

Azure SQL Server Database Export and Import Overview

In this tutorial I'm going to show how to:

- Export Azure Database through Azure Portal
- Export Azure Database through SQL Server Management
- Import Azure Database backup file through Azure Portal
- Import Azure Database backup file through SQL Server Management

Step 01: Export Azure Database through Azure Portal

Under the existing Resource Group we have a SQL Server and a SQL Database.

- Resource group: rg-NetworkServices
- Azure SQL Server: patsam-finance-server
- Azure SQL Database: patsam-finance-database

The screenshot displays the Azure Portal interface for the resource group 'rg-NetworkServices'. The left sidebar shows the navigation menu with 'Overview' selected. The main content area shows the 'rg-NetworkServices' resource group details, including the subscription 'Visual Studio Enterprise - MPN' and the subscription ID '3822b9c0-bf7e-455e-a1d1-8717b1b4150b'. Below this, there are filters for 'All types', 'All locations', and 'No grouping'. A table lists the resources in the group:

| NAME | TYPE | LOCATION |
|--|--------------|------------|
| patsam-finance-server | SQL server | Central US |
| patsam-finance-database (patsam-finance-server/patsam-finance-d-...) | SQL database | Central US |

Below the table, there are links for 'Subscriptions: Visual Studio Enterprise - MPN - Don't see a subscription? Open Directory + Subscription settings'. The 'SQL servers' section shows a table with the following data:

| NAME | STATUS | LOCATION | SUBSCRIPTION |
|-----------------------|-----------|------------|--------------------------------|
| patsam-finance-server | Available | Central US | Visual Studio Enterprise - MPN |

The 'SQL databases' section shows a table with the following data:

| NAME | STATUS | REPLICATION ROLE | SERVER | PRICING TIER | LOCATION | SUBSCRIPTION |
|---------------------------------|--------|------------------|-----------------------|--------------|------------|--------------------------------|
| patsam-finance-database (p-...) | Online | None | patsam-finance-server | Basic | Central US | Visual Studio Enterprise - MPN |

We need a Storage Account in Azure to store the Exported Database file. So first we need to create a storage account.

[Home](#) > [Storage accounts](#) > [Create storage account](#)

Create storage account

[Basics](#) [Networking](#) [Advanced](#) [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](#)

Project details

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

* Subscription

Visual Studio Enterprise – MPN

Resource group

rg-NetworkServices

[Create new](#)

Instance details

The default deployment model is Resource Manager, which supports the latest Azure features. You may choose to deploy using the classic deployment model instead. [Choose classic deployment model](#)

* Storage account name ⓘ

patsamdbstorage1

* Location

(US) Central US

Performance ⓘ

☒ Standard ☐ Premium

Account kind ⓘ

StorageV2 (general purpose v2)

Replication ⓘ

Read-access geo-redundant storage (RA-GRS)

Access tier (default) ⓘ

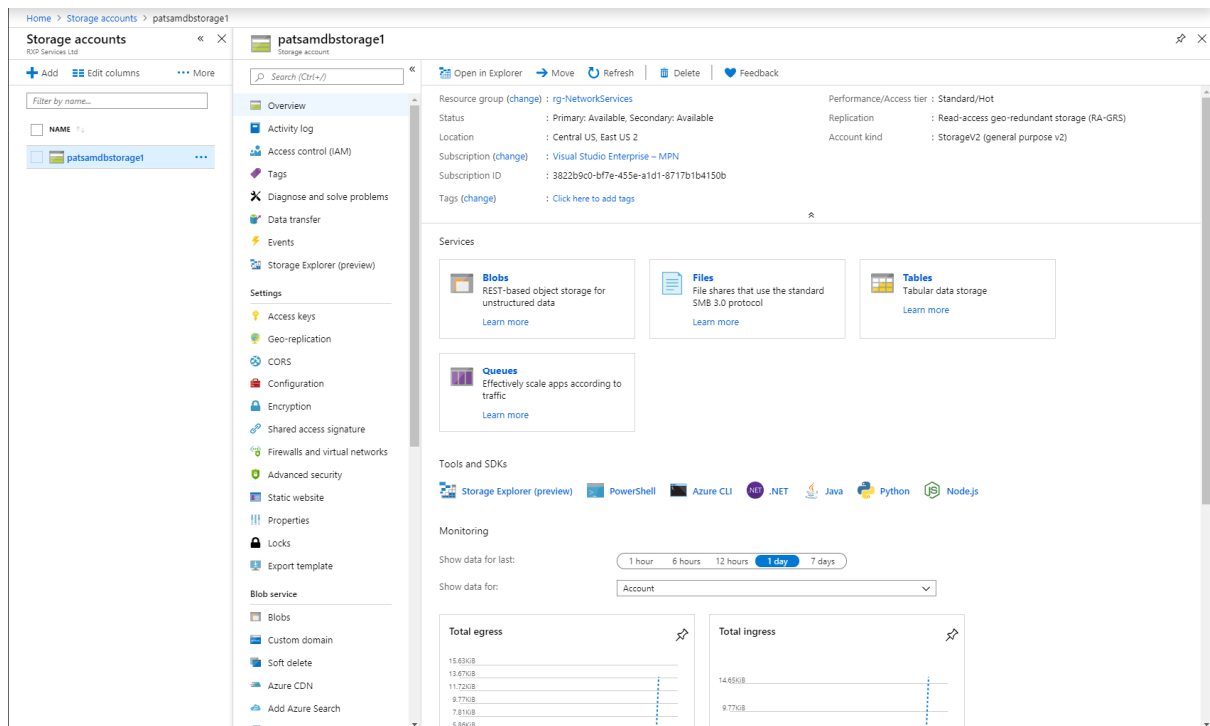
☐ Cool ☒ Hot

[Review + create](#)

[< Previous](#)

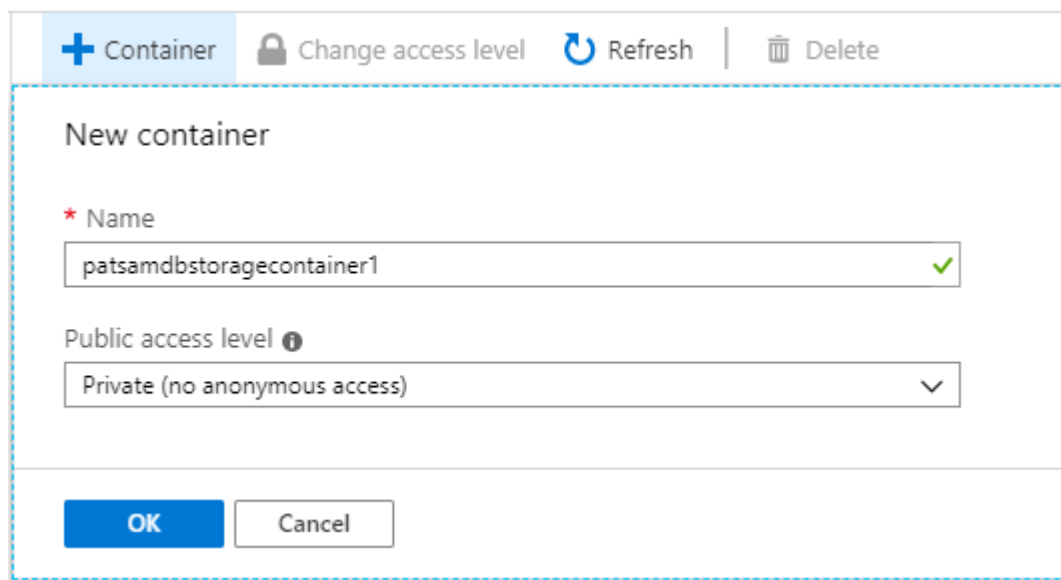
[Next : Networking >](#)

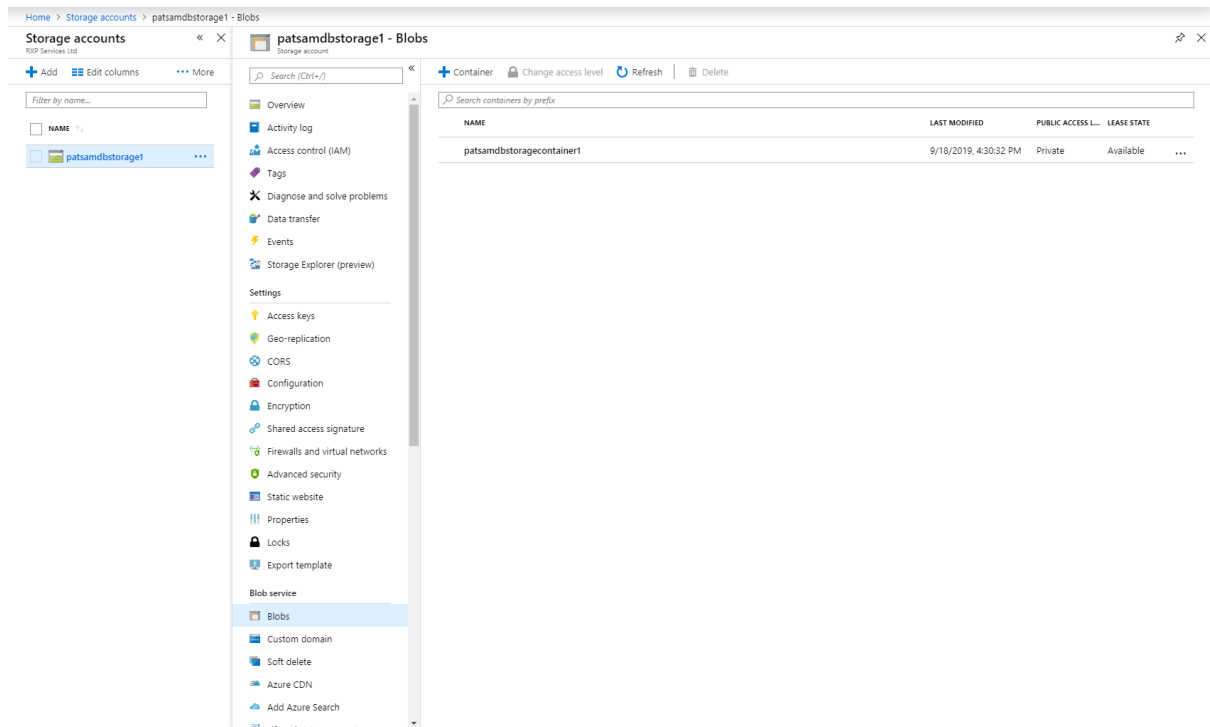
Once finished creating a Storage Account Click on Blobs and create a Container.



