

URL API : <https://webapp-tp2-bt-mvc-h23t6.azurewebsites.net/>

Exercice 2 :

Quelles sont les limitations de la solution actuelle du TP en termes de stockage de données ?

La solution actuelle a plusieurs limitations importantes :

1. Limite de capacité du pool élastique : Le pool élastique force une limite de ressources partagées entre les bases de données pour ne pas causer de ralentissement sur d'autres BD du même pool.
2. Stockage à 250 Go par base de données : C'est la limite par défaut lors de la création. Il est possible de grossir la capacité aux besoins via le portail Azure.
3. Redondance et de réplication : Il n'y a pas de redondance des BD et non plus de réplication de configurer, ça pose un risque et ça limite la flexibilité à récupérer les données en cas de panne.
4. Pas de sauvegardes automatiques : Les données ne sont pas sauvegardées régulièrement, ce qui pose un risque et limite la récupération des données en cas de panne.
5. Scalabilité limitée : La solution actuelle ne peut pas évoluer facilement avec les besoins de l'organisation. Elle peut se faire manuellement via le portail Azure.

Quel service de base de données infonuagique, allez-vous proposer à BanqueTardi? Vous devez apporter des arguments convainquant pour justifier votre choix.

Je recommande Azure SQL Database pour BanqueTardi. Voici pourquoi :

1. Flexibilité et adaptation aux besoins : Azure SQL Database est conçu pour s'adapter à différents types de charges de travail. Par exemple, BanqueTardi pourrait utiliser le mode Hyperscale, qui permet de gérer des bases de données allant jusqu'à 100 To. Cela élimine les limites de stockage actuelles et assure une croissance sans contrainte. De plus, si les besoins diminuent, les ressources peuvent être ajustées à la baisse pour économiser des coûts.

2. Sécurité avancée : Une banque a besoin de standards de sécurité élevés, et Azure SQL Database offre :
 - Azure Active Directory (AAD) pour une gestion des utilisateurs et des permissions sécurisées.
 - Chiffrement des données au repos et en transit, ce qui protège les informations sensibles, comme les numéros de compte et les transactions.
 - Audit intégré et détection de menaces pour surveiller en permanence les activités suspectes. Ces fonctionnalités permettent de répondre aux exigences strictes du domaine bancaire.
3. Haute disponibilité : Azure SQL Database garantit une haute disponibilité grâce aux failovers.
4. Sauvegardes automatiques et restauration facile : Le service inclut des sauvegardes automatiques, avec la possibilité de restaurer une base de données à un point dans le temps.
5. Coûts optimisés : Avec des options comme les pools élastiques et le paiement à l'usage, on pourrait économiser en répartissant les ressources entre les bases de données.
6. Comparaison avec d'autres options : Par rapport à des alternatives comme Azure Cosmos DB (qui est plus adapté aux bases NoSQL) ou une base SQL autogérée, qui demanderait plus de gestion et de connaissance. Azure SQL Database est le meilleur choix. Elle combine performance, sécurité et facilité de gestion.

Exercice 3:

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All services > Storage accounts >

Create a storage account

×

Basics

Advanced

Networking

Data protection

Encryption

Tags

Review + create

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more about Azure storage accounts](#)

Project details

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription *

Azure subscription 1

Resource group *

TP2

Create new

Instance details

Storage account name *

comptstockageeverice3

Region *

(Canada) Canada Central

Deploy to an Azure Extended Zone

Primary service

Azure Blob Storage or Azure Data Lake Storage Gen 2

Performance *

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

Premium: Recommended for scenarios that require low latency.

Redundancy *

Locally-redundant storage (LRS)

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All services > Storage accounts >

Create a storage account

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Basics

Advanced

Networking

Data protection

Encryption

Tags

Review + create

Security

Configure security settings that impact your storage account.

