

SQL database-

Azure SQL Database (PaaS)

Azure SQL Database, is one of the two available Platform as a Service deployment options for SQL Server on the Azure cloud platform.

Based on this option, the SQL database service is provided as a platform, where the main philosophy is that you create, use and manage your database using this service.

Below, you can find the main characteristics of this deployment option for SQL Server on Azure:

- **Compatibility with on-premises SQL Server instances:**
 - It depends. Assessment is required on a per-case manner, since there are some SQL Server on-premises features that are not supported (i.e., SQL Server Agent, etc.).
- **Maintenance:**
 - Automated patching and version updates
 - Automated backups
 - High availability
- **Availability:**
 - 99.99%
- **Security:**
 - SSL/TLS encryption is enforced by default for all connections
 - All newly created databases are encrypted by default
- **Supports SQL Server Agent?**
 - No
- **Other Remarks:**
 - Migration and assessment tools:
 - [Data Migration Assistant](#)
 - [Azure Database Migration Service](#)

[Home](#) > [Azure SQL](#) > [Select SQL deployment option](#) > [Create SQL Database](#) >

Create SQL Database

Microsoft

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

Product details

SQL database
by Microsoft

[Terms of use](#) | [Privacy policy](#)

Estimated cost per month

29.44 USD

Terms

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. For additional details see [Azure Marketplace Terms](#). [🔗](#)

Basics

Subscription

Azure subscription 1

Resource group

sqldemo1

sampledb1 (manishabalid179@gmail.co...)

Showing limited object explorer here. For full capability please click here to open Azure Data Studio.

- Tables
 - dbo.tblcustomer
 - id (PK, int, not null)
 - firstname (varchar, null)
 - lastname (varchar, null)
- Views
- Stored Procedures

Query 1

Run Cancel query Save query Export data as Show only Editor

```

1 CREATE TABLE tblcustomer(
2   id int PRIMARY KEY,
3   firstname varchar(50),
4   lastname varchar(50)
5 );

```

Results Messages

Query succeeded: Affected rows: 0

Diagnostics

Home > Azure SQL > sqltempample99 | SQL databases > sampledb1 (sqltempample99/sampledb1)

sampledb1 (sqltempample99/sampledb1) | Diagnostic settings

Search Refresh Feedback

Integrations

- Azure Synapse Link
- Stream analytics (preview)
- Add Azure AI Search
- Power Platform
- Security
- Intelligent performance
- Monitoring
 - Alerts
 - Metrics
 - Diagnostic settings**
 - Logs
- Automation
- Help

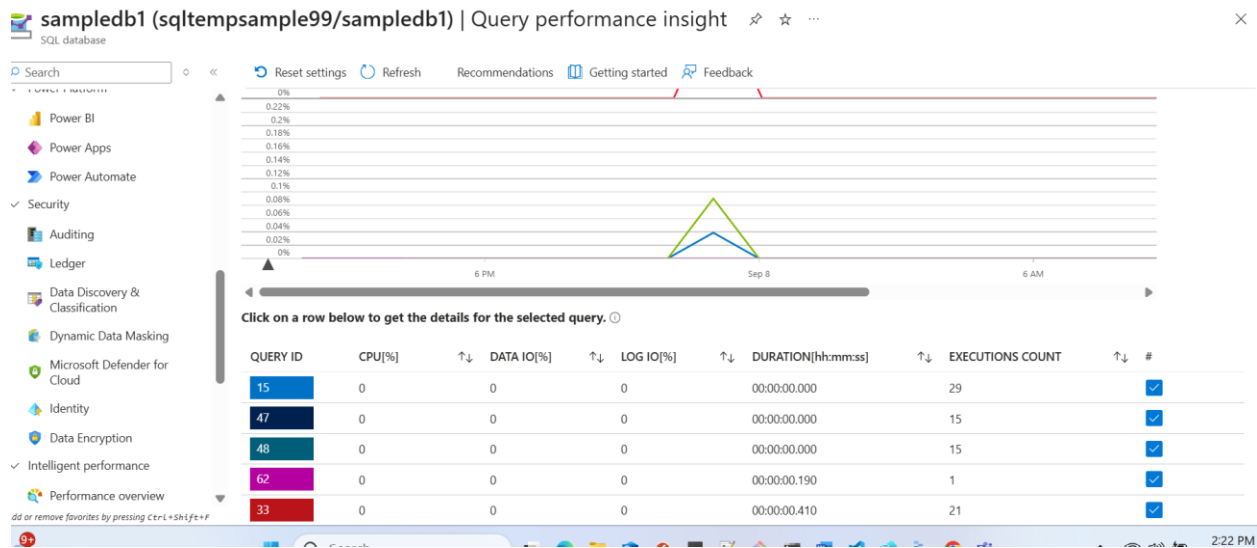
Diagnostic settings are used to configure streaming export of platform logs and metrics for a resource to the destination of your choice. You may create up to five different diagnostic settings to send different logs and metrics to independent destinations. [Learn more about diagnostic settings](#)

Name	Storage account	Event hub	Log Analytics workspace	Partner solution	Edit setting
No diagnostic settings defined					
+ Add diagnostic setting					

Click 'Add Diagnostic setting' above to configure the collection of the following data:

- SQL Insights
- Automatic tuning
- Query Store Runtime Statistics
- Query Store Wait Statistics
- Errors
- Database Wait Statistics
- Timeouts
- Blocks
- Deadlocks
- Basic
- InstanceAndAppAdvanced
- WorkloadManagement

Add or remove favorites by pressing Ctrl+Shift+F



Azure SQL Database Monitoring

[Home](#) > [sampledb1 \(sqltempample99/sampledb1\) | Alerts](#) >

Create an alert rule

Scope **Condition** Actions Details Tags Review + create

Configure when the alert rule should trigger by selecting a signal and defining its logic.

