

Lab 4

CST8912\_011

Yuntian Du

du000086

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Submitted to :

Prof. Tanishq Bansal

# Creating, managing and using database on Azure cloud

## Introduction or Purpose

### Introduction:

A cloud database is a database service built and accessed through a cloud platform. It serves many of the same functions as a traditional database with the added flexibility of cloud computing. Users install software on a cloud infrastructure to implement the database.

### Key features:

- A database service built and accessed through a cloud platform
- Enables enterprise users to host databases without buying dedicated hardware
- Can be managed by the user or offered as a service and managed by a provider
- Can support relational databases (including MySQL and PostgreSQL) and NoSQL databases (including MongoDB and Apache CouchDB)
- Accessed through a web interface or vendor-provided API

### Purpose:

In this lab, you will explore the main features of cloud SQL database for Azure and learn how to deploy and manage the service by connecting and querying the database, copying data from source to target using Azure data factory. In this lab, the source is Azure SQL database (a PAAS service provided by Microsoft) and the destination is Azure storage account container.

## Steps covered in the lab

### Step 1:

#### Aim:

Configure Azure SQL database for Canada central region under your resource group cst8912-demo, choose a single database under SQL databases in SQL deployment option.

#### Steps:

Log into Azure portal homepage and select "Resource Groups" under "Azure Services", Then choose "Creat", then select "Azure for Students" under "Subscription" and fill in "CTS8912" under "Resource group", then select "(Canada) Canada Central" under "Region".

Finally, click “Review + Create” then click “create”.

Under “Create” button, search for “Azure SQL”, chose the “single database” and click “Creat”.

## **Step 2:**

Aim:

Enter the following values in create database page and keep other properties with their default settings.

**Subscription: Select your Azure subscription**

**Resource group: CST8912-demo**

**Database name: db8912**

**Server:** Select Create new and create a new server with a unique name in any Canada central location. Use SQL authentication and specify your name as the server admin login and a suitably complex password (remember the password - you'll need it later!)

**Server : db8912demoytd**

**Username:db8912\_yourname**

**Password: dfguyt@234!**

**Want to use SQL elastic pool?: No**

**Workload environment: Development**

**Compute + storage: Leave unchanged**

**Backup storage redundancy: Locally-redundant backup storage**

Steps:

Fill in the necessary info as requested, and create a server with unique server name: db8912demoytd, click on the “Use SQL authentication” and set server admin login: db8912\_yuntiandu.

## **Step 3:**

Aim:

On the Create SQL Database page, select Next :Networking >, and on the Networking page, in the Network connectivity section, select Public endpoint. Then select Yes for both options in the Firewall rules section to allow access to your database server from Azure services and your current client IP address.

Steps:

Select Next :Networking, in the Network connectivity section, select Public endpoint, then select Yes for both options in the Firewall rules section.

#### **Step 4:**

Aim:

Select Next: Security > and set the Enable Microsoft Defender for SQL option to Not now.

Steps:

Click “Next: Security” and set the Enable Microsoft Defender for SQL option to Not now.

#### **Step 5:**

Aim:

Select Next: Additional Settings > and on the Additional settings tab, set the Use existing data option to Sample (this will create a sample database that you can explore later).

Steps:

Click “Next: Additional Settings” and set the “Use existing data” to Sample.

#### **Step 6:**

Aim:

Select Review + Create, and then select Create to create your Azure SQL database.

Steps:

Click “Review + Create” then click “Create”.

#### **Step 7:**

Aim:

In the pane on the left side of the page, select Query editor (preview), and then sign in using the administrator login and password you specified for your server.

### Steps:

Under the SQL database created, click Query editor, sign in using the administrator login and password, then click “OK” to login.

### Step 8:

#### Aim:

Expand the Tables folder to see the tables in the database.

### Steps:

Click “Tables” to see the tables.

### Step 9:

#### Aim:

In the query 1 pane, try executing the following queries, select run to execute the query:

```
SELECT ProductID, Name, ListPrice, ProductCategoryID  
FROM SalesLT.Product;
```

```
SELECT p.ProductID, p.Name AS ProductName,  
       c.Name AS Category, p.ListPrice  
FROM SalesLT.Product AS p  
JOIN [SalesLT].[ProductCategory] AS c  
    ON p.ProductCategoryID = c.ProductCategoryID;
```

### Steps:

Input the code into text area and click “Run”.

### Step 10:

#### Aim:

Create a Azure storage account with the following settings, keeping the other advanced , networking, data protection, encryption settings default.

Steps:

Go back to “Marketplace” and search for the “Storage account” .

### **Step 11:**

Aim:

Create a container “productdata8912” in storage account.

Steps:

Under the storage account created, click “Data storage”-> “Containers” and create a container named “productdata8912”.

### **Step 12:**

Aim:

Create a new resource in your resource group from the azure portal, search for azure data factory with the following configuration, keeping git configuration, networking, advanced as default.

Steps:

Go back to “Marketplace” and search for “Data Factory”, fill in each form as requested. (As the name “demodb8912” is not available, I changed it to “demodb8912ytd”)

### **Step 13:**

Aim:

Once created launch azure data factory studio.

Steps:

Under the Data factory created, click “Launch studio”.

### **Step 14:**

**Aim:**

On home page, choose option to ingest data.

**Steps:**

Click "Ingest".

**Step 15:**

**Aim:**

Choose task type, built in copy task, and task cadence "run once now".

