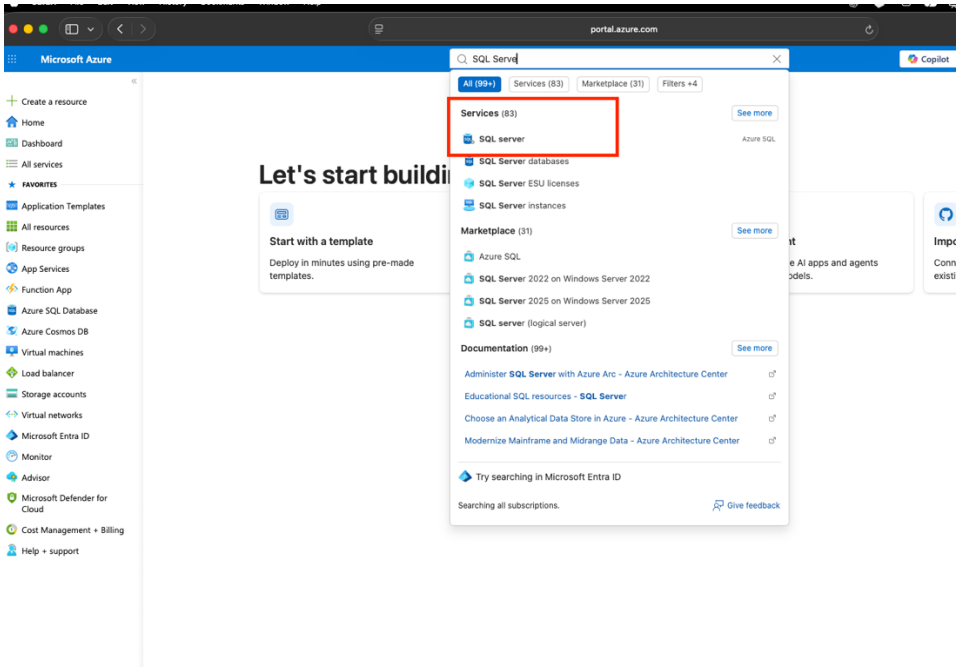
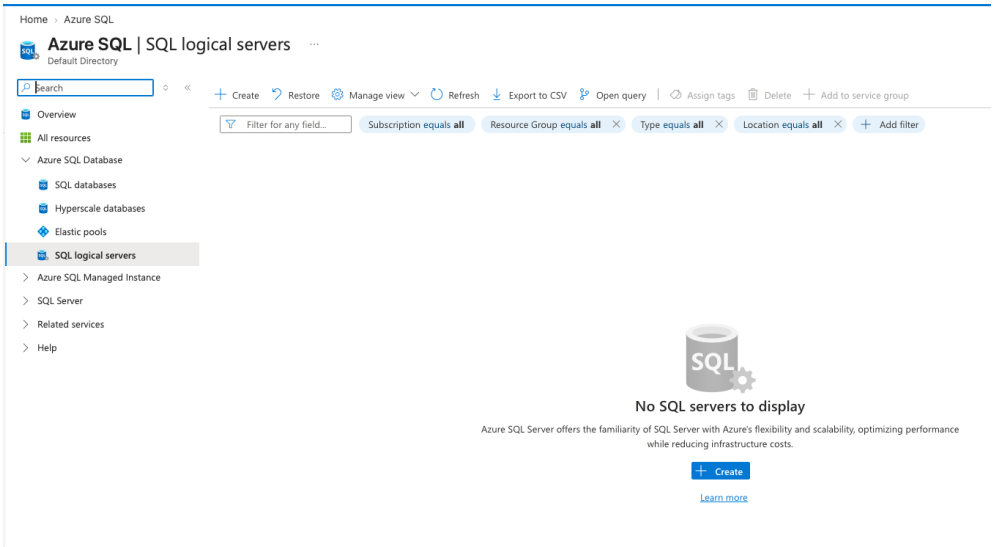
Setup Azure SQL Database - Step by Step

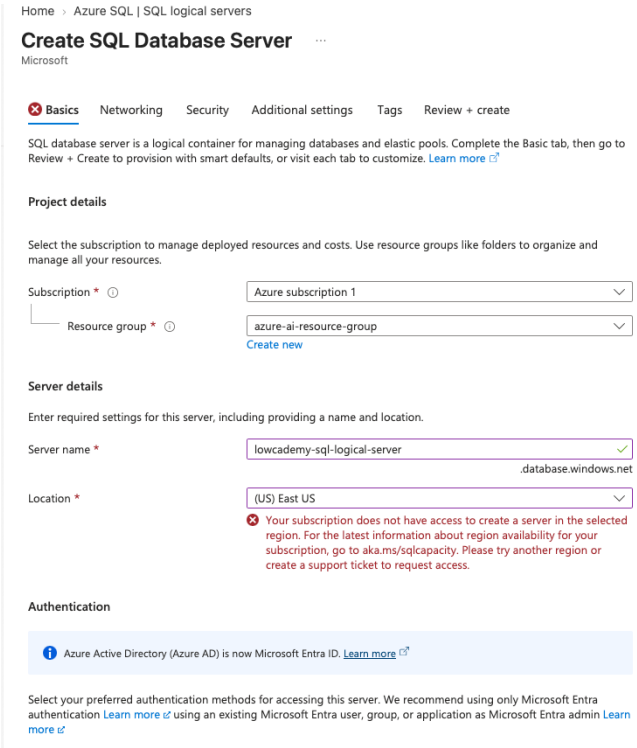
Step 1: Create Azure SQL Server

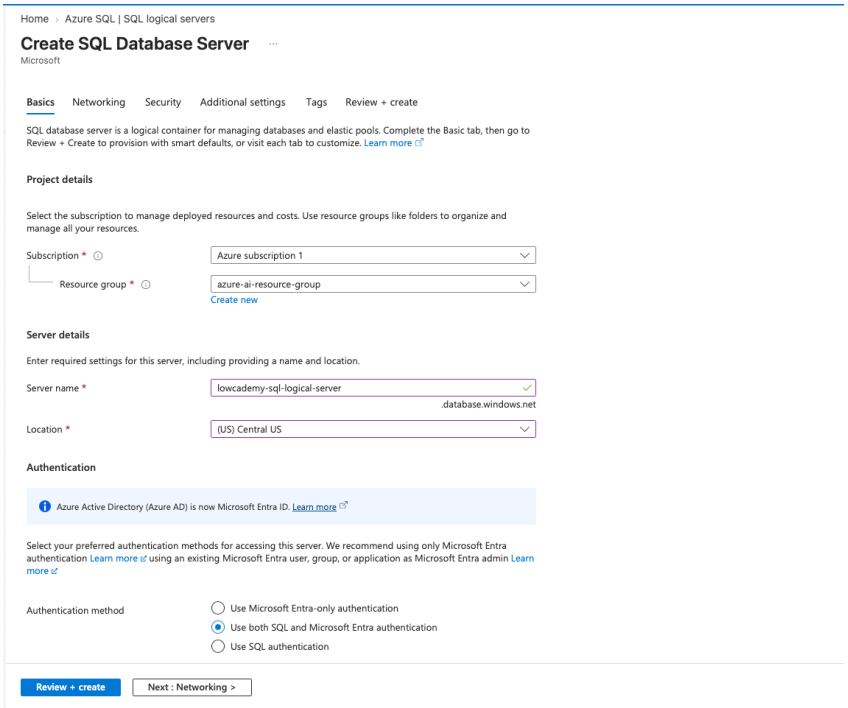
- Go to Azure Portal
- Search SQL Server
- Click on Create