Signal name * ⓘ

Select a signal

[See all signals](#)

Scope Condition Actions Details Tags Review + create

Create an alert rule to identify and address issues when important conditions are found in your monitoring data. [Learn more](#)

Scope level ⓘ Subscription

+ Select scope

Resource	Hierarchy
 sqltempample99/sampledb1	 Azure subscrip... >  sqldemo1 ✕

Create an alert rule

Signal name * ⓘ CPU percentage
[See all signals](#)

Alert logic

i We have set the condition configuration automatically based on popular settings for this metric. Please review and make changes as needed.

Threshold type ⓘ ☒ Static ☐ Dynamic

Aggregation type ⓘ Average

Value is ⓘ Greater than

Threshold * ⓘ 80 %

When to evaluate

Check every ⓘ 5 minutes

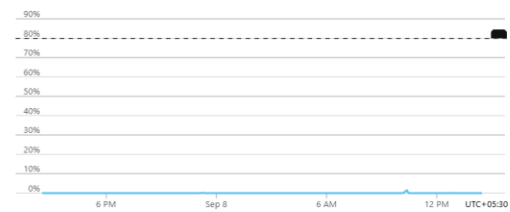
Preview

\$0.10 USD/month

Whenever the average CPU percentage is greater than 80%

Preview time range : **Over the last 24 hours**

Time series : **Aggregate**



[Review + create](#) [Previous](#) [Next: Actions >](#)

Create action group ...

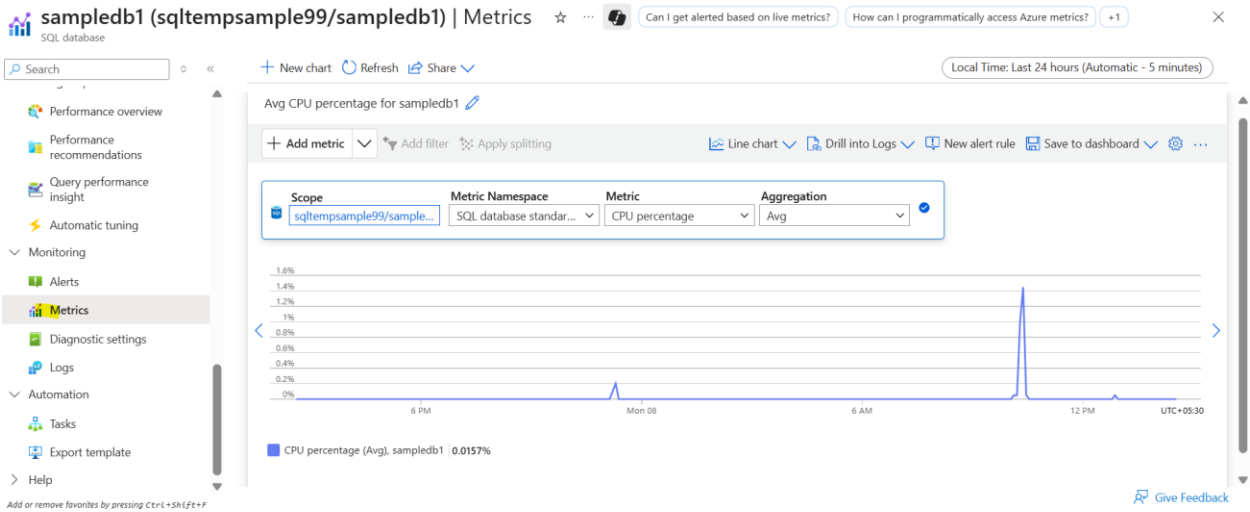
- Basics
- Notifications
- Actions
- Tags
- Review + create

This is a summary of your action group. Please review to ensure the information is correct and consider [Azure Statement](#).

Basics


Subscription	Azure subscription 1
Resource group	sqldemo1
Region	global
Action group name	testactiongroup
Display name	testaction

Metrics



Diagnostics

Home > [sampledb1 \(sqltempample99/sampledb1\)](#)

**sampledb1 (sqltempample99/sampledb1)** | Diagnostic settings

SQL database

What is the purpose of diagnostic settings? +2

Search

Performance overview

Performance recommendations

Query performance insight

Automatic tuning

Monitoring

Alerts

Metrics

Diagnostic settings

Logs

Automation

Tasks

Export template

Help

Refresh

Feedback

Diagnostic settings are used to configure streaming export of platform logs and metrics for a resource to the destination of your choice. You may create up to five different diagnostic settings to send different logs and metrics to independent destinations. [Learn more about diagnostic settings](#)

Diagnostic settings

Name	Storage account	Event hub	Log Analytics workspace	Partner solution	Edit setting
No diagnostic settings defined					
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- Basic
- InstanceAndAppAdvanced
- WorkloadManagement

Add or remove favorites by pressing `Ctrl+Shift+F`

Diagnostic setting ...

 Save  Discard  Delete  Feedback

☐ Automatic tuning

☐ Query Store Runtime Statistics

☐ Query Store Wait Statistics


☐ Errors

☐ Database Wait Statistics

☐ Timeouts

☒ Blocks

☐ Deadlocks

 Showing all storage accounts including classic storage accounts

Location

North Europe

Subscription

Azure subscription 1

Storage account *

sqltemp99storage

☐ Stream to an event hub

☐ Send to partner solution

Metrics

☒ Basic

 Refresh  Feedback

Diagnostic settings are used to configure streaming export of platform logs and metrics for a resource to the destination of your choice. You may create up to five different diagnostic settings to send different logs and metrics to independent destinations. [Learn more about diagnostic settings](#)

Diagnostic settings

Name	Storage account	Event hub	Log Analytics workspace	Partner solution	Edit setting
sqliagnostics	sqltemp99storage	-		-	Edit setting

[+ Add diagnostic setting](#)

Azure SQL Database Automation

+ Add a task Refresh Delete



Automation Tasks

Schedule tasks or get notified of changes and take automation actions

Add task

sampledb1 (sqltempample99/sampledb1) | Export template ☆ ... Generate and explain Terraform configuration for this resource. +2