**Steps:**

Click "Built-in copy task", then click "Run once now"

**Step 16:**

**Aim:**

In source type choose azure sql database from the dropdown, and connection, choose new connection with the following configuration and test connection.

**Steps:**

Select "Azure SQL Database" in "Source type" and then create New connection as requested. Then click "Test connection" to test it.

**Step 17:**

**Aim:**

Select source table as "SalesLT.Product" from the dropdown, click next and you can preview data.

**Steps:**

Select source table and click "Next", then click "preview data" to see the data.

**Step 18:**

**Aim:**

Click next, choose destination type, select "Azure Blob Storage" from dropdown.

**Steps:**

Click "Next" and set "Destination type" to "Azure Blob Storage".

### **Step 19:**

**Aim:**

Create new connection and test connection to storage account, choose the folder path and enter file name.

**Steps:**

Create a new connection and set the Azure subscription and Storage account name, then click "Test connection" to test it. Set folder path to productdata8912/ and File name to product

### **Step 20:**

**Aim:**

Choose the configuration.

**Steps:**

Click "Next" to go to the configuration.

### **Step 21:**

**Aim:**

Review and finish this pipeline and check the storage account container to see the product csv file copied from the database to storage account.

**Steps:**

Click "Next" to review the settings and then click "Finish" to complete the deployment. Go to the container "productdata8912" to check the product csv file.



## Step 22:

### Aim:

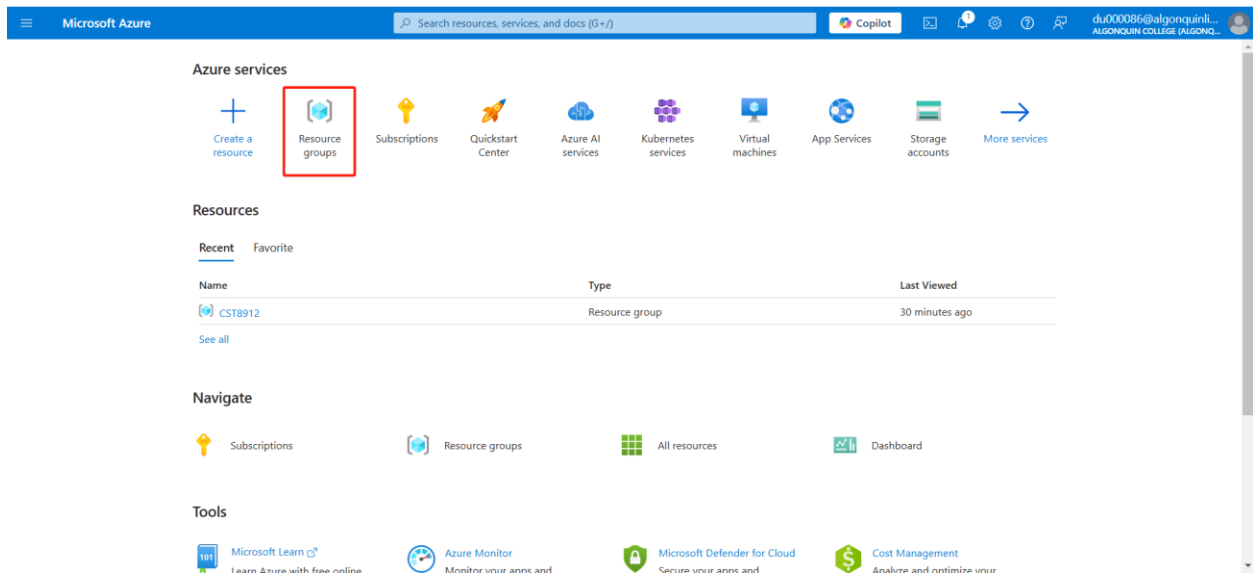
After demo delete all the resources created during this lab and create a lab report documenting all the steps performed in the lab along with the screenshots.

### Steps:

Delete the whole resource group and finish this report.

## Results

### Step 1:



Microsoft Azure

Search resources, services, and docs (G+)

Copilot

du000086@algonquinli...  
ALGONQUIN COLLEGE (ALGONQ...

Home >

Resource groups

Algonquin College (AlgonquinLivecom.onmicrosoft.com)

+ Create

Manage view

Refresh

Export to CSV

Open query

Assign tags

Filter for any field...

Subscription equals all

Location equals all

Add filter

Showing 1 to 1 of 1 records.

Name

↑↓

Subscription

↑↓

Location

↑↓

CST8912

Azure for Students

Canada Central

...

No grouping

List view

< Previous

Page 1 of 1

Next >

Give feedback

Microsoft Azure

Search resources, services, and docs (G+)

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...

du000086@algonquinli...

Home > Resource groups >

Create a resource group

Basics

Tags

Review + create

Resource group - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)

Project details

Subscription \*

Azure for Students

Resource group \*

CST8912-demo

Resource details

Region \*

(Canada) Canada Central

Review + create

< Previous

Next : Tags >

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

[Home](#) > [Create a resource](#) >

Marketplace

Get Started

Service Providers

Management

Private Marketplace

Private Offer Management

My Marketplace

Favorites

My solutions

Recently created

Private plans

Categories

Databases (420)

Analytics (290)

Compute (252)

☐ Azure services only

Operating System : All


Publisher Type : All

Product Type : All

Publisher name : All

Showing 1 to 20 of 1046 results for 'SQL'. [Clear search](#)

Tile view



**Azure SQL**


Microsoft

Azure Service

Create and manage SQL Server resources from a single view.

