

How to create .NET8 WebAPI Azure SQL MicroService

1. Create Azure SQL

Create Azure SQL service:

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Home

Dashboard

All services

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All resources

Resource groups

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Function App

SQL databases

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Virtual machines

Load balancers

Storage accounts

Virtual networks

Microsoft Entra ID

Monitor

<<

Home >

Create a resource

...

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Blockchain

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Containers

Databases

Developer Tools

DevOps

Identity

Integration


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IT & Management Tools


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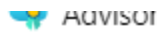
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Azure SQL Managed Instance

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2/29



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Mixed Reality

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SQL server (logical server)

[Create](#) | [Docs](#)Select SQL databases and press **Create** button

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Home > Create a resource >

Select SQL deployment option

Microsoft

Feedback

How do you plan to use the service?

Lower, simplified pricing for SQL Database Hyperscale starts from 15th of December 2023. [Learn more](#)

SQL databases

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

Resource type

Single database

Create [Show details](#)

SQL managed instances

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

Resource type

Single instance

Create [Show details](#)

SQL virtual machines

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

Image

Create [Show details](#) ☐ High availability

We set the database name and we create a SQL Server

Microsoft Azure

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⌵

⊕ Create a resource

🏠 Home

📊 Dashboard

☰ All services

★ FAVORITES

📊 All resources

🗂️ Resource groups

🚀 Quickstart Center

🌐 App Services

⚡ Function App

🗄️ SQL databases

🌌 Azure Cosmos DB

💻 Virtual machines

⚖️ Load balancers

📁 Storage accounts

🌐 Virtual networks

👤 Microsoft Entra ID

📊 Monitor

🛡️ Advisor

🛡️ Microsoft Defender for Cloud

💰 Cost Management + Billing

Home > Create a resource > Select SQL deployment option >

Create SQL Database

Microsoft

Basics Networking Security Additional settings Tags Review + 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

🔔 Lower, simplified pricing for SQL Database Hyperscale starts from 15th of December 2023. [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 * ⓘ

Subscription 1

Resource group * ⓘ

myRG


Create new

Database details

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

Review + create

Next : Networking >



Cost summary










General Purpose (GP_S_Gen5_2)	
Cost per GB (in USD)	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 USD
COMPUTE COST / VCORE SECOND ²	0.000000 USD

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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4/29

 Create a resource Home Dashboard All services FAVORITES All resources Resource groups Quickstart Center App Services Function App SQL databases Azure Cosmos DB Virtual machines Load balancers Storage accounts Virtual networks Microsoft Entra ID Monitor Advisor Microsoft Defender for Cloud

<<

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

Create SQL Database ...

Microsoft

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

Database name *

mysqldatabasename ✓

Server * ⓘ

(new) mysqlserver1974luisccoco (West Europe) ▼

[Create new](#)

Compute + storage * ⓘ

General Purpose - Serverless

Standard-series (Gen5), 1 vCore, 32 GB storage, zone redundant disabled

[Configure database](#)

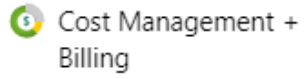
Behavior when free offer limit reached

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.

Backup storage redundancy

Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only



Review + create

Next : Networking >

We create SQL Server

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

mysqlserver1974luiscoco ✓

.database.windows.net

Location *

(Europe) West Europe ▼

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

Create a resource

Home

Dashboard

All services

FAVORITES

All resources

Resource groups

Quickstart Center

App Services

Function App

SQL databases

Azure Cosmos DB

Virtual machines

Load balancers

Storage accounts


Virtual networks

Microsoft Entra ID

Monitor

Advisor

Microsoft Defender for Cloud

 Cost Management +
Billing

OK

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

Create SQL Database Server

Microsoft

.database.windows.net

Location *

(Europe) West Europe



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 *

myadminlogin



Password *

.....



Confirm password *

.....



