:

1. Select **Create a resource** in the upper left-hand corner of the Azure portal.
2. Select **Databases** and then select **SQL Database** to open the **Create SQL Database** page.



3. On the **Basics** tab, in the **Project Details** section, type or select the following values:
 - **Subscription:** Drop down and select the correct subscription, if it doesn't appear.
 - **Resource group:** Select **Create new**, type `myResourceGroup`, and select **OK**.

Home > New > Create SQL Database

Create SQL Database

Microsoft

Warning: Changing basic options may reset selections you have made. Please review all options prior to creating the database.

[Basics](#) [Additional settings](#) [Tags](#) [Review + Create](#)

Create a SQL database with your preferred configurations. Complete the Basics tab then go to Review + Create to 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 SQL DB Content

* Resource group (New) myResourceGroup

[Create new](#)

4. In the **Database Details** section, type or select the following values:

- **Database name:** Enter mySampleDatabase.
- **Server:** Select **Create new** and enter the following values and then select **Select**.
 - **Server name:** Type mysqlserver; along with some numbers for uniqueness.
 - **Server admin login:** Type azureuser.
 - **Password:** Type a complex password that meets password requirements.
 - **Location:** Choose a location from the drop-down, such as West US 2.

New server

* Server name
mysqlserver

.database.windows.net

* Server admin login
azureuser

* Password
.....

* Confirm password
.....

* Location
West US 2

☒ Allow Azure services to access server



Important


Remember to record the server admin login and password so you can log in to the server and databases for this and other quickstarts. If you forget your login or password, you can get the login name or reset the password on the **SQL server** page. To open the **SQL server** page, select the server name on the database **Overview** page after database creation.


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  **Standard S0**
 10 DTUs, 1 GB storage
[Configure database](#)

* Resource group  
[Create new](#)

- **Want to use SQL elastic pool:** Select the **No** option.
- **Compute + storage:** Select **Configure database** and for this quickstart, select **vCore-based purchasing options**

Microsoft Azure Search resources, services, and docs

Home > New > Create SQL Database > Configure

Configure

Feedback

Basic For less demanding workloads

Standard For workloads with typical performance requirements

Premium For IO-intensive workloads.

vCore-based purchasing options
 Click here to customize your performance using vCores

DTUs [What is a DTU?](#)

10 (S0)

Data max size

100 MB 250 GB 250 GB

Apply

- Select **Serverless**.

Microsoft Azure Search resources, services, and docs

Home > New > Create SQL Database > Configure

Configure

Feedback

Compute tier

- Provisioned**
Compute resources are pre-allocated
Billed per hour based on vCores configured
- Serverless** (selected)
Compute resources are auto-scaled
Billed per second based on vCores used

Compute Generation

- Gen5** (selected)
up to 4 vCores
up to 12 GB memory

Max vCores

2 4 1 vCore

Min vCores

1 0.5 vCores

2.02 GB MIN MEMORY 3 GB MAX MEMORY

Auto-pause delay

The database will automatically pause after being idle for the time specified here. It will automatically resume once there is any activity on the database.

☒ Enable auto-pause delay

Days: 0 Hours: 6

Data max size

32 GB 512 GB 32 GB

9.6 GB LOG SPACE ALLOCATED

Apply

Cost Summary

Gen5 - General Purpose (GP_S_Gen5_1)
Cost per GB (in USD)
Max storage selected (in GB)

ESTIMATED STORAGE COST / MONTH
COMPUTE COST / VCORE / HOUR

NOTES
Serverless databases are billed in vCores based on a combination of CPU and memory utilization. [Learn more about serverless billing](#)

- Review the settings for **Max vCores**, **Min vCores**, **Auto-pause delay**, and **Data max size**. Change these as desired.
- Accept the preview terms and click **OK**.
- Select **Apply**.