SQL database | PREVIEW

Search

Download Copy content Deploy Feedback

Performance overview
Performance recommendations
Query performance insight
Automatic tuning

Monitoring
Alerts
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Diagnostic settings
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Automation
Tasks
Export template

Help

ARM Template Bicep Terraform

☒ Include parameters ⓘ

Template Parameters

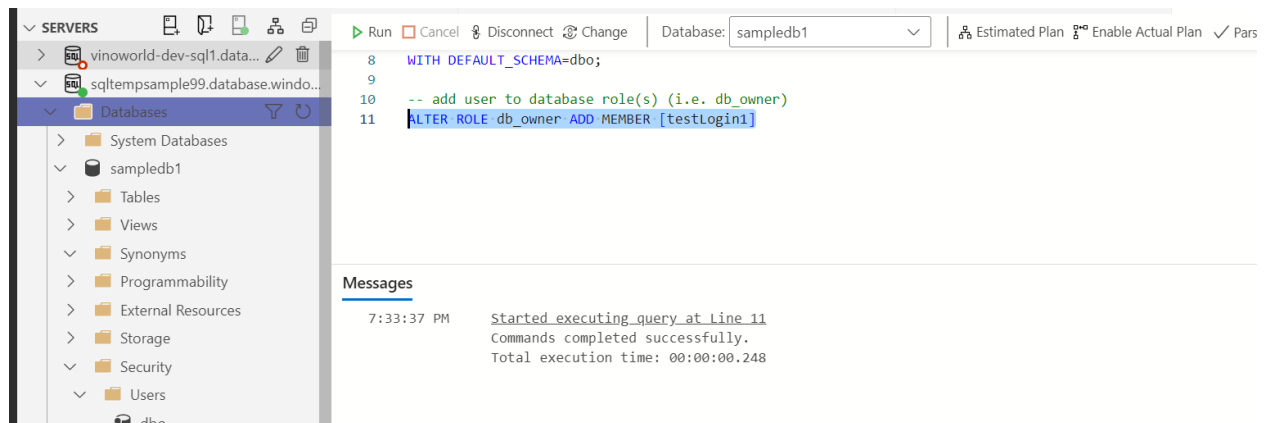
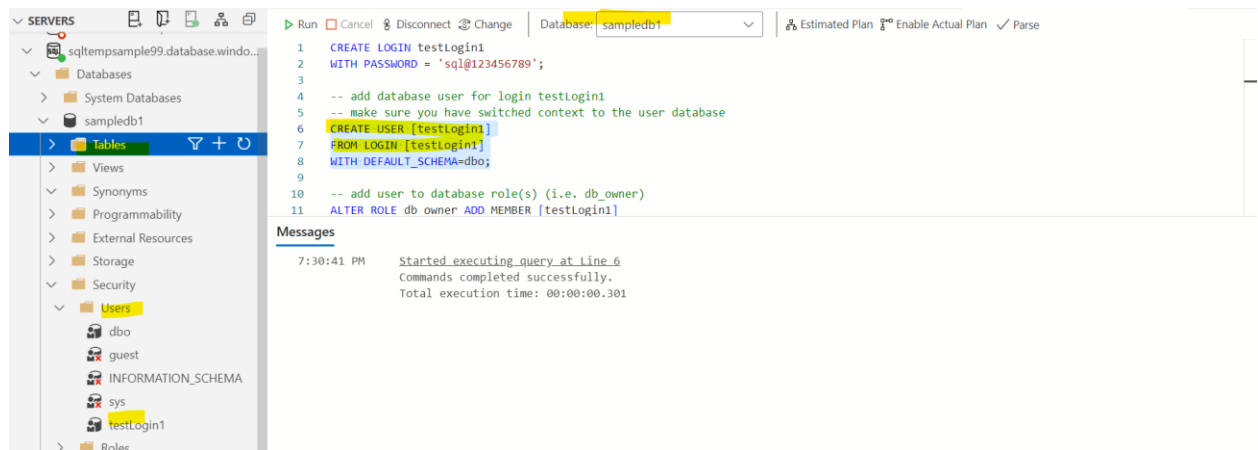
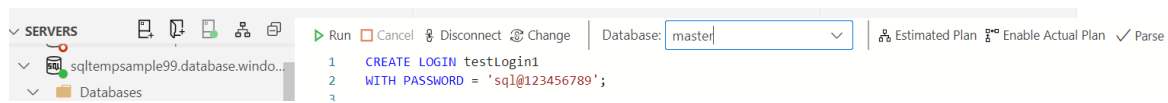
2 resource types cannot be exported yet and are not included in the template. See error details.

To export all resources in this resource group, navigate to the "Export template" experience under "Automation" on the left menu of the resource group.