Create

Azure SQL



**SQL Database Reserved vCores**


Microsoft

Azure Service


Azure SQL Database Reserved vCores (SQL reservations) significantly reduce your SQL compute costs compared to pay-as-you-go prices.


Create

Is Marketplace helpful?

 Microsoft Azure

Search resources, services, and docs (G+/)


 Copilot



Home > Resource groups > cst8912-demo > Marketplace >


Select SQL deployment option

Microsoft

 Feedback

How do you plan to use the service?

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


**SQL databases**

Best for modern cloud applications. Hyperscale and serverless options are available.

Resource type

Single database

CreateShow details


**SQL managed instances**

Best for most migrations to the cloud. Lift-and-shift ready.

Resource type

Single instance

CreateShow details

**SQL virtual machines**

Best for migrations and applications requiring OS access. Lift-and-shift ready.

Image

CreateShow details

Create

Step 2:

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

...

Marketplace

Select SQL deployment option

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 \*

db8912demoytd

✓

.database.windows.net

Location \*

(Canada) Canada Central

▼

Authentication

i

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.

Authentication method

☐

 Use Microsoft Entra-only authentication

OK

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

Marketplace

Select SQL deployment option

Create SQL Database

Create SQL Database Server

Microsoft

Location

(Canada) Canada Central

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.

Authentication method

☐

Use Microsoft Entra-only authentication

☐

Use both SQL and Microsoft Entra authentication

☒

Use SQL authentication

Server admin login \*

db8912\_yuntiandu

Password \*

.....

Confirm password \*

.....

OK

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

[Home](#) > [Create a resource](#) > [Marketplace](#) > [Select SQL deployment option](#) >

# Create SQL Database

Microsoft

Project details

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

Subscription \* ⓘ

Azure for Students

Resource group \* ⓘ

CST8912-demo

[Create new](#)

Database details

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

Database name \*

db8912demo

Server \* ⓘ

(new) db8912demoytd (Canada Central)

[Create new](#)

Want to use SQL elastic pool? ⓘ

☐ Yes ☒ No

Review + create

Next : Networking >

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

[Home](#) > [Create a resource](#) > [Marketplace](#) > [Select SQL deployment option](#) >

# Create SQL Database

Microsoft

Want to use SQL elastic pool? ⓘ

☐ Yes ☒ No

Workload environment

☒ Development ☐ Production

ⓘ Default settings provided for Development workloads. Configurations can be modified as needed.

Compute + storage \* ⓘ

**General Purpose - Serverless**  
Standard-series (Gen5), 1 vCore, 32 GB storage, zone redundant disabled  
[Configure database](#)

**Backup storage redundancy**  
  
Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only available when geo-redundant storage is selected.

Backup storage redundancy ⓘ

☒ Locally-redundant backup storage ☐ Zone-redundant backup storage ☐ Geo-redundant backup storage

Review + create

Next : Networking >

**Step 3:**



Microsoft Azure

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[Home](#) > [Create a resource](#) > [Marketplace](#) > [Select SQL deployment option](#) >

Create SQL Database

Microsoft

BasicsNetworkingSecurityAdditional settingsTagsReview + create

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'db8912demoytd' 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

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 : Security >

**Step 4:**

Microsoft Azure

Search resources, services, and docs (G+)

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[Home](#) > [Create a resource](#) > [Marketplace](#) > [Select SQL deployment option](#) >

Create SQL Database

Microsoft

BasicsNetworkingSecurityAdditional settingsTagsReview + create

Microsoft Defender for SQL

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

Get started with a 30 day free trial period, and then 15 USD/server/month.

Enable Microsoft Defender for SQL \* ⓘ

☐ Start free trial☒ Not now

Ledger

Ledger cryptographically verifies the integrity of your data and detects any tampering that might have occurred. [Learn more](#)

Ledger

Not configured

[Configure ledger](#)

Server identity

Use system assigned and user assigned managed identities to enable central access management between this database

Review + create

< Previous

Next : Additional settings >

Step 5:

Microsoft Azure

Search resources, services, and docs (G+/)

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[Home](#) > [Create a resource](#) > [Marketplace](#) > [Select SQL deployment option](#) >

# Create SQL Database

Microsoft

## 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





Review + create


< Previous


Next : Tags >

**Step 6:**

 Microsoft Azure

 Search resources, services, and docs (G+ /)

 Copilot



Home > Create a resource > Marketplace > Select SQL deployment option >

# 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**  
Storage cost 5.26 USD / month + Compute cost 0.000174 USD / vCore second

## 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 for Students
Resource group	CST8912-demo
Region	Canada Central

Create

< Previous

[Download a template for automation](#)

**Step 7:**

Microsoft Azure


Search resources, services, and docs (G+)

Copilot

...

>

db8912demo (db8912demoytd/db8912demo)



db8912demo (db8912demoytd/db8912demo) | Que...

SQL database

Search

◊

«

Login

+


New Query


↑


Open query


Feedback


...