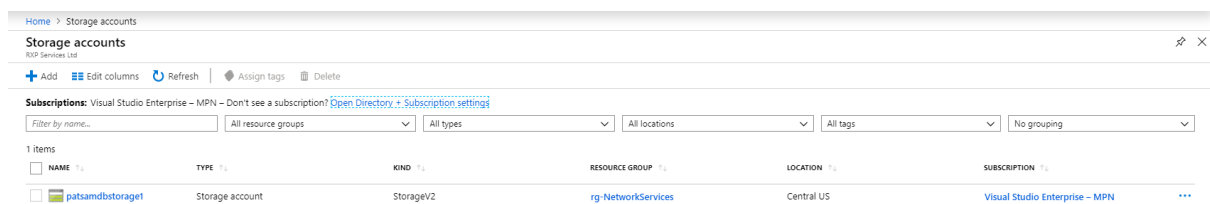
Provide a name for the Container.

- Name: patsamdbstoragecontainer1

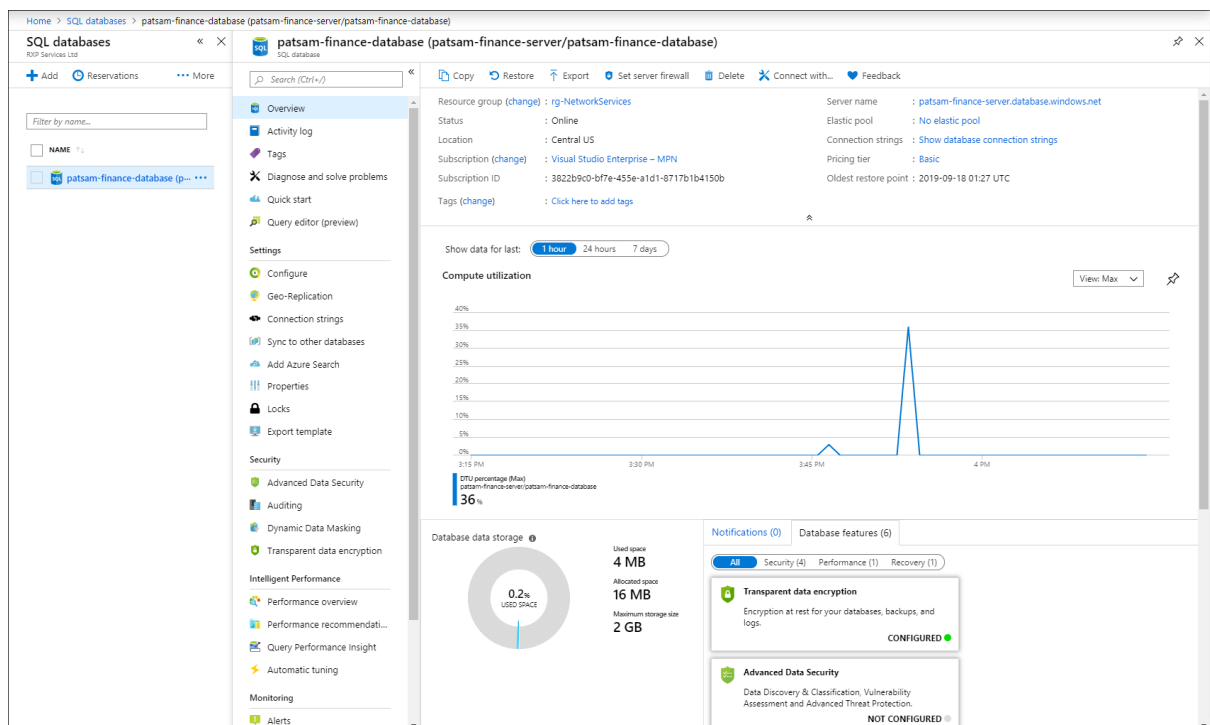




We can see the newly created Storage Account.



Now we are going to Export the Database. Go inside the SQL Database and Click on Export button.



Patrick Sameera Jayalath

Provide the relevant data.

- File name: patsam-finance-database-2019-9-18-16-31.bacpac
- Server admin login/Password: Login details that we provided when creating the Database
- Storage: Click “Configure Required Settings” and provide storage account details

The screenshot shows the 'Export database' dialog box for the 'patsam-finance-database'. The dialog has several fields with red asterisks indicating required information:

- File name:** A text box containing 'patsam-finance-database-backup1' with a green checkmark to its right.
- Subscription:** A dropdown menu showing 'Visual Studio Enterprise – MPN'.
- Storage (Premium not supported):** A section with the text 'Configure required settings' and a right-pointing chevron icon.
- Authentication type:** A dropdown menu showing 'SQL Server'.
- Server admin login:** A text box containing 'patsam'.
- Password:** A text box with masked characters (dots) and a green checkmark to its right.

Storage configuration:

Click on “Configure Required Settings” and select the Storage Account we created earlier.

The screenshot shows the 'Storage accounts' page in the Azure portal. It includes a search bar, a 'Show classic storage accounts' checkbox, and a table of storage accounts.

| NAME | TYPE | RESOURCE GROUP | LOCATION |
|------------------|----------------|--------------------|------------|
| patsamdbstorage1 | Standard-RAGRS | rg-NetworkServices | Central US |

Select the Container we created earlier under the selected Storage Account.

The screenshot shows the 'Containers' page in the Azure portal, selected under the 'patsamdbstorage1' storage account. It includes a search bar and a table of containers.

| NAME | LAST MODIFIED | PUBLIC ACCESS L... | LEASE STATE |
|---------------------------|-----------------------|--------------------|---------------|
| patsamdbstoragecontainer1 | 9/18/2019, 4:30:32 PM | Private | Available ... |

Click OK.

Home > SQL databases > patsam-finance-database

Export database

patsam-finance-database

* File name
patsam-finance-database-2019-9-18-16-31

* Subscription
Visual Studio Enterprise – MPN

* Storage (Premium not supported)
patsamdbstoragecontainer1

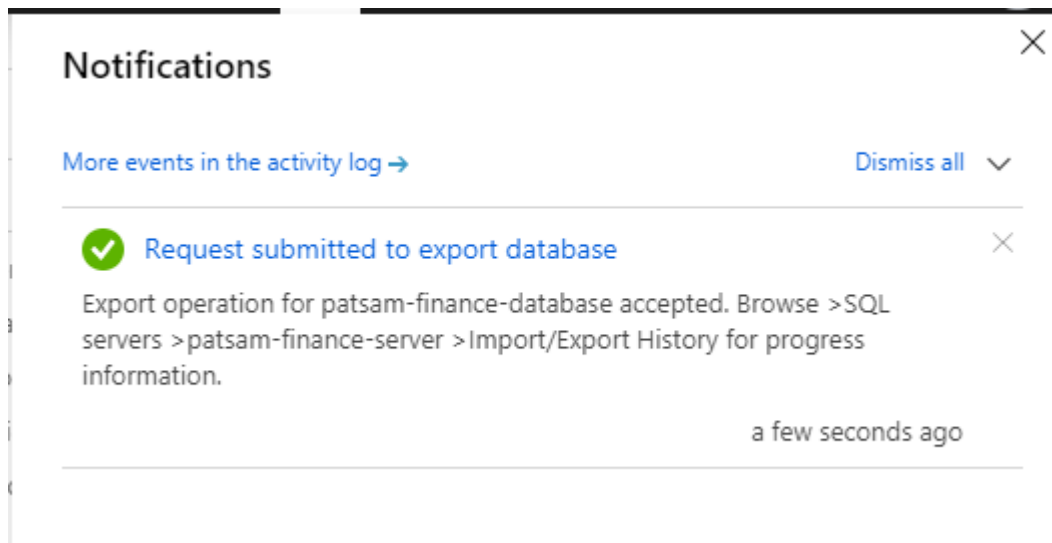
Authentication type
SQL Server

* Server admin login
patsam

* Password
***** ✓

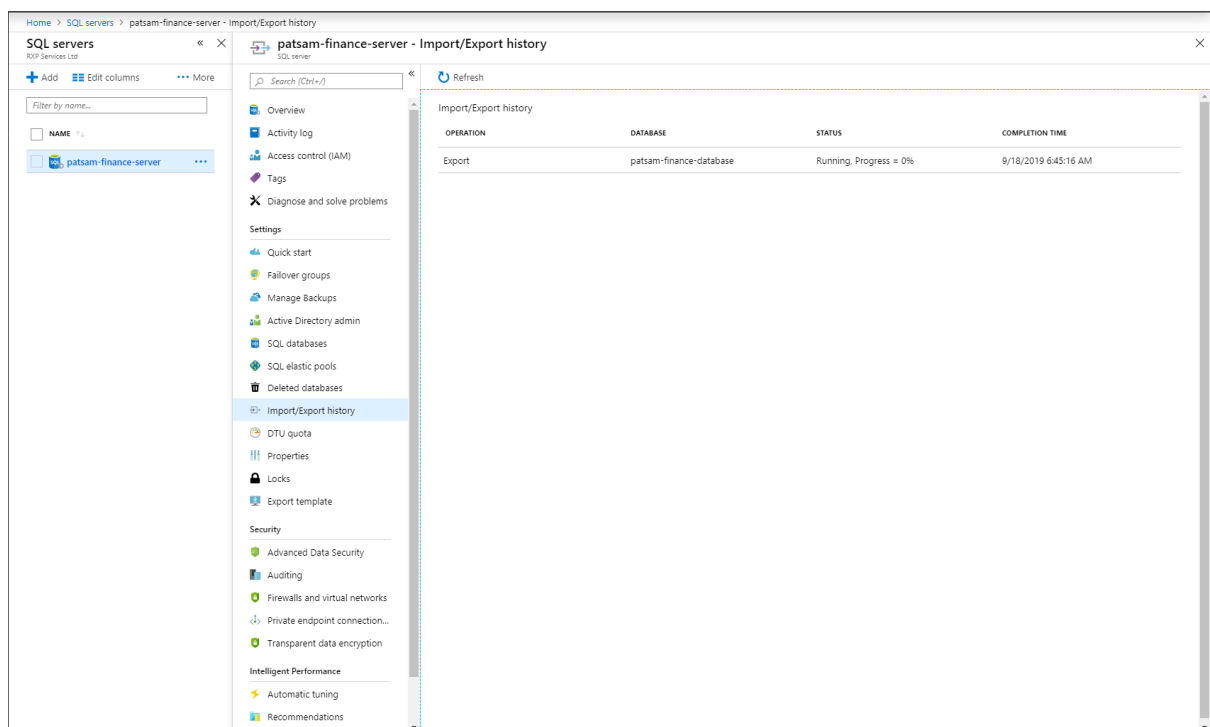
OK

It will show a notification saying a request was made for Exporting Database.



