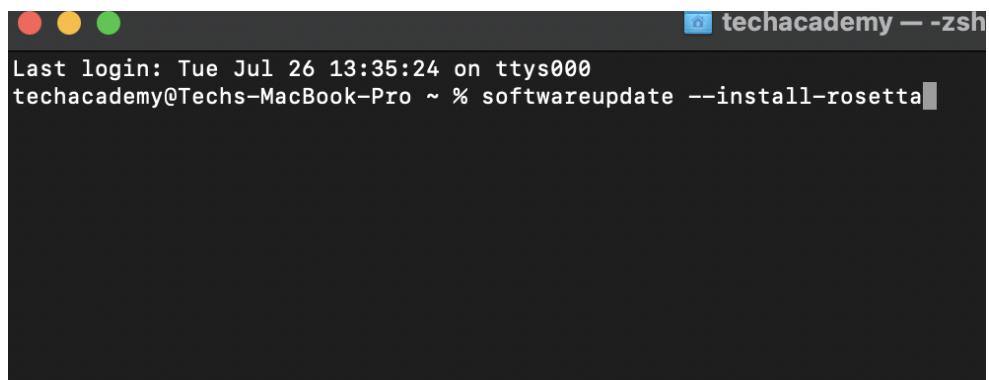


DOCKER DESKTOP AND AZURE DATA STUDIO INSTALLATION

NOTE: Rosetta 2 enables Macs with Silicon chips to use apps built for Macs with an Intel processor. Before proceeding, you will need to enter a command into the terminal in order to install Rosetta 2. Complete these steps:

- A. Open the terminal.
- B. Enter this command into the terminal:

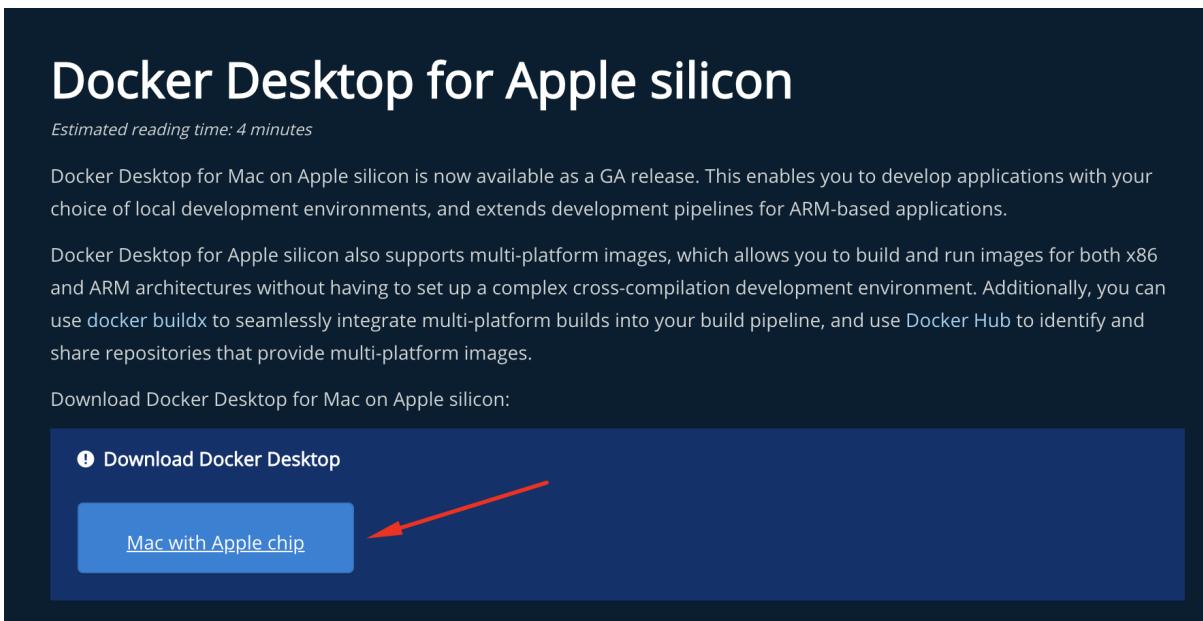
```
softwareupdate --install-rosetta
```



```
Last login: Tue Jul 26 13:35:24 on ttys000
techacademy@Techs-MacBook-Pro ~ % softwareupdate --install-rosetta
```

Now that you have installed Rosetta 2, complete the following steps to download and install Docker Desktop and Azure Data Studio. Complete the following steps:

1. Download ‘Docker Desktop’ for Macs with Apple Silicon Chips from this [link](#).



Docker Desktop for Apple silicon

Estimated reading time: 4 minutes

Docker Desktop for Mac on Apple silicon is now available as a GA release. This enables you to develop applications with your choice of local development environments, and extends development pipelines for ARM-based applications.

