

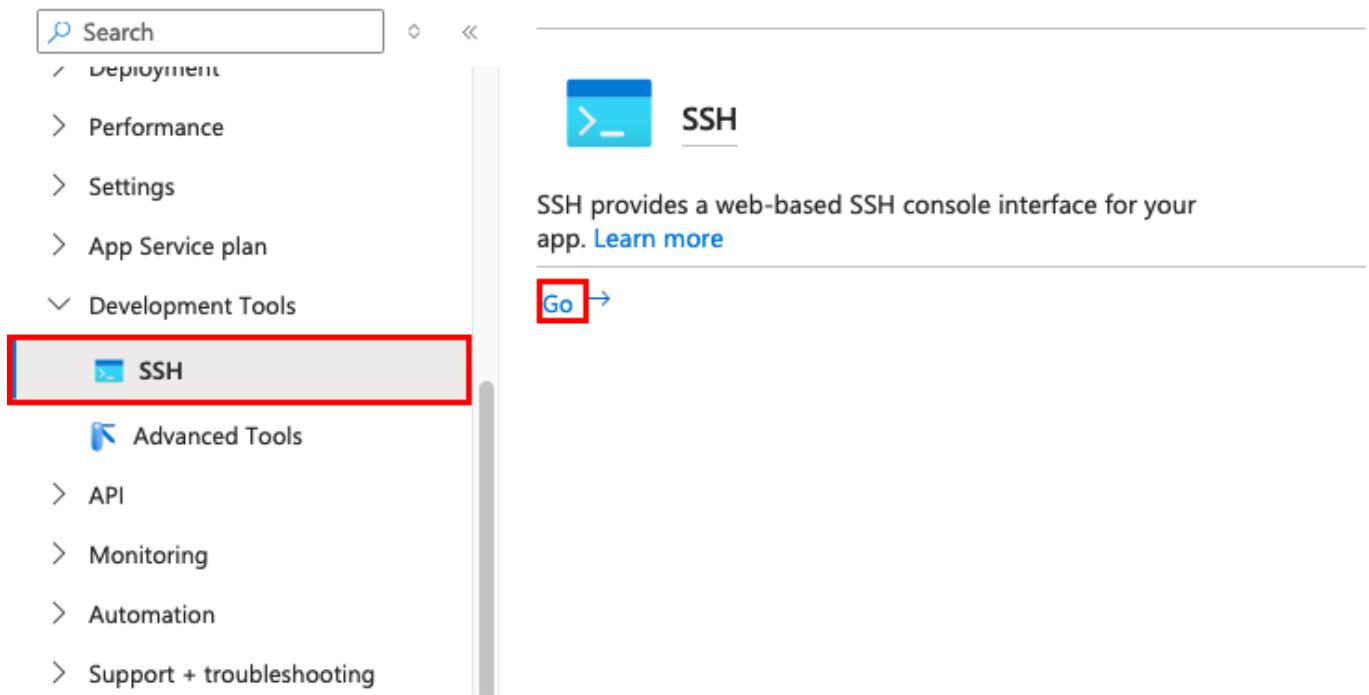
# DEPLOY AN ASP.NET CORE AND AZURE SQL DATABASE APP TO AZURE APP SERVICE -3

## GENERATE DATABASE SCHEMA

With the SQL Database protected by the virtual network, the easiest way to run [dotnet database migrations](#) is in an SSH session with the Linux container in App Service.