 Overview

 Activity log

 Tags

 Diagnose and solve problems

 **Query editor (preview)**

 Mirror database in Fabric (preview)

>

 Settings

>

 Data management

>

 Integrations

>

 Power Platform

>

 Security

>

 Intelligent performance

>

 Monitoring


>

 Automation

>

 Help

Query editor (preview) is a tool to run SQL queries against Azure SQL Database in the Azure portal. It is designed for lightweight querying and object exploration in your database. For more information and troubleshooting, [Learn more](#)



Welcome to SQL Database Query Editor

SQL server authentication

Login \*

db8912\_yuntiandu

Password \*

OK

OR

**Step 8:**

Microsoft Azure Search resources, services, and docs (G+/) Copilot

db8912demo (db8912demoytd/db8912demo)

db8912demo (db8912demoytd/db8912demo) | Que... SQL database

Search Login + New Query ↑ Open query Feedback ...

Overview  
Activity log  
Tags  
Diagnose and solve problems  
**Query editor (preview)**  
Mirror database in Fabric (preview)

Settings  
Data management  
Integrations  
Power Platform  
Security  
Intelligent performance  
Monitoring  
Automation  
Help

db8912demo (du000086@algon...)

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

Tables

- dbo.BuildVersion
- dbo.ErrorLog
- SalesLT.Address
- SalesLT.Customer
- SalesLT.CustomerAddress
- SalesLT.Product
- SalesLT.ProductCategory
- SalesLT.ProductDescription
- SalesLT.ProductModel
- SalesLT.ProductModelProductDe...
- SalesLT.SalesOrderDetail
- SalesLT.SalesOrderHeader

Views

Query 1 ×

Run ...

1

Search to fil...

Ready

**Step 9:**

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

db8912demo (db8912demoytd/db8912demo)

db8912demo (db8912demoytd/db8912demo) | Que...

☆ ... ✕

SQL database

Search

Login + New Query ↑ Open query Feedback ...

Overview

Activity log

Tags

Diagnose and solve problems

Query editor (preview)

Mirror database in Fabric (preview)

Settings

Data management

Integrations

Power Platform

Security

Intelligent performance

Monitoring

Automation

Help

db8912de... ↻

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

Tables

- > dbo.BuildV
- > dbo.ErrorL
- > SalesLT.Ad
- > SalesLT.Cu
- > SalesLT.Cu
- > SalesLT.Pro
- > SalesLT.Pro

Query 1 ✕

Run ☐ Cancel query ...

1 SELECT ProductID, Name, ListPrice

2 FROM SalesLT.Product;

3

Results Messages

Search to filter items...

ProductID	Name
680	HL Road Frame -
706	HL Road Frame -
707	Sport-100 Helme
708	Sport-100 Helme

Query succeeded | 0s

Microsoft Azure Search resources, services, and docs (G+/) Copilot

db8912demo (db8912demoytd/db8912demo)

db8912demo (db8912demoytd/db8912demo) | Que... SQL database

Search Login + New Query ↑ Open query Feedback ...

Overview  
Activity log  
Tags  
Diagnose and solve problems  
**Query editor (preview)**  
Mirror database in Fabric (preview)  
Settings  
Data management  
Integrations  
Power Platform  
Security  
Intelligent performance  
Monitoring  
Automation  
Help

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

Tables  
dbo.Buildv  
dbo.ErrorL  
SalesLT.Ad  
SalesLT.Cu  
SalesLT.Cu  
SalesLT.Prc  
SalesLT.Prc

Query 1 X

Run ☐ Cancel query ...

```
1 SELECT p.ProductID, p.Name AS Pr
2      c.Name AS Category, p.Li
3 FROM SalesLT.Product AS p
4 JOIN [SalesLT].[ProductCategory]
5      ON p.ProductCategoryID = c.F
6
```

Results Messages

Search to filter items...

ProductID	ProductName
771	Mountain-100 Si
772	Mountain-100 Si
773	Mountain-100 Si
774	Mountain-100 Si

Query succeeded | 0s

**Step 10:**



Microsoft Azure

Search resources, services, and docs (G+/)

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[Home](#) > [Create a resource](#) >

Marketplace

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Categories


Storage (104)

Compute (55)

IT & Management Tools

Showing 1 to 20 of 221 results for 'storage account'. [Clear search](#)

Tile view



**Storage Account Using ARM**


DIGISTORM LTD.

Azure Application

storage account arm

Price varies

Create




**Storage account**

Microsoft

Azure Service

Use Blobs, Tables, Queues, Files, and Data Lake Gen 2 for reliable, economical cloud storage.

Create




**Storage Account Using ARM**

VIRTUCLLOUD LTD.

Azure Application

Create



**Storage Account Using ARM Template**

FortuneCloud LLC

Azure Application

Create

Storage account

Is Marketplace helpful?

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

...

[Home](#) > [Create a resource](#) > [Marketplace](#) >

## Create a storage account

and manage your storage account together with other resources.

Subscription \*

Azure for Students

Resource group \*

CST8912-demo

[Create new](#)

### Instance details

Storage account name \* ⓘ

demo89122

Region \* ⓘ

(Canada) Canada Central

[Deploy to an Azure Extended Zone](#)

Primary service ⓘ

Select a primary service

Performance \* ⓘ

☒ **Standard:** Recommended for most scenarios (general-purpose v2 account)

☐ **Premium:** Recommended for scenarios that require low latency.

Redundancy \* ⓘ

Locally-redundant storage (LRS)

Previous

Next

Review + create

[Give feedback](#)

https://portal.azure.com/#blade/Microsoft\_Azure\_Compute/EdgeZonesPicker.ReactView/subscriptionId/22f60889-0ad3-47d4-9d41-7d0...