Create a resource

Home

Dashboard

All services

FAVORITES

All resources

Resource groups

Quickstart Center

App Services

Function App

SQL databases

Azure Cosmos DB

Virtual machines

Load balancers

Storage accounts

Virtual networks

Microsoft Entra ID

Monitor

Advisor

Microsoft Defender for Cloud

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OK

We configure the database engine CPUs and Memory

Microsoft Azure

Search resources, services, and docs (G+)

Home > Create a resource > Select SQL deployment option >

Configure

Feedback

Service and compute tier


Select from the available tiers based on the needs of your workload. The vCore model provides a wide range of configuration controls and offers Hyperscale and Serverless to automatically scale your database based on your workload needs. Alternately, the DTU model provides set price/performance packages to choose from for easy configuration. [Learn more](#)

Free database offer (Preview) ☒ Applied

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.


 Lower, simplified pricing for SQL Database Hyperscale starts from 15th of December 2023. [Learn more](#)

Max vCores

Min vCores

0.5 vCores

Apply





Cost summary

General Purpose (GP_S_Gen5_1)

Cost per GB (in USD) 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 USD







COMPUTE COST / VCORE SECOND² 0.000000 USD

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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Create SQL Database ...

Microsoft

Compute + storage * ⓘ

General Purpose - Serverless

Standard-series (Gen5), 1 vCore, 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.

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

+ Create a resource

Home

Dashboard

All services

★ FAVORITES

All resources

Resource groups

Quickstart Center

App Services

Function App

SQL databases

Azure Cosmos DB

Virtual machines

Load balancers

Storage accounts

Virtual networks

Microsoft Entra ID

Monitor

Advisor

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

Create SQL Database

Microsoft

Basics Networking Security Additional settings Tags Review + create

Product details

SQL database
by Microsoft
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Estimated cost

Storage cost 0.00 USD / month + Compute cost 0.000000 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	Subscription 1
Resource group	myRG
Region	West Europe
Database name	mysqldatabasename
Server	(new) mysqlserver1974luisccoco
Authentication method	SQL authentication
Server admin login	myadminlogin

Create

< Previous

[Download a template for automation](#)

Cost summary

General Purpose (GP_S_Gen5_1)

Cost per GB (in USD) 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 USD

COMPUTE COST / VCORE SECOND² 0.000000 USD

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

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Home > Microsoft.SQLDatabase.newDatabaseNewServer_08e52f2b936d44fe89cfe | Overview >

mysql databasename (mysqlserver1974luiscoco/mysql databasename)

SQL database

Search

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

Overview

Activity log Tags Diagnose and solve problems Query editor (preview)

Settings

Compute + storage Connection strings Maintenance Properties Locks

Data management

Replicas Sync to other databases

Integrations

Azure Synapse Link Stream analytics (preview) Add Azure AI Search

Resource group (move) : [myRG](#)

Status : Online

Location : West Europe

Subscription (move) : [Subscription 1](#)

Subscription ID : 99888cc6-c635-4ebd-b0ac-1be1dace0089

Server name : [mysqlserver1974luiscoco.database.windows.net](#)

Connection strings : [Show database connection strings](#)

Pricing tier : [Free - General Purpose - Serverless: Gen5, 1 vCore](#)

Overage billing : [Disabled](#)

Auto-pause delay : [1 hour](#)

Free monthly vCore amount : [97,887 vCore seconds remaining](#)

Earliest restore point : [No restore point available](#)

Tags (edit) : [Add tags](#)

Getting started Monitoring Properties Features Notifications (0) Integrations Tutorials

Start working with your database

Connect to your database and start working with data with a few simple steps. [Learn more](#)

Configure access

Configure network access to your SQL server. [Learn more](#)

[Configure](#)

Connect to application

Use connection strings to connect to your SQL database from your applications and favorite tools.