### STEP 1: BACK IN THE APP SERVICE PAGE, IN THE LEFT MENU,

1. Select **Development Tools > SSH**.
2. Select **Go**. (The start up takes a few minutes.)



### STEP 2: IN THE SSH SESSION:

1. Run `cd /home/site/wwwroot`. Here are all your deployed files.
2. Run the migration bundle that the GitHub workflow generated, with the command `./migrationsbundle -- --environment Production`. If it succeeds, App Service is connecting successfully to the SQL Database. Remember that `--environment Production` corresponds to the code changes you made in `Program.cs`.



```
Documentation: http://aka.ms/webapp-linux
Dotnet quickstart: https://aka.ms/dotnet-qs
ASP .NETCore Version: 8.0.3
Note: Any data outside '/home' is not persisted
root@msdocs-cor_263242abe8:~/site/wwwroot# cd /home/site/wwwroot
root@msdocs-cor_263242abe8:~/site/wwwroot# ./migrationsbundle -- --environment Production
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (68ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      SELECT 1
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (62ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      SELECT OBJECT_ID(N'[__EFMigrationsHistory]');
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (8ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      SELECT 1
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (17ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      CREATE TABLE [__EFMigrationsHistory] (
        [MigrationId] nvarchar(150) NOT NULL,
        [ProductVersion] nvarchar(32) NOT NULL,
        CONSTRAINT [PK__EFMigrationsHistory] PRIMARY KEY ([MigrationId])
      );
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (8ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      SELECT 1
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (10ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      SELECT OBJECT_ID(N'[__EFMigrationsHistory]');
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (21ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      SELECT [MigrationId], [ProductVersion]
      FROM [__EFMigrationsHistory]
      ORDER BY [MigrationId];
info: Microsoft.EntityFrameworkCore.Migrations[20402]
      Applying migration '20240621154946_InitialCreate'.
Applying migration '20240621154946_InitialCreate'.
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (7ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      CREATE TABLE [Todo] (
        [ID] int NOT NULL IDENTITY,
        [Description] nvarchar(max) NULL,
        [CreatedDate] datetime2 NOT NULL,
        CONSTRAINT [PK_Todo] PRIMARY KEY ([ID])
      );
info: Microsoft.EntityFrameworkCore.Database.Command[20101]
      Executed DbCommand (9ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
      INSERT INTO [__EFMigrationsHistory] ([MigrationId], [ProductVersion])
      VALUES (N'20240621154946_InitialCreate', N'8.0.6');
Done.
root@msdocs-cor_263242abe8:~/site/wwwroot#
```

Menu | ssh://root@

SSH CONNECTION ESTABLISHED

In the SSH session, only changes to files in /home can persist beyond app restarts. Changes outside of /home aren't persisted.

## BROWSE TO THE APP

### STEP 1: IN THE APP SERVICE PAGE:

1. From the left menu, select **Overview**.
2. Select the URL of your app.

[Browse](#)
[Stop](#)
[Swap](#)
[Restart](#)
[Delete](#)
[Refresh](#)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Better Together (preview)

Deployment

Performance

Essentials

Resource group (move)

msdocs-core-sql-tutorial

Status

Running

Location (move)

East US

Subscription (move)

Visual Studio Enterprise Subscription

Subscription ID

Tags (edit)

JSON View

Default domain

msdocs-core-sql-251.azurewebsites.net

App Service Plan

msdocs-core-sql-251-plan (B1: 1)

Operating System

Linux

Health Check

Not Configured

**STEP 2:** ADD A FEW TASKS TO THE LIST. CONGRATULATIONS, YOU'RE RUNNING A WEB APP IN AZURE APP SERVICE, WITH SECURE CONNECTIVITY TO AZURE SQL DATABASE.

# Index

[Create New](#)

Description	Created Date	
Deploy app to App Service	2023-05-17	<a href="#">Edit</a>   <a href="#">Details</a>   <a href="#">Delete</a>
Walk dog	2023-05-17	<a href="#">Edit</a>   <a href="#">Details</a>   <a href="#">Delete</a>
Feed cats	2023-05-17	<a href="#">Edit</a>   <a href="#">Details</a>   <a href="#">Delete</a>