Docker Desktop for Apple silicon also supports multi-platform images, which allows you to build and run images for both x86 and ARM architectures without having to set up a complex cross-compilation development environment. Additionally, you can use docker buildx to seamlessly integrate multi-platform builds into your build pipeline, and use Docker Hub to identify and share repositories that provide multi-platform images.

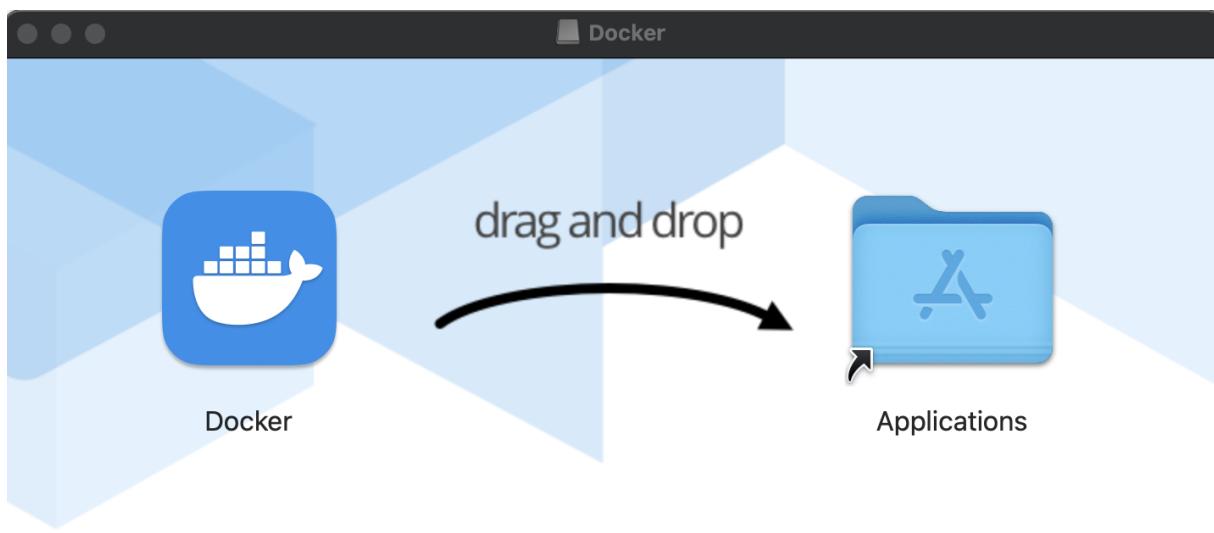
Download Docker Desktop for Mac on Apple silicon:

• Download Docker Desktop

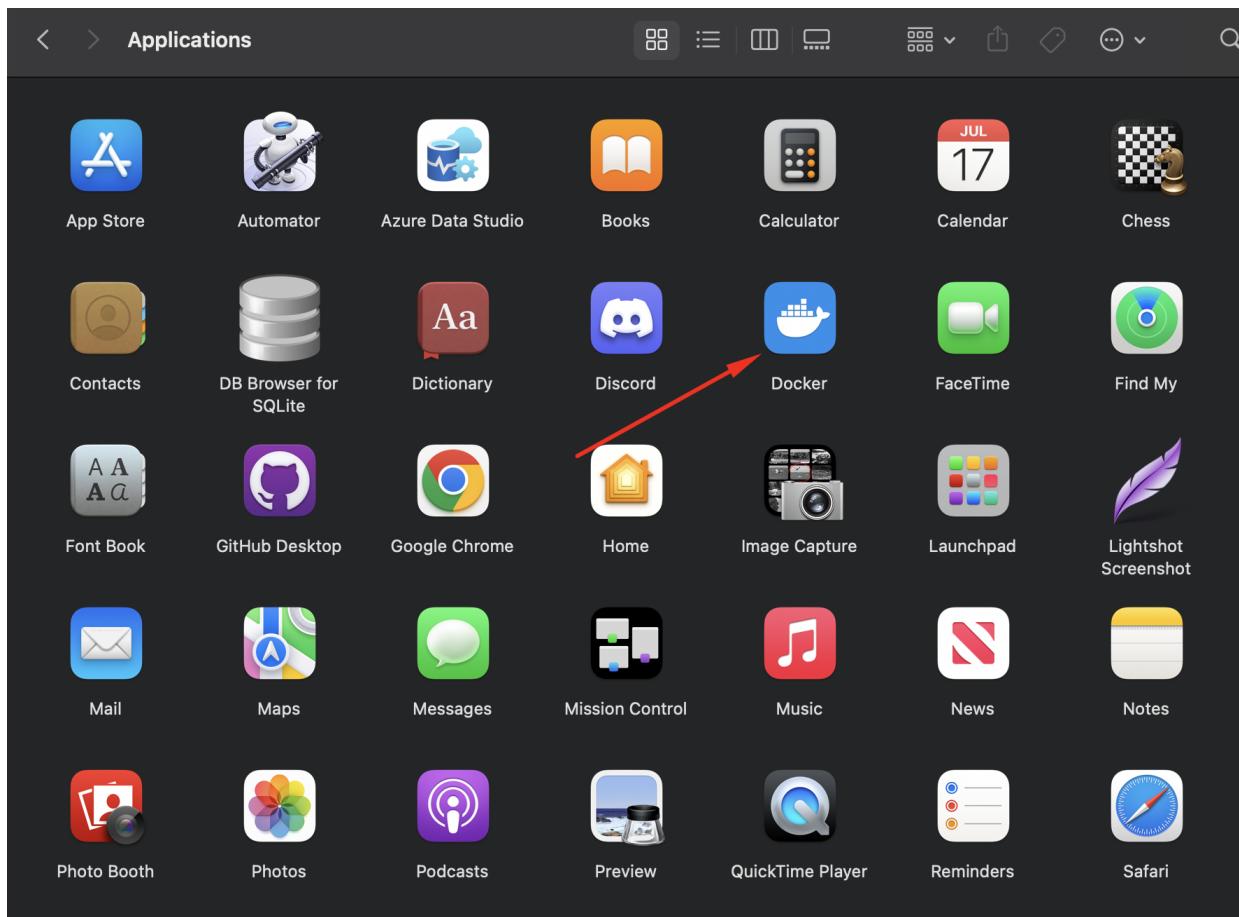
Mac with Apple chip

2. Once the download is complete, navigate to the folder where your downloads are saved and double click the Docker.dmg file to start the installation.

3. Once this window opens, drag and drop the Docker icon to the Applications folder to complete the installation process.



4. Once the installation is complete, open the Applications folder, and click on Docker.



5. First, we need to download and install the Docker image needed to run SQL Server in the container. The command we will enter will also create the credentials that will be needed to

connect to SQL Server. With Docker open, return to the terminal and enter the following command:

```
docker run -e "ACCEPT_EULA=1" -e "MSSQL_SA_PASSWORD=P@ssword" -e "MSSQL_PID=Developer" -e "MSSQL_USER=SA" -p 1433:1433 -d --name=sql mcr.microsoft.com/azure-sql-edge
```

NOTE: If you are using a **Macbook Air with an M1 Chip**, you will need to use this command instead:

```
docker run --cap-add SYS_PTRACE -e 'ACCEPT_EULA=1' -e 'MSSQL_SA_PASSWORD=P@ssword' -p 1433:1433 --name azuresqledge -d mcr.microsoft.com/azure-sql-edge
```

6. Next, we are going to download a tool called *Azure Data Studio*. Azure Data Studio is a free Microsoft tool that you will use to manage your SQL Server databases throughout the course. Complete these steps to download Azure Data Studio:
 - a. Go to the Microsoft Documentation for Azure Data Studio [here](#).
 - b. Scroll down to the section named ‘Download Azure Data Studio’. Click the link for macOS and the download will start.

