

1. Azure introduction –

Each resource is based on a service. Every resource is also part of the resource group. When you create a resource, you need to define a location for the resource.

2. Azure storage accounts

On azure you could either install a database engine on a virtual machine or use an existing azure service for the database.

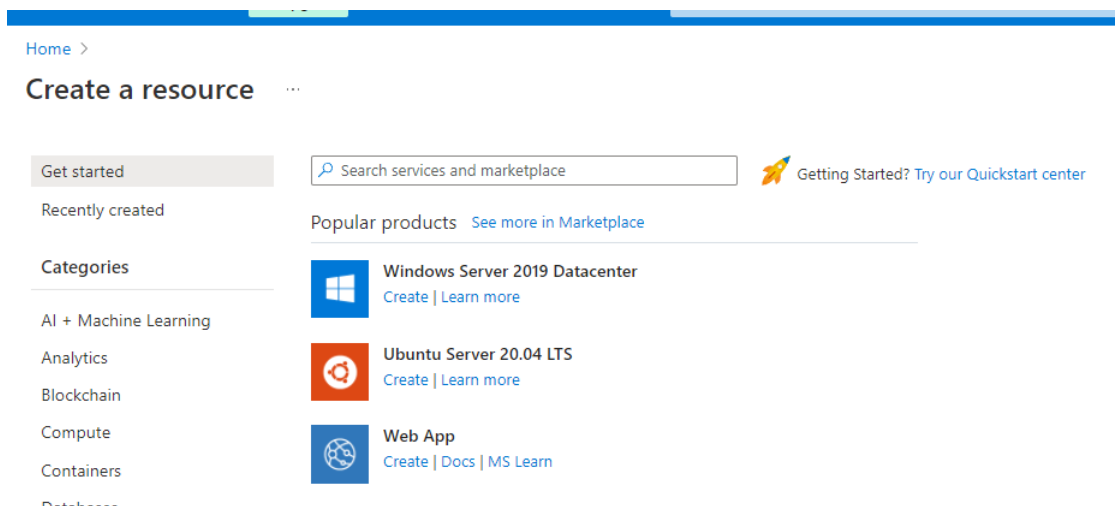
The first thing we'll do is create an Azure storage account – used to store data in the cloud.

We get various services that are part of the storage account:

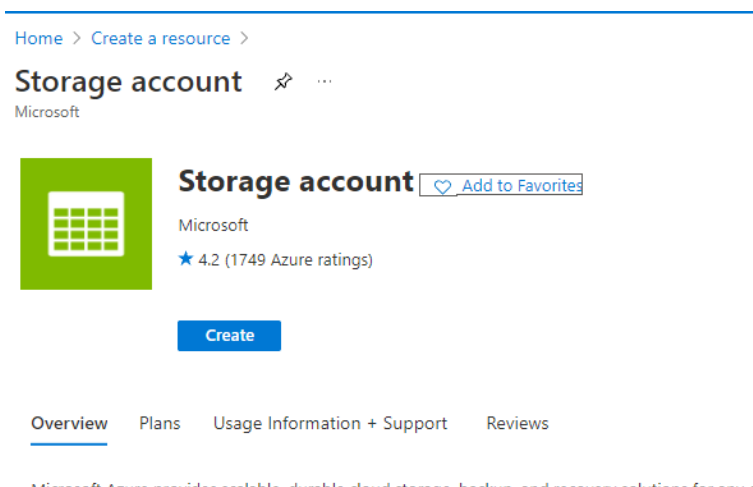
- Blob service – used to store objects like videos, audios, etc. Azure data lake is based on the blob service.
- Table service – used to store structured noSQL data.
- Filer service – used to store file shares which can be accessed by other users
- Queue service – used for sending and receiving messages

Steps to create a storage account –

Search for a “storage account” in create resource search bar.



Click create –



On the next screen –

Select your subscription, select your resource group (create if needed). Give a unique storage account name, select region. Select Locally redundant storage (it is the cheaper option).

Home > Create a resource > Storage account >

Create a storage account

Basics

Advanced

Networking

Data protection

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 *

(New) data-grp

Create new

Instance details

If you need to create a legacy storage account type, please click [here](#).

Storage account name ⓘ *

azure203

Region ⓘ *

(US) West US

Performance ⓘ *

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

☐ Premium: Recommended for scenarios that require low latency.

Redundancy ⓘ *

Locally-redundant storage (LRS)

Review + create

< Previous

Next : Advanced >

Click next, leave all the other settings as they are and create the account. You’ll see something similar when the data storage account is created.