[See connection strings](#)

Start developing

Work in your database by using tools to add, modify and query data. [Compare tools](#)

[Open Azure Data Studio](#)

IMPORTANT:

We copy the connection string to the appsettings.json file

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information. The left sidebar contains a list of services, with 'Connection strings' highlighted under the 'SQL databases' section. The main content area displays the 'mysqlserver1974luiscoco/mysqlserver1974luiscoco' resource. The 'ADO.NET' tab is selected, showing two connection string options: 'ADO.NET (Microsoft Entra passwordless authentication)' and 'ADO.NET (SQL authentication)'. The 'ADO.NET (SQL authentication)' section is highlighted with a red box, showing the connection string: `Server=tcp:mysqlserver1974luiscoco.database.windows.net,1433;Initial Catalog=mysqlserver1974luiscoco;Persist Security Info=False;User ID=myadminlogin;Password={your_password};MultipleActiveResultSets=False;Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;`. A 'Copy' button is visible next to the connection string.

Do not forget to set the Server Password in the connection string

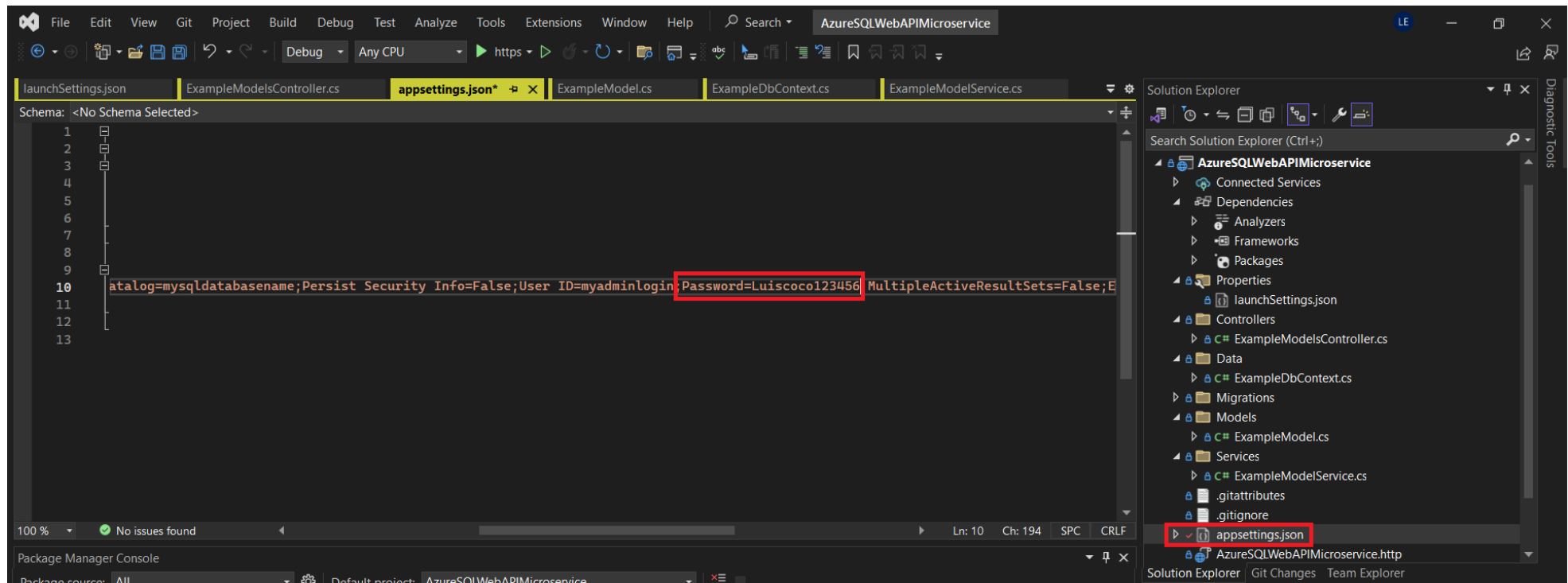
The screenshot displays the Visual Studio IDE with the **AzureSQLWebAPIMicroservice** project open. The **appsettings.json** file is selected in the Solution Explorer and its content is visible in the main editor. The connection string for MySQL is shown, with the password masked as `{your_password}` and highlighted by a red rectangle. The Solution Explorer on the right shows the project structure, with **appsettings.json** highlighted under the **Properties** folder.

```
Schema: <No Schema Selected>
1
2
3
4
5
6
7
8
9
10 atalog=mysqldbname;Persist Security Info=False;User ID=myadminlogin;Password={your_password};MultipleActiveResultSets=False;
11
12
13
```