Processing Time: 00:00:00.0498600

Tip

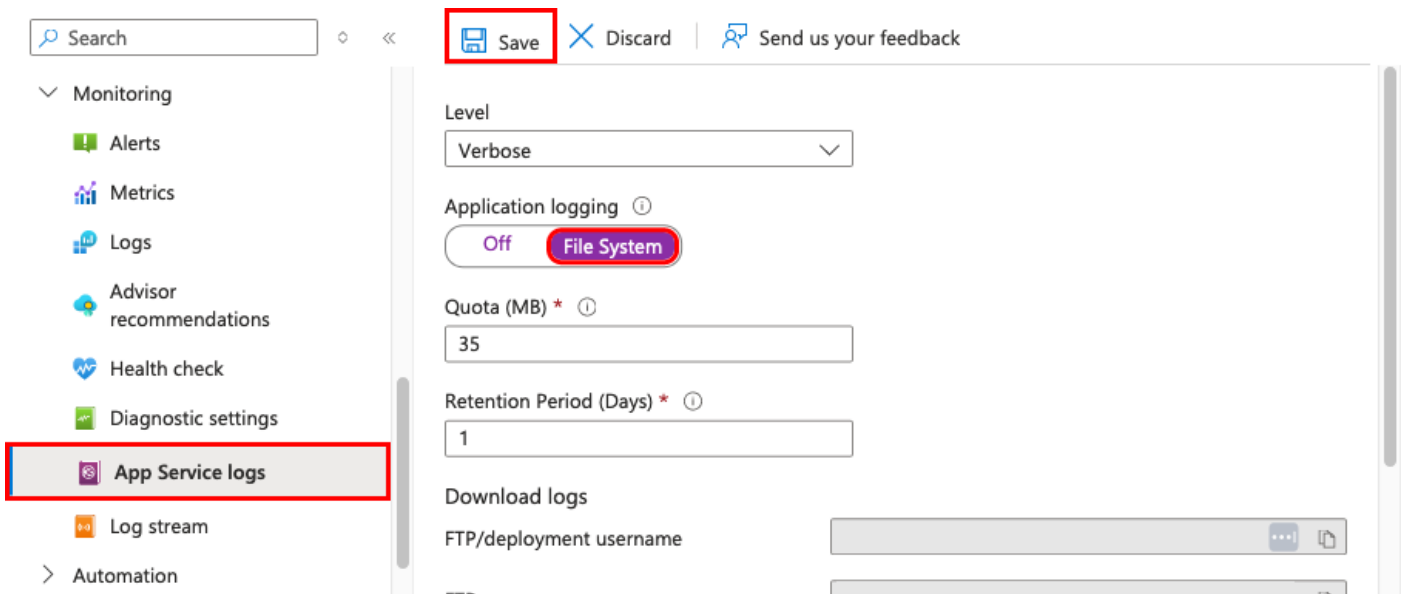
The sample application implements the [cache-aside](#) pattern. When you visit a data view for the second time, or reload the same page after making data changes, **Processing time** in the webpage shows a much faster time because it's loading the data from the cache instead of the database.