Require secure transfer for REST API operations

☒

Allow enabling anonymous access on individual containers

☐

Enable storage account key access

☒

Default to Microsoft Entra authorization in the Azure portal

☐

Minimum TLS version

Version 1.2

Permitted scope for copy operations (preview)

From any storage account

Hierarchical Namespace

Hierarchical namespace, complemented by Data Lake Storage Gen2 endpoint, enables file and directory semantics, accelerates big data analytics workloads, and enables access control lists (ACLs) [Learn more](#)

Enable hierarchical namespace

☐

Access protocols

Blob and Data Lake Gen2 endpoints are provisioned by default [Learn more](#)

Enable SFTP

☐

SFTP can only be enabled for hierarchical namespace accounts

Enable network file system v3

☐

To enable NFS v3 "hierarchical namespace" must be enabled. [Learn more about NFS](#)

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All services > Storage accounts >

Create a storage account

Network connectivity

You can connect to your storage account either publicly, via public IP addresses or service endpoints, or privately, using a private endpoint.

Network access *

☒ Enable public access from all networks

☐ Enable public access from selected virtual networks and IP addresses

☐ Disable public access and use private access

Enabling public access from all networks might make this resource available publicly. Unless public access is required, we recommend using a more restricted access type. [Learn more](#) ^{if}

Private endpoint

Create a private endpoint to allow a private connection to this resource. Additional private endpoint connections can be created within the storage account or private link center.

+ Add private endpoint

Name	Subscription	Resource g...	Region	Target sub-...	Subnet	Private DN...
Click on add to create a private endpoint						

Network routing

Determine how to route your traffic as it travels from the source to its Azure endpoint. Microsoft network routing is recommended for most customers.

Routing preference *

☒ Microsoft network routing

☐ Internet routing

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All services > Storage accounts >

Create a storage account

Basics Advanced Networking Data protection Encryption Tags Review + create

Recovery

Protect your data from accidental or erroneous deletion or modification.

☐ Enable point-in-time restore for containers

Use point-in-time restore to restore one or more containers to an earlier state. If point-in-time restore is enabled, then versioning, change feed, and blob soft delete must also be enabled. [Learn more](#) ^{if}

☒ Enable soft delete for blobs

Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten. [Learn more](#) ^{if}

Days to retain deleted blobs

☒ Enable soft delete for containers

Soft delete enables you to recover containers that were previously marked for deletion. [Learn more](#) ^{if}

Days to retain deleted containers

☒ Enable soft delete for file shares

Soft delete enables you to recover file shares that were previously marked for deletion. [Learn more](#) ^{if}

Days to retain deleted file shares

Tracking

Manage versions and keep track of changes made to your blob data.

☐ Enable versioning for blobs

Use versioning to automatically maintain previous versions of your blobs. [Learn more](#) ^{if}

Consider your workloads, their impact on the number of versions created, and the resulting costs. Optimize costs by automatically managing the data lifecycle. [Learn more](#) ^{if}

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Create a storage account

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☒ Enable soft delete for blobs

Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten. [Learn more](#) ⓘ

Days to retain deleted blobs ⓘ

☒ Enable soft delete for containers

Soft delete enables you to recover containers that were previously marked for deletion. [Learn more](#) ⓘ

Days to retain deleted containers ⓘ

☒ Enable soft delete for file shares

Soft delete enables you to recover file shares that were previously marked for deletion. [Learn more](#) ⓘ

Days to retain deleted file shares ⓘ

Tracking

Manage versions and keep track of changes made to your blob data.

☐ Enable versioning for blobs

Use versioning to automatically maintain previous versions of your blobs. [Learn more](#) ⓘ

Consider your workload, their impact on the number of versions created, and the resulting costs. Optimize costs by automatically managing the data lifecycle. [Learn more](#) ⓘ

☐ Enable blob change feed

Keep track of create, modification, and delete changes to blobs in your account. [Learn more](#) ⓘ

Access control

☐ Enable version-level immutability support

Allows you to set time-based retention policy on the account-level that will apply to all blob versions. Enable this feature to set a default policy at the account level. Without enabling this, you can still set a default policy at the container level or set policies for specific blob versions. Versioning is required for this property to be enabled. [Learn more](#) ⓘ

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Basics

Advanced

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Encryption

Tags

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Encryption type ⓘ

☒ Microsoft-managed keys (MMK)

☐ Customer-managed keys (CMK)

Enable support for customer-managed keys ⓘ

☒ Blobs and files only

☐ All service types (blobs, files, tables, and queues)

⚠ This option cannot be changed after this storage account is created.