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

[Home](#) > [Create a resource](#) > [Marketplace](#) >

## Create a storage account

BasicsAdvancedNetworkingData protectionEncryptionReview + create

[View automation template](#)

**Basics**

Subscription	Azure for Students
Resource group	CST8912-demo
Location	Canada Central
Storage account name	demo89122
Primary service	
Performance	Standard
Replication	Locally-redundant storage (LRS)

**Advanced**

Enable hierarchical namespace	Disabled
Enable SFTP	Disabled
Enable network file system v3	Disabled
Allow cross-tenant replication	Disabled

PreviousNextCreate

[Give feedback](#)

**Step 11:**

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > demo89122\_1738798877950 | Overview

demo89122 | Containers

Storage account

Search

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Storage Mover

Partner solutions

Data storage

**Containers**

File shares

Queues

Tables

Security + networking

Data management

Settings

+ Co

Search

●

N

\$

New container

Name \*

productdata8912

Anonymous access level ⓘ

Private (no anonymous access)

ⓘ

The access level is set to private because anonymous access is disabled on this storage account.

Advanced

Encryption scope

Select from existing account scopes

☐ Use this encryption scope for all blobs in the container

☐ Enable version-level immutability support ⓘ

ⓘ

In order to enable version-level immutability support, your storage account must have versioning turned on.

Create

Give feedback

**Step 12:**

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

...

Home > CST8912-demo >

Marketplace

Get Started

Service Providers

Management

Private Marketplace

Private Offer Management

My Marketplace

Favorites

My solutions

Recently created

Private plans

Categories

Analytics (51)

AI + Machine Learning (28)

IT & Management Tools

☐ Azure services only

Operating System : All


Publisher Type : All

Product Type : All

Publisher name : All

Showing 1 to 20 of 102 results for 'data factory'. [Clear search](#)

Tile view



Data Factory


Microsoft

Azure Service

Hybrid data integration service that simplifies ETL at scale

Create

♥



Factory Scheduling

Sedapta Srl

SaaS

A global production planning activity that assigns a sequence of activities to each resource.

Price varies

Subscribe

♥

Data Factory

Is Marketplace helpful?

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

[Home](#) > [CST8912-demo](#) > [Marketplace](#) >

Create Data Factory ...

Basics

Git configuration

Networking

Advanced

Tags

Review + create

One-click to create data factory with sample pipeline and datasets. [Try it](#)

Project details

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

Subscription \* ⓘ

Azure for Students

Resource group \* ⓘ

CST8912-demo

[Create new](#)

Instance details

Name \* ⓘ

demodb8912ytd

Region \* ⓘ

Canada Central


Version \* ⓘ

V2

Previous

Next

Review + create

 Give feedback


Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

...

Home > Microsoft.DataFactory-20250205185342 | Overview >


**demodb8912ytd**


✦ ☆ ...

Data factory (V2)

Search

◊ <<

 Delete

 Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

> Settings

> Getting started

> Monitoring

> Automation

> Help

^ Essentials

Resource group ([move](#)) : [CST8912-demo](#)

Status : Succeeded

Location : Canada Central


Subscription ([move](#)) : [Azure for Students](#)

Subscription ID : 22f60889-0ad3-47d4-9d41...

Type : Data factory (V2)

Getting started : [Quick start](#)

[JSON View](#)



# Azure Data Factory Studio

Launch studio

https://adf.azure.com/en/home?factory=%2...

**Step 13:**

demodb8912ytd

Search factory and documentation

Would you like to see Data Factory inside of Microsoft Fabric, Microsoft's newest cloud-first data analytics SaaS platform? Click [here](#) to get started with Fabric Data Factory!

Azure Data Factory allows you to configure a Git repository with either Azure DevOps or GitHub. Git is a version control system that allows for easier change tracking and collaboration. [Learn more](#)

Set up code repository

Data factory

demodb8912ytd

New ▾

**Ingest**  
Copy data at scale once or on a schedule.

**Orchestrate**  
Code-free data pipelines.

**Transform data**  
Transform your data using data flows.

**Configure SSIS**  
Manage & run your SSIS packages in the cloud.

Recent resources

**Step 14:**



demodb8912ytd

Search factory and documentation

1

Would you like  
platform? Click  
here to get st

Azure  
version

Set

»

Home

Tools

Monitoring

Settings

Help

Data fac

dem

New

Recent r

## Copy Data tool

1 Properties

2 Source

3 Destination

4 Settings


5 Review and finish

Use Copy Data Tool to perform a one-time or scheduled data load from 90+ data sources. Follow the wizard experience to specify your data loading settings, and let the Copy Data Tool generate the artifacts for you, including pipelines, datasets, and linked services. [Learn more](#)

### Properties


Select copy data task type and configure task schedule

Task type



**Built-in copy task**

You will get a single pipeline which capable of smoothly copying data over 100 different data sources.



**Metadata-driven copy task**

You will get parameterized pipeline can read metadata from an external source to load data at a large scale.