## STREAM DIAGNOSTIC LOGS

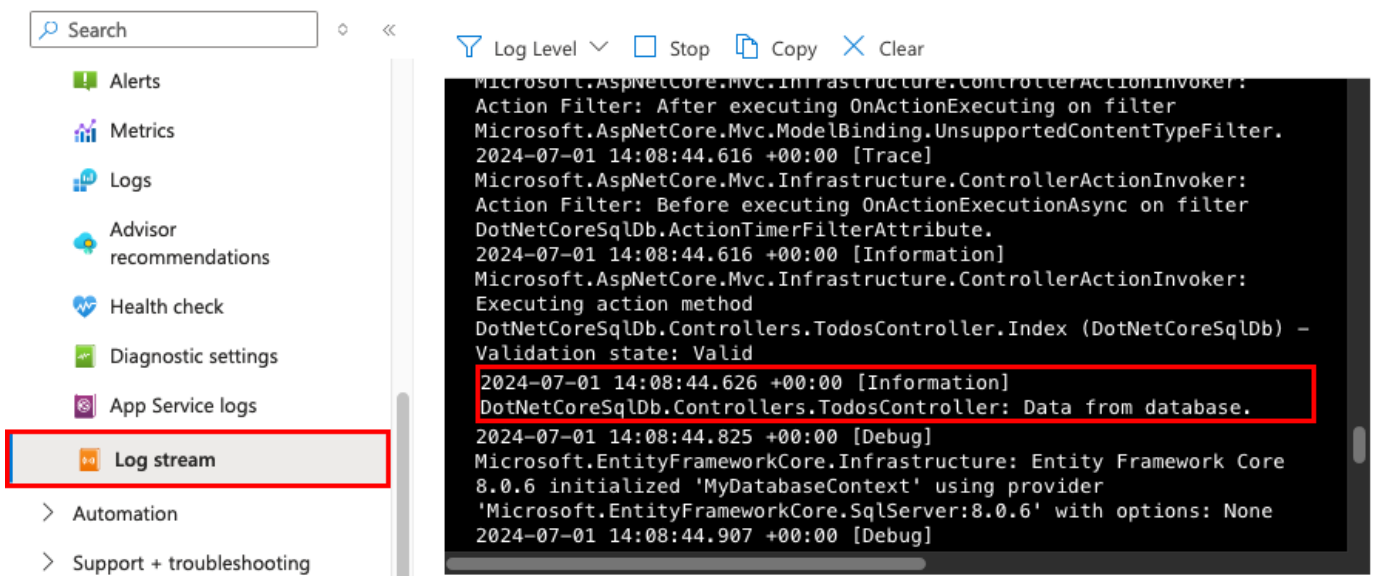
Azure App Service captures all console logs to help you diagnose issues with your application. The sample app includes logging code in each of its endpoints to demonstrate this capability.

**STEP 1:** IN THE APP SERVICE PAGE:

1. From the left menu, select **Monitoring > App Service logs**.
2. Under **Application logging**, select **File System**.
3. In the top menu, select **Save**.



**STEP 2:** FROM THE LEFT MENU, SELECT **LOG STREAM**. YOU SEE THE LOGS FOR YOUR APP, INCLUDING PLATFORM LOGS AND LOGS FROM INSIDE THE CONTAINER.