Enable infrastructure encryption ⓘ

☐

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All services > Storage accounts >

Create a storage account

BasicsAdvancedNetworkingData protectionEncryptionTagsReview + create

Name

Value

Resource

:

All resources selected

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All services > Storage accounts >

Create a storage account

BasicsAdvancedNetworkingData protectionEncryptionTagsReview + create

[View automation template](#)

Basics

Subscription	Azure subscription 1
Resource group	TP2
Location	Canada Central
Storage account name	comptestockageexercice3
Primary service	Azure Blob Storage or Azure Data Lake Storage Gen 2
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
Access tier	Hot
Enable large file shares	Enabled

Security

Secure transfer	Enabled
Blob anonymous access	Disabled
Allow storage account key access	Enabled
Default to Microsoft Entra authorization in the Azure portal	Disabled

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All services > Storage accounts >

Create a storage account

anonymous access

Unauthenticated

Allow storage account key access

Enabled

Default to Microsoft Entra authorization in the Azure portal

Disabled

Minimum TLS version

Version 1.2

Permitted scope for copy operations (preview)

From any storage account

Networking

Network connectivity

Public endpoint (all networks)

Default routing tier

Microsoft network routing

Data protection

Point-in-time restore

Disabled

Blob soft delete

Enabled

Blob retention period in days

7

Container soft delete

Enabled

Container retention period in days

7

File share soft delete

Enabled

File share retention period in days

7

Versioning

Disabled

Blob change feed

Disabled

Version-level immutability support

Disabled

Encryption

Encryption type

Microsoft-managed keys (MMK)

Enable support for customer-managed keys

Blobs and files only

Enable infrastructure encryption

Disabled

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All services >

comptestockageexercice3_1734101301384 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name: comptestockageexercice3_1734101301384

Subscription: Azure subscription 1

Resource group: TP2

Start time: 12/13/2024, 9:49:17 AM

Correlation ID: 22831234-69dd-4791-89b2-111a68751ada

Deployment details

Next steps

Go to resource

Give feedback

Tell us about your experience with deployment

Cost Management

Get notified to stay within your budget and prevent unexpected charges on your bill.

Set up cost alerts >

Microsoft Defender for Cloud

Secure your apps and infrastructure

Go to Microsoft Defender for Cloud >

Free Microsoft tutorials

Start learning today >

Work with an expert

Azure experts are service provider partners

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All services > comptestockageexercice3_1734101301384 | Overview >

comptestockageexercice3

Storage account

Search

Upload Open in Explorer Delete Move Refresh Open in mobile CLI / PS Feedback

Overview

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 Networking Front Door and CDN Access keys Shared access signature Encryption Microsoft Defender for Cloud Data management

Essentials

Resource group (move) : TP2
Location : canadacentral
Subscription (move) : Azure_subscription_1
Subscription ID : b2265ee9-2d09-4340-ae40-23c465e6a7d7
Disk state : Available
Tags (edit) : Add tags

Performance : Standard
Replication : Locally-redundant storage (LRS)
Account kind : StorageV2 (general purpose v2)
Provisioning state : Succeeded
Created : 13/12/2024 09:49:18

Properties Monitoring Capabilities (7) Recommendations (0) Tutorials Tools + SDKs

Blob service

Hierarchical namespace : Disabled
Default access tier : Hot
Blob anonymous access : Disabled
Blob soft delete : Enabled (7 days)
Container soft delete : Enabled (7 days)
Versioning : Disabled
Change feed : Disabled
NFS v3 : Disabled
Allow cross-tenant replication : Disabled
Storage tasks assignments : None

File service

Large file share : Enabled
Identity-based access : Not configured
Default share-level permissions : Disabled
Soft delete : Enabled (7 days)