5. Select the **Additional settings** tab.

6. In the **Data source** section, under **Use existing data**, select **Sample**.

The screenshot shows the 'Create SQL Database' form in the Azure portal. The breadcrumb navigation at the top reads 'Home > New > Create SQL Database'. The main heading is 'Create SQL Database' with the Microsoft logo below it. The form has four tabs: 'Basics', 'Additional settings' (which is selected and highlighted with a purple underline), 'Tags', and 'Review + Create'. Below the tabs, there is a text instruction: 'Customize additional configuration parameters including collation & sample data.' The form is divided into three sections: 'DATA SOURCE', 'DATABASE COLLATION', and 'ADVANCED DATA SECURITY'. In the 'DATA SOURCE' section, there is a text label 'Start with a blank database, restore from a backup or select sample data to populate your new database.' followed by a radio button group for 'Use existing data' with three options: 'None', 'Backup', and 'Sample'. The 'Sample' option is selected. Below this, a text label states 'AdventureWorksLT will be created as the sample database.' The 'DATABASE COLLATION' section has a text label explaining that database collation defines sorting and comparison rules and cannot be changed after creation, with a link to 'Learn more'. Below this is a radio button for 'Collation' with a dropdown menu showing 'SQL_Latin1_General_CP1_CI_AS'. The 'ADVANCED DATA SECURITY' section has a text label explaining that Advanced Data Security is a unified security package, with a link to 'Learn more'. Below this is a radio button for 'Enable Advanced Data Security' with two buttons: 'Start free trial' and 'Not now'.

Important

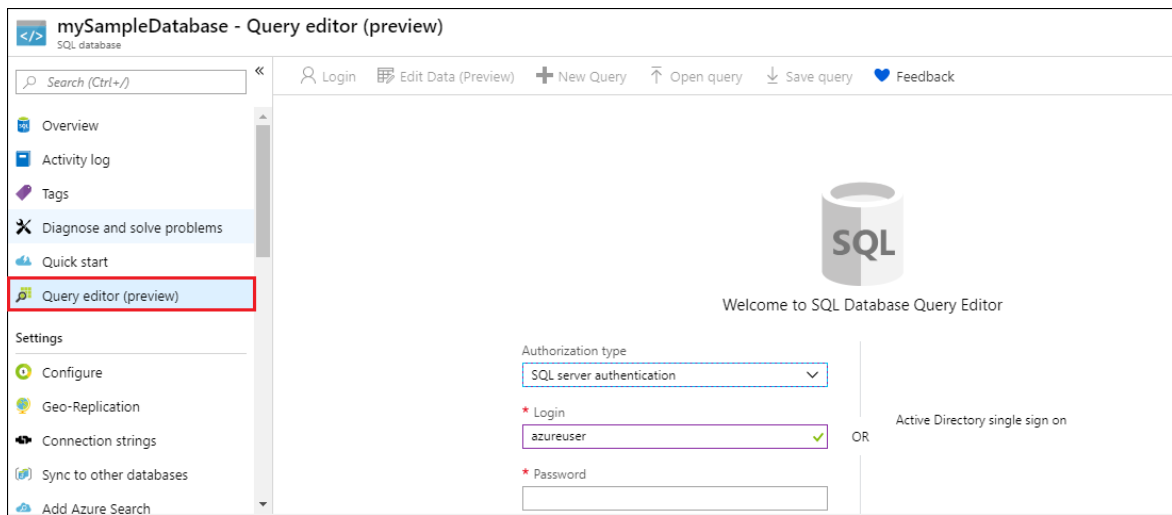
Make sure to select the **Sample (AdventureWorksLT)** data so you can follow easily this and other Azure SQL Database quickstarts that use this data.

7. Leave the rest of the values as default and select **Review + Create** at the bottom of the form.
8. Review the final settings and select **Create**.
9. On the **SQL Database** form, select **Create** to deploy and provision the resource group, server, and database.

Query the database

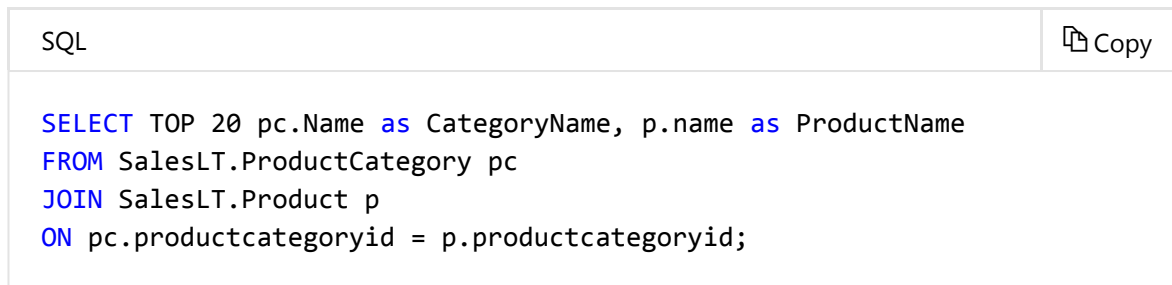
Now that you've created the database, use the built-in query tool in the Azure portal to connect to the database and query the data.