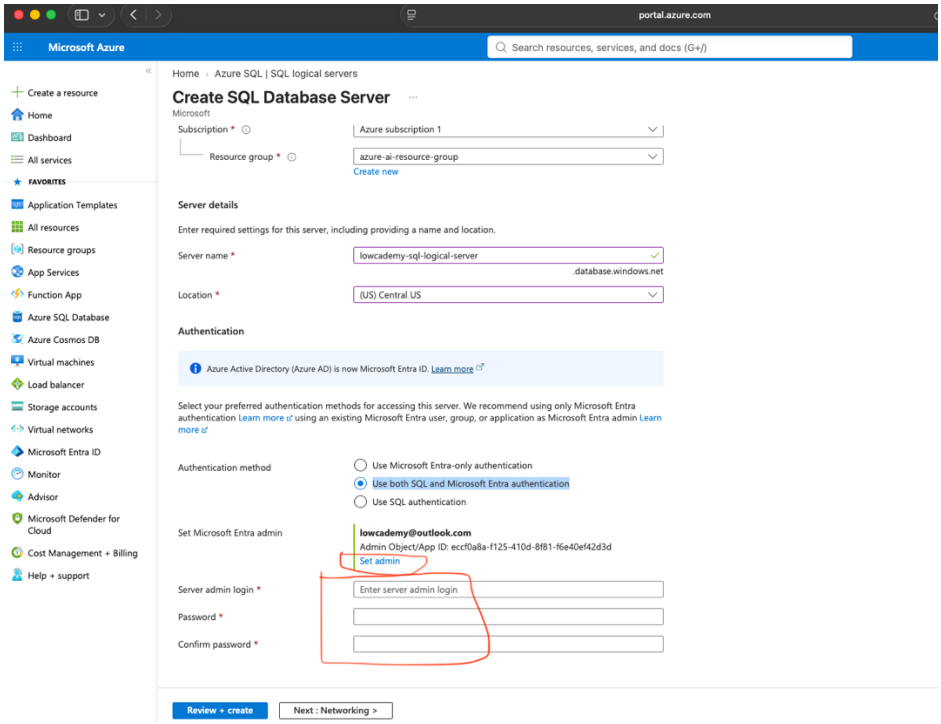


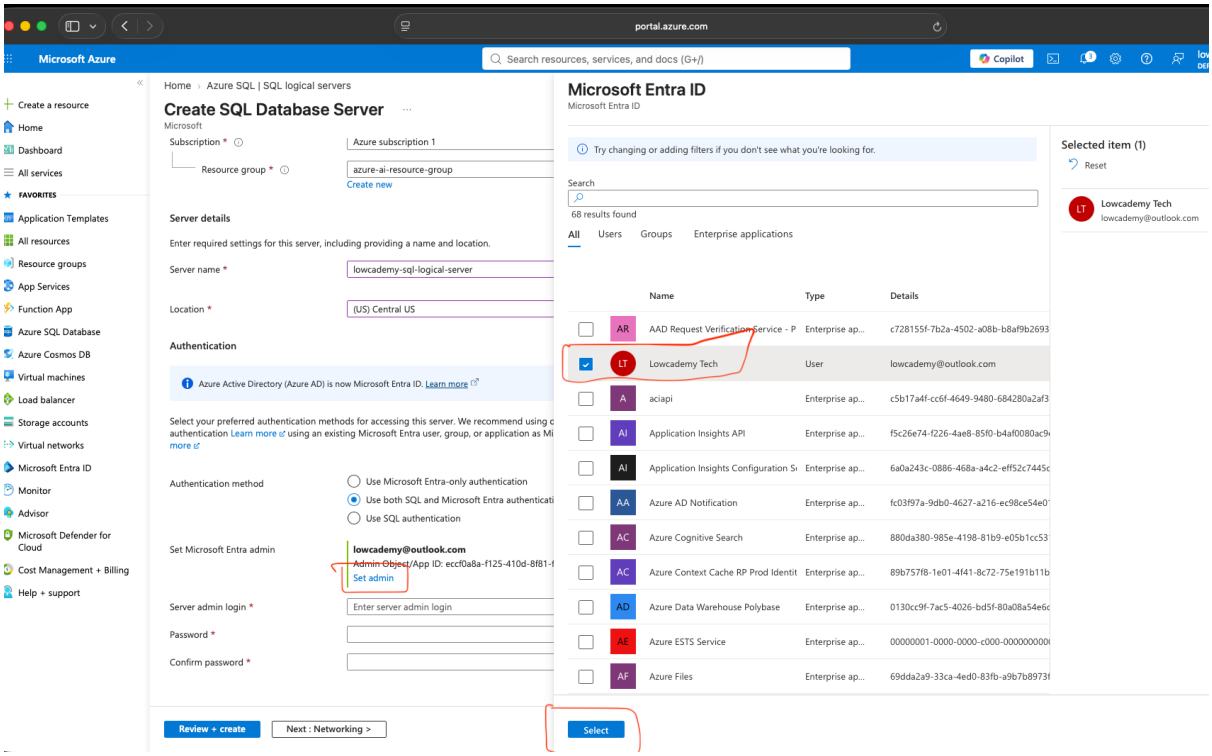
- Give a valid server name
- If under location it gives error "Saying your subscription does not have access" then select proper location.
- Under "Authentication method" Select "Use both SQL and Microsoft Entra authentication"



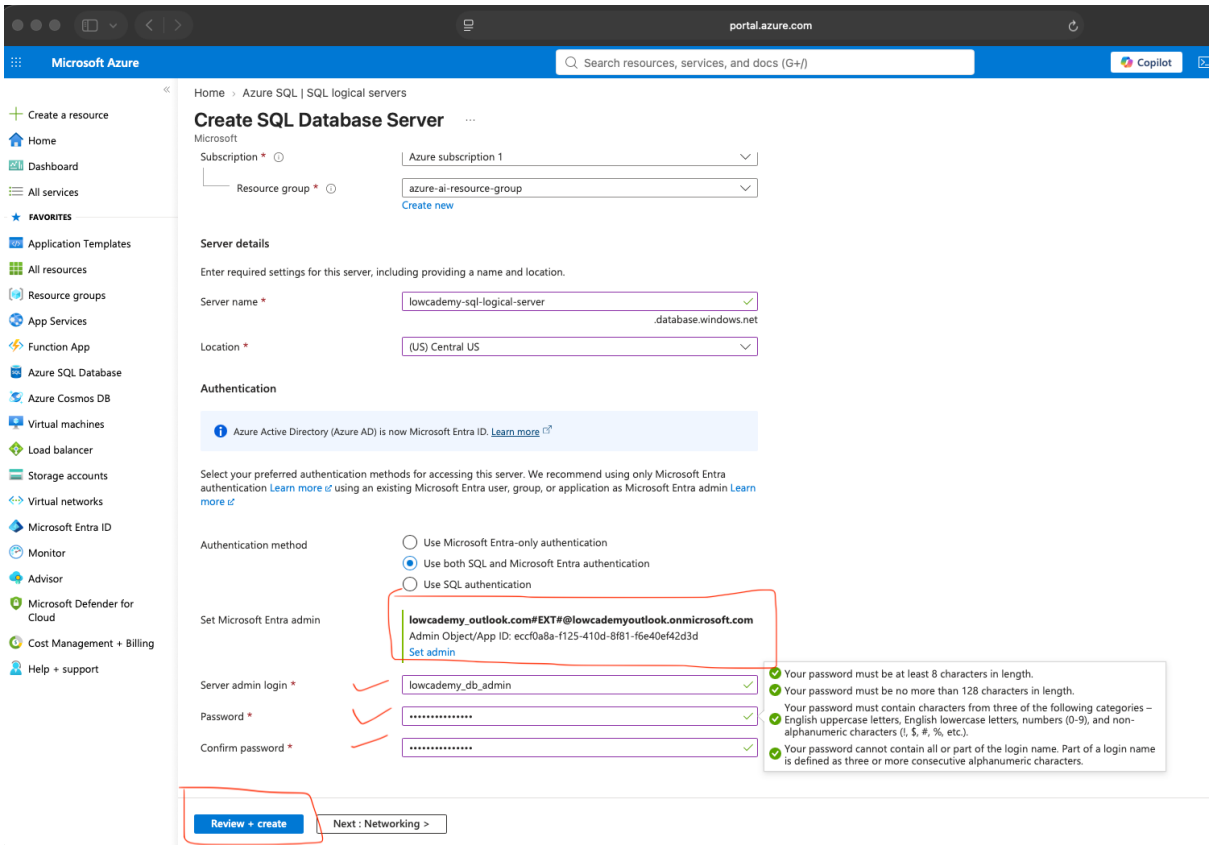


- Set yourself as Admin and create a new Admin username and password

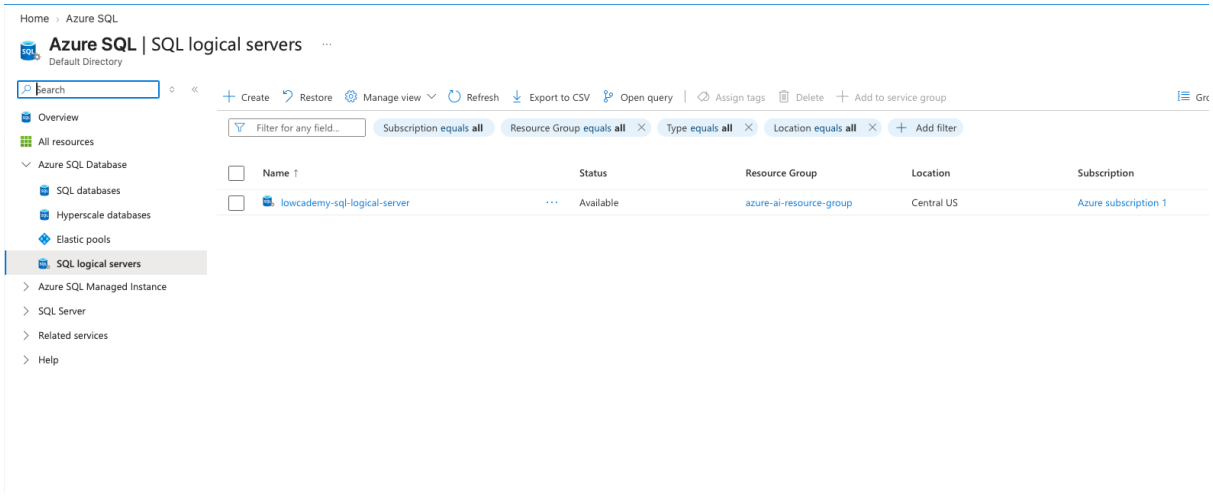




- Make sure valid Microsoft Entra Admin is Set
- Create a Server admin username and strong password and make a note
- Click on Review and create