Security

Require secure transfer for REST API operations : Enabled
Storage account key access : Enabled
Minimum TLS version : Version 1.2
Infrastructure encryption : Disabled

Networking

Allow access from : All networks
Private endpoint connections : 0
Network routing : Microsoft network routing
Access for trusted Microsoft services : Yes
Endpoint type : Standard

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All services > comptestockageexercice3_1734101301384 | Overview > comptestockageexercice3

comptestockageexercice3

Storage account

Search

Set rotation reminder Refresh Give feedback

Overview

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 Networking Front Door and CDN Access keys Shared access signature

Access keys

Access keys authenticate your applications' requests to this storage account. Keep your keys in a secure location like Azure Key Vault, and replace them often with new keys. The two keys allow you to replace one while still using the other.
Remember to update the keys with any Azure resources and apps that use this storage account.
[Learn more about managing storage account access keys](#)

Storage account name

comptestockageexercice3

key1 Rotate key

Last rotated: 13/12/2024 (0 days ago)

Key : aNpICV9BLLlSCW/efg7WYNQY6q+Cc7pwArf0w7fVfxjaepgwUkY6LImqogJr1... Hide

Connection string : DefaultEndpointsProtocol=http;AccountName=comptestockageexercice3;Accou... Hide

key2 Rotate key

Last rotated: 13/12/2024 (0 days ago)

Key : Show

Connection string : Show

Centre d'information

Client

Nom	Doe			
Prenom	Jeanne			
CodeClient	CL00000002			
Fiche détaillée Modifier Supprimer Ajouter Compte				
Type De Compte:	Numéro: (Version Longue)			Solde:
Compte: Chèque	No 1000003 (002340011000003)			\$100.00
	Modifier	Historique	Ajouter Opération	
Type d'opération	Montant	Libellé		
Crédit	100.00	solde d'ouverture		

Centre d'information

Client

Nom	Doe			
Prenom	Jeanne			
CodeClient	CL00000002			
Fiche détaillée Modifier Supprimer Ajouter Compte				
Type De Compte:	Numéro: (Version Longue)			Solde:
Compte: Chèque	No 1000003 (002340011000003)			Modifier Historique Ajouter Opération (\$20.00)
Type d'opération		Montant	Libellé	
Débit		110.00	test	
Débit		10.00	Découvert	
Crédit		100.00	solde d'ouverture	

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All services > comptestockageexercice3_1734101301384 | Overview > comptestockageexercice3 | Queues >

queuedecouvert

Queue

X

Search

Refresh

Add message

Dequeue message

Clear queue

Give feedback

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

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

Search to filter items...

Id	Message text	Insertion time	Expiration time	Dequeue count
193d84ae-c5c4-4a9f-9a10-...	Découvert sur le compte bancaire 3 du client Doe, montant : 90.0000.	12/13/2024, 10:49:03 AM	12/20/2024, 10:49:03 AM	0

Exercise 4:

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[Dashboard](#) > [All resources](#) > [Create a resource](#) >

Create SQL Database

Microsoft

BasicsNetworkingSecurityAdditional settingsTagsReview + 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](#)

Free database offer applied! You got first 100,000 vCore seconds and 32GB of data & 32GB of backup storage free per month for lifetime of the subscription. [Learn more](#)

Remove offer

SQL Database Hyperscale: Low price, high scalability, and best feature set. [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

Azure subscription 1

Resource group

TP2

Create new

Database details

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

Database name *

sqltp2ex4-mvc


Server *

srv-sql-tp2-server (Canada Central)

Create new

Review + create

Next: Networking >



Cost summary

General Purpose (GP_S_Gen5_2)

Cost per GB (in CAD)

0.00

Max storage selected (in GB)

x 41.6

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing

Disabled

ESTIMATED STORAGE COST / MONTH

0.00 CAD

COMPUTE COST / VCORE SECOND

0.000000 CAD

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](#)

Microsoft Azure

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

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[Dashboard](#) > [All resources](#) > [Create a resource](#) >

Create SQL Database

Microsoft

Changing Basic options may reset selections you have made. Review all options prior to creating the resource.