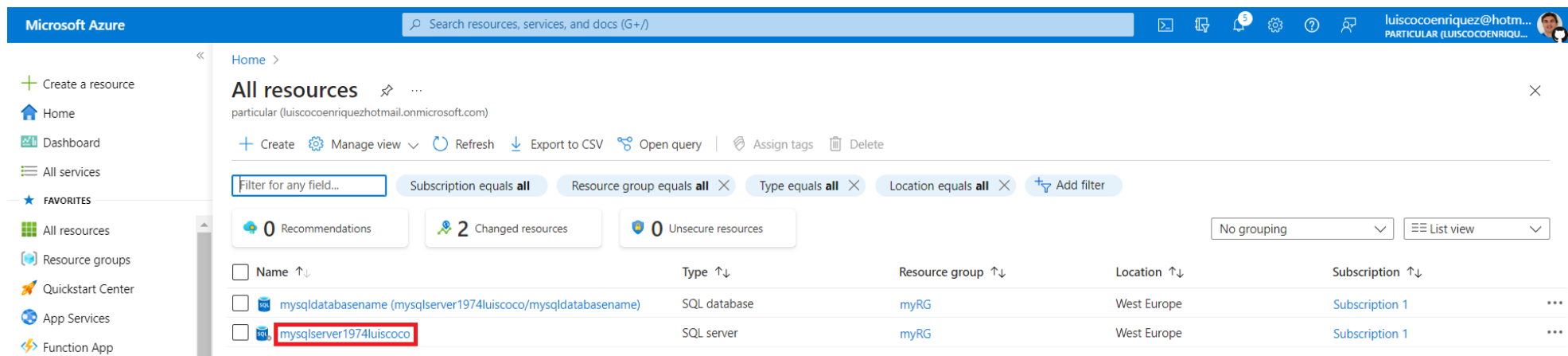
Package Manager Console

Package source: All Default project: AzureSQLWebAPIMicroservice

Solution Explorer | Git Changes | Team Explorer



We also enter in the SQL Server and add the FireWall rules



The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information. The left sidebar contains a 'Create a resource' button and a list of services. The main content area displays the 'All resources' page for the MySQL server 'mysqlserver1974luiscoco'. The server's name is highlighted with a red box. The 'Security' and 'Networking' tabs are also highlighted with red boxes. The 'Essentials' section on the right provides details about the server, including its resource group, status, location, and subscription ID.

Microsoft Azure

Search resources, services, and docs (G+)

Home > All resources >

All resources

particular (luiscocoenriquezhotmail.onmicrosoft.c...

+ Create Manage view

Filter for any field...

Name ↑↓

mysqlserver1974luiscoco

mysqlserver1974luiscoco

Security

Networking

Microsoft Defender for Cloud

Transparent data encryption

Identity

Auditing

mysqlserver1974luiscoco

SQL server

Search

+ Create database + New elastic pool + New dedicated SQL pool (formerly SQL DW) Import database Reset password

Essentials

JSON View

Resource group (move) myRG

Status Available

Location West Europe

Subscription (move) Subscription 1

Subscription ID 9988cc6-c635-4ebd-b0ac-1be1dace0089

Tags (edit) Add tags

Notifications (0) Features (6)

Server admin myadminlogin

Networking Show networking settings

Microsoft Entra admin Not configured

Server name mysqlserver1974luiscoco.database.windows.net

The screenshot shows the 'Networking' page for the MySQL server 'mysqlserver1974luiscoco'. The 'Networking' tab is highlighted with a red box. The 'Public network access' section shows the 'Selected networks' option is chosen, which is also highlighted with a red box. The 'Virtual networks' section allows adding virtual network rules. The 'Firewall rules' section includes a button to 'Add your client IPv4 address (80.30.34.207)', which is highlighted with a red box.

Microsoft Azure

Search resources, services, and docs (G+)

Home > All resources > mysqlserver1974luiscoco

All resources

particular (luiscocoenriquezhotmail.onmicrosoft.c...