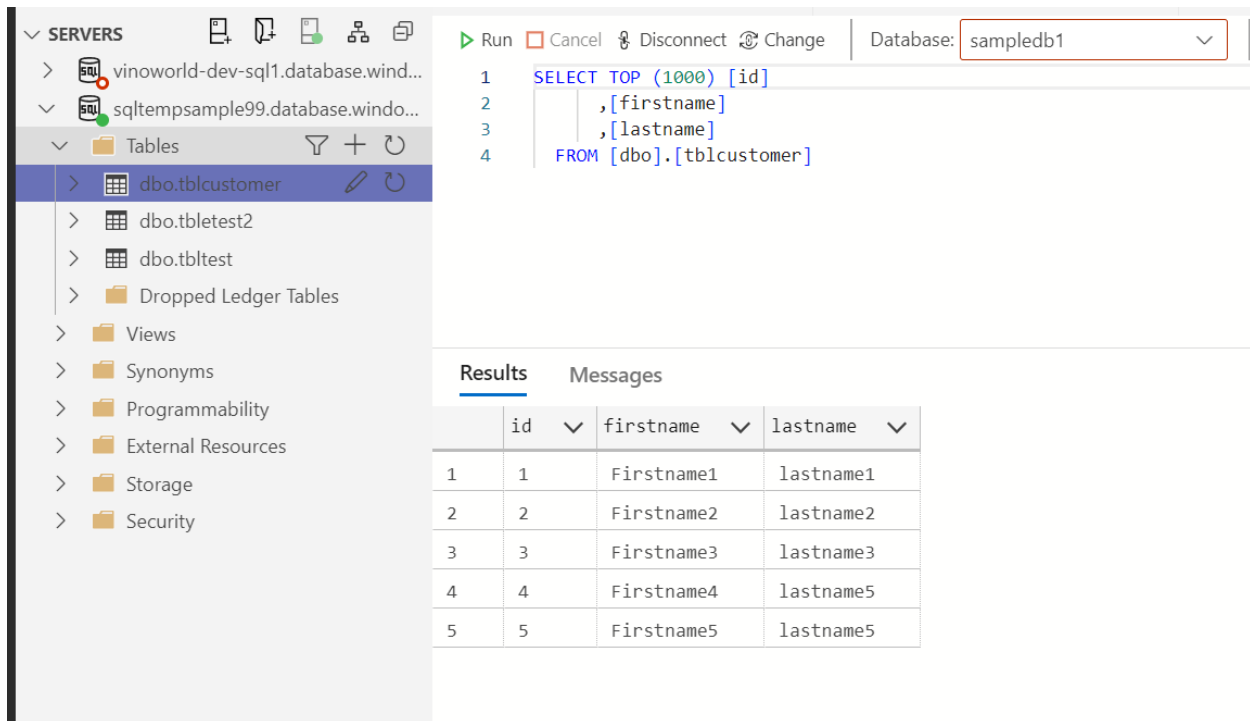
> Parameters (1)
Variables (0)
Resources (18)

```
1 {
2   "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
3   "contentVersion": "1.0.0.0",
4   "parameters": {
5     "servers_sqltempample99_name": {
```


Users for an Azure SQL Database



Connect to user (testLogin1)- sampledb1



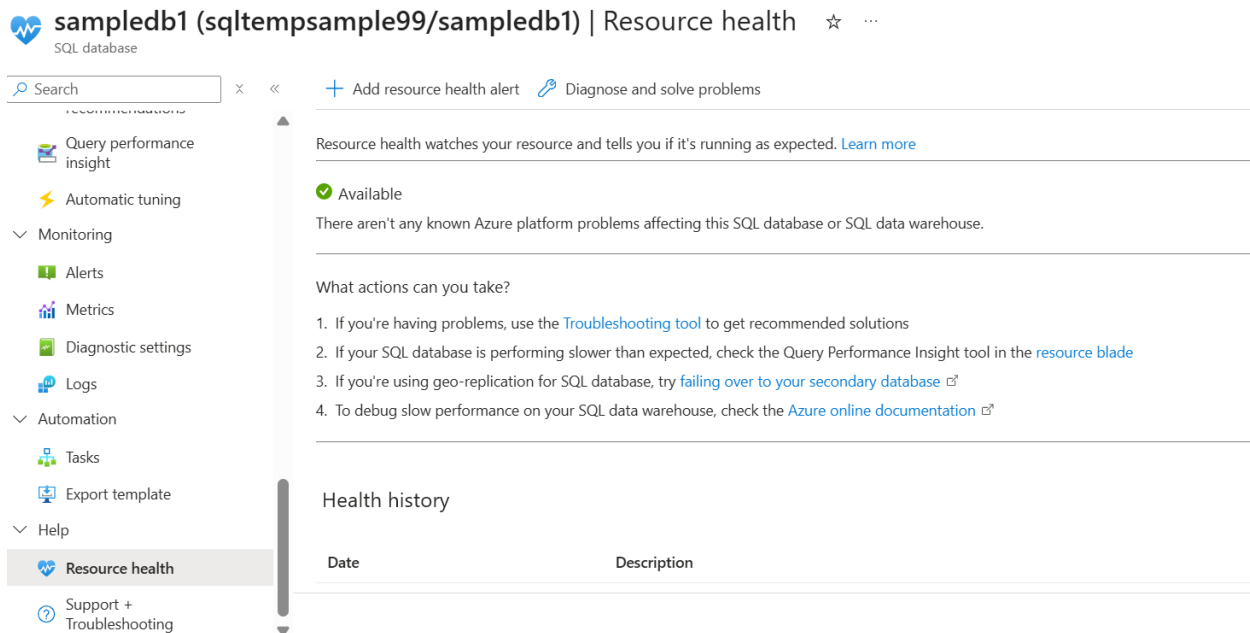
Database: **sampledb1**

```
1 SELECT TOP (1000) [id]
2     ,[firstname]
3     ,[lastname]
4 FROM [dbo].[tblcustomer]
```

	id	firstname	lastname
1	1	Firstname1	lastname1
2	2	Firstname2	lastname2
3	3	Firstname3	lastname3
4	4	Firstname4	lastname5
5	5	Firstname5	lastname5

Resource health

Home > [sampledb1 \(sqltempample99/sampledb1\)](#)



sampledb1 (sqltempample99/sampledb1) | Resource health

SQL database

Search x << + Add resource health alert Diagnose and solve problems

Resource health watches your resource and tells you if it's running as expected. [Learn more](#)

Available

There aren't any known Azure platform problems affecting this SQL database or SQL data warehouse.

What actions can you take?

1. If you're having problems, use the [Troubleshooting tool](#) to get recommended solutions
2. If your SQL database is performing slower than expected, check the Query Performance Insight tool in the [resource blade](#)
3. If you're using geo-replication for SQL database, try [failing over to your secondary database](#)
4. To debug slow performance on your SQL data warehouse, check the [Azure online documentation](#)

Health history

Date	Description
------	-------------


Home > [sampledb1 \(sqltempample99/sampledb1\)](#)


sampledb1 (sqltempample99/sampledb1) | Resource health ☆ ...