Create new

Database details

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

Database name *

sqltp2ex4-mvc

Server *

srv-sql-tp2-server (Canada Central)

Create new

Compute + storage *

General Purpose - Serverless

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

[Configure database](#)

Behavior when free offer limit reached


Behavior when free offer limit reached

☒ Auto-pause the database until next month

When free offer limit is reached, the database will not be accessible until the beginning of next calendar month when free amount is renewed. There will be no additional charges.

☐ Continue using database for additional charges

Database continues to be accessible after free offer limit is reached. Additional usage beyond the free offer amount for that month will be charged at general purpose serverless tier rates. The free amount will be renewed at the beginning of the next calendar month.



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](#)

Microsoft Azure

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Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

Basics

Networking

Security

Additional settings

Tags

Review + create

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'srv-sql-tp2-server' and all databases it manages. [Learn more](#)

Firewall rules

The settings displayed below are read-only. They can be modified from the "Firewalls and virtual networks" blade for the selected server after database creation. [Learn more](#)

Allow Azure services and resources to access this server

No Yes

Add current client IP address *

No Yes

Private endpoints

Private endpoint connections are associated with a private IP address within a Virtual Network. The list below shows all the private endpoint connections for this server. Note that private endpoint connections are defined at the server level and they provide access to all databases in the server. [Learn more](#)

+ Add private endpoint

Subscription	Resource group	Region	Subnet
view the server private endpoints.			

Connection policy

The settings displayed below are read-only. They can be modified from the "Firewalls and virtual networks" blade for the selected server after database creation. [Learn more](#)

Connection policy

☒ Default - Uses Redirect policy for all client connections originating inside of Azure (except Private Endpoint connections) and Proxy for all client connections originating outside Azure

☐ Direct - All connections are proxied via the Azure SQL Database gateway

SQL

Cost summary

General Purpose (GP_S_Gen5_2)

Cost per GB (in CAD)

0.00

Max storage selected (in GB)

x 41.6

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing¹

Disabled

ESTIMATED STORAGE COST / MONTH

0.00 CAD

COMPUTE COST / VCORE SECOND²

0.000000 CAD

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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Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

Add current client IP address *

No Yes

Private endpoints

Private endpoint connections are associated with a private IP address within a Virtual Network. The list below shows all the private endpoint connections for this server. Note that private endpoint connections are defined at the server level and they provide access to all databases in the server. [Learn more](#)

+ Add private endpoint

Subscription	Resource group	Region	Subnet
view the server private endpoints.			

Connection policy

The settings displayed below are read-only. They can be modified from the "Firewalls and virtual networks" blade for the selected server after database creation. [Learn more](#)

Connection policy

☒ Default - Uses Redirect policy for all client connections originating inside of Azure (except Private Endpoint connections) and Proxy for all client connections originating outside Azure

☐ Proxy - All connections are proxied via the Azure SQL Database gateways

☐ Redirect - Clients establish connections directly to the node hosting the database

Encrypted connections

The settings displayed below are read-only. They can be modified from the "Firewalls and virtual networks" blade for the selected server after database creation. [Learn more](#)

Minimum TLS version

TLS 1.2

General Purpose (GP_S_Gen5_2)

Cost per GB (in CAD)

0.00

Max storage selected (in GB)

x 41.6

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing¹

Disabled

ESTIMATED STORAGE COST / MONTH

0.00 CAD

COMPUTE COST / VCORE SECOND²

0.000000 CAD

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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Dashboard > All resources > Create a resource >

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 20.351955 CAD/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 and other Azure resources. [Learn more](#)

Identity settings for the existing server can be updated by navigating to 'srv-sql-tp2-server'

Transparent data encryption key management

Transparent data encryption encrypts your databases, backups, and logs at rest without any changes to your application. To enable encryption, go to each database. Database level settings if enabled, will override the server level setting. [Learn more](#)