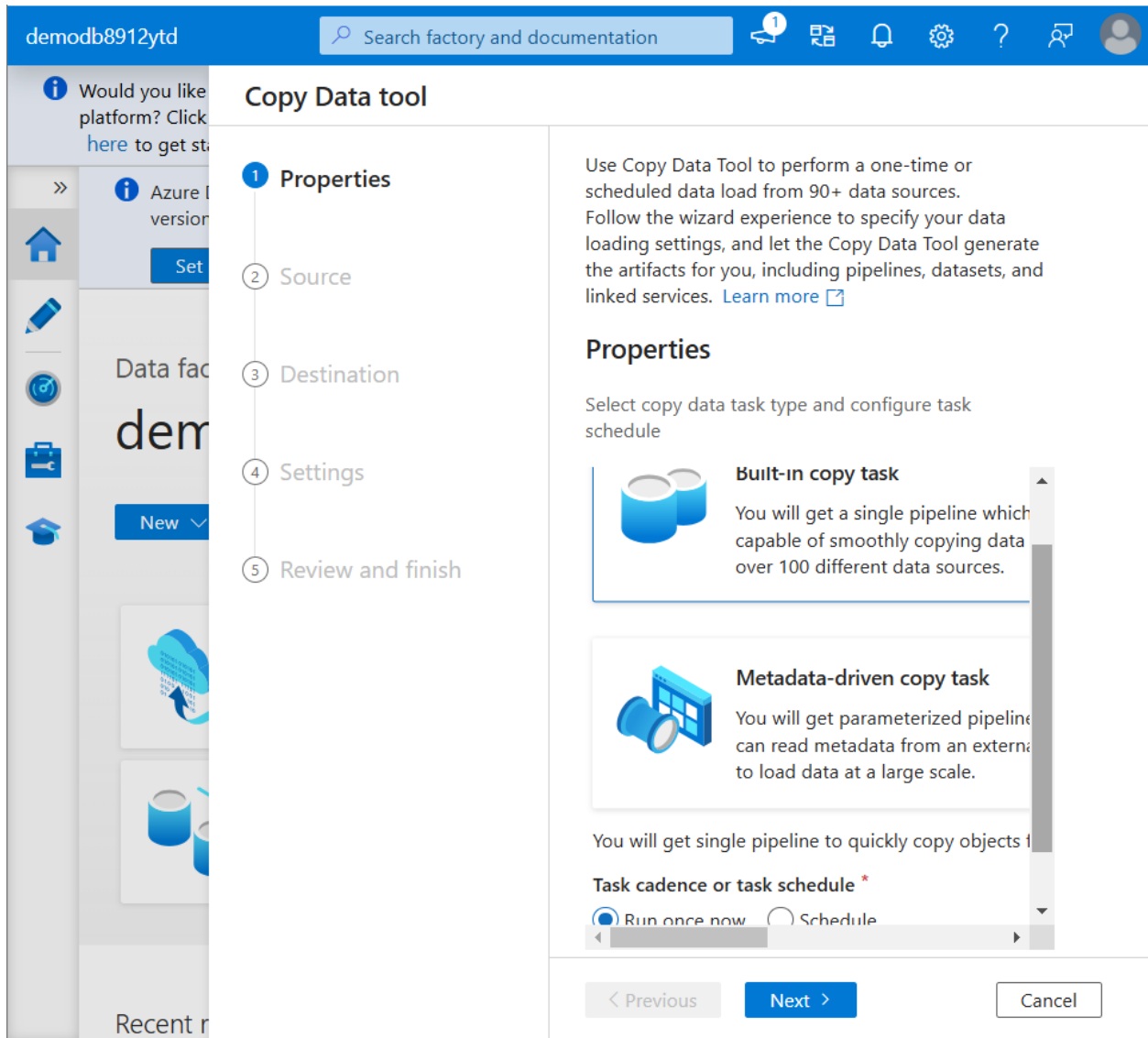
You will get single pipeline to quickly copy objects from

< Previous

Next >

Cancel

**Step 15:**



**Step 16:**

demodb8912ytd

Search factory and documentation

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Would you like to use this platform? Click here to get started

Azure Data Factory version 1.12.0

Set

Data factory

demodb8912ytd

New

Copy Data tool

Recent r

Copy Data tool

1 Properties

2 Source

Dataset

Configuration

3 Destination

4 Settings

5 Review and finish

Source data store

Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.

Source type

Azure SQL Database

Connection \*

Select...

+ New connection

< Previous

Next >

Cancel

demodb8912ytd

Search factory and documentation

1

Would you like to use the new platform? Click here to get started

>>

Azure SQL Database

version 1.0

Set up

Data factory

demodb8912ytd

New

Recent connections

New connection

Azure SQL Database

Learn more

Name \*

AzureSqlDatabase1

Description

Connect via integration runtime \* ⓘ

AutoResolveIntegrationRuntime

Version

Recommended

Legacy

Import from connection string

Account selection method ⓘ

From Azure subscription

Enter manually

Azure subscription

Azure for Students (22f60889-0ad3-47d4-9d41-7d026e7ff990)

Server name \*

db8912demoytd

Database name \*

Create

Cancel

Test connection

demodb8912ytd

Search factory and documentation

1

Would you like to use the new platform? Click here to get started

Azure Data Factory version 1.10.0

Set

Data factory

demo

New

Recent

New connection

Azure SQL Database

Learn more

Database name \*

db8912demo

Authentication type \*

SQL authentication

User name \*

db8912\_yuntiandu

Password

Azure Key Vault

Password \*

.....