+ Create Manage view

Filter for any field...

Name ↑↓

mysqlserver1974luiscoco

mysqlserver1974luiscoco

Security

Networking

Microsoft Defender for Cloud

Transparent data encryption

Identity

Auditing

Intelligent Performance

Automatic tuning

Recommendations

Monitoring

Logs

mysqlserver1974luiscoco | Networking

SQL server

Search

Public Endpoints allow access to this resource through the internet using a public IP address. An application or resource that is granted access with the following network rules still requires proper authorization to access this resource. Learn more

Public network access

Disable

Selected networks

Connections from the IP addresses configured in the Firewall section below will have access to this database. By default, no public IP addresses are allowed. Learn more

Please save public network access value before adding new virtual networks.

Virtual networks

Allow virtual networks to connect to your resource using service endpoints. Learn more

+ Add a virtual network rule

Rule	Virtual netw...	Subnet	Address r...	Endpoint sta...	Resource gro...	Subscripti...	State
------	-----------------	--------	--------------	-----------------	-----------------	---------------	-------

Firewall rules

Allow certain public internet IP addresses to access your resource. Learn more

+ Add your client IPv4 address (80.30.34.207) + Add a firewall rule

The screenshot shows the Azure portal interface for configuring a MySQL server. The left sidebar lists various services, and the main pane displays the 'Networking' settings for the resource 'mysqlserver1974luiscoco'. The 'Firewall rules' section is expanded, showing a table with one rule: 'ClientIPAddress_2024-1-11_0-5-59'. The rule's start and end IPv4 addresses are both set to 80.30.34.207. The 'Save' button at the bottom is highlighted with a red box.

Rule name	Start IPv4 address	End IPv4 address
ClientIPAddress_2024-1-11_0-5-59	80.30.34.207	80.30.34.207

2. Create .NET8 WebAPI CRUD Microservice

2.1. appsettings.json

```
{
  "Logging": {
    "LogLevel": {
      "Default": "Information",
      "Microsoft.AspNetCore": "Warning"
    }
  },
}
```

```
"AllowedHosts": "*",
"ConnectionStrings": {
  "DefaultConnection": "Server=tcp:mysqlserver1974luiscoco.database.windows.net,1433;Initial Catalog=mysqldbname;Persist
}
}
```

2.2. Program.cs

```
using Microsoft.EntityFrameworkCore;
using AzureSQLWebAPIMicroservice.Data;
using AzureSQLWebAPIMicroservice.Services;
using Microsoft.OpenApi.Models;
using Microsoft.EntityFrameworkCore.SqlServer;

var builder = WebApplication.CreateBuilder(args);

// Add services to the container.
builder.Services.AddControllers();
builder.Services.AddDbContext<ExampleDbContext>(options =>
    options.UseSqlServer(builder.Configuration.GetConnectionString("DefaultConnection")));
builder.Services.AddScoped<ExampleModelService>();

builder.Services.AddEndpointsApiExplorer();
builder.Services.AddSwaggerGen(c =>
{
    c.SwaggerDoc("v1", new OpenApiInfo { Title = "My API", Version = "v1" });
});

var app = builder.Build();

// Configure the HTTP request pipeline.
if (app.Environment.IsDevelopment())
{
    app.UseSwagger();
    app.UseSwaggerUI();
}
```

```
}  
  
app.UseAuthorization();  
  
app.MapControllers();  
  
app.Run();
```

2.3. Models (ExampleModel.cs)

ExampleModel.cs

```
namespace AzureSQLWebAPIMicroservice.Models  
{  
    public class ExampleModel  
    {  
        public int Id { get; set; }  
        public string Name { get; set; }  
        public string Description { get; set; }  
        public DateTime CreatedDate { get; set; }  
    }  
}
```