Transparent data encryption settings for the existing server can be updated by navigating to 'srv-sql-tp2-server'

Review + create

< Previous

Next : Additional settings >

Cost summary

General Purpose (GP_S_Gen5_2)

Cost per GB (in CAD)

0.00

Max storage selected (in GB)

x 41.6

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing

Disabled

ESTIMATED STORAGE COST / MONTH

0.00 CAD

COMPUTE COST / VCORE SECOND

0.000000 CAD

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

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

Microsoft Azure

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Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

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 and other Azure resources. [Learn more](#)

Identity settings for the existing server can be updated by navigating to 'srv-sql-tp2-server'

Transparent data encryption key management

Transparent data encryption encrypts your databases, backups, and logs at rest without any changes to your application. To enable encryption, go to each database. Database level settings if enabled, will override the server level setting. [Learn more](#)

Transparent data encryption settings for the existing server can be updated by navigating to 'srv-sql-tp2-server'

Database level key

Not configured

Configure transparent data encryption

Always encrypted

Always encrypted is a family of industry-leading data protection features that provide a separation between those who own the data and can view it, and those who manage the data but should have no access, on-premises database administrators, cloud database operators, or other high-privileged but unauthorized users. [Learn more](#)

Enable secure enclaves

ON

OFF

Review + create

< Previous

Next : Additional settings >

Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

Basics Networking Security **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

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


[Find a collation](#)

Maintenance window

Select a preferred maintenance window from the drop-down. During maintenance, databases remain available, but some updates may require a failover. The system default maintenance window (5pm to 8am) limits most activities to this time, but urgent updates may occur outside of it. To ensure all updates occur only during the maintenance window, select a non-default option. [Learn more](#)

Maintenance window

System default (5pm to 8am)



Cost summary

General Purpose (GP, S, Gen5, 2)	
Cost per GB (in CAD)	0.00
Max storage selected (in GB)	x 41.6
First 32 GB storage free	
First 100,000 vCore seconds free	
Overage billing ¹	Disabled
ESTIMATED STORAGE COST / MONTH	0.00 CAD
COMPUTE COST / VCORE SECOND ²	0.000000 CAD

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](#)

Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

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

Tags are name/value pairs that enable you to categorize and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.


Name *

Value *

Resource

:

SQL database



Cost summary

General Purpose (GP, S, Gen5, 2)	
Cost per GB (in CAD)	0.00
Max storage selected (in GB)	x 41.6
First 32 GB storage free	
First 100,000 vCore seconds free	
Overage billing ¹	Disabled
ESTIMATED STORAGE COST / MONTH	0.00 CAD
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² Serverless databases are billed in vCore seconds based on a combination of CPU and memory utilization. [Learn more about serverless billing](#)

Microsoft Azure

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

Copilot

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CEGEP LIMOUSI CEGERLMOL

Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

BasicsNetworkingSecurityAdditional settingsTagsReview + create

Product details

SQL database
by Microsoft
Terms of use | Privacy policy

Estimated cost

Storage cost 0.00 CAD / month + Compute cost 0.000000 CAD / vCore second

Terms

By clicking "Create", I 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 of](#)

Basics

Subscription

Resource group

Region

Database name

Server

Compute + storage

Backup storage redundancy

Overage billing

Azure subscription 1

TP2

canadacentral

sqltp2ek-mvc

svr-sql-tp2-server

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

Locally-redundant backup storage

Disabled

Cost summary

General Purpose (GP_S_Gen5_2)
Cost per GB (in CAD)

0.00

Max storage selected (in GB)

x 41.6

First 32 GB storage free

First 100,000 vCore seconds free

Overage billing¹

Disabled

ESTIMATED STORAGE COST / MONTH

0.00 CAD

COMPUTE COST / VCORE SECOND²

0.000000 CAD

¹ There will be no charges for usage within the free limits. The database will be started 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](#)

Microsoft Azure

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

Copilot

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Dashboard > All resources > Create a resource >