SQL database

× «

[+ Add resource health alert](#) [🔧 Diagnose and solve problems](#)

 Query performance insight



Resource health watches your resource and tells you if it's running as expected. [Learn more](#)

Create an Azure SQL Server Virtual Machine

Create a virtual machine ...

Instance details

Virtual machine name * ⓘ

sqltemp99-vm ✓

Region * ⓘ

(Europe) North Europe ▼
[Deploy to an Azure Extended Zone](#)


Availability options ⓘ

No infrastructure redundancy required ▼

Security type ⓘ

Trusted launch virtual machines ▼
[Configure security features](#)


Image * ⓘ

 Free SQL Server License: SQL 2019 Developer on Windows Server 2019 - x6 ▼
[See all images](#) | [Configure VM generation](#)

VM architecture ⓘ

☐ Arm64

☒ x64

 Arm64 is not supported with the selected image.

Run with Azure Spot discount ⓘ

☐

< Previous



Next : Disks >

Review + create

Create a virtual machine ...

✓ Validation passed

Basics Disks Networking Management Monitoring Advanced SQL Server settings Tags Review + create

 Cost given below is an estimate and not the final price. For all your pricing needs, please use the pricing calculator.
[Pricing calculator](#) 

Price

1 X Standard B2s
by Microsoft
[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ

0.0536 USD/hr
[Pricing for other VM sizes](#)

TERMS

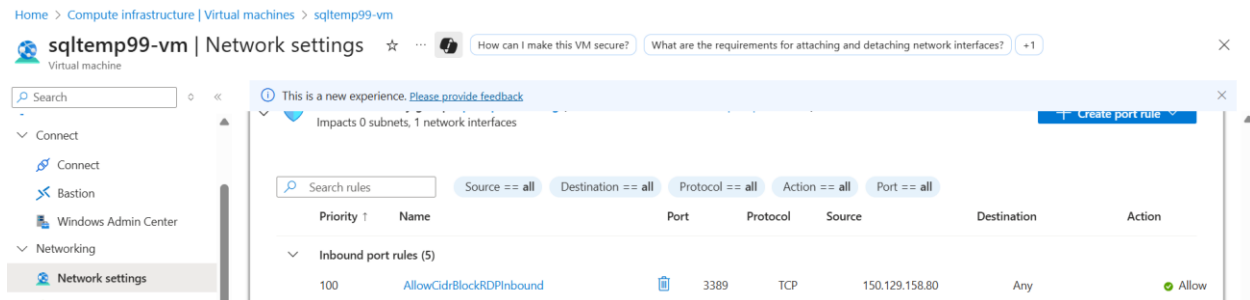
By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same