2.4. Service (ExampleModelService.cs)

ExampleModelService.cs

```
using AzureSQLWebAPIMicroservice.Data;  
using AzureSQLWebAPIMicroservice.Models;  
using Microsoft.EntityFrameworkCore;  
using System.Collections.Generic;  
using System.Threading.Tasks;
```

```
namespace AzureSQLWebAPIMicroservice.Services
{
    public class ExampleModelService
    {
        private readonly ExampleDbContext _context;

        public ExampleModelService(ExampleDbContext context)
        {
            _context = context;
        }

        // Create
        public async Task<ExampleModel> AddExampleModel(ExampleModel model)
        {
            _context.ExampleModels.Add(model);
            await _context.SaveChangesAsync();
            return model;
        }

        // Read all
        public async Task<List<ExampleModel>> GetAllExampleModels()
        {
            return await _context.ExampleModels.ToListAsync();
        }

        // Read by ID
        public async Task<ExampleModel> GetExampleModelById(int id)
        {
            return await _context.ExampleModels.FirstOrDefaultAsync(e => e.Id == id);
        }

        // Update
        public async Task<ExampleModel> UpdateExampleModel(int id, ExampleModel model)
        {
            var existingModel = await _context.ExampleModels.FirstOrDefaultAsync(e => e.Id == id);
            if (existingModel == null)
            {
            }
        }
    }
}
```

```
        return null;
    }

    existingModel.Name = model.Name;
    // Update other properties as necessary

    _context.Entry(existingModel).State = EntityState.Modified;
    await _context.SaveChangesAsync();

    return existingModel;
}

// Delete
public async Task<bool> DeleteExampleModel(int id)
{
    var model = await _context.ExampleModels.FindAsync(id);
    if (model == null)
    {
        return false;
    }

    _context.ExampleModels.Remove(model);
    await _context.SaveChangesAsync();

    return true;
}
}
```

2.5. Data (ExampleDbContext.cs)

ExampleDbContext.cs

```
using Microsoft.EntityFrameworkCore;
using AzureSQLWebAPIMicroservice.Models;
```

```
namespace AzureSQLWebAPIMicroservice.Data
{
    public class ExampleDbContext:DbContext
    {
        public ExampleDbContext(DbContextOptions<ExampleDbContext> options)
        : base(options)
        {
        }

        public DbSet<ExampleModel> ExampleModels { get; set; }

        protected override void OnModelCreating(ModelBuilder modelBuilder)
        {
            // Configure the primary key for ExampleModel
            modelBuilder.Entity<ExampleModel>().HasKey(e => e.Id);

            // Configure some properties with more details
            modelBuilder.Entity<ExampleModel>()
                .Property(e => e.Name)
                .IsRequired() // Makes the Name field required
                .HasMaxLength(100); // Sets maximum length of the Name field to 100 characters

            modelBuilder.Entity<ExampleModel>()
                .Property(e => e.Description)
                .HasMaxLength(255); // Sets maximum length of the Description field to 255 characters

            // Set a default value for the CreatedDate field
            modelBuilder.Entity<ExampleModel>()
                .Property(e => e.CreatedDate)
                .HasDefaultValueSql("GETDATE()"); // This will use the SQL Server GETDATE() function to set the default value

            // Seed data
            modelBuilder.Entity<ExampleModel>().HasData(
                new ExampleModel { Id = 1, Name = "Sample Name 1", Description = "Sample Description 1", CreatedDate = DateTime.N
                new ExampleModel { Id = 2, Name = "Sample Name 2", Description = "Sample Description 2", CreatedDate = DateTime.N
            // Add more seed data as needed
```

```

    );
}
}
}

```

2.6. Controllers (ExampleModelsController.cs)

ExampleModelsController.cs

```

using Microsoft.AspNetCore.Mvc;
using AzureSQLWebAPIMicroservice.Models;
using AzureSQLWebAPIMicroservice.Services;
using System.Threading.Tasks;

namespace AzureSQLWebAPIMicroservice.Controllers
{
    [Route("api/[controller]")]
    [ApiController]
    public class ExampleModelsController : ControllerBase
    {
        private readonly ExampleModelService _service;

        public ExampleModelsController(ExampleModelService service)
        {
            _service = service;
        }

        // POST: api/ExampleModels
        [HttpPost]
        public async Task<ActionResult<ExampleModel>> PostExampleModel(ExampleModel model)
        {
            var createdModel = await _service.AddExampleModel(model);
            return CreatedAtAction(nameof(GetExampleModel), new { id = createdModel.Id }, createdModel);
        }
    }
}