Create SQL Database

Microsoft

Compute + storage

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

Locally-redundant backup storage

Disabled

Networking

Allow Azure services and resources to access this server

Private endpoint

No

None

Security

Transparent data encryption (Server level)

Database level customer-managed key

Database level user assigned managed identity

Advanced data security

Always encrypted with secure enclaves

Sql Ledger(Database)

Digest Storage

Service-managed key selected

Not configured

Not configured

Not now

Not configured

Disabled

Disabled

Additional settings

Use existing data

Collation

Maintenance window

Blank

SQL_Latin1_General_CP1_CI_AS

System default (5pm to 8am)

Tags

Microsoft Azure

Dashboard > Microsoft.SqlDatabase.newDatabaseExistingServer_b4f9e9b691e24aac | Overview

sqlTp2Ex4-mvc (srv-sql-tp2-server/sqlTp2Ex4-mvc)

SQL database

Search resources, services, and docs (G+V) Copilot

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Search

Copy Restore Export Set server firewall Delete Connect with... Feedback

Overview

- Activity log
- Tags
- Diagnose and solve problems
- Query editor (preview)
- Mirror database in Fabric (preview)
- Settings
 - Compute + storage
 - Connection strings
 - Maintenance

Minor databases in Microsoft Fabric. Easily replicate your existing databases in Fabric, and help your team achieve streamlined ETL and operational analytics goals. [Learn more](#)

Essentials

Resource group (move) : TP2

Status : Online

Location : Canada Central

Subscription (move) : Azure subscription 1

Subscription ID : b2265ee9-2d09-4340-ae40-23c465e6a7d7

Server name : srv-sql-tp2-server.database.windows.net

Connection strings : Show database connection strings

Pricing tier : Free - General Purpose - Serverless: Gen5, 2 vCores

Overage billing : Disabled

Free monthly vCore amount : 100,000 vCore seconds remaining

Earliest restore point : No restore point available

Tags (edit) : Add tags

Getting started Monitoring Properties Features Notifications (0) Integrations Tutorials

Microsoft Azure

Dashboard > Microsoft.SqlDatabase.newDatabaseExistingServer_b4f9e9b691e24aac | Overview > sqlTp2Ex4-mvc (srv-sql-tp2-server/sqlTp2Ex4-mvc)

sqlTp2Ex4-mvc (srv-sql-tp2-server/sqlTp2Ex4-mvc) | Connection strings

SQL database

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Search

ADO.NET JDBC ODBC PHP Go

ADO.NET (Microsoft Entra passwordless authentication)

Microsoft.Data.SqlClient Quickstart

Entity Framework Core Quickstart

Server=tcp:srv-sql-tp2-server.database.windows.net,1433;Initial Catalog=sqlTp2Ex4-mvc;Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;Authentication='Active Directory Default';

ADO.NET (SQL authentication)

Server=tcp:srv-sql-tp2-server.database.windows.net,1433;Initial Catalog=sqlTp2Ex4-mvc;Persist Security Info=False;User ID=adminuser;Password=your_password;MultipleActiveResultSets=False;Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;

Download ADO.NET driver for C# server

Microsoft Azure

Dashboard > webapp-tp2-bt-mvc-h23t6

webapp-tp2-bt-mvc-h23t6 | Environment variables

Web App

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Search

App settings Connection strings

Add

Refresh

Show values

Configuration

Authentication

Identity

Backups

Custom domains

Certificates

Networking

Scale up (App Service plan)

Scale out (App Service plan)

Add/Edit application setting

Name * : ConnectionStrings_DefaultConnection

Value : Server=tcp:srv-sql-tp2-server.database.windows.net,1433;Initial Catalog=sqlTp2Ex4-mvc;Persist Security Info=False;User ID=adminuser;

Deployment slot setting : ☐

Name	Value
ConnectionStrings_DefaultConnection	Show value
URLAPIs_AssurancesAPI	Show value
URLAPIs_CalculInteretAPI	Show value
URLAPIs_CarteCreditAPI	Show value
WEBSITE_NODE_DEFAULT_VERSION	Show value

Apply Discard

Apply Discard