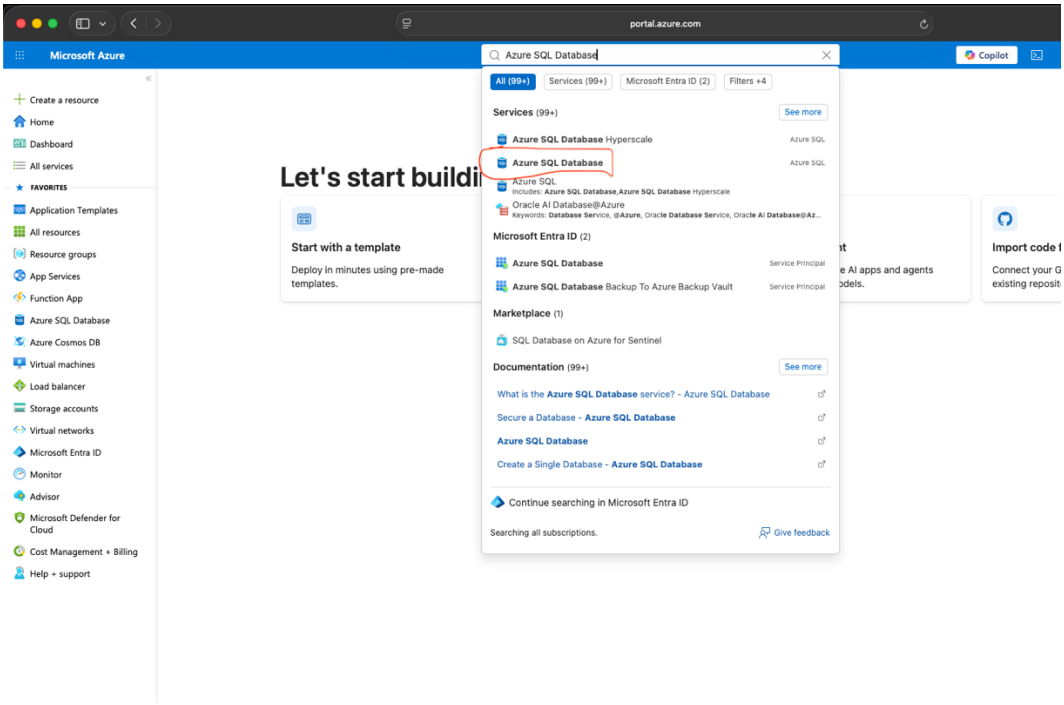


- Confirm that the DB server has been created

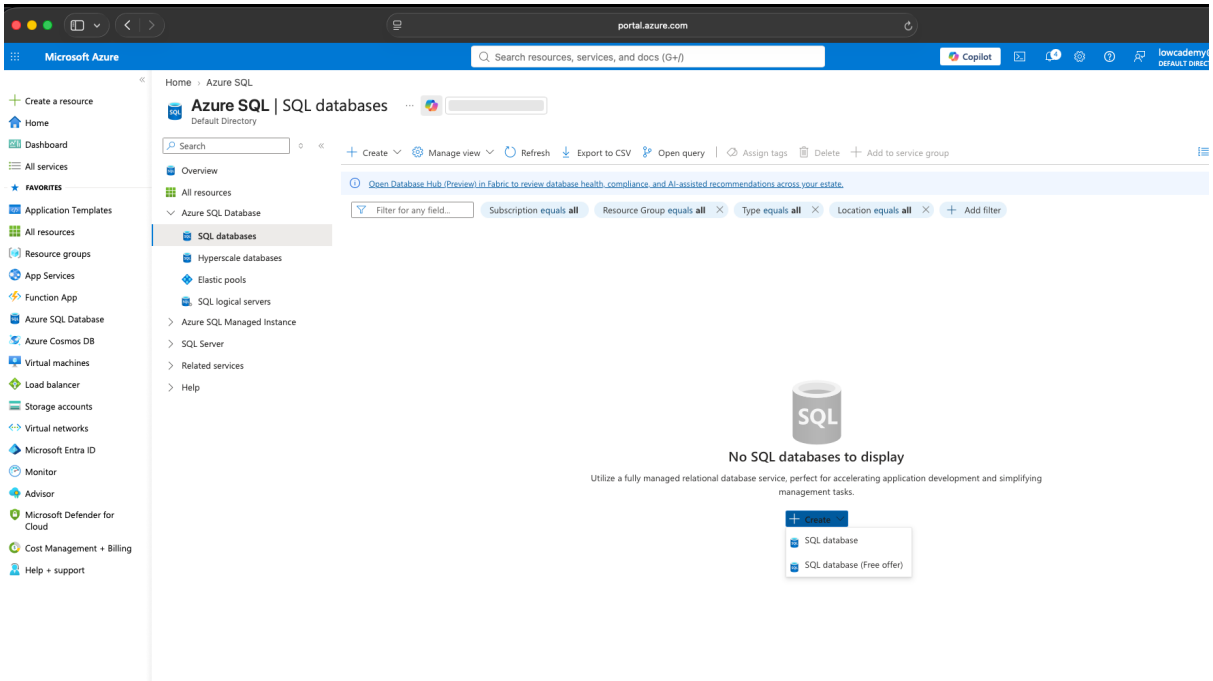


Step 2: Create Azure SQL Database

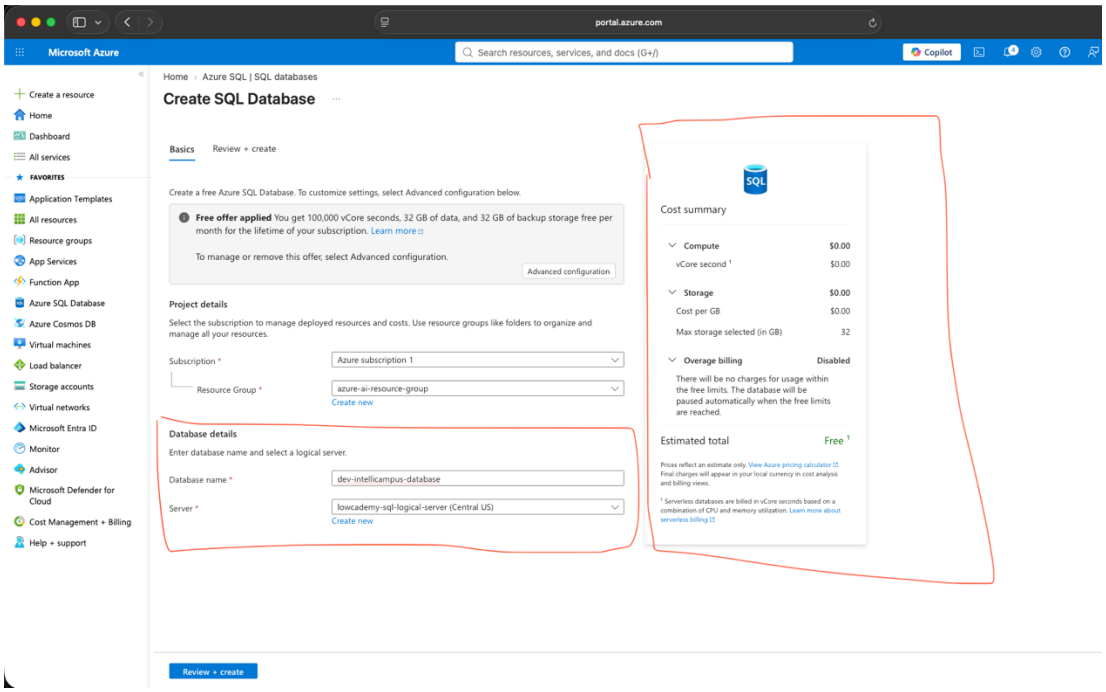
- Go to Home page
- Search for **Azure SQL Database.**