```



```
// GET: api/ExampleModels
[HttpGet]
public async Task<ActionResult<IEnumerable<ExampleModel>>> GetExampleModels()
{
    return await _service.GetAllExampleModels();
}

// GET: api/ExampleModels/5
[HttpGet("{id}")]
public async Task<ActionResult<ExampleModel>> GetExampleModel(int id)
{
    var model = await _service.GetExampleModelById(id);

    if (model == null)
    {
        return NotFound();
    }

    return model;
}

// PUT: api/ExampleModels/5
[HttpPut("{id}")]
public async Task<IActionResult> PutExampleModel(int id, ExampleModel model)
{
    if (id != model.Id)
    {
        return BadRequest();
    }

    var updatedModel = await _service.UpdateExampleModel(id, model);

    if (updatedModel == null)
    {
        return NotFound();
    }
}
```

```

        return NoContent();
    }

    // DELETE: api/ExampleModels/5
    [HttpDelete("{id}")]
    public async Task<IActionResult> DeleteExampleModel(int id)
    {
        var success = await _service.DeleteExampleModel(id);

        if (!success)
        {
            return NotFound();
        }

        return NoContent();
    }
}

```

IMPORTANT:

In the AzureSQLWebAPIMicroservice.csproj set **InvariantGlobalization** to false

```
<InvariantGlobalization>>false</InvariantGlobalization>
```

This is the whole **AzureSQLWebAPIMicroservice.csproj**

```

<Project Sdk="Microsoft.NET.Sdk.Web">

  <PropertyGroup>
    <TargetFramework>net8.0</TargetFramework>
    <Nullable>enable</Nullable>
    <ImplicitUsings>enable</ImplicitUsings>
    <InvariantGlobalization>>false</InvariantGlobalization>

```

```
</PropertyGroup>

<ItemGroup>
  <PackageReference Include="Microsoft.EntityFrameworkCore" Version="8.0.1" />
  <PackageReference Include="Microsoft.EntityFrameworkCore.Design" Version="8.0.1">
    <PrivateAssets>all</PrivateAssets>
    <IncludeAssets>runtime; build; native; contentfiles; analyzers; buildtransitive</IncludeAssets>
  </PackageReference>
  <PackageReference Include="Microsoft.EntityFrameworkCore.SqlServer" Version="8.0.1" />
  <PackageReference Include="Swashbuckle.AspNetCore" Version="6.4.0" />
</ItemGroup>

</Project>
```

3. Add First Migration

Add the package `Microsoft.EntityFrameworkCore.Design`

Add/create first migration with this command:

```
dotnet ef migrations add InitialCreate
```

