

Practical Task 9: Deploying an Azure SQL Database with Automated Backup Configuration

Set up an Azure SQL Database and configure automated backups.

Requirements:

1. Create an Azure SQL Database in a new or existing resource group.
2. Choose the desired service tier (e.g., Basic or General Purpose).
3. Enable and configure long-term backup retention for the database.
4. Use the Azure portal to verify backup settings and review available restore points.
5. Test the restore process by creating a new database from a backup.

Dashboard >

SQL databases

Default Directory (dmytroslovtvinskygmail.onmicrosoft.com)

+ Create

⌚ Reservations

⚙️ Manage view

🔄 Refresh

⬇️ Export to CSV

🔗 Open query

|

🏷️ Assign tags




🗑️ Delete

Filter for any field... Subscription equals all Resource group equals all Location equals all Add filter

Showing 1 to 3 of 3 records.

No grouping

List view

<input type="checkbox"/> Name ↑↓	Server ↑↓	Replica type ↑↓	Pricing tier ↑↓	Location ↑↓	Subscription ↑↓
<input type="checkbox"/>  devSQL (devsql20250125/devSQL)	devsql2025...	--	General Purpose: S...	East US	Azure subscription 1
<input type="checkbox"/>  devSQL_2025-01-25T12-02Z (devsql20250125/devSQL_2025-01-25T12-02Z)	devsql2025...	--	General Purpose: S...	East US	Azure subscription 1
<input type="checkbox"/>  test-db (test-sql-server-ab1/test-db)	test-sql-ser...	--	Basic: 5 DTUs	East US	Azure subscription 1




Create SQL Database - Restore database

Microsoft

Select a backup source and details. Additional settings will be defaulted where possible based on the backup selected.

Source Database	devSQL	
Select source	Point-in-time	
Earliest restore point	2025-01-25 11:36 UTC	
Restore point (UTC) *	01/25/2025	12:02:00 PM

 Choose a restore point between the earliest restore point and the current time in UTC.

Database details

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

Database name *

devSQL_2025-01-25T12-02Z

Server ⓘ

devsql20250125 (East US)

Want to use SQL elastic pool? ⓘ

☐ Yes ☒ No

Compute + storage * ⓘ

General Purpose - Serverless

Standard-series (Gen5), 2 vCores, 32 GB storage, zone redundant disabled

[Configure database](#)

General Purpose - Serverless

Standard-series (Gen5), 2 vCores, 32 GB storage, zone redundant disabled

Configure database

Review + create

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Microsoft Azure

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Dashboard > SQL databases > devSQL (devsql20250125/devSQL)

»

devSQL (devsql20250125/devSQL) | Compute + storage

☆ ...

×

SQL database

Search

Feedback

Overview

Activity log

Tags

Diagnose and solve problems

Query editor (preview)

Mirror database in Fabric (preview)

Settings

Compute + storage

Connection strings

Maintenance

Properties

Locks

Data management

Replicas

Sync to other databases

Integrations

Azure Synapse Link

Stream analytics (preview)

Add Azure AI Search

2.05 GB MIN MEMORY

6 GB MAX MEMORY

Auto-pause delay

The database automatically pauses if it is inactive for the time period specified here, and automatically resumes when database activity recurs. Alternatively, auto-pausing can be disabled.

☐ Enable auto-pause

Data max size (GB)

32

9.6 GB LOG SPACE ALLOCATED

Would you like to make this database zone redundant?

☐ Yes ☒ No

Backup storage redundancy

☒ Locally-redundant backup storage

☐ Zone-redundant backup storage

☐ Geo-redundant backup storage

☐ Geo-Zone-redundant backup storage

Database utilization

100%

Apply

Dashboard >

devsql20250125
SQL server

Refresh

Feedback

Configure policies

Remove LTR settings

Available backups

Retention policies

Configure and manage your automated backup retention policies below. Point-in-time restore (PITR) allows short-term backup retention. [Learn more](#)

Search for a database

<input checked="" type="checkbox"/> Database ↑↓	PITR ↑↓	Diff. backup frequency ↑↓	Weekly LTR ↑↓
<input checked="" type="checkbox"/> devSQL	7 Days	12 Hours	--

Configure policies

SQL server

How many days would you like PITR backups to be kept? ⓘ
35

Differential backup frequency

Specify how often you want differential backups to be taken. [Learn more](#)

Take a differential backup every:
12 Hours

Long-term retention

Specify how long you want to keep your long-term retention backups. You may choose to keep yearly backups for up to 10 years. [Learn more](#)

Weekly LTR Backups
Keep weekly backups for:
1 Month(s)

Monthly LTR Backups
Keep the first backup of each month for:
3 Month(s)

Yearly LTR Backups
Keep an annual backup for:
1 Year(s)

Apply

Cancel

Create SQL Database ...