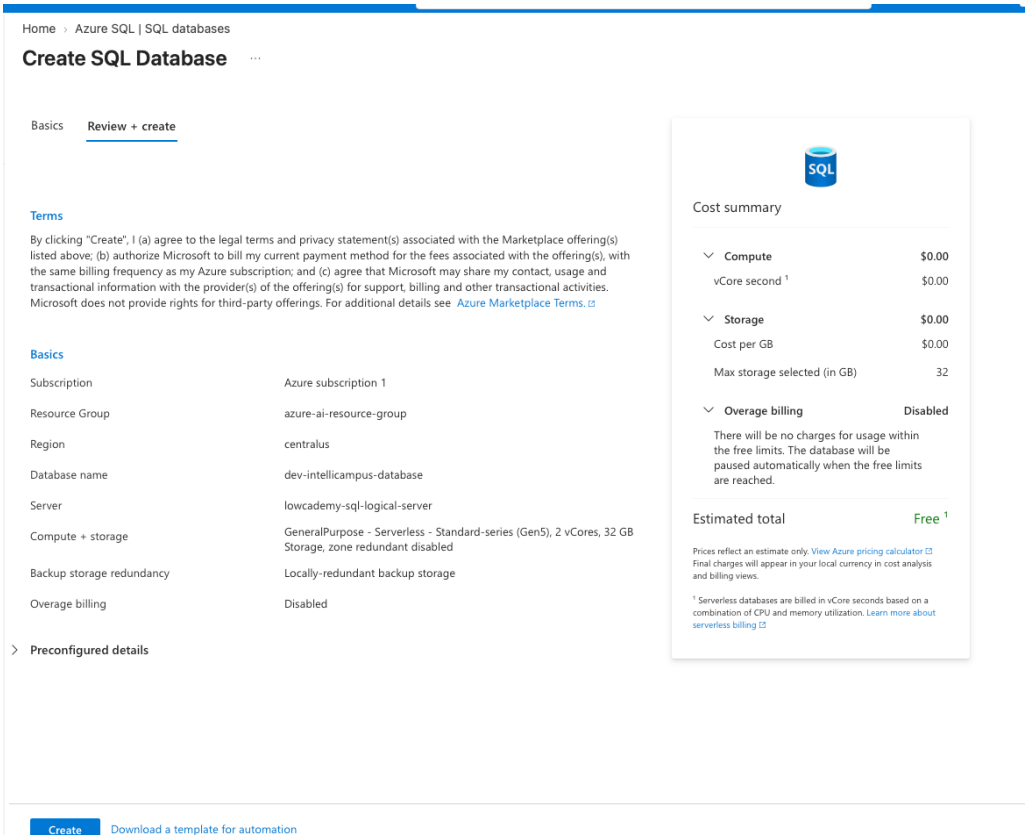


- **Click on SQL database (Free offer) [If you want to create a free database for learning]**

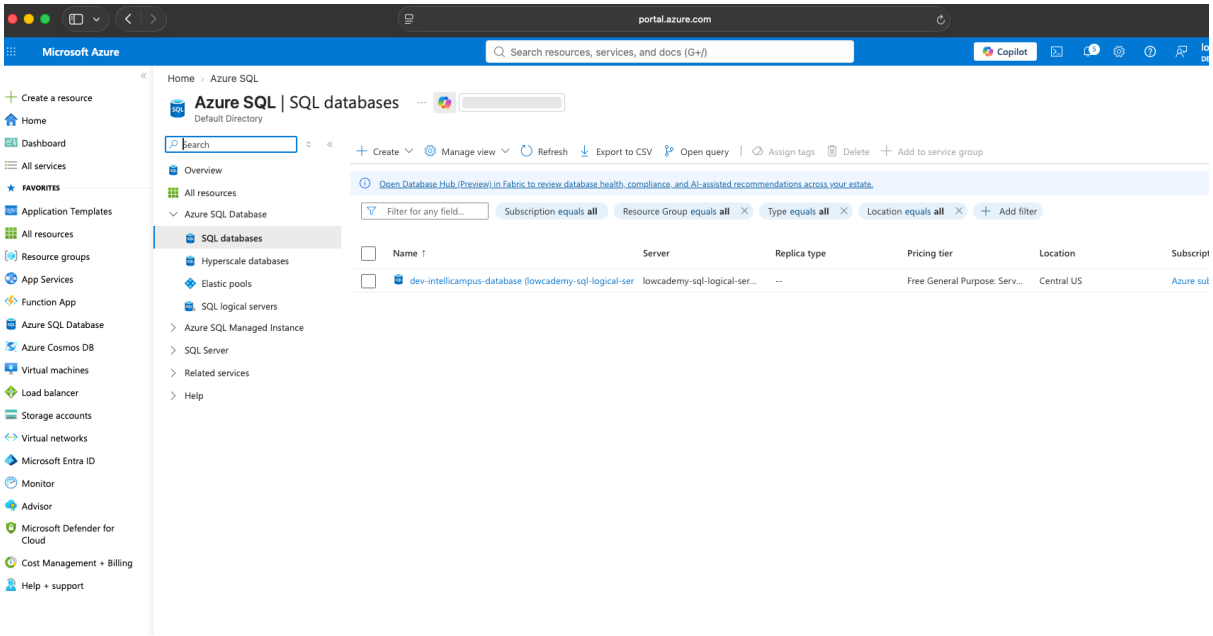


- Give a valid database name
- Select the previously created SQL Server
- Cross check that It is showing FREE under estimated cost
- Click on Create



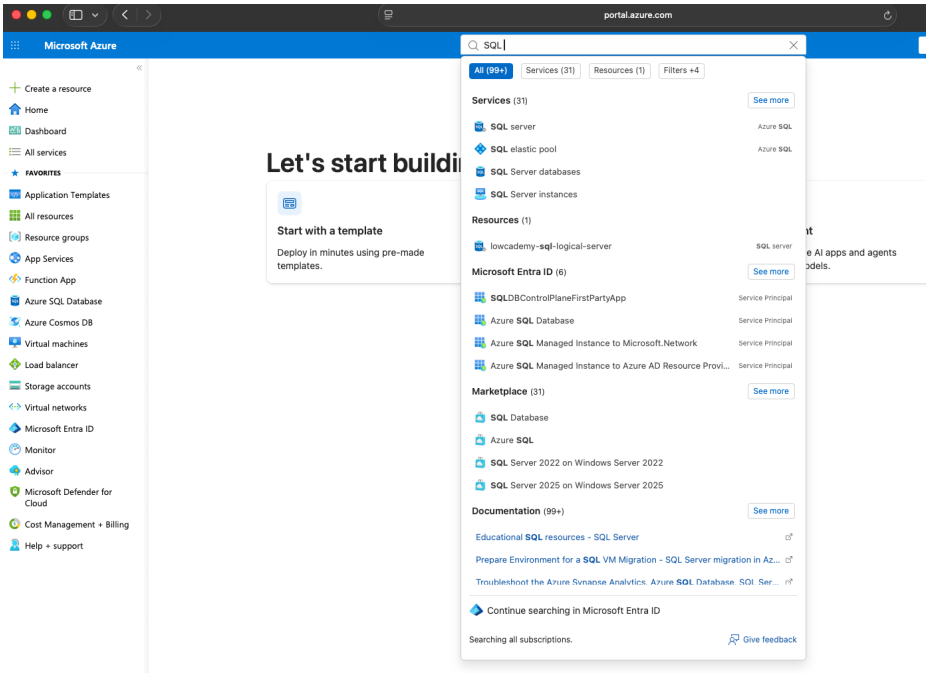


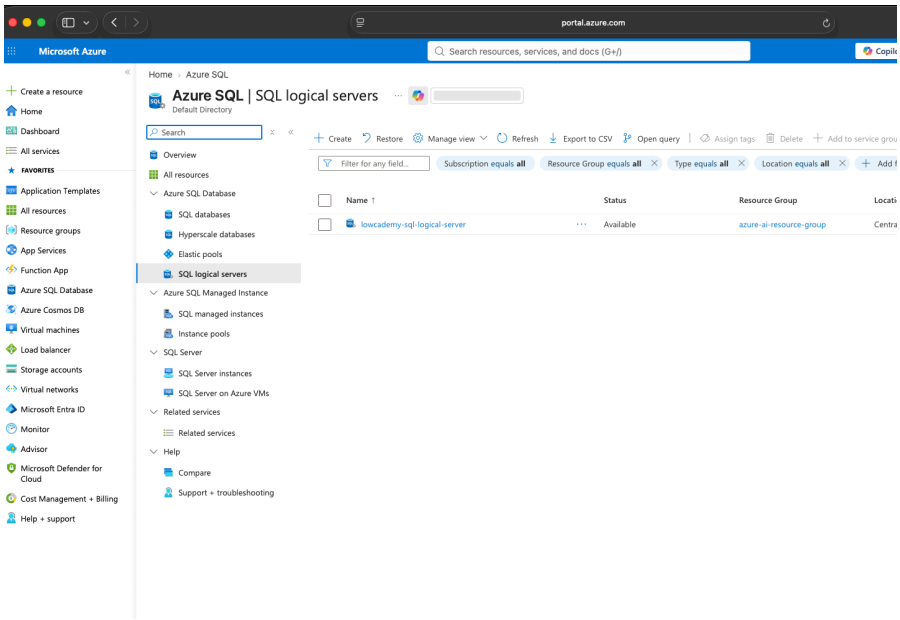
- Both the SQL Server and SQL Database should be ready now.
- Cross check