If we want to see the progress of the Export go to “Import/Export History” tab under the SQL Server instance, we created.

So, now it is in “Running” status. It will take some time to finish the Export.



Once it finishes exporting, we can go in to the Storage Account and see the exported file. Mind you that Export file is in “.BACPAC” file extension.

Home > Storage accounts > patsamdbstorage1 - Blobs > patsamdbstoragecontainer1

Container

Upload | Change access level | Refresh | Delete | Acquire lease | Break lease | View snapshots | Create snapshot

Search (Ctrl+J)

Authentication method: Access key (Switch to Azure AD User Account)

Location: patsamdbstoragecontainer1

Search blobs by prefix (case-sensitive)

Show deleted blobs

Overview


Access Control (IAM)

Settings

Access policy

Properties

Metadata

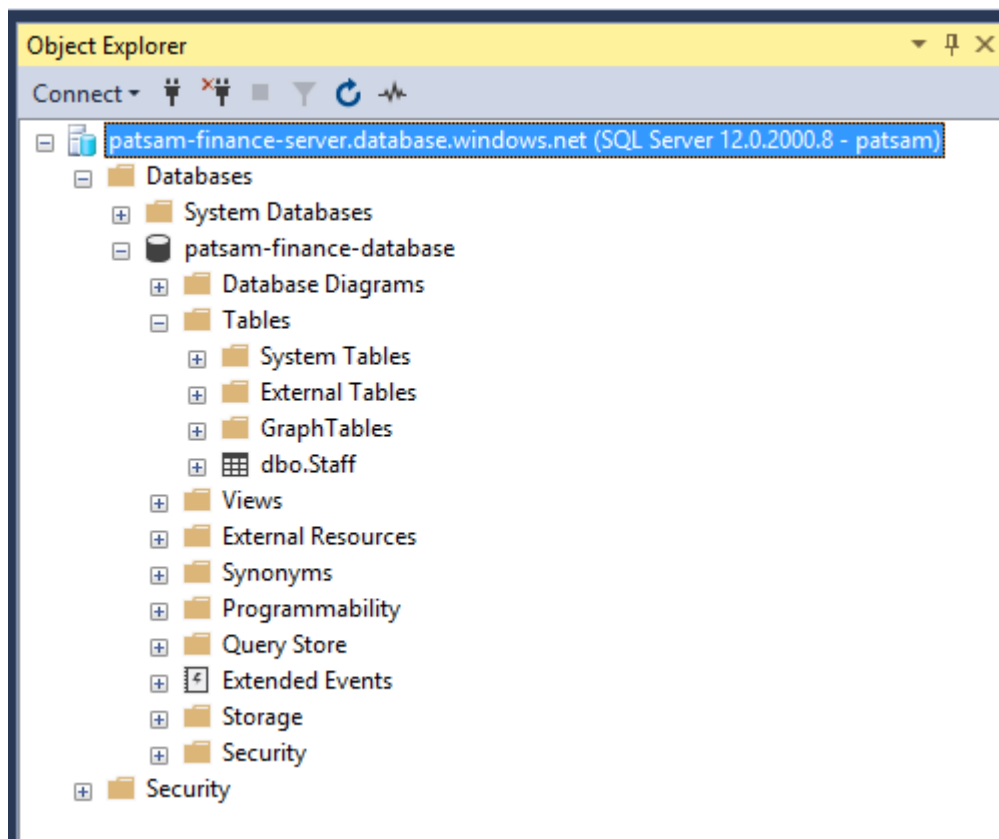
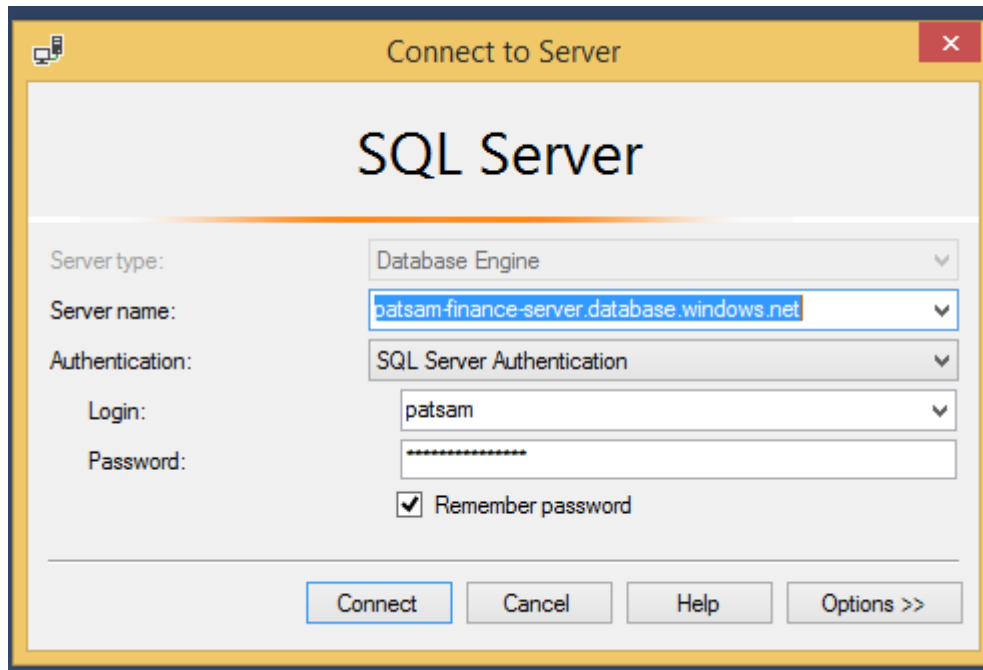
| NAME | MODIFIED | ACCESS TIER | BLOB TYPE | SIZE | LEASE STATE | |
|--|-----------------------|----------------|------------|------|-------------|-----|
|  patsam-finance-database-2019-9-18-16-31.bacpac | 9/18/2019, 4:45:16 PM | Hot (inferred) | Block blob | 0 B | Available | ... |

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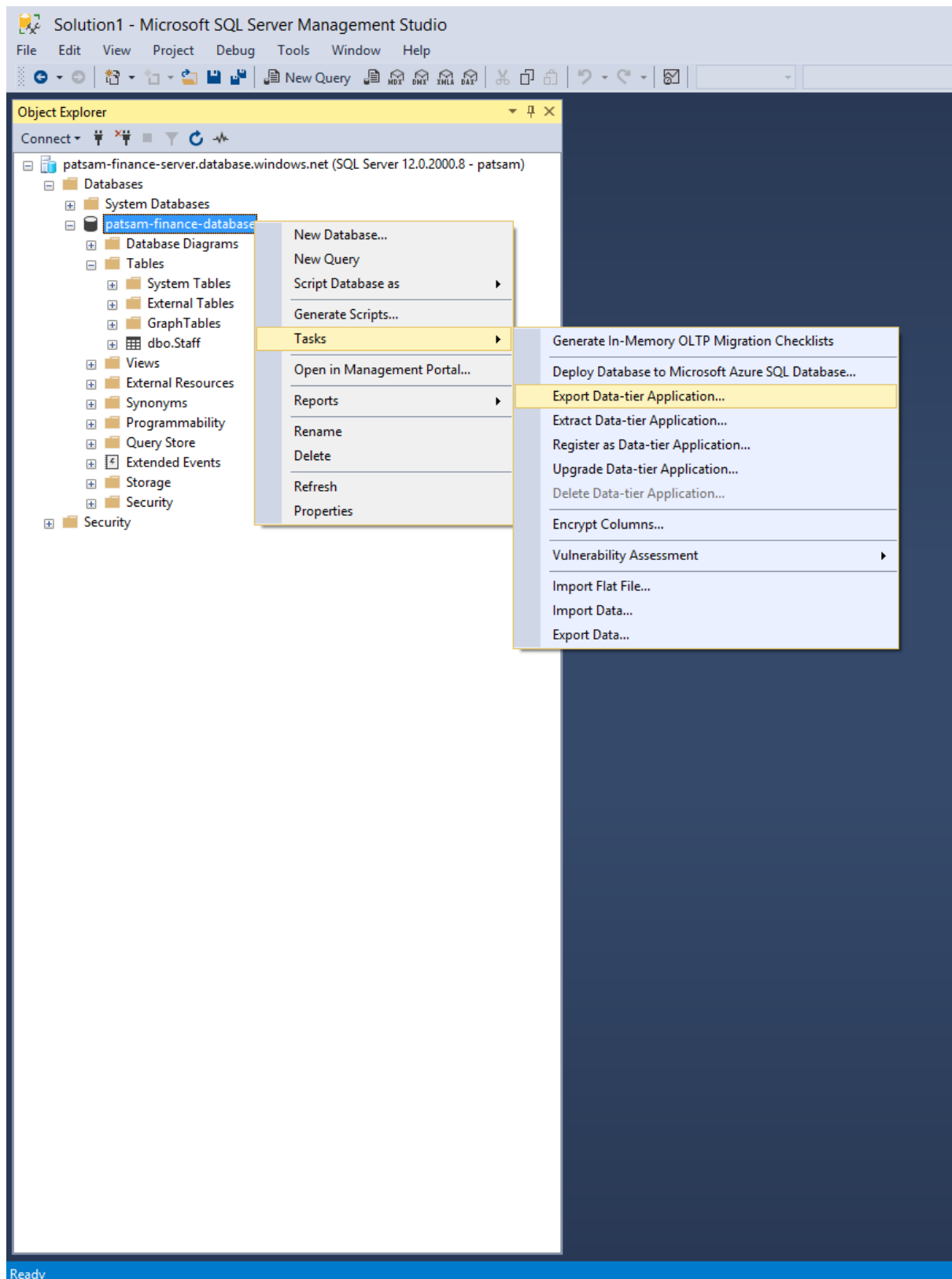
Step 02: Export Azure Database through SQL Server Management

Connect to SQL Server instance through SQL Server Management.