Microsoft

Basics

Subscription	Azure subscription 1
Resource group	StanislavKostenich
Region	East US
Database name	devSQL
Server	(new) devsql20250125
Authentication method	Microsoft Entra-only authentication
Microsoft Entra Admin	StanislavKostenich@dmytroslotvinsky@gmail.onmicrosoft.com
Compute + storage	General Purpose - Serverless: Standard-series (Gen5), 2 vCores, 32 GB storage, zone redundant disabled
Backup storage redundancy	Locally-redundant backup storage
Overage billing	Disabled

Networking

Allow Azure services and resources to access this server	No
Private endpoint	None
Minimum TLS version	1.2
Connection Policy	Default

FIRST 100,000 vCORE SECONDS FREE	
Overage billing¹	Disabled
ESTIMATED STORAGE COST / MONTH	-- --
COMPUTE COST / vCORE SECOND²	-- --

¹ There will be no charges for usage within the free limits. The database will be paused automatically when the free limits are reached.

² Serverless databases are billed in vCore seconds based on a combination of CPU and memory utilization. [Learn more about serverless billing](#)

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portal.azure.com/#create/Microsoft.SQLDatabase

Microsoft Azure

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Dashboard > SQL databases >

Configure

Feedback

SQL Database Hyperscale: Low price, high scalability, and best feature set. [Learn more](#)

Max vCores

2

Min vCores

0.5 vCores

2.05 GB MIN MEMORY

6 GB MAX MEMORY

Data max size (GB)

32

9.6 GB LOG SPACE ALLOCATED

Would you like to make this database zone redundant?

Yes

No

Apply

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing¹

Disabled

ESTIMATED STORAGE COST / MONTH

-- --

COMPUTE COST / VCORE SECOND²

-- --

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Dashboard > SQL databases >

Create SQL Database

Microsoft

BasicsNetworkingSecurityAdditional settingsTagsReview + 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 *

NoneBackupSample

AdventureWorksLT will be created as the sample database.

AdventureWorksLT

Selecting this sample will modify the "Compute + Storage" settings configured in Basics, for backup compatibility. Visit "Basics" or "Review + Create" tabs to review the changes.

Do you want to continue?

OKCancel

database creation. The

SQL

Cost summary

General Purpose (GP_S_Gen5_2)

Cost per GB (in --)

Max storage selected (in GB)x 41.6

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing¹Disabled

ESTIMATED STORAGE COST / MONTH-- --

COMPUTE COST / VCORE SECOND²-- --

¹ There will be no charges for usage within the free limits.

Review + create

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portal.azure.com/#view/SqlAzureExtension/SharedCreateServer/isNewServer~/true/subscriptionId/9a6ae428-d8c3-44fe-bdf2...

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Dashboard > SQL databases > Create SQL Database

Microsoft Entra ID

Authentication

Azure Active Directory (Azure AD)

Select your preferred authentication method to access your server with SQL authentication. You can use a Microsoft Entra user, group, or application. For more information, see [Microsoft Entra authentication](#).

Authentication method


Set Microsoft Entra admin

OK


Try changing or adding filters if you don't see what you're looking for.

Searchsta1 result found

AllUsersGroupsEnterprise applications

	Name	Type	Details
<input checked="" type="checkbox"/>	 Stanislav Kostenich	User	StanislavKostenich@dmytroslovinskygm.onm

Selected item (1)
Reset

 Stanislav Kostenich
StanislavKostenich@dmytroslovinskygm...

Select

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Dashboard > SQL databases > Create SQL Database >

Create SQL Database Server

Microsoft

Server details

Enter required settings for this server, including providing a name and location. This server will be created in the same subscription and resource group as your database.

Server name *

devsql20250125 ✓
.database.windows.net

Location *

(US) East US ▾

Authentication

📘

Azure Active Directory (Azure AD) is now Microsoft Entra ID. [Learn more](#) 📄

Select your preferred authentication methods for accessing this server. Create a server admin login and password to access your server with SQL authentication, select only Microsoft Entra authentication [Learn more](#) 📄 using an existing Microsoft Entra user, group, or application as Microsoft Entra admin [Learn more](#) 📄 , or select both SQL and Microsoft Entra authentication.

OK