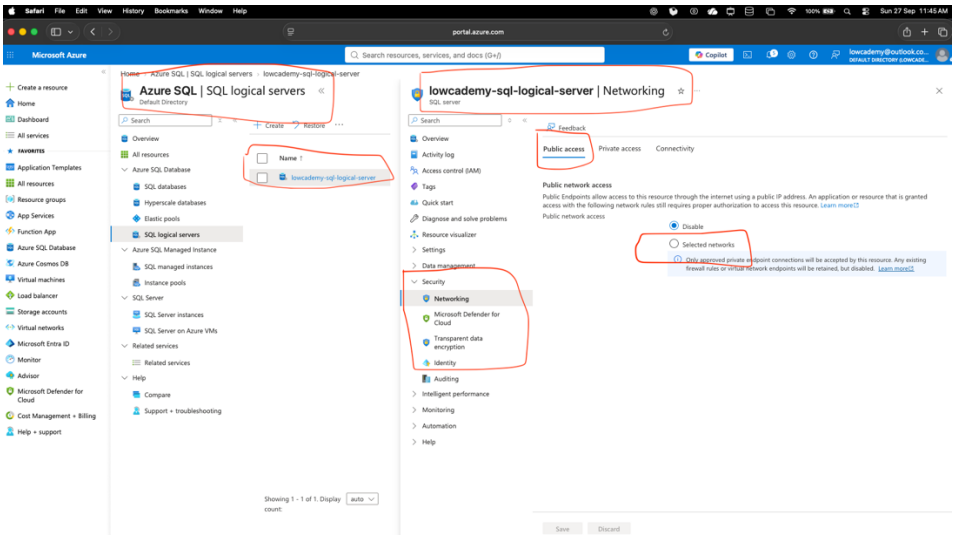
STEP 3: Allow public access to SQL Server to the specific IP.

- Go to Previously Created SQL Server
- Select the Server

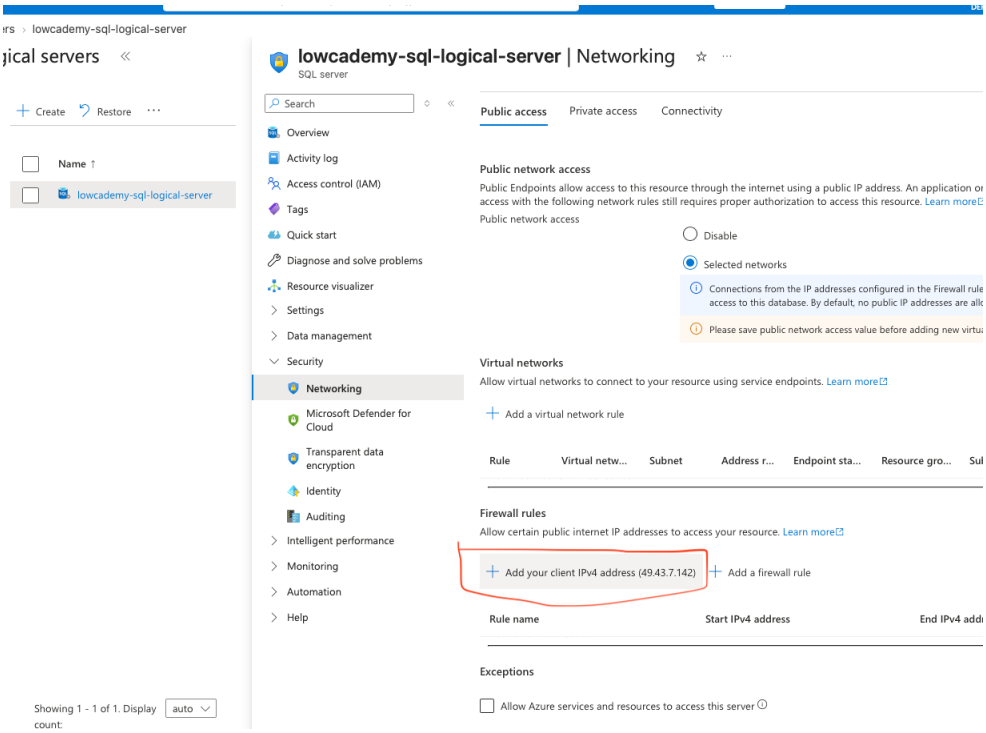




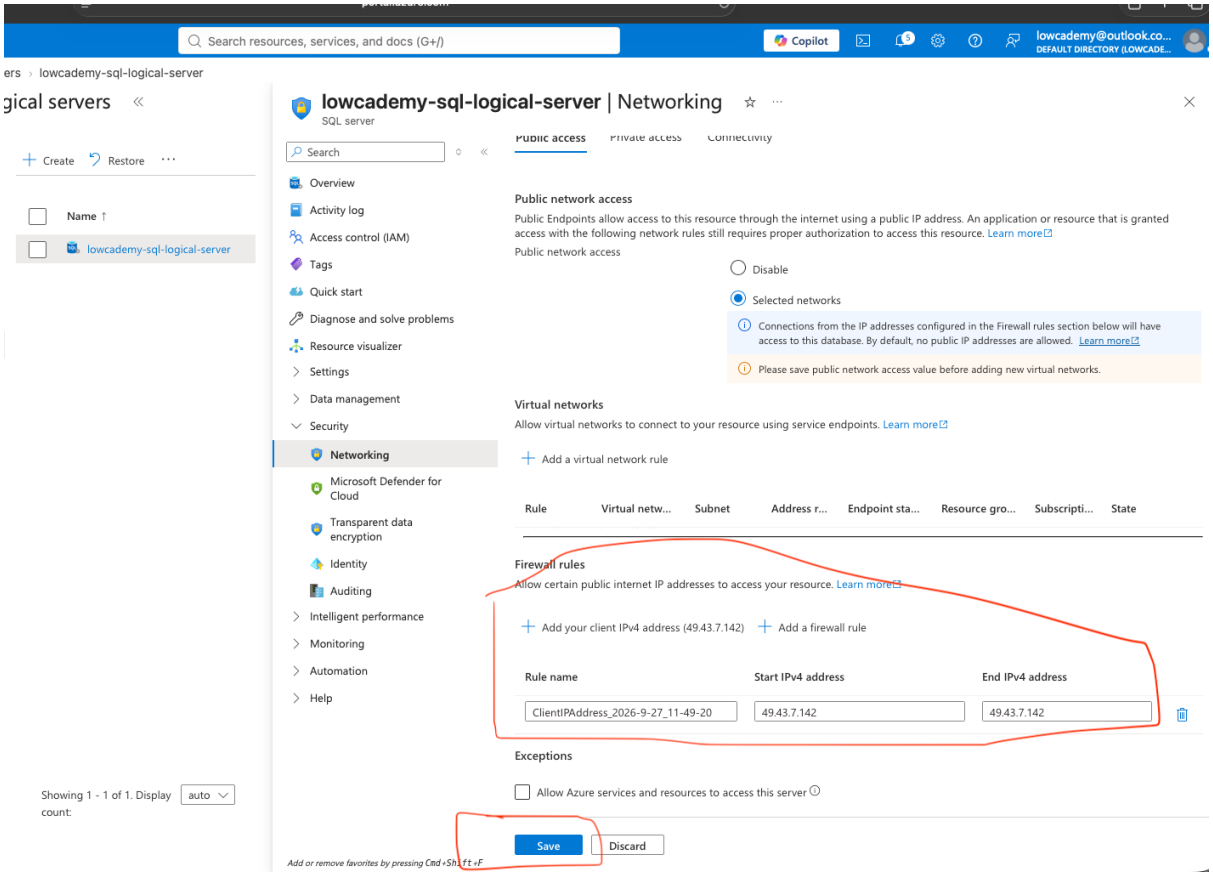
- Under the SQL Server.
- Go to Security in Left Menu
- Go to Networking
- Under Public Access, select **"Selected networks"**



- Under Firewall Rules, It will automatically take your IP address.
- Click on + icon and Add your client IPV4.