Also update the database with this command

```
dotnet ef database update
```

4. Verify application

<https://localhost:7217/swagger/index.html>

Swagger
Supported by SMARTBEAR

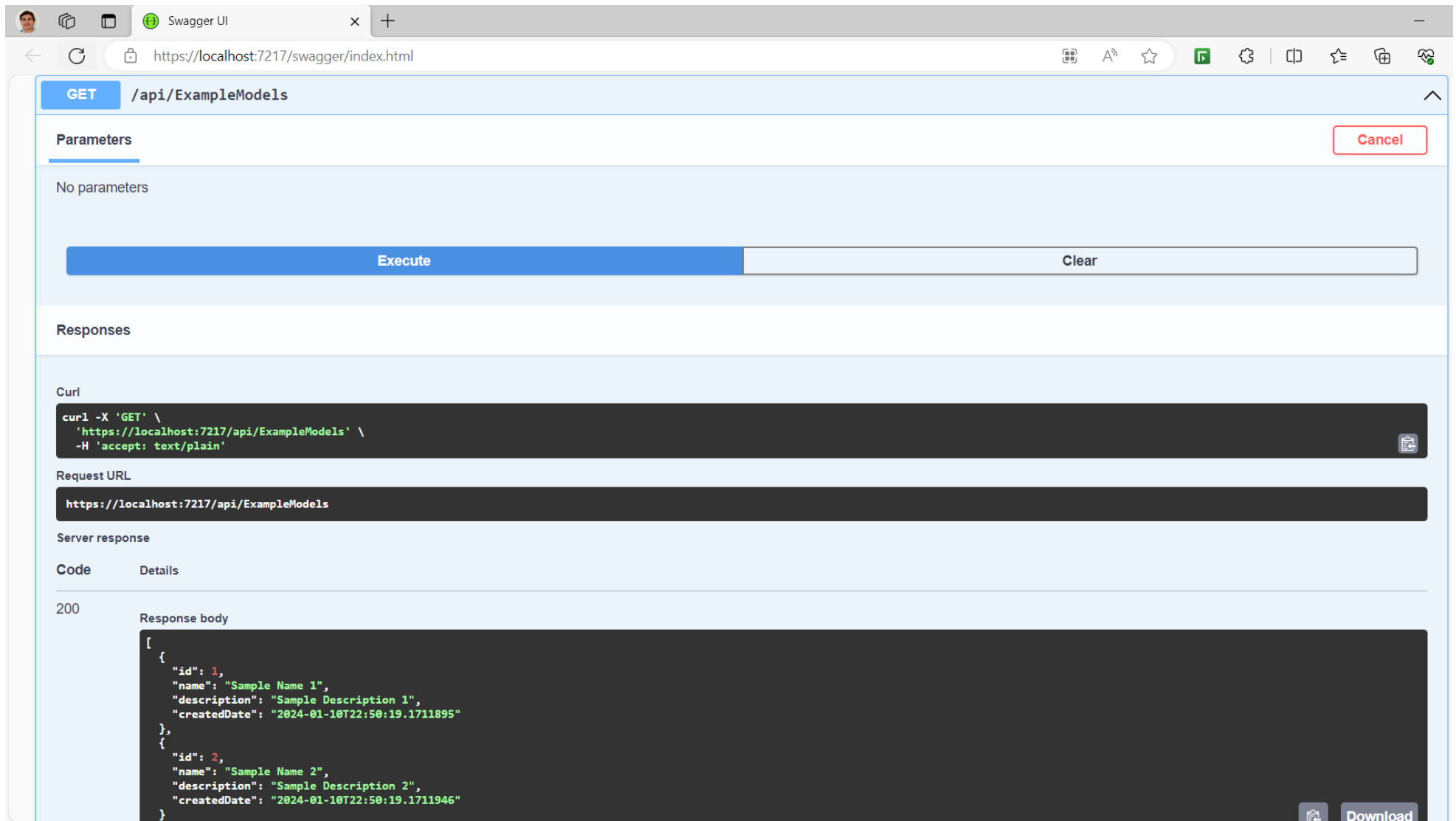
Select a definition **AzureSQLWebAPIMicroservice v1**

My API v1 OAS3

<https://localhost:7217/swagger/v1/swagger.json>

ExampleModels

POST	/api/ExampleModels	✓
GET	/api/ExampleModels	✓
GET	/api/ExampleModels/{id}	✓
PUT	/api/ExampleModels/{id}	✓
DELETE	/api/ExampleModels/{id}	✓



Swagger UI interface showing a GET request to `/api/ExampleModels`.

Parameters

No parameters

Execute **Clear**

Responses

Curl

```
curl -X 'GET' \
  'https://localhost:7217/api/ExampleModels' \
  -H 'accept: text/plain'
```

Request URL

```
https://localhost:7217/api/ExampleModels
```

Server response

Code **Details**

200

Response body

```
[
  {
    "id": 1,
    "name": "Sample Name 1",
    "description": "Sample Description 1",
    "createdAt": "2024-01-10T22:50:19.1711895"
  },
  {
    "id": 2,
    "name": "Sample Name 2",
    "description": "Sample Description 2",
    "createdAt": "2024-01-10T22:50:19.1711946"
  }
]
```

Download