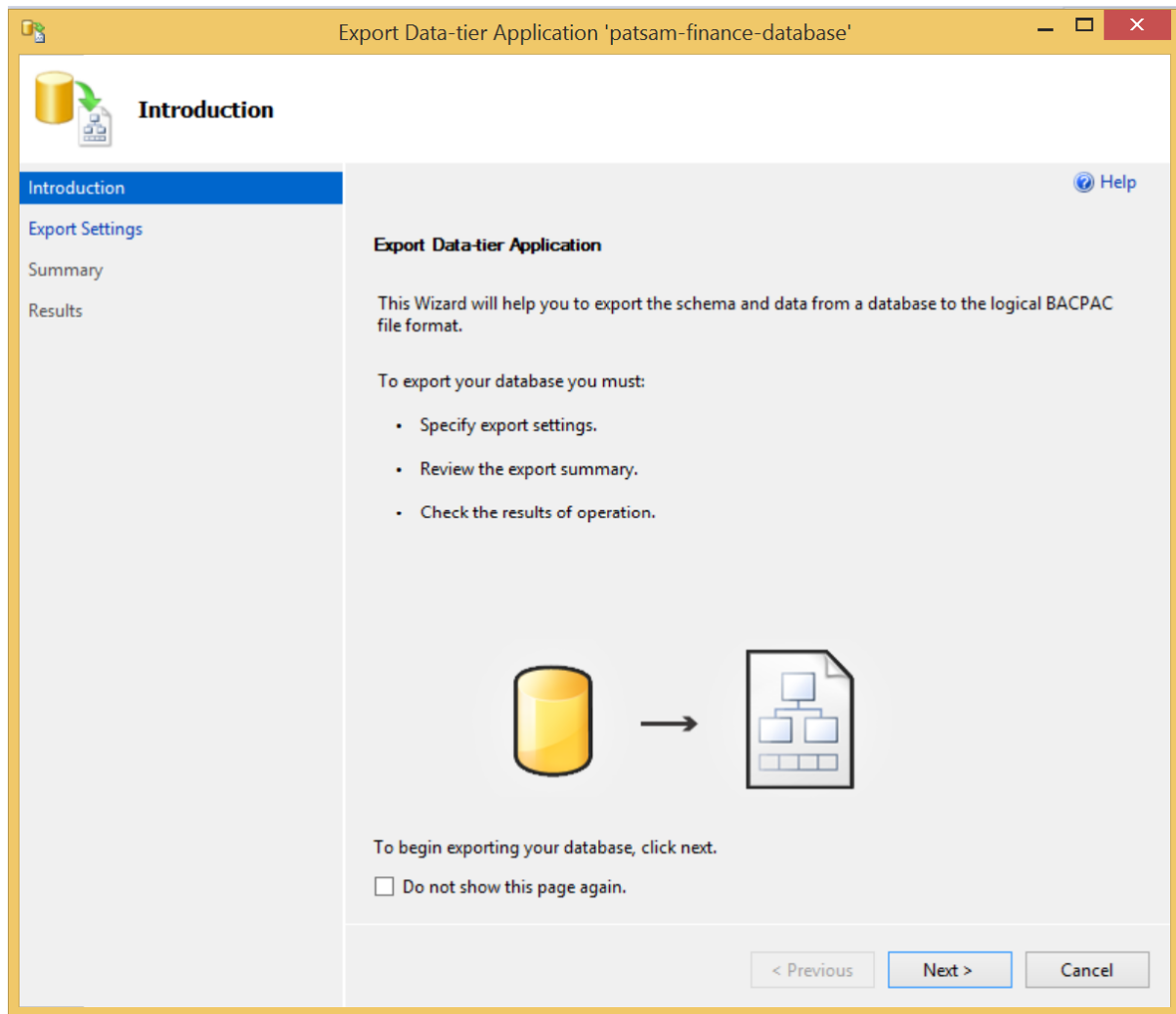
- Server name: patsam-finance-server.database.windows.net
- Authentication: SQL Server Authentication
- Login/Password: Login/Password details we provided when creating the Database



Right click on the Database, Click on Tasks → Export Data-tier Application.



Click Next.



You get the option to store the export file locally or on the Storage Account. In this case I select Storage Account.

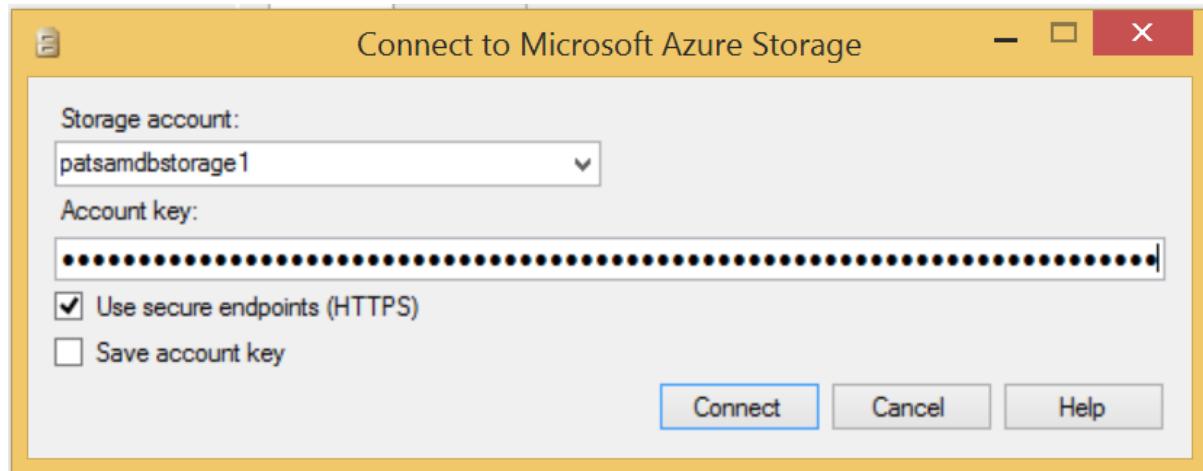
Select Save To Microsoft Azure option.

The screenshot shows a window titled "Export Data-tier Application 'patsam-finance-database'". Inside, there's a section titled "Export Settings" with a left-hand navigation pane containing "Introduction", "Export Settings" (selected), "Summary", and "Results". The main area has a "Help" icon and a description: "This operation will create a BACPAC file that contains the logical contents of your database. To continue, specify the location where you want the BACPAC file to be created, and then click Next. To specify a subset of tables to export, use the Advanced option." Below this, there are two tabs: "Settings" and "Advanced". Under the "Settings" tab, there are two radio button options: "Save to local disk" (unselected) and "Save to Microsoft Azure" (selected). The "Save to Microsoft Azure" option has several input fields: "Storage account:" with a "Connect..." button, "Container:" with a dropdown arrow, "File name:" with the text "patsam-finance-database.bacpac", and "Temporary file name:" with a text box containing "C:\Users\psam0403\AppData\Local\Temp\patsam-finance-database-2019091" and a "Browse..." button. At the bottom right, there are three buttons: "< Previous", "Next >", and "Cancel".

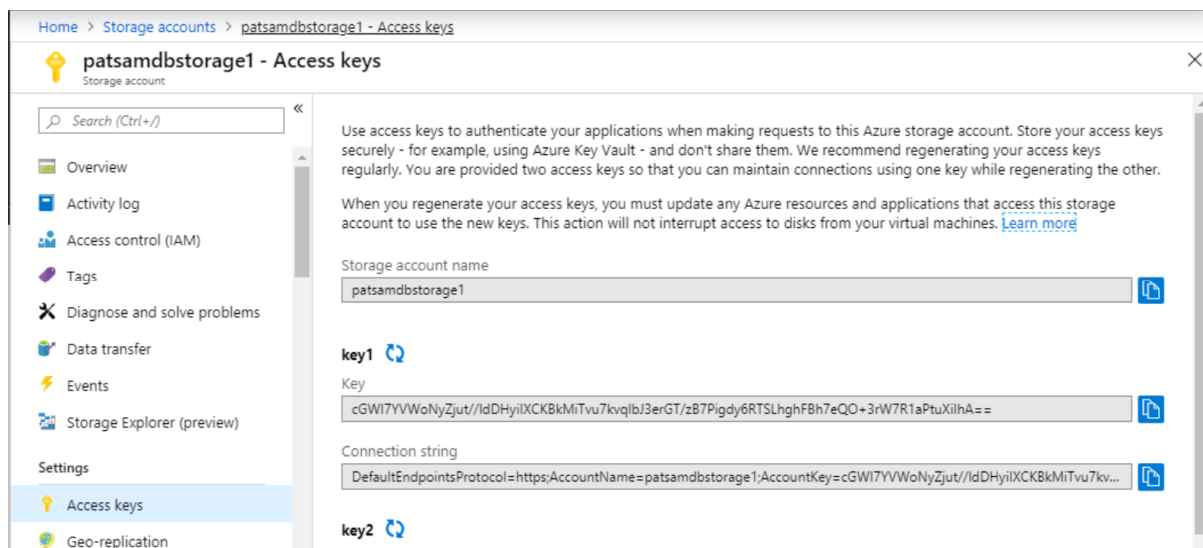
Click on Connect button and provide the relevant Storage Account details.

- Storage account: patsamdbstorage1
- Account key: This key can be retrieved from Storage Account → Access Keys tab

Click Connect.



Storage Account's Access Keys can be revived from the Access Keys tab.



Select the Container name and Click Next.