- Cross Check and Click on Save



Note: We have added our current public IP address to the Azure SQL Server firewall allowlist. Any external system that needs to connect directly to this database, including OutSystems, must also have its outbound public IPv4 address added to the firewall rules.

Congratulations!
We have successfully set up our Azure SQL Server and created our Azure SQL Database.

STEP 4: Get the Server Creds required to connect from external sources.

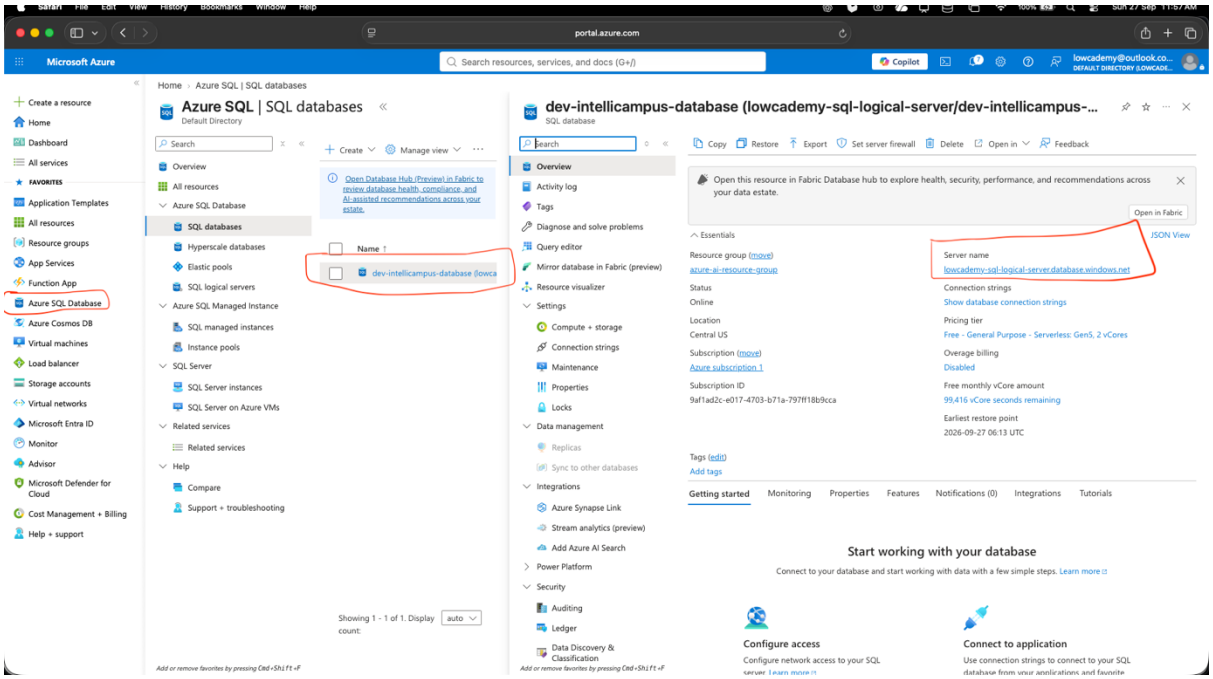
Keep below details handy.

- Server Name
- Database Name
- Authentication Credentials

Get Server Name

Go to database, select database, and copy the Server Name

Database Name: **dev-intellicampus-database**



- User Credentials: Created during Step 1

END OF DATABSE SETUP

STEP 5: Connect to SQL Database

There are multiple ways to connect to an Azure SQL Database.

Way 1: Using a SQL Client Tool

You can use SQL Server Management Studio (SSMS) on Windows or any other SQL client that supports SQL Server/Azure SQL.

Download and install the tool, then connect using the Server Name, Database Name, and authentication details we configured earlier.

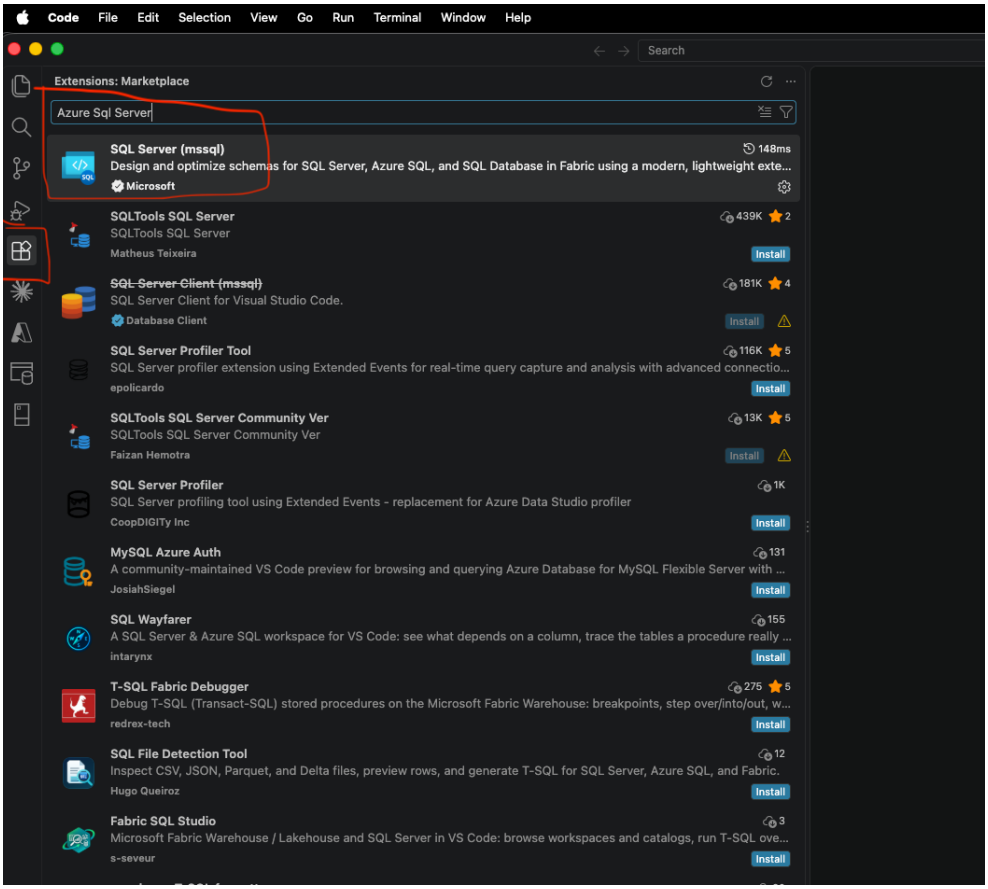
Way 2: Using Visual Studio Code

We will use Visual Studio Code to connect to our Azure SQL Server and Database.

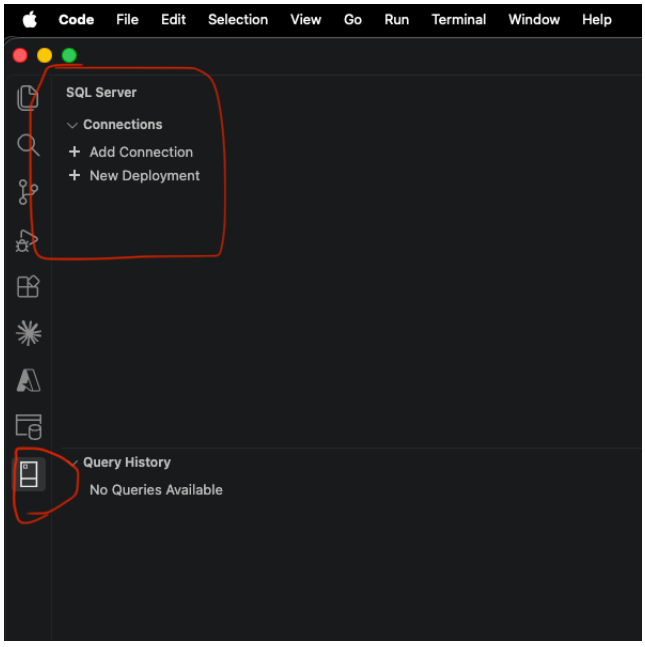
Let’s see how to set it up and establish the connection.