< Previous

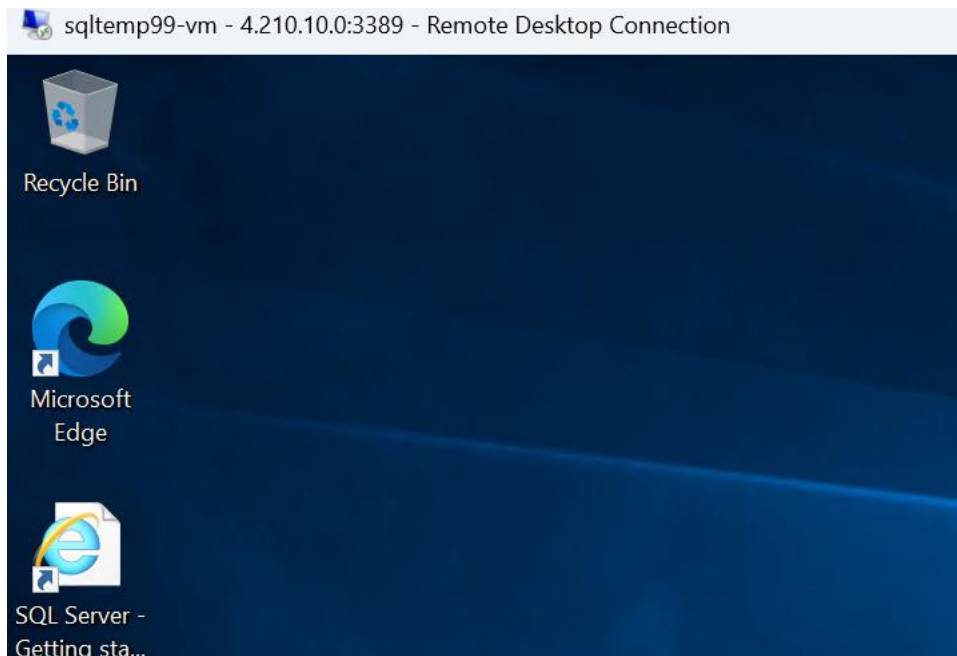
Next >

Create

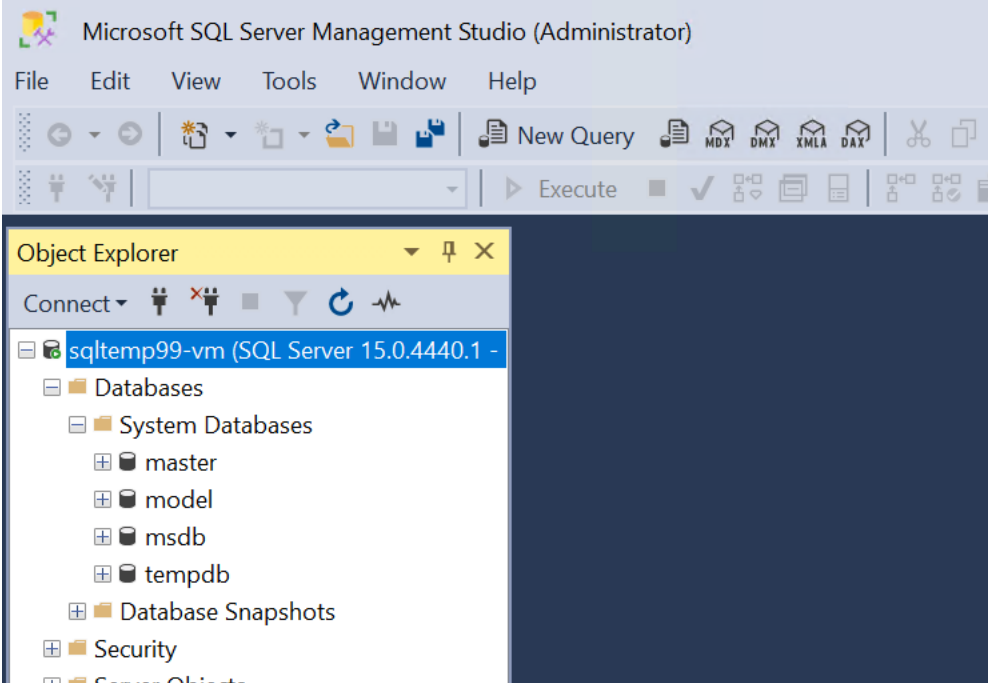
Firewall Rules for Virtual Machine and SQL Server



Accessing the Virtual Machine via RDP



sqltemp99-vm - 4.210.10.0:3389 - Remote Desktop Connection



sqltemp99-vm - 4.210.10.0:3389 - Remote Desktop Connection

SQLQuery4.sql - sqltemp99-vm.SQLVM_DB (sqltemp99-vm\adminsqli (72)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

SQLVM_DB Execute

Object Explorer

Connect

sqltemp99-vm (SQL Server 15.0.4440.1)

- Databases
 - System Databases
 - Database Snapshots
 - SQLVM_DB
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.tbltest
 - Columns
 - Keys
 - Constraints
 - Triggers
 - Indexes

SQLQuery4.sql - sqltemp99-vm\adminsqli (72)

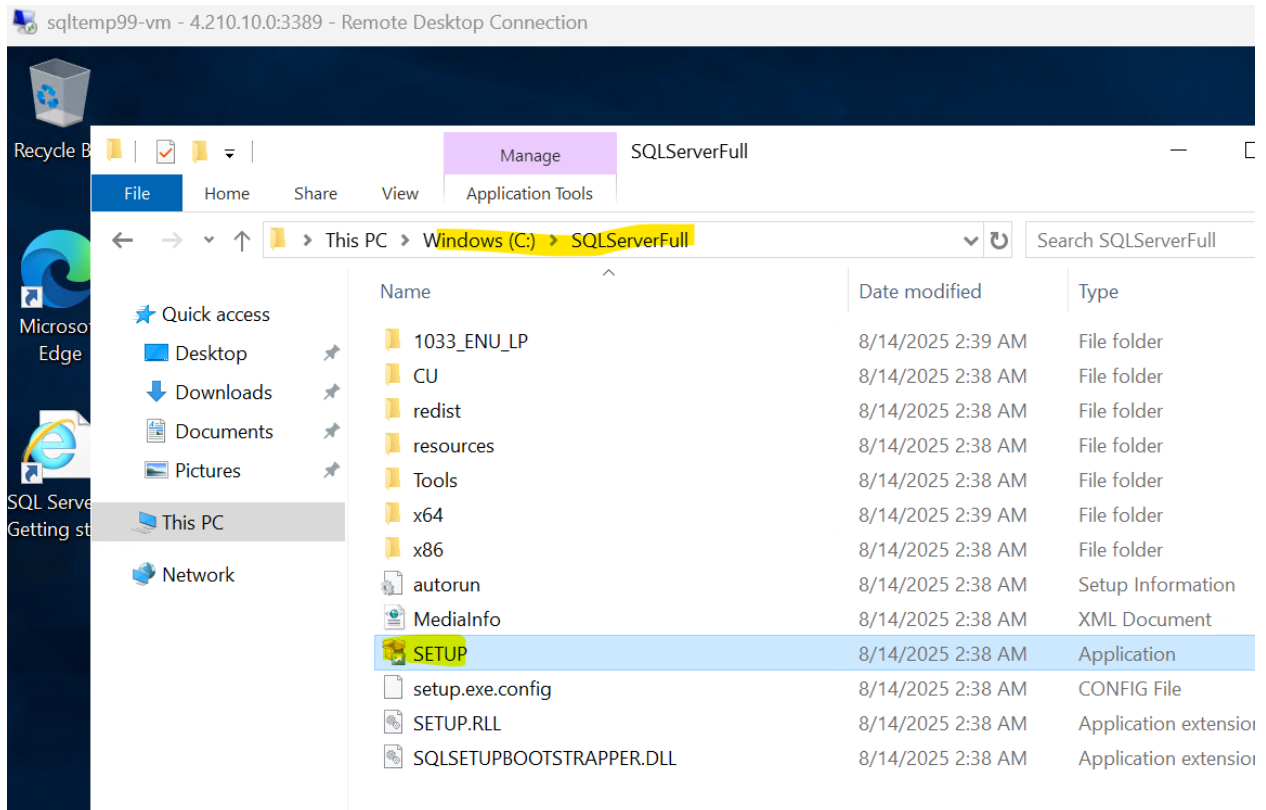
```
SELECT TOP (1000) [id]
, [code]
FROM [SQLVM_DB].[dbo].[tbltest]
```