The screenshot shows a window titled "Export Data-tier Application 'patsam-finance-database'". The window has a sidebar on the left with a tree view containing "Introduction", "Export Settings" (selected), "Summary", and "Results". The main area is titled "Export Settings" and contains a "Help" icon. Below the title, there is a description: "This operation will create a BACPAC file that contains the logical contents of your database. To continue, specify the location where you want the BACPAC file to be created, and then click Next. To specify a subset of tables to export, use the Advanced option." There are two tabs: "Settings" and "Advanced". The "Settings" tab is active. It contains two radio buttons: "Save to local disk" (unselected) and "Save to Microsoft Azure" (selected). Below "Save to local disk" is a text box and a "Browse..." button. Below "Save to Microsoft Azure" are four fields: "Storage account:" with the value "patsamdbstorage1" and a "Connect..." button; "Container:" with a dropdown menu showing "patsamdbstoragecontainer1"; "File name:" with the value "patsam-finance-database.bacpac"; and "Temporary file name:" with the value "403\AppData\Local\Temp\patsam-finance-database-20190918205634.bacpac" and a "Browse..." button. At the bottom of the window are three buttons: "< Previous", "Next >" (highlighted), and "Cancel".

Export Data-tier Application 'patsam-finance-database'

Export Settings

Introduction
Export Settings
Summary
Results

Help

Export Settings

This operation will create a BACPAC file that contains the logical contents of your database. To continue, specify the location where you want the BACPAC file to be created, and then click Next. To specify a subset of tables to export, use the Advanced option.

Settings Advanced

☐ Save to local disk

☒ Save to Microsoft Azure

Storage account: patsamdbstorage1 Connect...

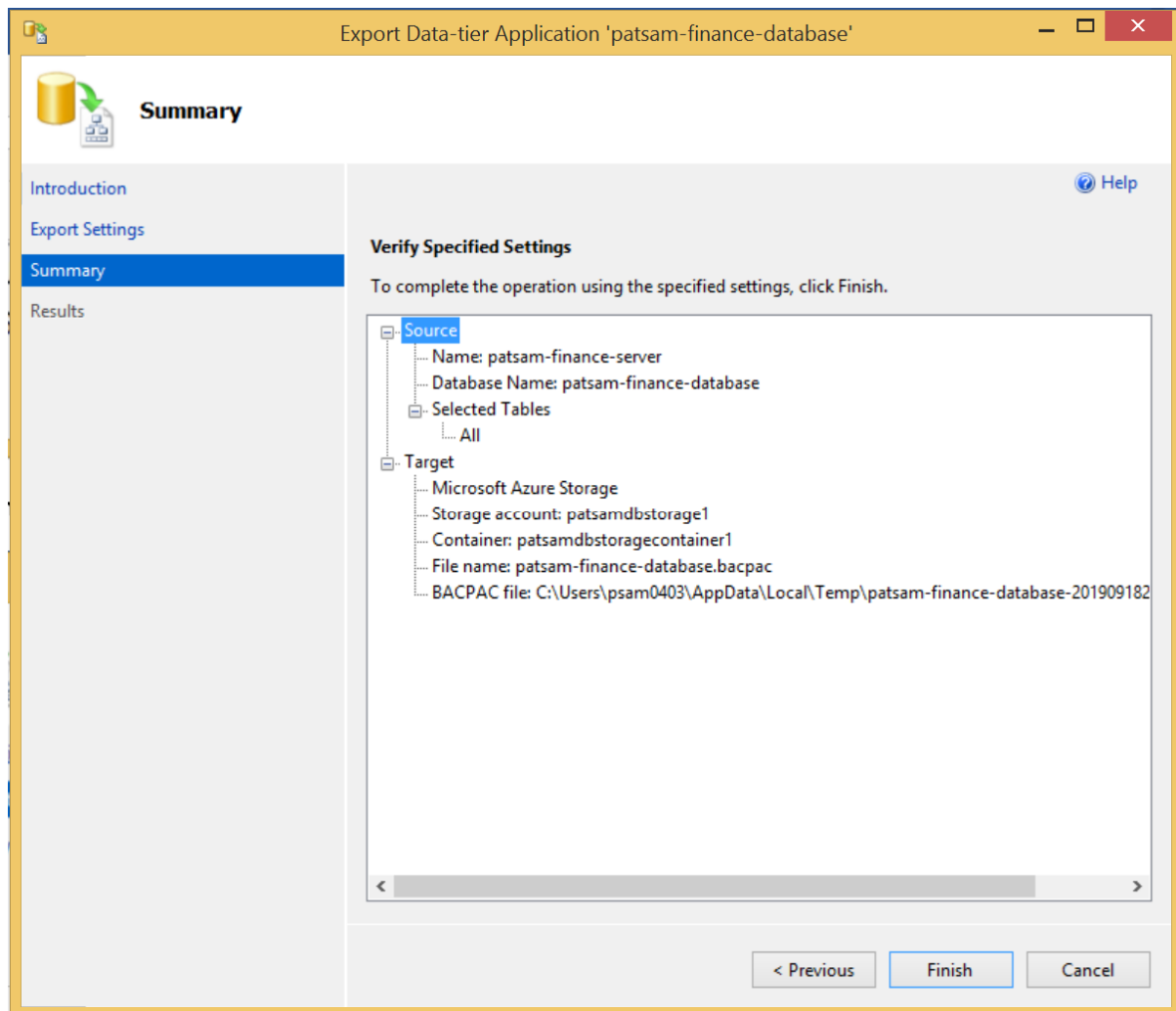
Container: patsamdbstoragecontainer1

File name: patsam-finance-database.bacpac

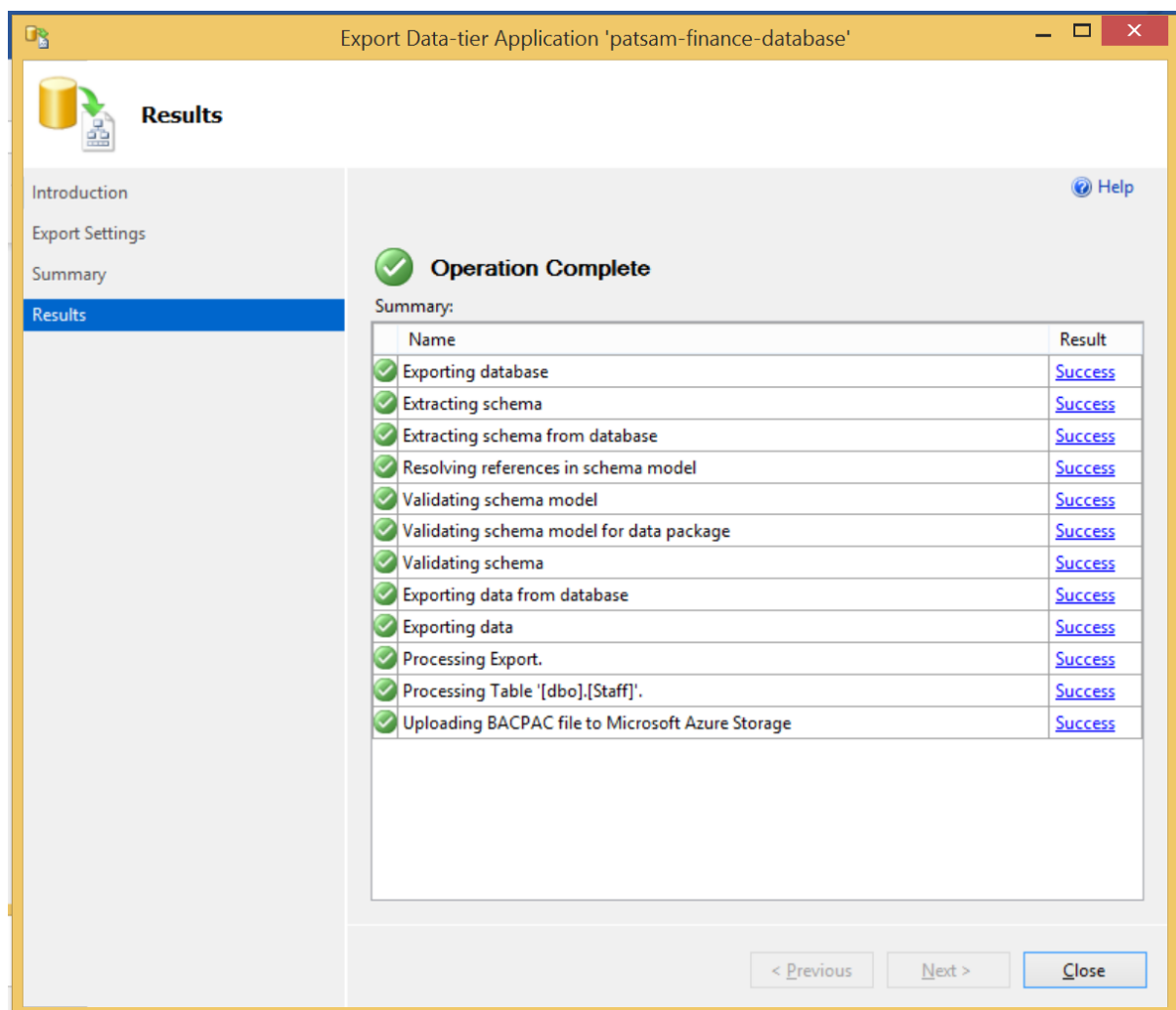
Temporary file name: 403\AppData\Local\Temp\patsam-finance-database-20190918205634.bacpac Browse...