STEP 6: Connect SQL Server and DB via VS Code

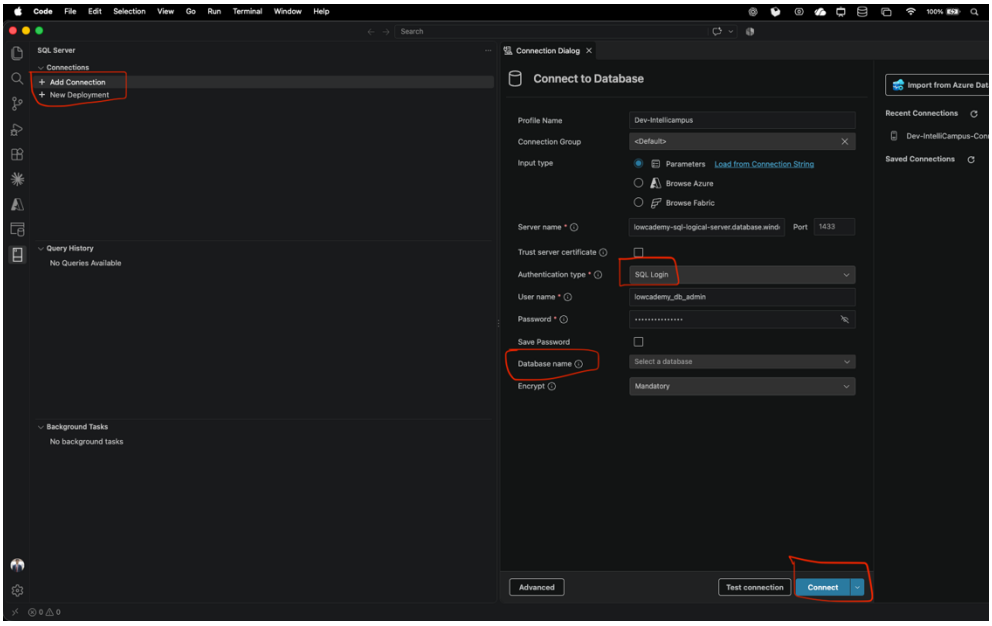
- Open VS Code (Setup it properly)
- Install the SQL Server (msssql) Plugin.

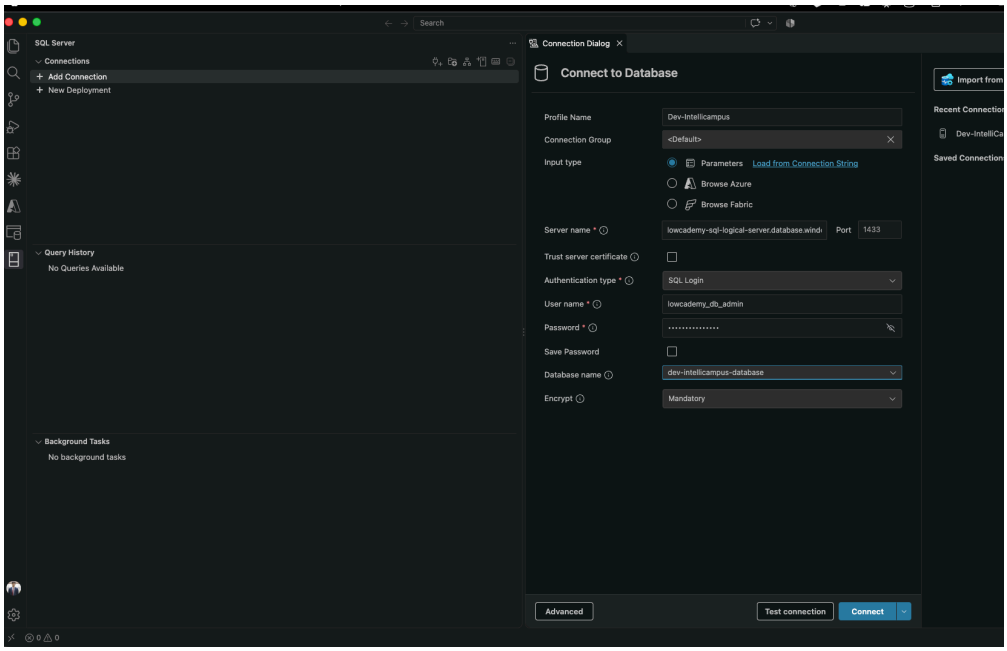


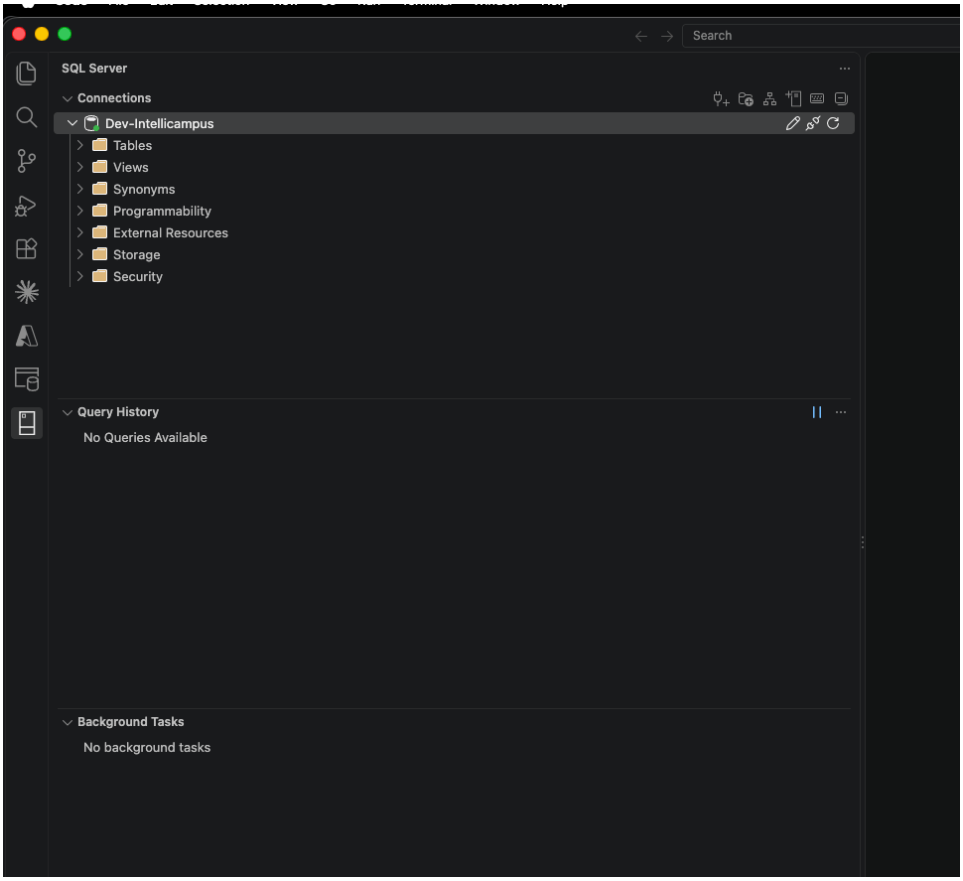
- After Installation, you should see the plugin in the menu.



- Click on Add Connection.
- Give a proper profile name.
- Provide Server Name (Get it from Azure Portal)
- Choose SQL Login as Authentication Type
- Provide proper user name and password (Created while setting up SQL Server)
- It will fetch the DB, select database and click on connect.