Search (Ctrl+J)

«

Delete

Cancel

Redeploy

Refresh

Overview

Inputs

Outputs

Template

We'd love your feedback! →

✔ Your deployment is complete

Deployment name: azure203_1634283365495

Subscription: [Azure subscription 1](#)

Resource group: data-grp

Start time: 10/15/2021, 12:36:10 AM

Correlation ID: 8cc36e38-6584-4e46-9058-310386ef18f1

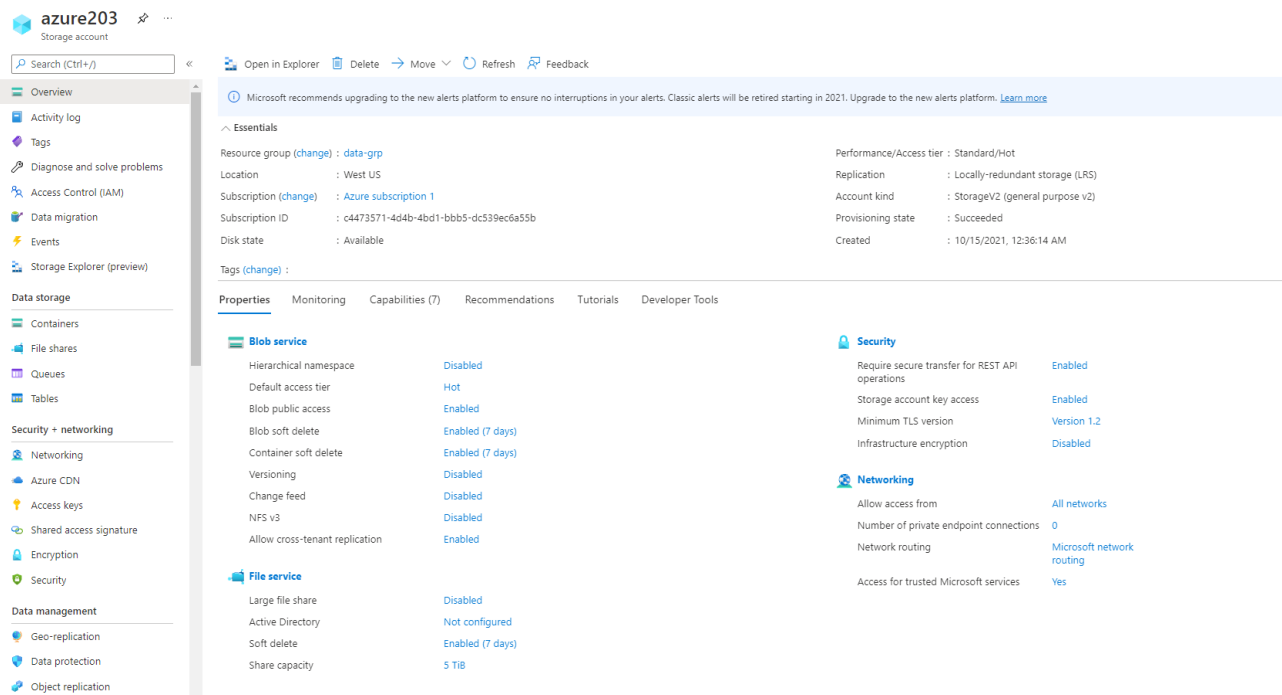
Deployment details

(Download)

Next steps

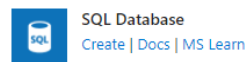
Go to resource

When you click on “Go to Resource”, we see:



On the left-hand side under data storage, there are different options like containers to create the blob service, file shares, queues and tables.

Creating an account based on the SQL Database Service-



Go to all resources, create a new resource. Select SQL Database

Sidenote – Azure synapse is a service used to host a sql data warehouse.

After clicking on create – select your share resource group, give a database name (doesn't have to be unique) create a new server like in the next figure, click next to networking.

Home > All resources > Create a resource >

Create SQL Database

Microsoft

Subscription *

Resource group * [Create new](#)

Database details

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

Database name * ✓

Server * [Create new](#)

Want to use SQL elastic pool? * ☐ Yes ☒ No

Compute + storage * [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 - Preview ☐ Zone-redundant backup storage - Preview ☒ Geo-redundant backup storage

Selected value for backup storage redundancy is Geo-redundant backup storage. Note that database backups will be geo-replicated to the paired region. [Learn more](#)

Your use of either of the Preview backup storage redundancy options (ZRS and LRS) is governed by the agreement under which you obtained Microsoft Azure Services. By selecting a Preview redundancy option, you confirm that you agree to the preview terms in such agreement.

[Review + create](#) [Next : Networking >](#)

Creating database server screen looks like.

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 * ✓
 Location * ✓

Authentication

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 Azure AD authentication [Learn more](#) or using an existing Azure AD user, group, or application as Azure AD admin [Learn more](#), or select both SQL and Azure AD authentication.

Authentication method ☒ Use SQL Authentication ☐ Use only Azure Active Directory (Azure AD) authentication ☐ Use both SQL and Azure AD Authentication

Server admin login * ✓
 Password * ✓
 Confirm password * ✓

After filling out data on the previous screen of create SQL database, click on next for networking.

In Network connectivity select Public endpoint, so that you can access the SQL services from your own machine and select the two firewall options as yes.