< Previous Next > Cancel

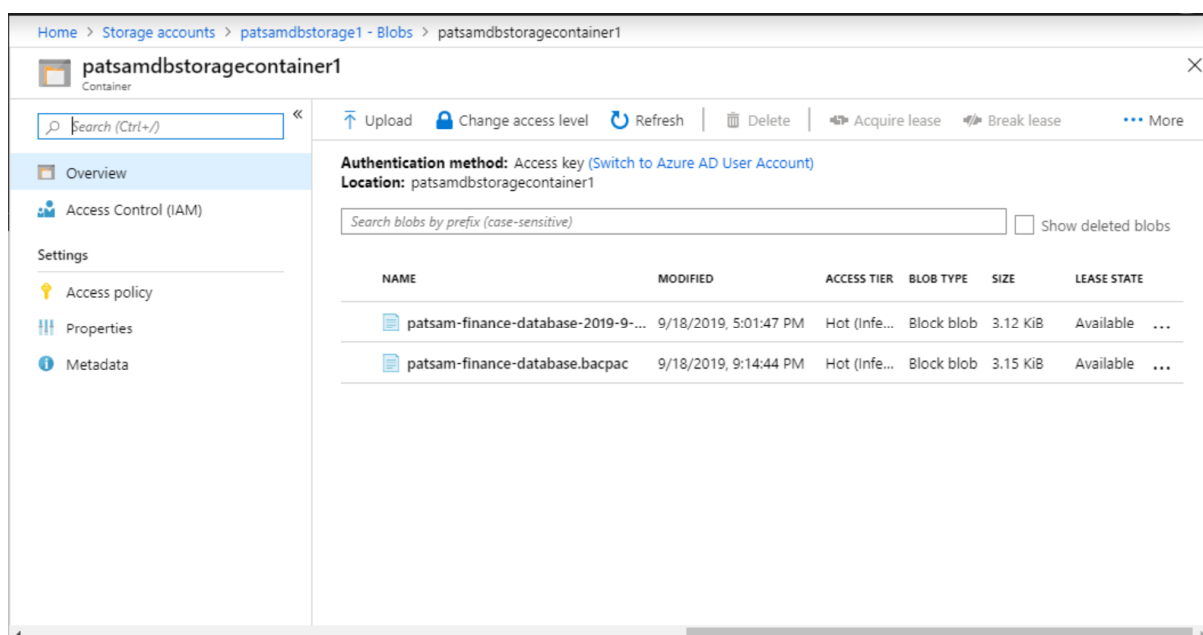
Click Finish.



It will take some time export the data to the Storage Account. Once completed Click Close.



Once it finishes exporting, we can go in to the Storage Account and see the exported file.



Step 03: Import Azure Database backup file through Azure Portal

In Azure we cannot restore a Azure Backup file (.bacpac) to an existing Azure Database. If you want to do this kind of a process what we can do is,

- Restore the Database with a different name
- Delete old Database
- Rename newly restored Database to old Database name

To Import Database navigate to the SQL Server instance and Click Import Database.

Home > SQL databases > patsam-finance-database (patsam-finance-server/patsam-finance-database) > patsam-finance-server

Search (Ctrl+J)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Quick start

Fallover groups

Manage Backups

Active Directory admin

SQL databases

SQL elastic pools

Deleted databases

Import/Export history

DTU quota

Properties

Locks

Export template

Security

Advanced Data Security

Auditing

Firewalls and virtual networks

Private endpoint connection...

+ New database + New pool + New data warehouse Import database Reset password Move Delete Feedback

Resource group (change) : rg-NetworkServices

Status : Available

Location : Central US

Subscription (change) : Visual Studio Enterprise – MPN

Subscription ID : 3822b9c0-b77e-455e-a1d1-8717b1b4150b

Tags (change) : Click here to add tags

Server admin : patsam

Firewalls and virtual net... : Show firewall settings

Active Directory admin : Not configured

Server name : patsam-finance-server.database.windows.net

Notifications (0) Features (6)

Active Directory admin

Advanced Data Security

Automatic tuning

Auditing

Fallover groups

Transparent data encryption

Available resources

Filter by name

All types

1 database

| NAME | TYPE | STATUS | PRICING TIER |
|-------------------------|--------------|--------|--------------|
| patsam-finance-database | SQL database | Online | Basic |

Provide the relevant details.

- Database name: patsam-finance-database-restore1
- Storage: Click "Configure Required Settings" and provide storage account details and select the relevant backup file (.bacpac)
- Login/Password: Login/Password details for the Database

Home > SQL databases > patsam-finance-database

Import database

patsam-finance-server

- * Subscription: Visual Studio Enterprise - MPN
- * Storage (Premium not supported): [Configure required settings](#)
- * Pricing tier: Basic: 2 GB storage
- * Database name: patsam-finance-database-restore1
- * Collation: SQL_Latin1_General_CP1_CI_AS
- Authentication type: SQL Server
- * Server admin login: patsam
- * Password: [masked]

Storage configuration:

Click on "Configure Required Settings" and select the Storage Account we created earlier.

Home > SQL databases > patsam-finance-database (patsam-finance-server/patsam-finance-database) > Export database > Storage accounts

Storage accounts

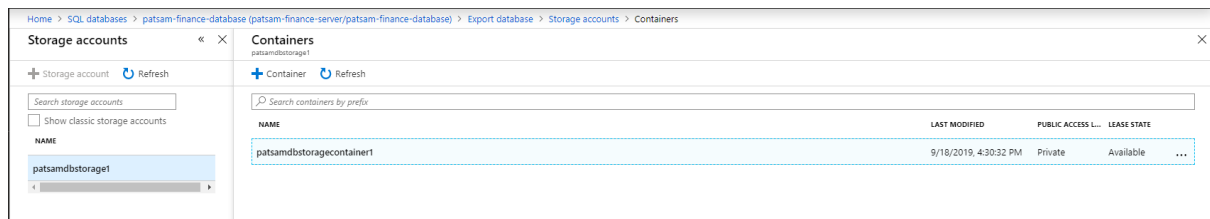
+ Storage account Refresh

Search storage accounts

☐ Show classic storage accounts

| NAME | TYPE | RESOURCE GROUP | LOCATION |
|------------------|----------------|--------------------|------------|
| patsamdbstorage1 | Standard-RAGRS | rg-NetworkServices | Central US |

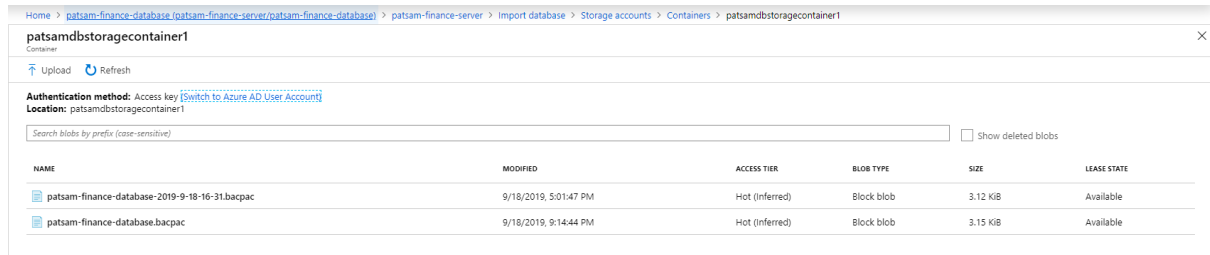
Select the Container we created earlier under the selected Storage Account.



The screenshot shows the Azure portal interface. On the left, the 'Storage accounts' pane is open, displaying a list of storage accounts. The account 'patsamdbstorage1' is selected. On the right, the 'Containers' pane is open, showing a list of containers. The container 'patsamdbstoragecontainer1' is selected. The breadcrumb navigation at the top reads: Home > SQL databases > patsam-finance-database (patsam-finance-server/patsam-finance-database) > Export database > Storage accounts > Containers.

| NAME | LAST MODIFIED | PUBLIC ACCESS L... | LEASE STATE |
|---------------------------|-----------------------|--------------------|---------------|
| patsamdbstoragecontainer1 | 9/18/2019, 4:30:32 PM | Private | Available ... |

Select the backup (.bacpac) file you want to restore.



The screenshot shows the Azure portal interface for a specific storage container, 'patsamdbstoragecontainer1'. The 'Blobs' view is active, displaying a list of blobs. The breadcrumb navigation at the top reads: Home > patsam-finance-database (patsam-finance-server/patsam-finance-database) > patsam-finance-server > Import database > Storage accounts > Containers > patsamdbstoragecontainer1. The authentication method is 'Access key' and the location is 'patsamdbstoragecontainer1'. A search bar for blobs is present. A checkbox 'Show deleted blobs' is also visible.

| NAME | MODIFIED | ACCESS TIER | BLOB TYPE | SIZE | LEASE STATE |
|--|-----------------------|----------------|------------|----------|-------------|
| patsam-finance-database-2019-9-18-16-31.bacpac | 9/18/2019, 5:01:47 PM | Hot (Inferred) | Block blob | 3.12 KiB | Available |
| patsam-finance-database.bacpac | 9/18/2019, 9:14:44 PM | Hot (Inferred) | Block blob | 3.15 KiB | Available |

Click OK.

Home > patsam-finance-database (patsam-finance-server)