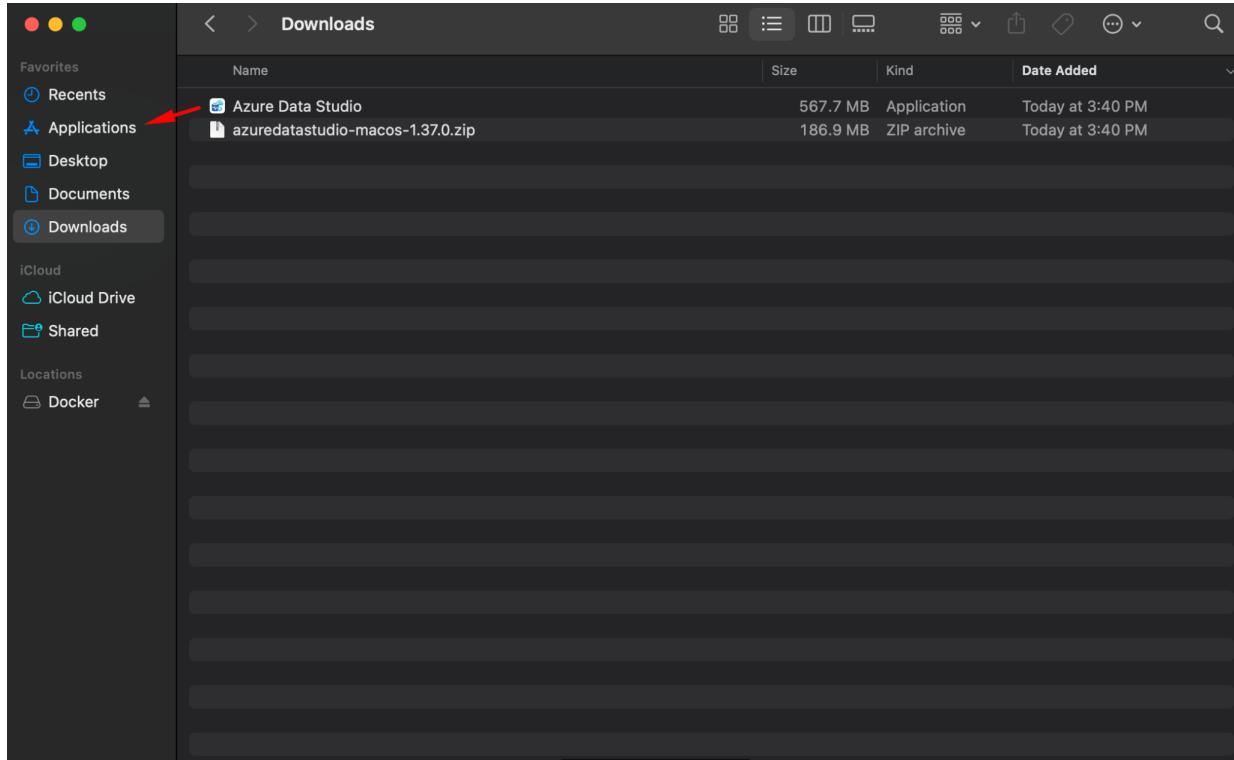
Download Azure Data Studio

Azure Data Studio 1.37.0 is the latest general availability (GA) version.

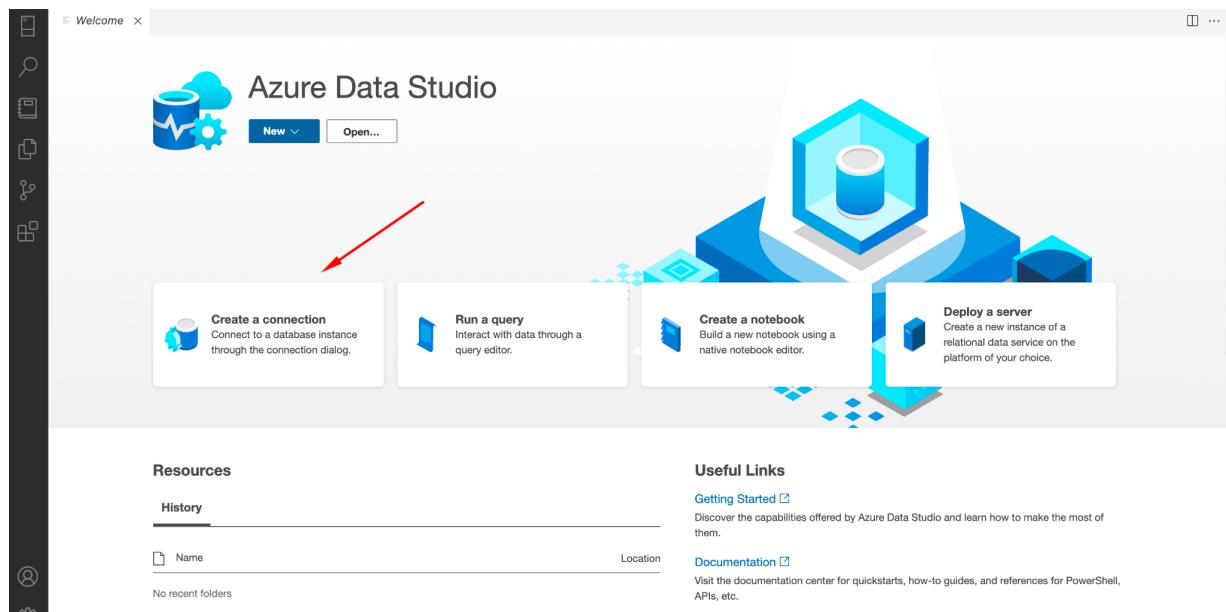
- Release number: 1.37.0
- Release date: June 15, 2022

Platform	Download
Windows	User installer ↗ (recommended) System installer ↗ .zip file ↗
macOS	.zip file ↗
Linux	.deb file ↗ .rpm file ↗ .tar.gz file ↗

7. After the download is complete, click on the .zip file to extract the files. Move the extracted application named ‘Azure Data Studio’ to the Applications folder.



8. Open the Applications folder, find and open the 'Azure Data Studio' app.
9. Once you have Azure Data Studio opened, click on 'Create a Connection'.



10. Fill out the Connection Details with the following credentials:
 - Server: 127.0.0.1
 - User name: SA
 - Password: P@ssword
 - Check the box that says 'Remember Password'