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 'azure203lab' 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](#)

☐ No access ☒ Public endpoint ☐ Private endpoint

Connectivity method * ⓘ

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 *

Add current client IP address *

This will create an Azure SQL server and an Azure SQL database.

While the service is being created – download the [SQL server management Studio to later connect to the database.](#)

End screen –

Microsoft.SQLDatabase.newDatabaseNewServer_95d44e4536dc4b77a3c18 | Overview

Deployment

Search (Ctrl+/) « Delete Cancel Redeploy Refresh

Overview Inputs Outputs Template

✓ We'd love your feedback! →

✓ Your deployment is complete

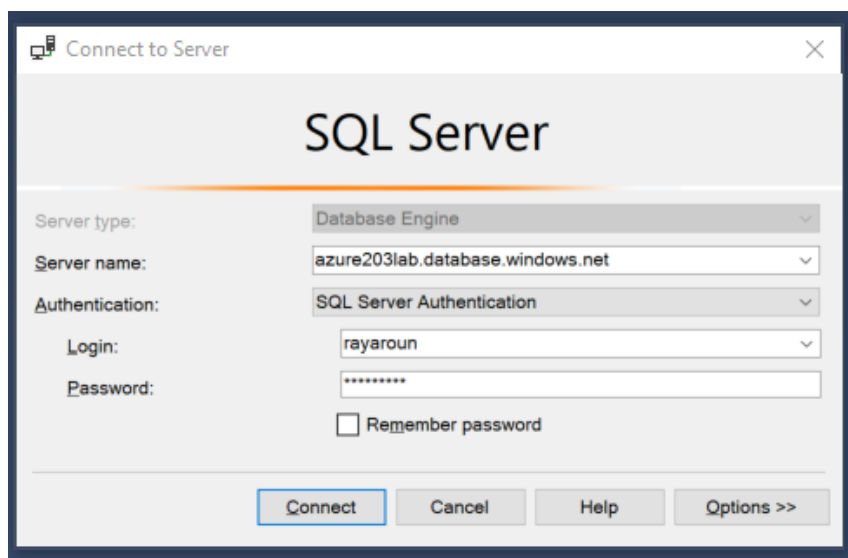
Deployment name: Microsoft.SQLDatabase.newDatabaseNewServe... Start time: 10/15/2021, 11:05:52 AM
 Subscription: Azure subscription 1 Correlation ID: b45960b3-8d2d-40a1-ba75-5c411d177f72
 Resource group: data-grp

Deployment details (Download)

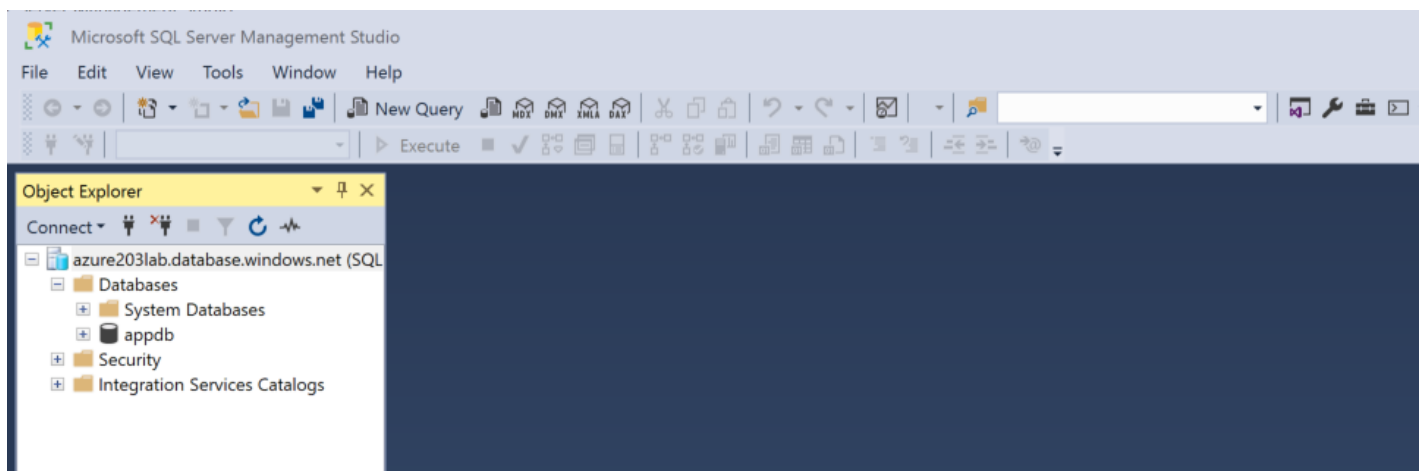
Next steps

Go to resource

To connect to the service fire up the SSMS. Paste the server mentioned on the database created (appdb database in my case).



Shows up like this in the end.



You can now right click on the “appdb” database and create tables and insert data like you would normally do with any other database server. This service can further be used inside other applications to read / write data to the table.