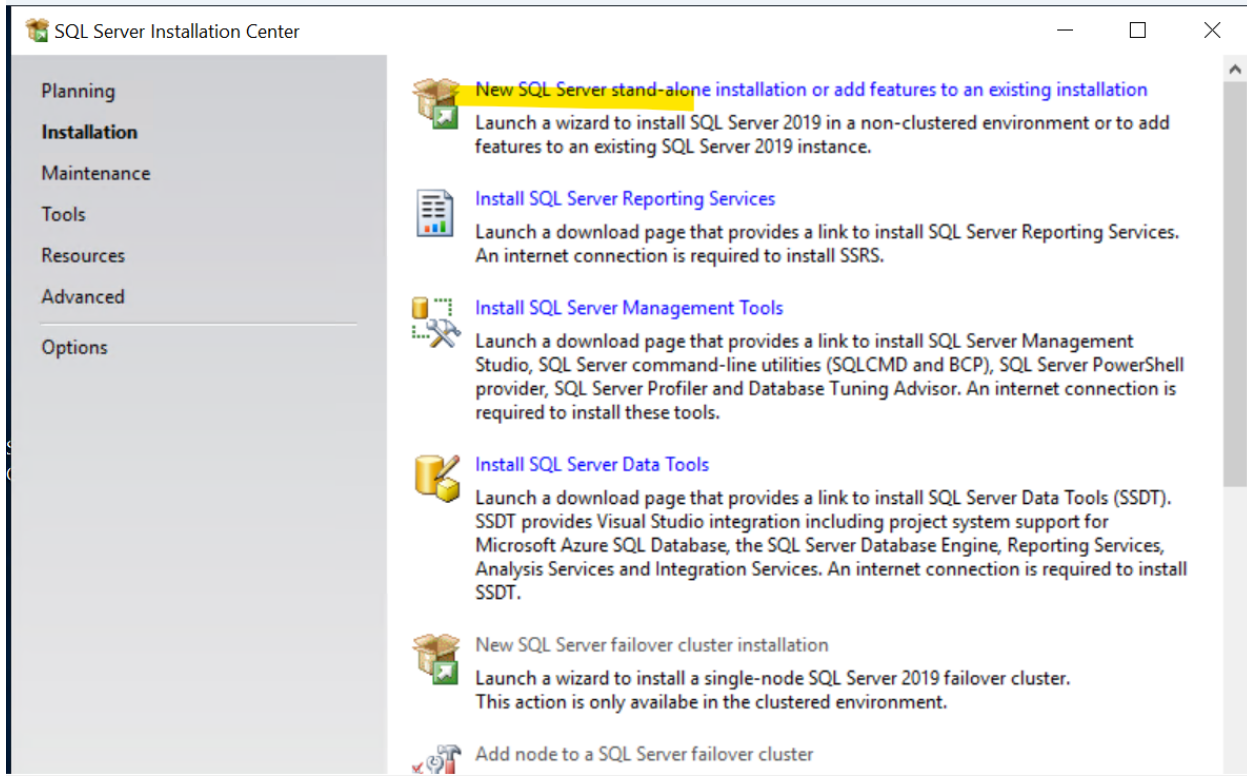
100 %

Results Messages

	id	code
1	1	code1
2	2	code2
3	3	code3

Installing Multiple SQL Server Instances on a Single Azure VM





Global Rules
Product Updates
Install Setup Files
Install Rules
Installation Type
Product Key
License Terms
Feature Selection
Feature Rules
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

Operation completed. Passed: 3. Failed 0. Warning 1. Skipped 0.

Hide details <<

[View detailed report](#)

Result	Rule	Status
✓	Consistency validation for SQL Server registry keys	Passed
✓	Computer domain controller	Passed
⚠	Windows Firewall	Warning
✓	SQL 2019 minimum CTP for Upgrade and Side by Side Support	Passed

server 2019

1 item selected 13

< Back Next >

sources
anced
ions

Global Rules
Product Updates
Install Setup Files
Install Rules
Installation Type
Product Key
License Terms
Feature Selection
Feature Rules
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

☒ Perform a new installation of SQL Server 2019
Select this option if you want to install a new instance of SQL Server or want to install shared components.

☐ Add features to an existing instance of SQL Server 2019
MSSQLSERVER
Select this option if you want to add features to an existing instance of SQL Server. For example, you want to add the Analysis Services features to the instance that contains the Database Engine. The instance name within an instance must be the same edition.