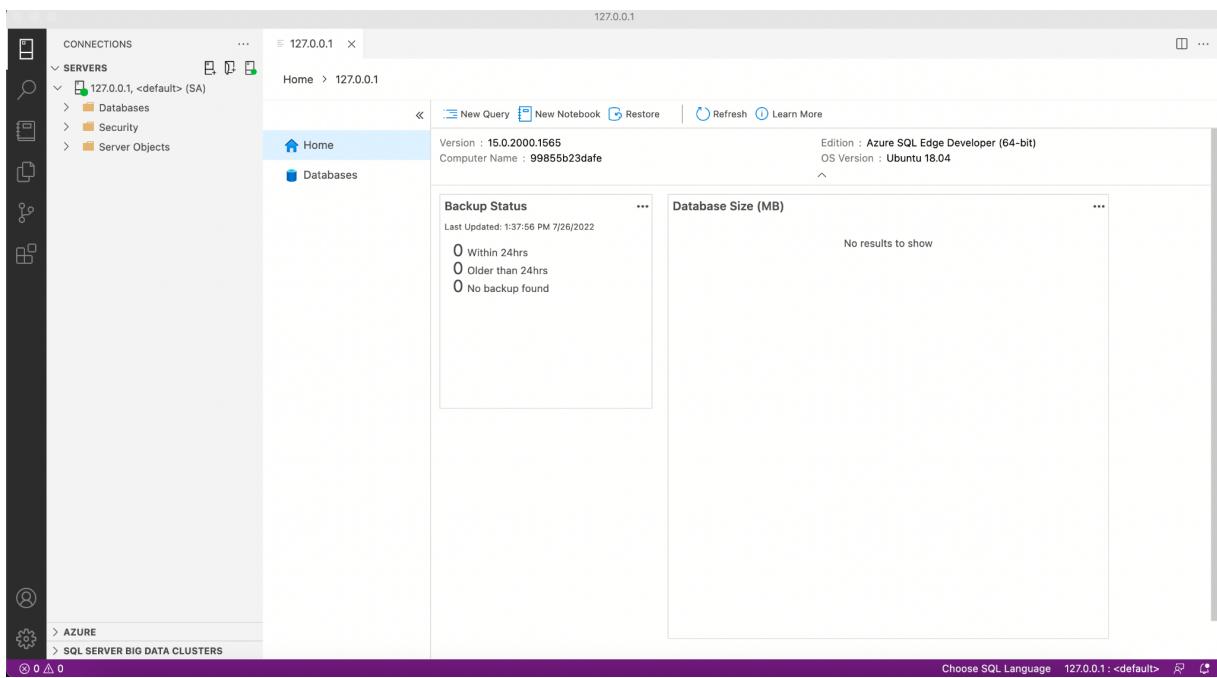
Connection Details

Connection type	Microsoft SQL Server	▼
<input checked="" type="radio"/> Parameters <input type="radio"/> Connection String		
Server *	127.0.0.1	
Authentication type	SQL Login	▼
User name *	SA	
Password	
<input checked="" type="checkbox"/> Remember password		
Database	<Default>	
Server group	<Default>	
Name (optional)		
<button>Advanced...</button>		
<button>Connect</button> <button>Cancel</button>		

11. Now click 'Connect'. Great job! You are now connected to SQL Server on your Apple M1 Silicon machine. You will use this connection to manage your databases for the rest of the course.

UTILIZING AZURE DATA STUDIO

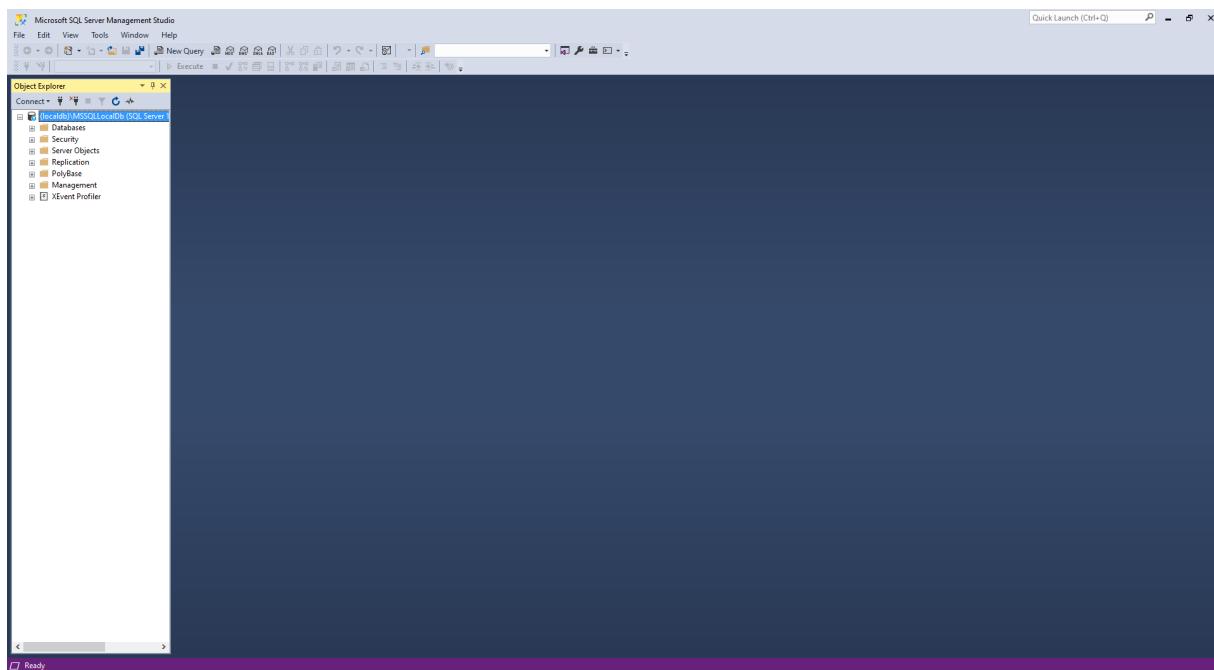
After you are done setting up both the Docker container and Azure Data Studio, when you open Azure Data Studio you will see a page that looks like this:



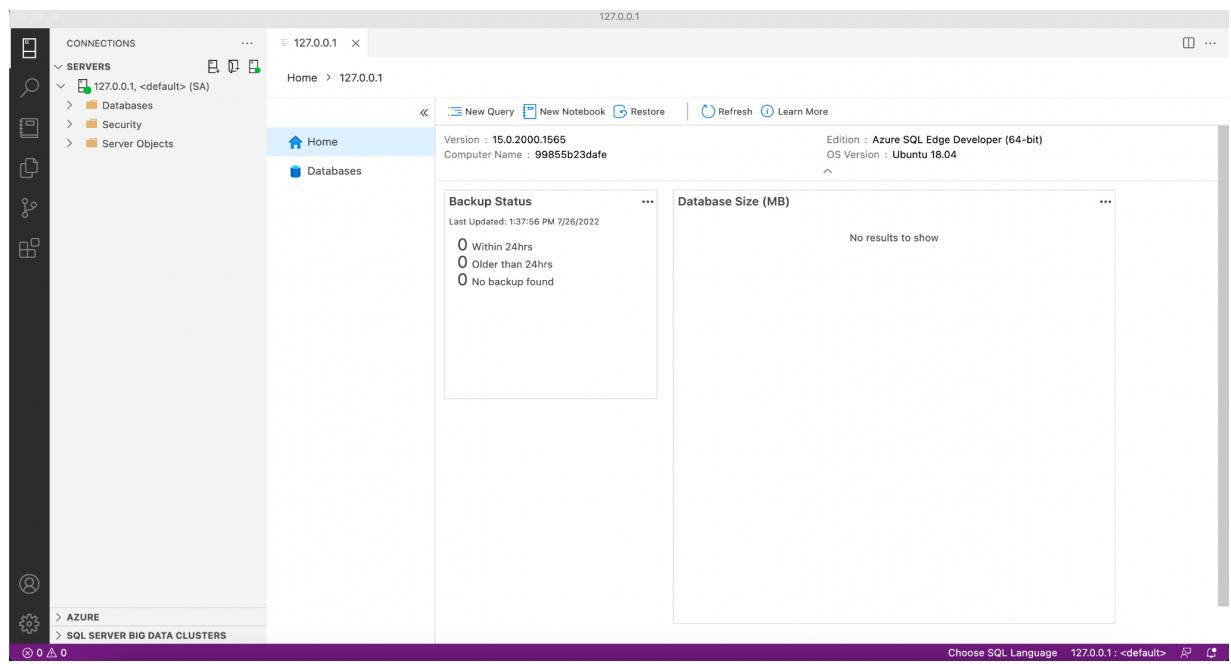
This will be the landing page every time you re-connect to Azure Data Studio. The landing page has a lot of options but on this course you will just need to click on the 'New Query' option to write your SQL scripts.

While progressing through the course material, you will notice some distinct differences between Azure Data Studio and SQL Server Management Studio(SSMS) – the program that both the instructor and course material use.