Always encrypted ⓘ

Encrypt ⓘ

Mandatory

Trust server certificate ⓘ

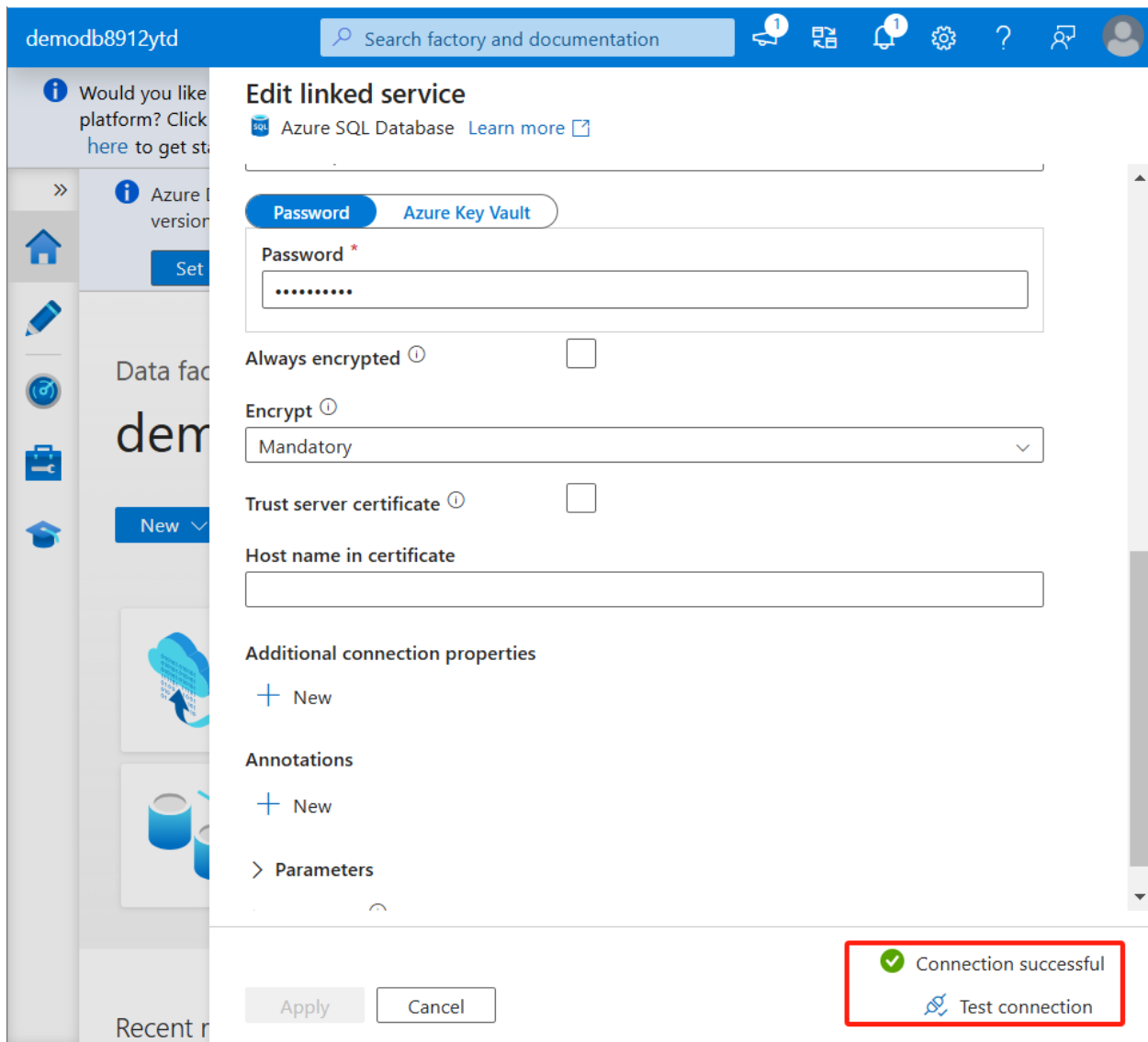
Host name in certificate

Additional connection properties

Create

Cancel

Test connection



**Step 17:**

demodb8912ytd

Search factory and documentation

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?

Would you like platform? Click here to get started

Azure version

Set

Home

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New

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4

5

Properties

Source

Dataset

Configuration

Destination

Settings

Review and finish

Source data store

Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.

Source type

Azure SQL Database

Connection \*

AzureSqlDatabase1

Edit

New connection

Source

Tables

Query

Filter by name...

Show views

Refresh

Showing 12 out of 12 tables, 0 out of 3 views (1 selected)

SalesLT.CustomerAddress

SalesLT.Product

SalesLT.ProductCategory

Previous

Next

Cancel

Microsoft Azure | Data Factory | demodb8912ytd | Search factory and documentation | du000086@algonquinlive.com | ALGONQUIN COLLEGE

Copy Data tool

1

2

3

4

5

Properties

Source

Dataset

Configuration

Destination

Settings

Review and finish

Preview data

Linked service: AzureSqlDatabase1

Object: SalesLT.Product

Preview

Schema

ProductID	Name	ProductNumber	Color	StandardCost	ListPrice	Size	Weight	ProductCategoryID
680	HL Road Frame - Black, 58	FR-R92B-58	Black	1059.3100	1431.5000	58	1016.04	18
706	HL Road Frame - Red, 58	FR-R92R-58	Red	1059.3100	1431.5000	58	1016.04	18
707	Sport-100 Helmet, Red	HL-U509-R	Red	13.0863	34.9900			35
708	Sport-100 Helmet, Black	HL-U509	Black	13.0863	34.9900			35

Previous

Next

Cancel

## Step 18:

The screenshot shows the 'Copy Data tool' configuration window in Azure Data Factory. The top bar includes the user name 'demodb8912ytd', a search bar, and several icons. The left sidebar contains navigation icons and a 'Data factory' section with a 'New' button. The main panel is titled 'Copy Data tool' and features a step indicator on the left with steps: Properties, Source, Destination (selected), Dataset, Configuration, Settings, and Review and finish. The 'Destination data store' section on the right provides instructions and configuration options.