Import database

↓ patsam-finance-server

* Subscription
Visual Studio Enterprise – MPN

* Storage (Premium not supported)
patsam-finance-database.bacpac

* Pricing tier ⓘ
Basic: 2 GB storage

* Database name
patsam-finance-database-restore1 ✓

* Collation ⓘ
SQL_Latin1_General_CP1_CI_AS

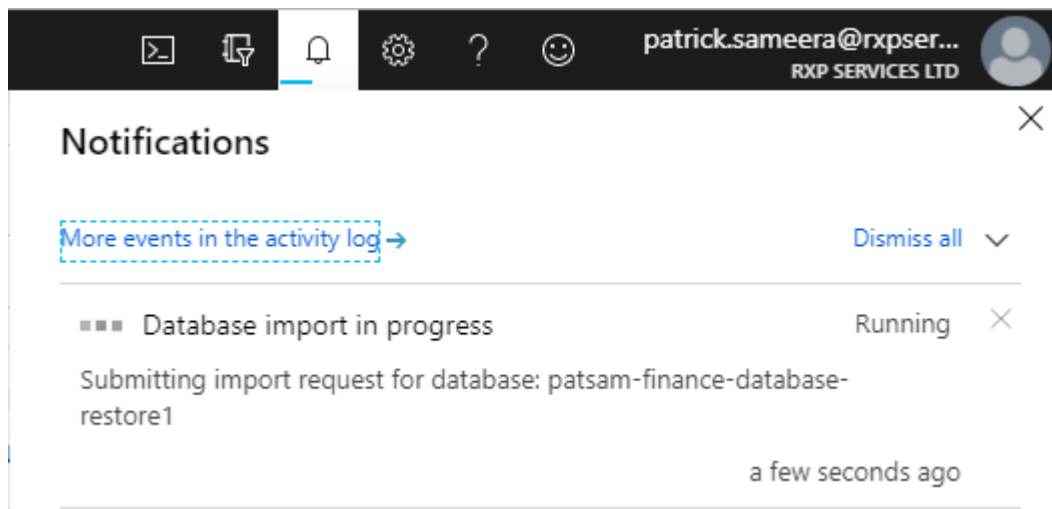
Authentication type
SQL Server

* Server admin login
patsam

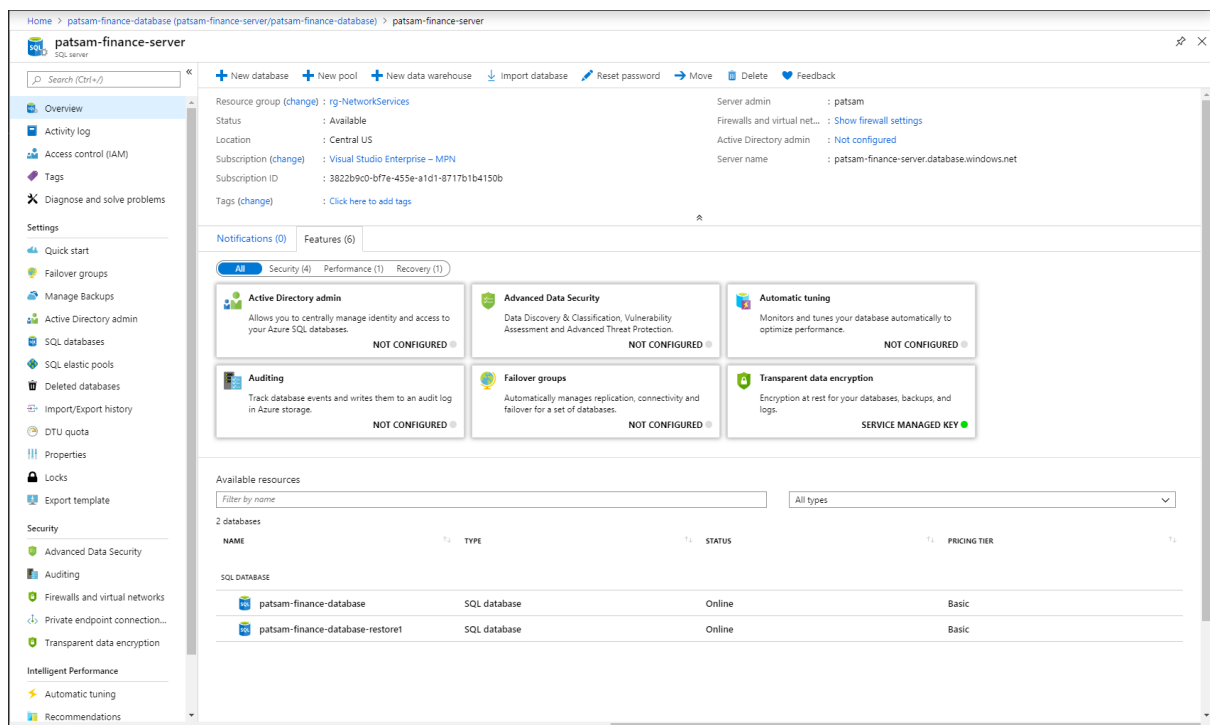
* Password
..... ✓

OK

It will Import the backup file.

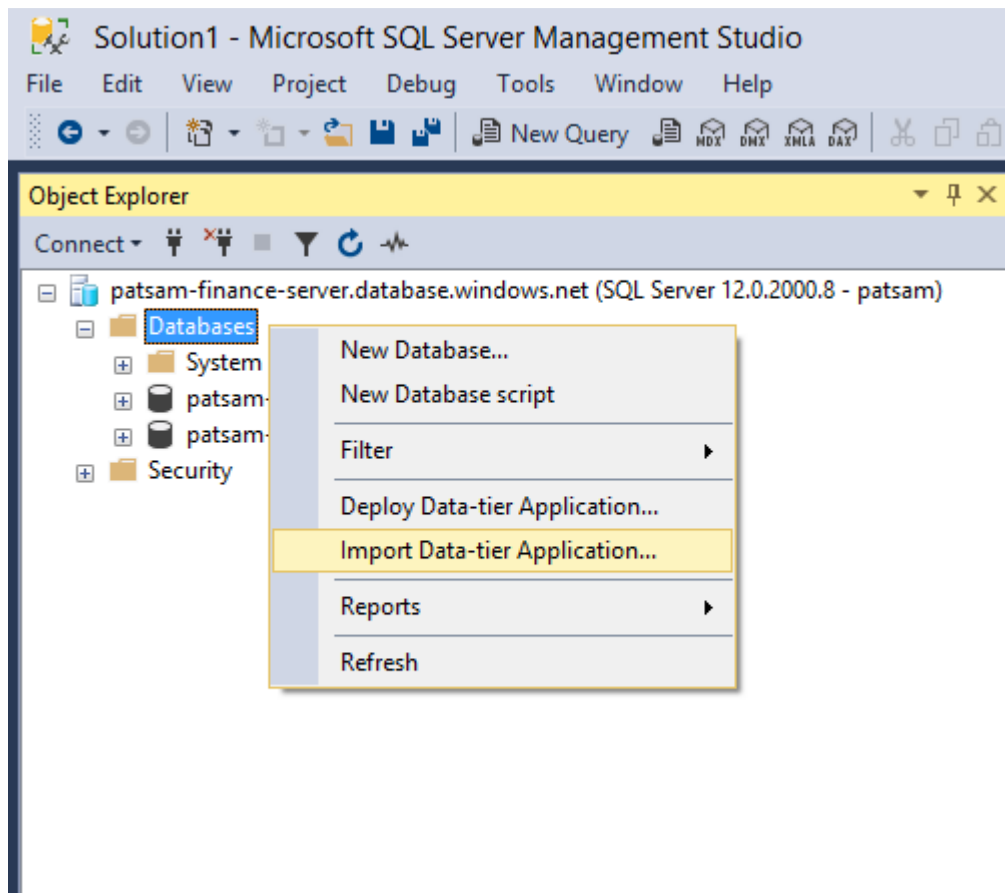


Now we see the newly created Database.

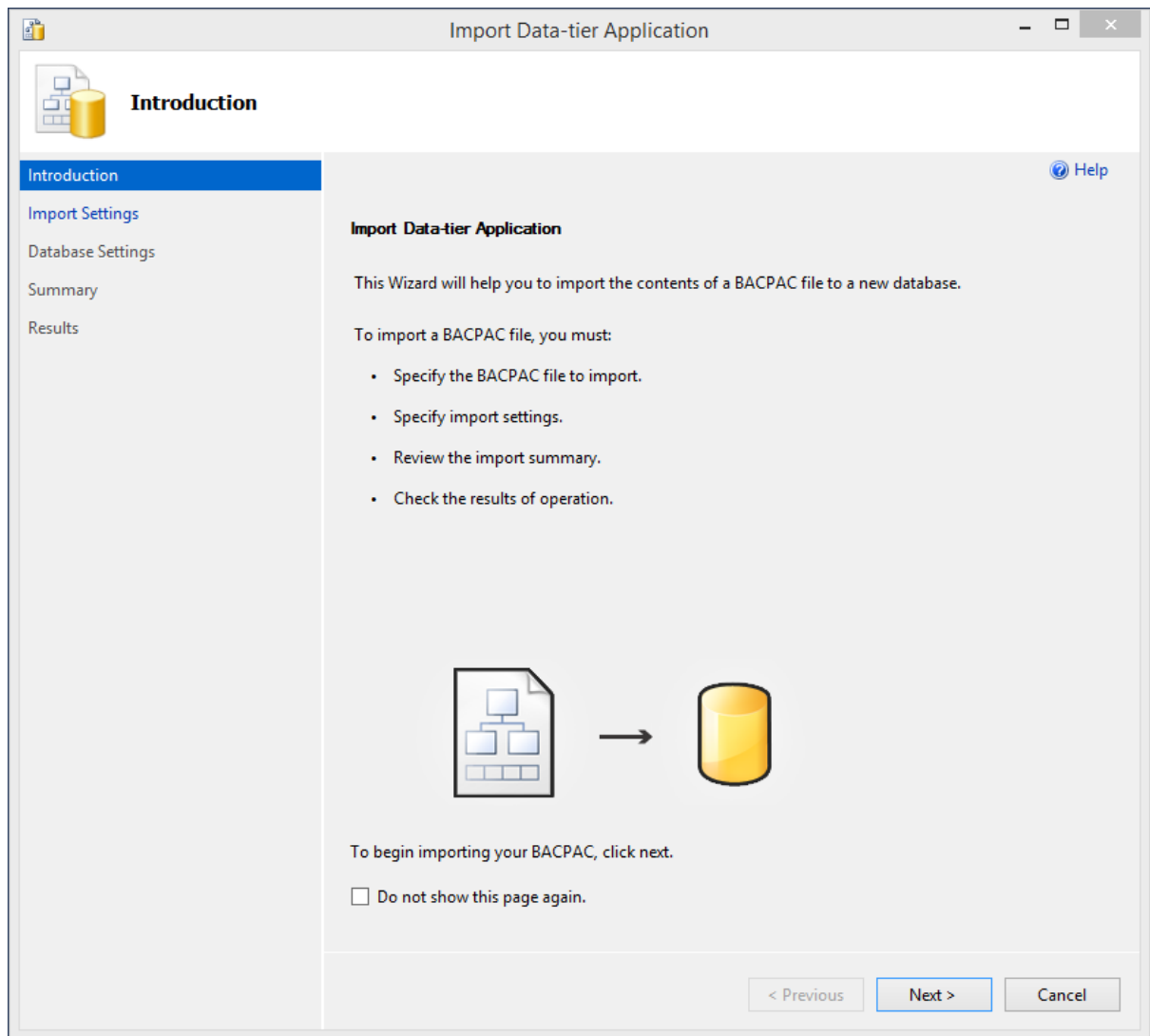


Step 04: Import Azure Database backup file through SQL Server Management

Right Click on Databases and Click Import Data-tier Application.



Click Next.



Provide the Storage Account details.

Click Connect and provide the relevant Storage Account details.