1. On the **SQL Database** page for your database, select **Query editor (preview)** in the left menu.

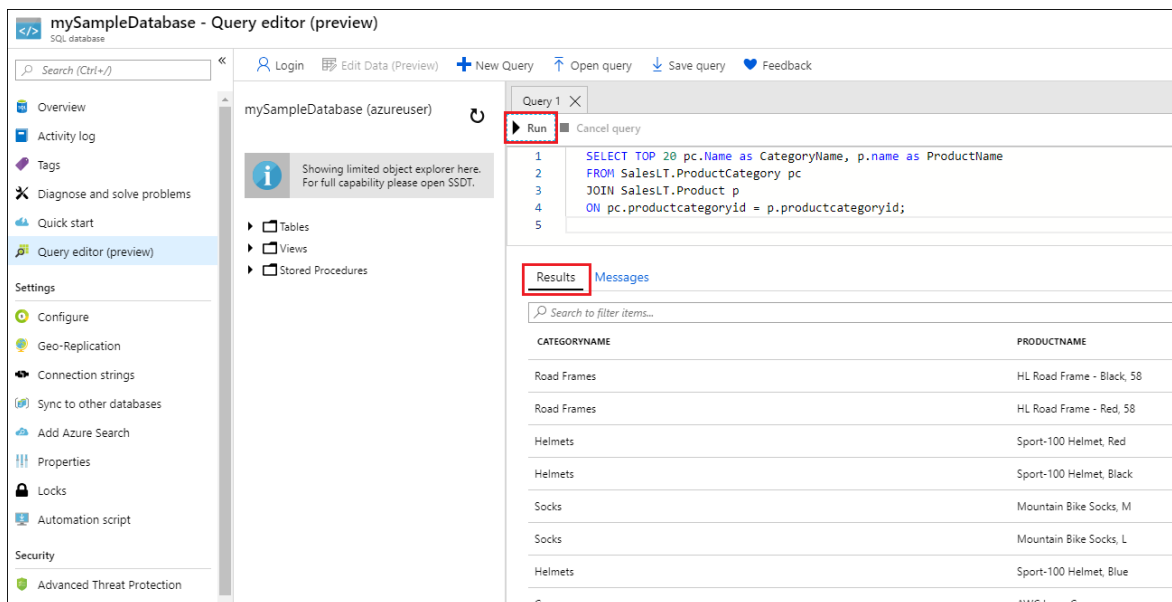


2. Enter your login information, and select **OK**.

3. Enter the following query in the **Query editor** pane.



4. Select **Run**, and then review the query results in the **Results** pane.



5. Close the **Query editor** page, and select **OK** when prompted to discard your unsaved edits.

Clean up resources

Keep this resource group, database server, and single database if you want to go to the [Next steps](#). The next steps show you how to connect and query your database using different methods.

When you're finished using these resources, you can delete them as follows:

1. From the left menu in the Azure portal, select **Resource groups**, and then select **myResourceGroup**.
2. On your resource group page, select **Delete resource group**.
3. Enter *myResourceGroup* in the field, and then select **Delete**.

Next steps

- Create a server-level firewall rule to connect to the single database from on-premises or remote tools. For more information, see [Create a server-level firewall rule](#).
- After you create a server-level firewall rule, [connect and query](#) your database using several different tools and languages.
 - [Connect and query using SQL Server Management Studio](#)
 - [Connect and query using Azure Data Studio](#)
- To create a single database in the provisioned compute tier using Azure CLI, see [Azure CLI samples](#).
- To create a single database in the provisioned compute tier using Azure PowerShell, see [Azure PowerShell samples](#).
- To create a single database in the serverless compute tier using Azure Powershell, see [Create serverless database](#).