**Copy Data tool**

**Destination data store**

Specify the destination data store for the copy task. You can use an existing data store connection or specify a new data store.

**Destination type**

Azure Blob Storage

**Connection \***

Select...

+ New connection

< Previous   Next >   Cancel

## Step 19:



demodb8912ytd

Search factory and documentation

Would you like platform? Click here to get started

Azure version

Set

Data factory

dem

New

Recent r

## New connection

Azure Blob Storage [Learn more](#)

Description

Connect via integration runtime \* ⓘ

✓ AutoResolveIntegrationRuntime

Authentication type

Account key

Connection string Azure Key Vault

Account selection method ⓘ

☒ From Azure subscription ☐ Enter manually

Azure subscription ⓘ

Azure for Students (22f60889-0ad3-47d4-9d41-7d026e7ff990)

Storage account name \*

demo89122

Additional connection properties

+ New

Create Cancel

✓ Connection successful

Test connection

demodb8912ytd

Search factory and documentation

1

2

Would you like to use this platform? Click here to get started

Azure Data Factory version 1.10.0

Set

Home

Tools

Recent

New

Properties

Source

3 Destination

Dataset

Configuration

4 Settings

5 Review and finish

Copy Data tool

Destination data store

Specify the destination data store for the copy task. You can use an existing data store connection or specify a new data store.

Destination type

Azure Blob Storage

Connection \*

AzureBlobStorage1

Edit + New connection

Folder path

If the identity you use to access the data store only has permission to subdirectory instead of the entire account, specify the path to browse.

productdata8912/

Browse

File name

product

Max concurrent connections ①

Block size (MB) ①

< Previous

Next >

Cancel

**Step 20:**

demodb8912ytd

Search factory and documentation

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2

Would you like platform? Click here to get started

Azure version

Set

Data factory

dem

New

Recent r

Properties

Source

3 Destination

Dataset

Configuration

4 Settings

5 Review and finish

File format settings

File format

DelimitedText

Column delimiter

Comma (,)

Edit

Row delimiter

Default (\r,\n, or \r\n)

Edit

☒ Add header to file ①

> Advanced

Compression type

No compression

Max rows per file

File name prefix

< Previous

Next >

Cancel

**Step 21:**

demodb8912ytd

Search factory and documentation

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?

Would you like platform? Click here to get started

>>

Azure version

Set

Home

Copy

Monitor

Tools

Help

Data factory

dem

New

Recent r

Copy Data tool

✓ Properties

✓ Source

✓ Destination

✓ Settings

5 Review and finish

Review

Deployment

SQL

Azure SQL Database

Deployment complete

Deployment step

Validating copy runtime environment

> Creating datasets

> Creating pipelines

> Running pipelines

Datasets and pipelines have been created. You can now monitor and edit the copy pipelines or click finish to close Copy Data Tool.

Finish

Edit pipeline

Monitor

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > demo89122 | Containers >

productdata8912

Container

Search

Upload

Change access level

Refresh

Delete

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Authentication method: Access key (Switch to Microsoft Entra user account)

Location: productdata8912

Search blobs by prefix (case-sensitive)

Show deleted blobs

Add filter

Name	Modified	Access tier
<input type="checkbox"/> product	2/5/2025, 7:20:32 PM	Hot (Inferred)

https://portal.azure.com/#

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

Home > demo89122 | Containers > productdata8912 >

product

Blob

Save

Discard

Download

Refresh

Delete

Change tier

Acquire lease

Overview

Versions

Snapshots

Edit

Generate SAS

Properties

URL	<div>https://demo89122.blo...</div>
LAST MODIFIED	2/5/2025, 7:20:32 PM
CREATION TIME	2/5/2025, 7:20:32 PM
VERSION ID	-
TYPE	Block blob
SIZE	1.3 MiB
ACCESS TIER	Hot (Inferred)
ACCESS TIER LAST MODIFIED	N/A
ARCHIVE STATUS	-
REHYDRATE PRIORITY	-
SERVER ENCRYPTED	true
ETAG	0x8DD46441179C1F8
VERSION-LEVEL IMMUTABILITY POLICY	Disabled
CACHE-CONTROL	
CONTENT-TYPE	application/octet-stream
CONTENT-MD5	

**Step 22:**

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home >

CST8912-de

Resource group

Search

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Cost Management

Monitoring

Automation

Help

Delete a resource group

The following resource group and all its dependent resources will be permanently deleted.

Resource group to be deleted

CST8912-demo

Dependent resources to be deleted (5)

All dependent resources, including hidden types, are shown

Name	Resource type
<div>db8912demo (db8912demoytd/db8912demo)</div> SQL database	SQL database
<div>db8912demoytd</div> SQL server	SQL server
<div>demo89122</div> Storage account	Storage account
<div>demodb8912ytd</div> Data factory (V2)	Data factory (V2)
<div>master (db8912demoytd/master)</div> SQL database	SQL database

Enter resource group name to confirm deletion \*

CST8912-demo

Delete

Cancel

References

None.