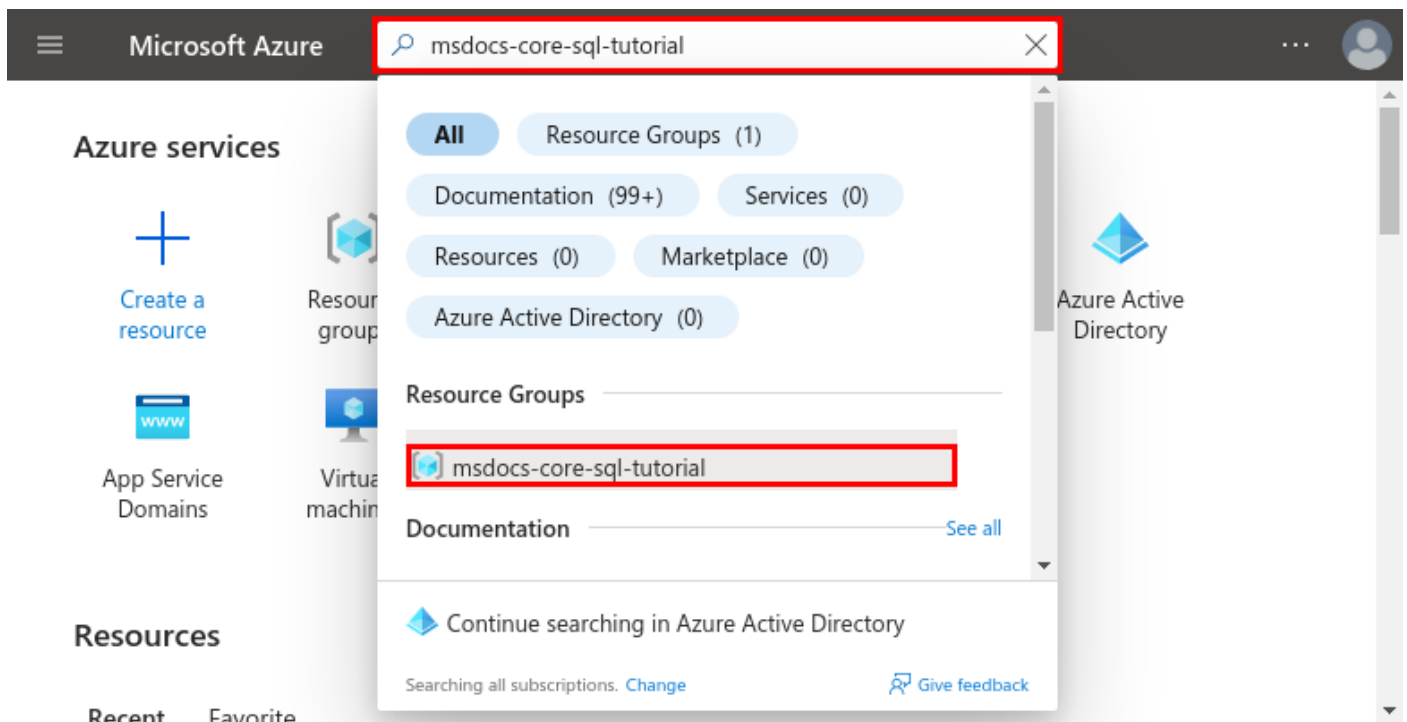


## CLEAN UP RESOURCES

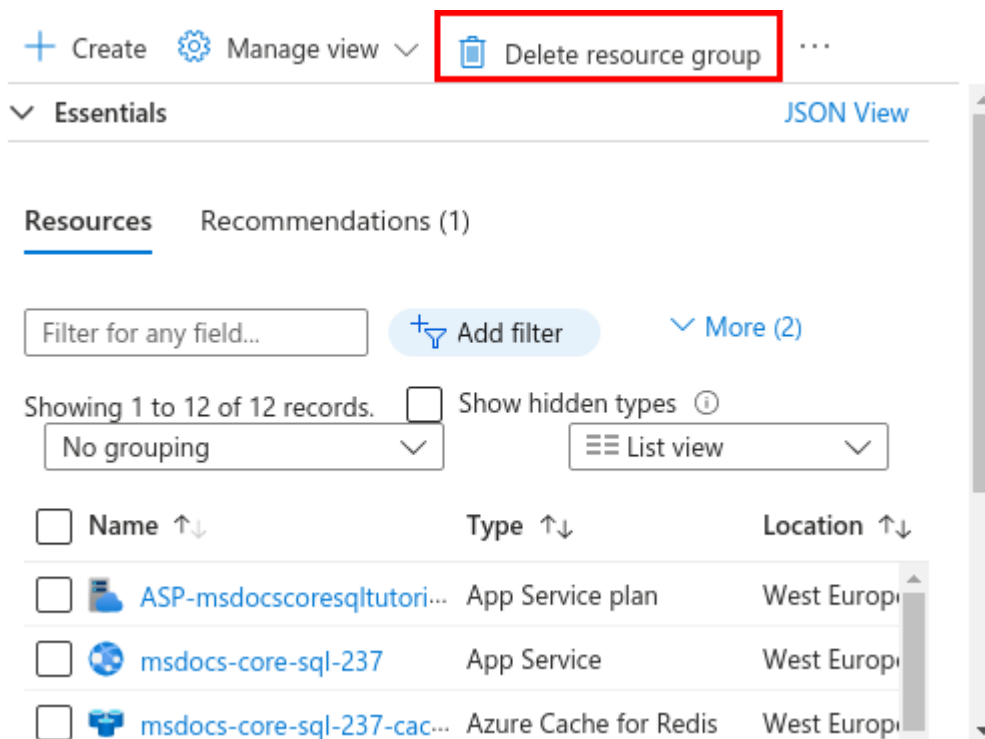
When you're finished, you can delete all of the resources from your Azure subscription by deleting the resource group.

**Step 1:** In the search bar at the top of the Azure portal:

1. Enter the resource group name.
2. Select the resource group.



**Step 2:** In the resource group page, select **Delete resource group**.



**Step 3:**

1. Enter the resource group name to confirm your deletion.
2. Select **Delete**.