The screenshot shows the 'Import Data-tier Application' window with the 'Import Settings' tab selected. The left sidebar contains a navigation menu with 'Introduction', 'Import Settings' (highlighted), 'Database Settings', 'Summary', and 'Results'. The main area is titled 'Specify the BACPAC to import.' and includes a help icon. Below the title, a text box explains: 'This operation will create a database from a BACPAC file. To continue, specify the location of the BACPAC. Optionally, specify settings for the new database. Click Next to continue.' There are two radio buttons: 'Import from local disk' (unselected) and 'Import from Windows Azure' (selected). Under 'Import from local disk', there is a text box and a 'Browse...' button. Under 'Import from Windows Azure', there are three text boxes: 'Storage account:' with a 'Connect...' button, 'Container:' with a dropdown arrow, and 'File name:' with a dropdown arrow and a 'Browse...' button. Below these is a 'Temporary file name:' text box containing the path 'C:\Users\psam0403\AppData\Local\Temp\temp_bacpac-20190919105750.bacpac' and a 'Browse...' button. At the bottom right, there are three buttons: '< Previous', 'Next >', and 'Cancel'.

- Storage account: patsamdbstorage1
- Container: patsamdbstoragecontainer1
- File name: relevant backup (.bacpac) file you want to Import

The screenshot shows the 'Connect to Microsoft Azure Storage' dialog box. It has a yellow title bar. Inside, there is a 'Storage account:' dropdown menu with 'patsamdbstorage1' selected. Below it is an 'Account key:' text box filled with dots. There are two checkboxes: 'Use secure endpoints (HTTPS)' which is checked, and 'Save account key' which is unchecked. At the bottom right, there are three buttons: 'Connect', 'Cancel', and 'Help'.

Click Next.

patmamdbstorage1 - Access keys

Import Data-tier Application

Import Settings

Introduction

Import Settings

Database Settings

Summary

Results

[Help](#)

Specify the BACPAC to import.

This operation will create a database from a BACPAC file. To continue, specify the location of the BACPAC. Optionally, specify settings for the new database. Click Next to continue.

☐ Import from local disk

[Browse...](#)

☒ Import from Windows Azure

Storage account: [Connect...](#)

Container: [v](#)

File name: [Browse...](#)

Temporary file name:

[Browse...](#)

[< Previous](#) [Next >](#) [Cancel](#)

Provide a name for the Database and select the relevant Pricing Tier option and Click Next.

- Database name: patsam-finance-database-restore2

Import Data-tier Application

Database Settings

Introduction
Import Settings
Database Settings
Summary
Results

[Help](#)

Specify settings for the new Microsoft Azure SQL Database.

This operation will create a Microsoft Azure SQL Database from a BACPAC file. To continue, specify the settings for the new database and click Next.

patsam-finance-server (patsam) [Connect...](#)

New database name:
patsam-finance-database-restore2

Microsoft Azure SQL Database settings

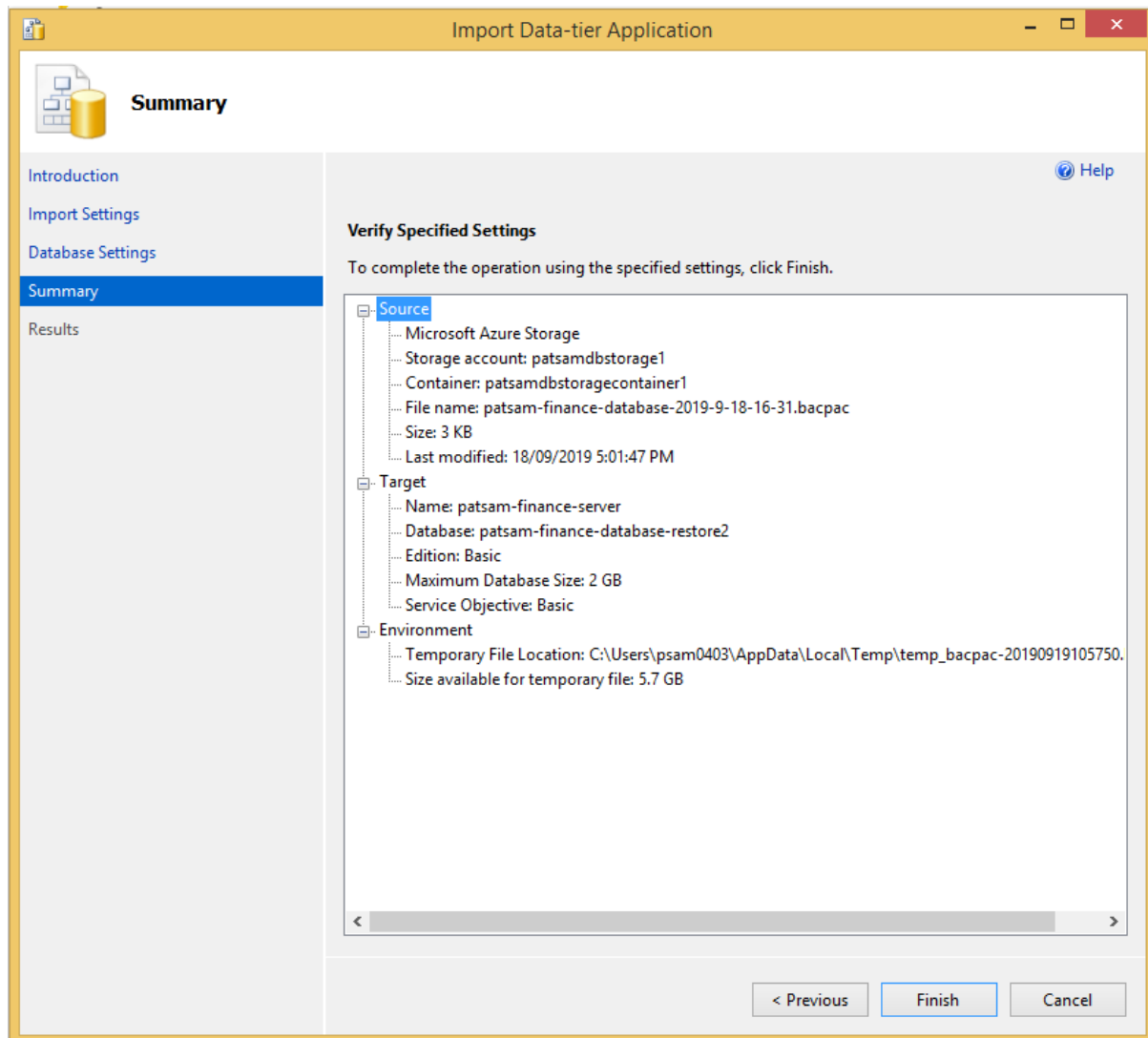
Edition of Microsoft Azure SQL Database: Basic

Maximum database size (GB): 2

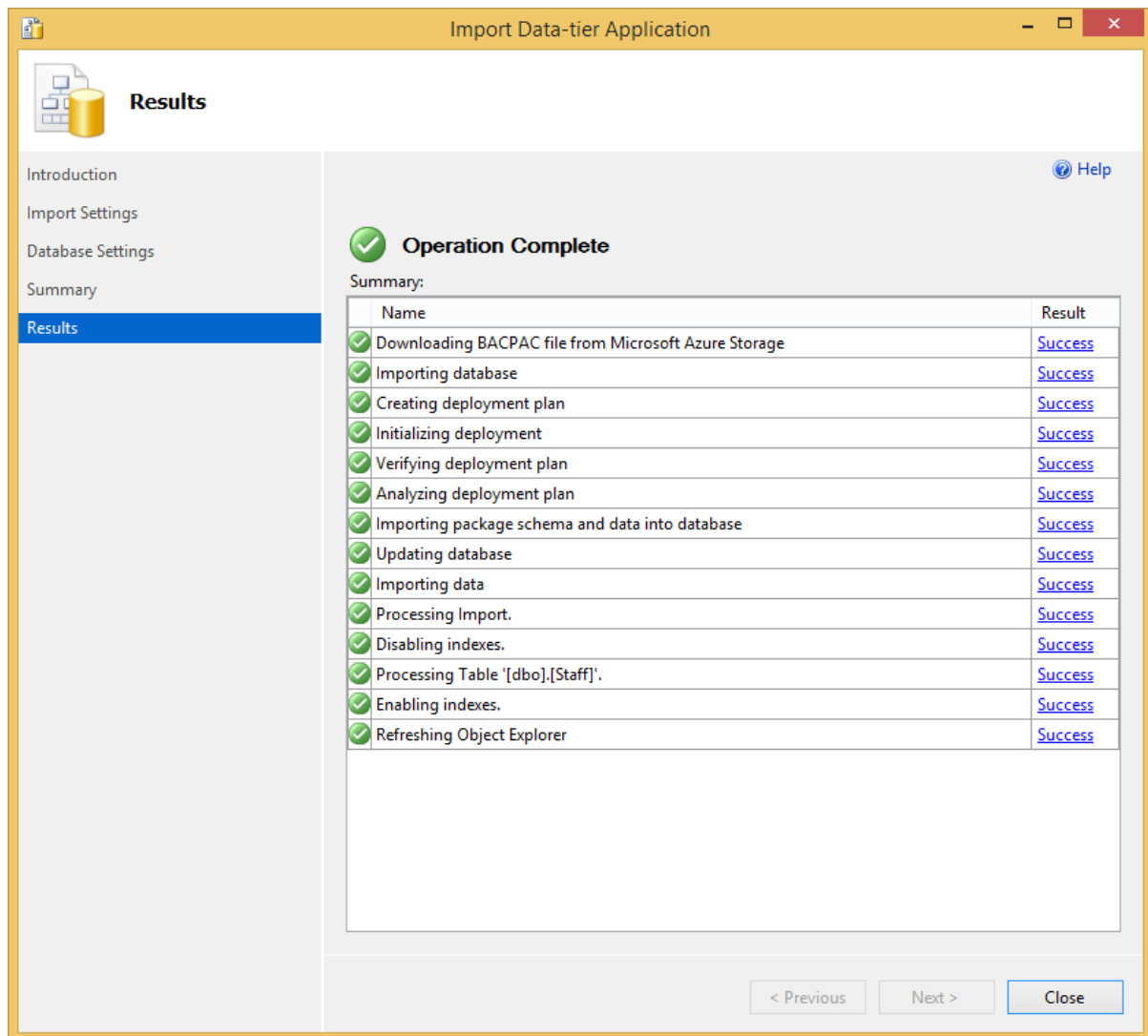
Service Objective: Basic

< Previous Next > Cancel

Click Finish.



Once it finishes importing Click Close.



We can see the newly created Database.