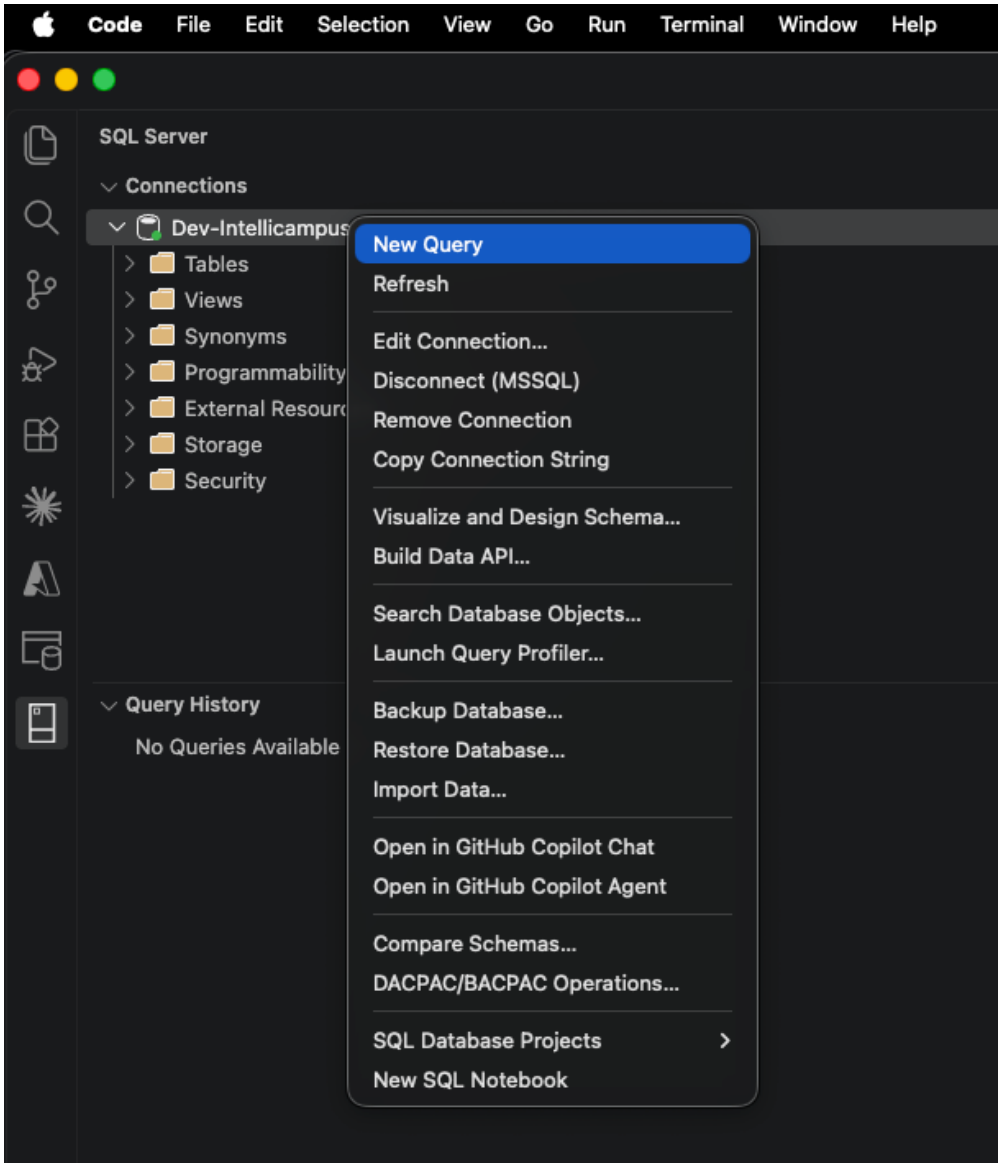




Congratulations: Your DB connection is ready.

STEP 6: Test connection

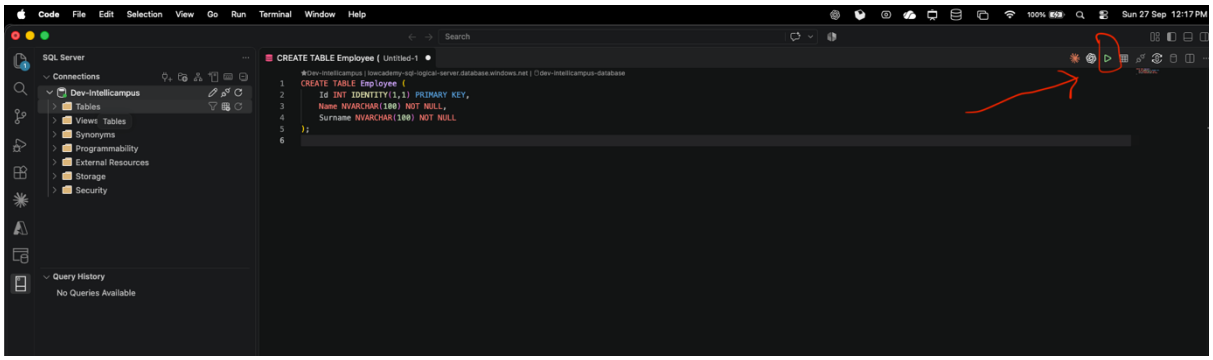
- Right click to Database and click on "NEW QUERY"



- Run Below Query One by One

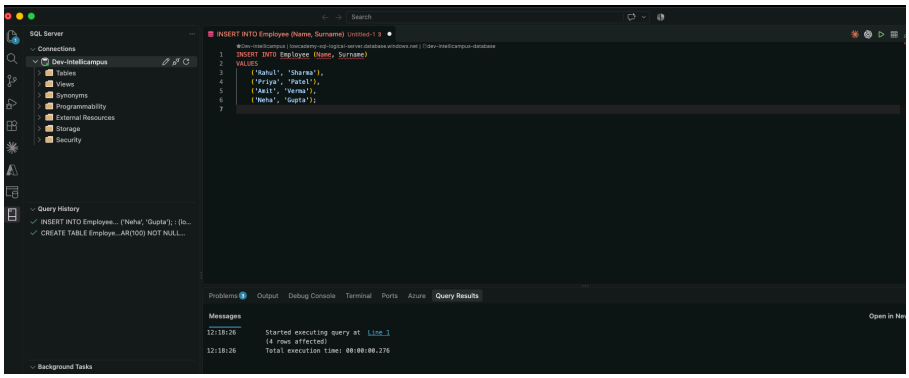
Query 1:

```
CREATE TABLE Employee (
    Id INT IDENTITY(1,1) PRIMARY KEY,
    Name NVARCHAR(100) NOT NULL,
    Surname NVARCHAR(100) NOT NULL
);
```



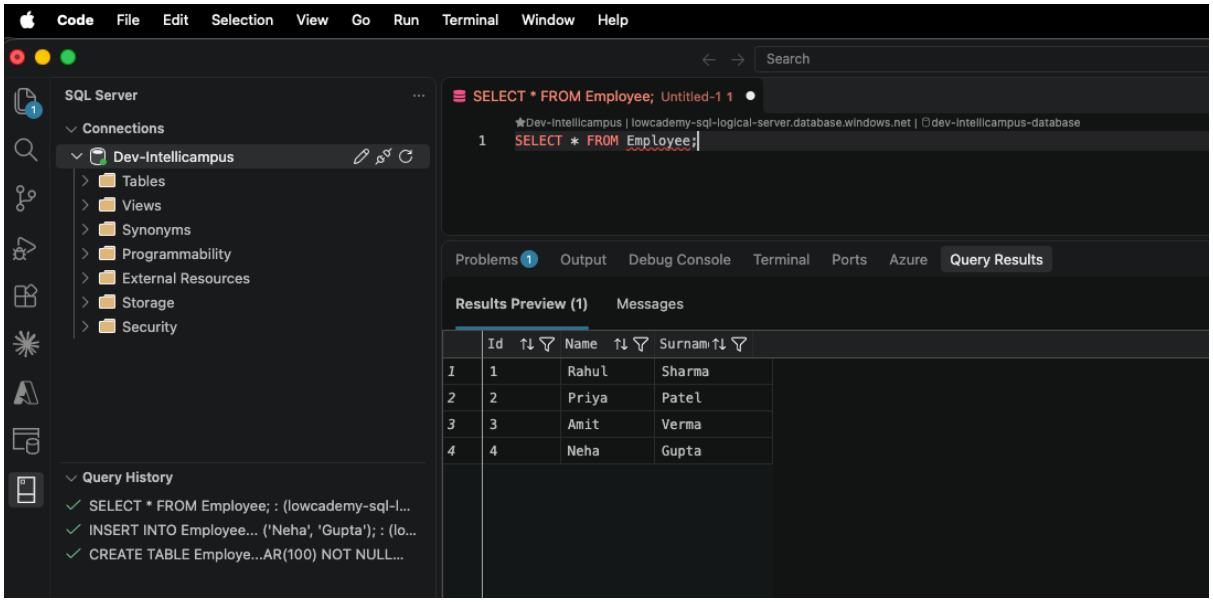
Query 2:

```
INSERT INTO Employee (Name, Surname)
VALUES
    ('Rahul', 'Sharma'),
    ('Priya', 'Patel'),
    ('Amit', 'Verma'),
    ('Neha', 'Gupta');
```



Query 3

SELECT * FROM Employee;



Congratulations!

If you can see the employee data, congratulations!

You have successfully:

- Set up your Azure SQL Server
- Created your SQL Database
- Created your first table
- Inserted some data
- Tested your first SELECT query

Your Azure SQL Database is now up and running.

Well done!