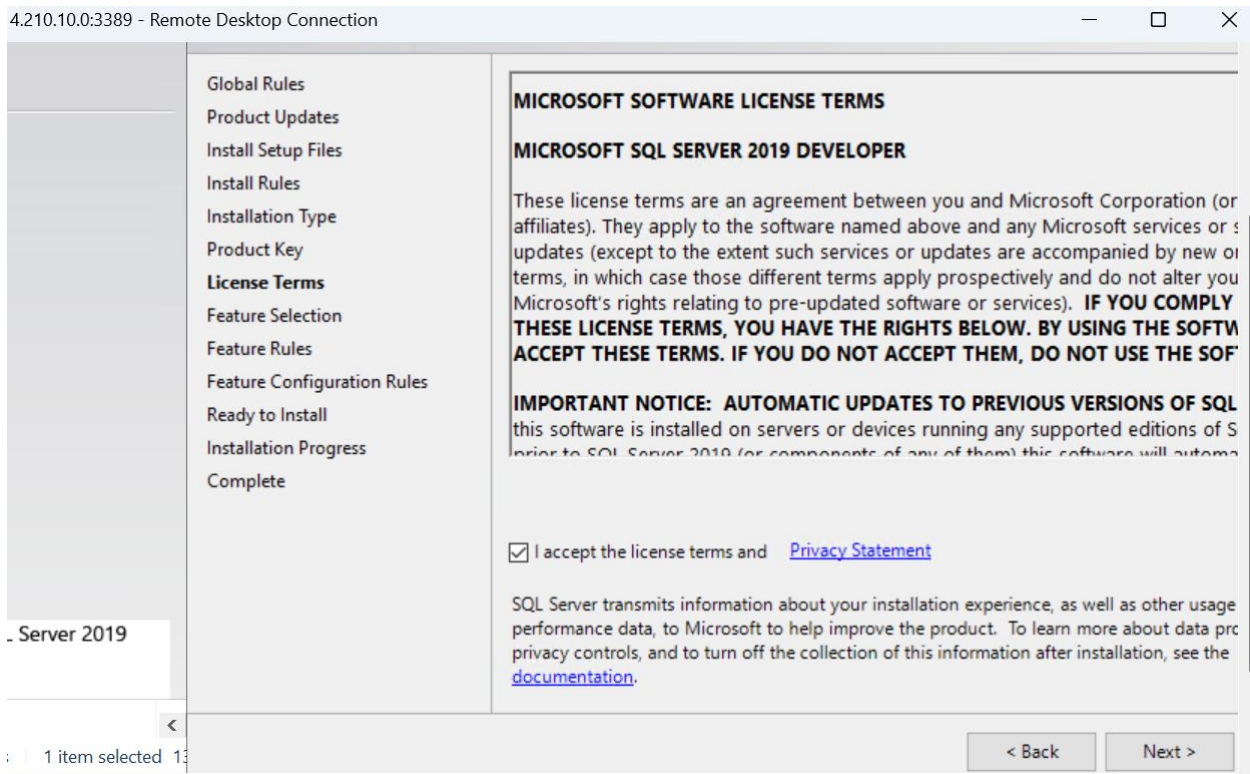
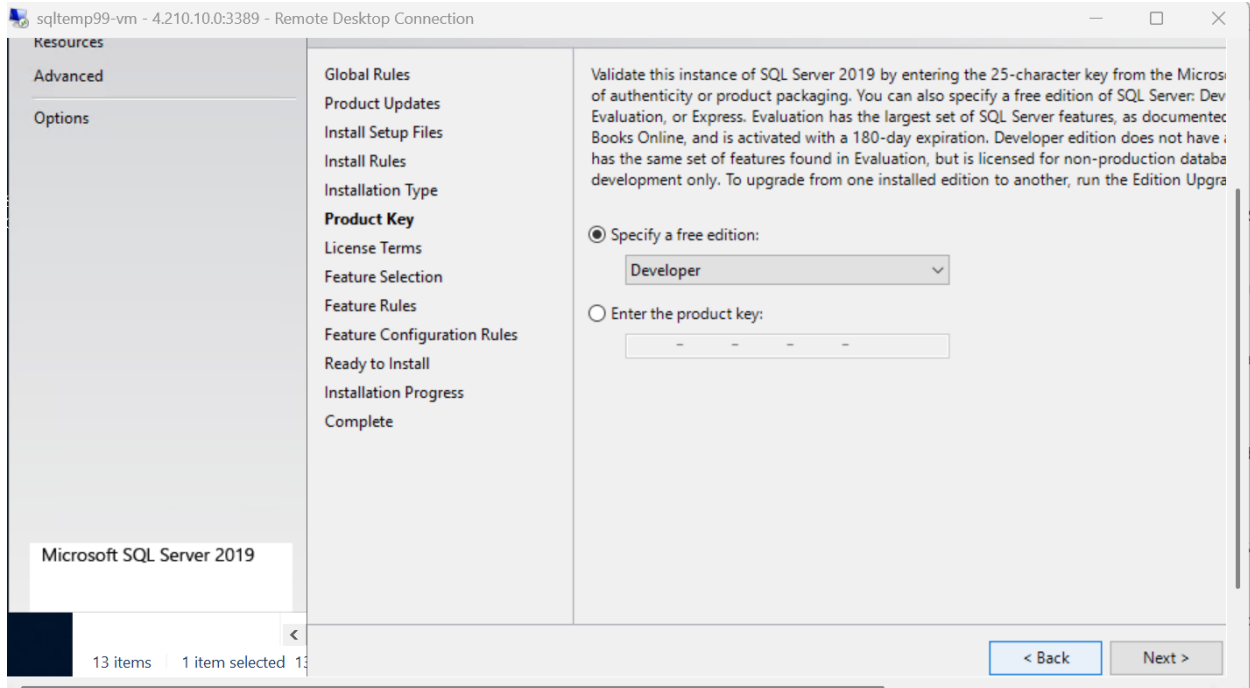
Installed instances:

Instance Name	Instance ID	Features	Edition
MSSQLSERVER	MSSQL15.MSSQLS...	SQLEngine, SQLEn...	Developer
<Shared Compone...		Conn, BC, SDK, DQC	
<Shared Compone...		IS, MDS	

icrosoft SQL Server 2019

13 items 1 item selected 13

< Back Next >



The screenshot shows the 'Instance Configuration' step of the SQL Server 2019 installation wizard. The left sidebar lists various configuration steps, with 'Instance Configuration' currently selected. The main area shows the configuration for a named instance named 'SQL2k19Instance2'. The 'Instance ID' is 'SQL2k19Instance2'. The 'SQL Server directory' is 'C:\Program Files\Microsoft SQL Server\MSSQL15.SQL2k19Instance2'. Below this, a table lists the installed instances:

Instance Name	Instance ID	Features	Edition	
MSSQLSERVER	MSSQL15.MSSQLS...	SQLEngine, SQLEn...	Developer	1
<Shared Compone...		Conn, BC, SDK, DQC		1
<Shared Compone...		IS, MDS		1

At the bottom, there are '< Back' and 'Next >' buttons.

The screenshot shows the 'Service Accounts' step of the SQL Server 2019 installation wizard. The left sidebar lists various configuration steps, with 'Service Accounts' currently selected. The main area shows a table with service accounts for SQL Server services. Below the table, there is a checkbox for 'Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service' and a link for more details.

Service	Account Name	Password	Start Name
SQL Server Agent	NT Service\SQLAgent\$S...		Ma
SQL Server Database Engine	NT Service\MSSQL\$SQL...		Aut
SQL Server Browser	NT AUTHORITY\LOCAL...		Dis

Below the table, there is a checkbox labeled 'Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service'. Below this checkbox, there is a text block explaining the privilege and a link 'Click here for details'.

At the bottom, there are '< Back' and 'Next >' buttons.