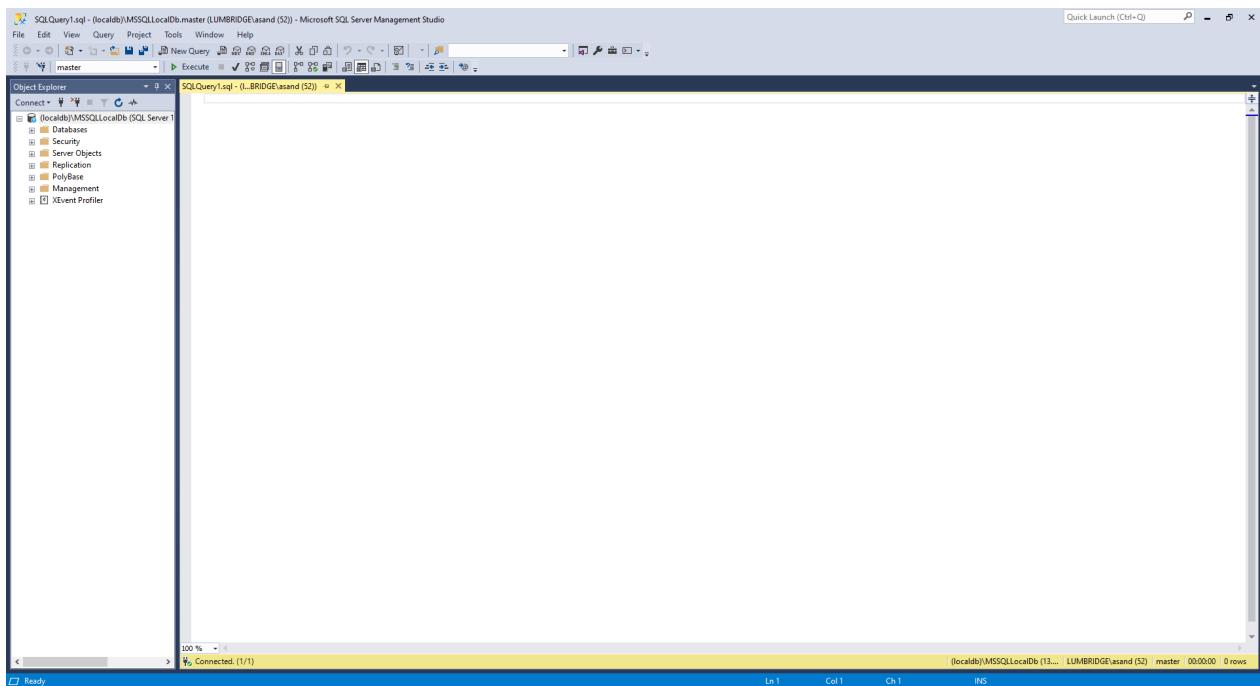
Review the images below to see some of the differences of the programs:



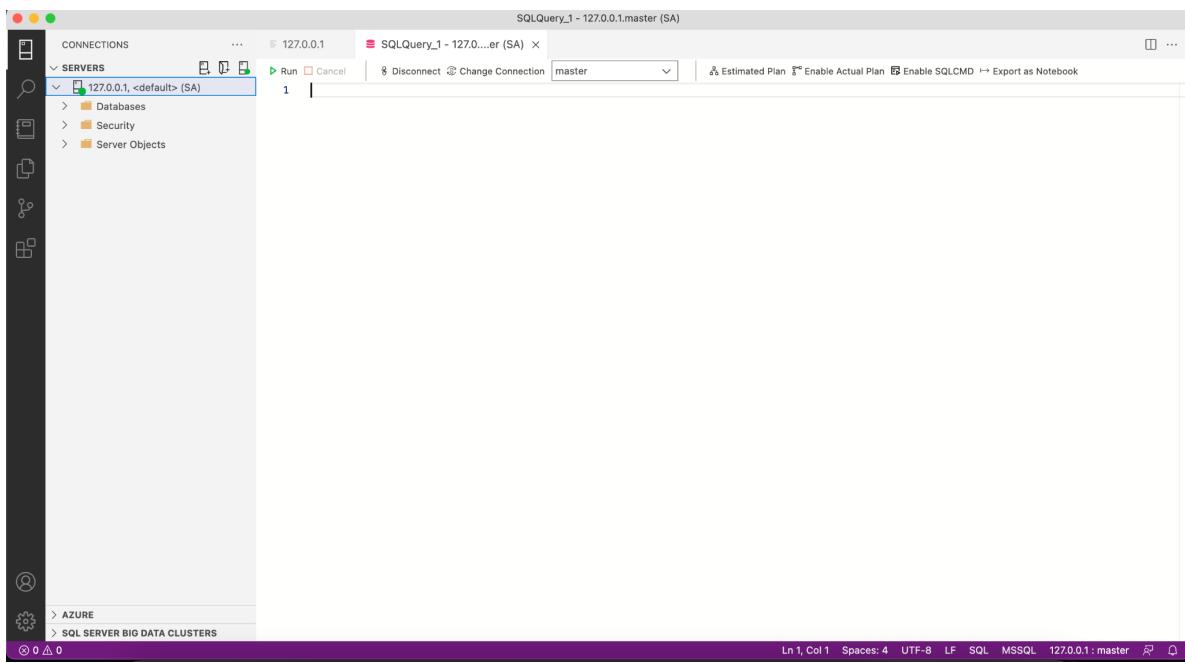
Landing Page for SSMS:



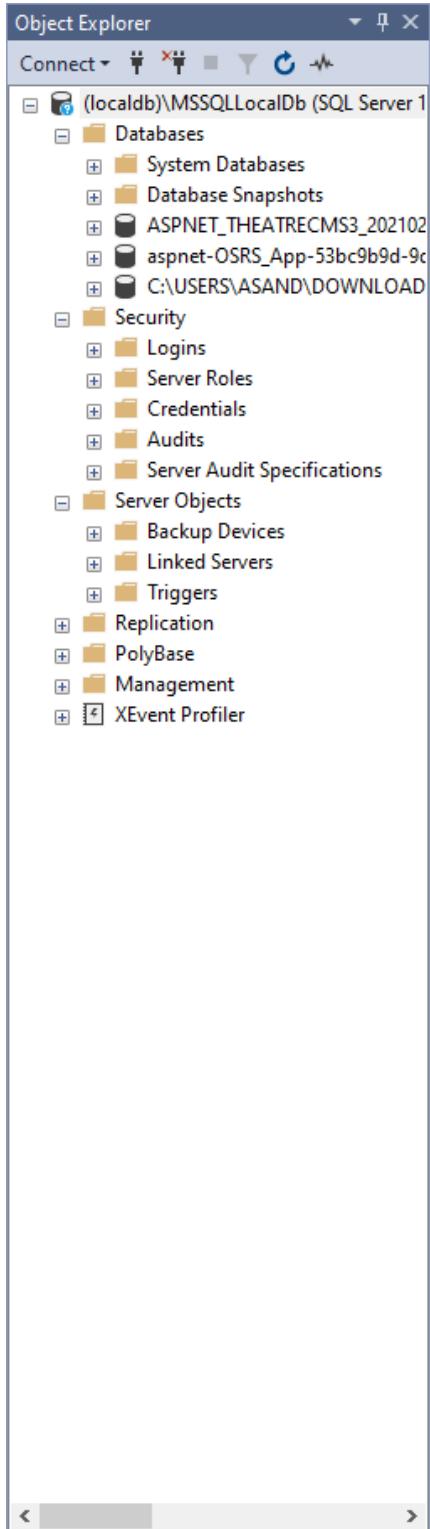
Landing Page for Azure Data Studio:



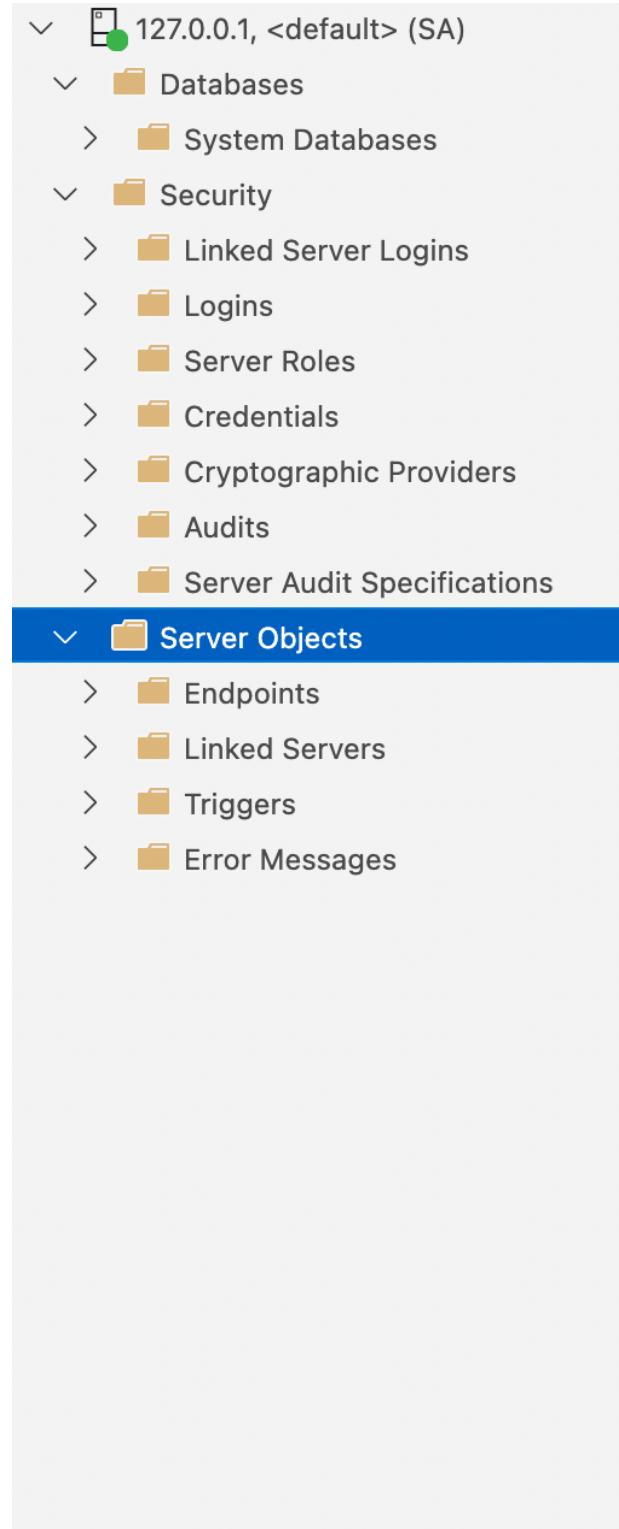
Writing a Query in SSMS:



Writing a Query in Azure Data Studio:



Object Explorer in SSMS



Object Explorer in Azure Data Studio

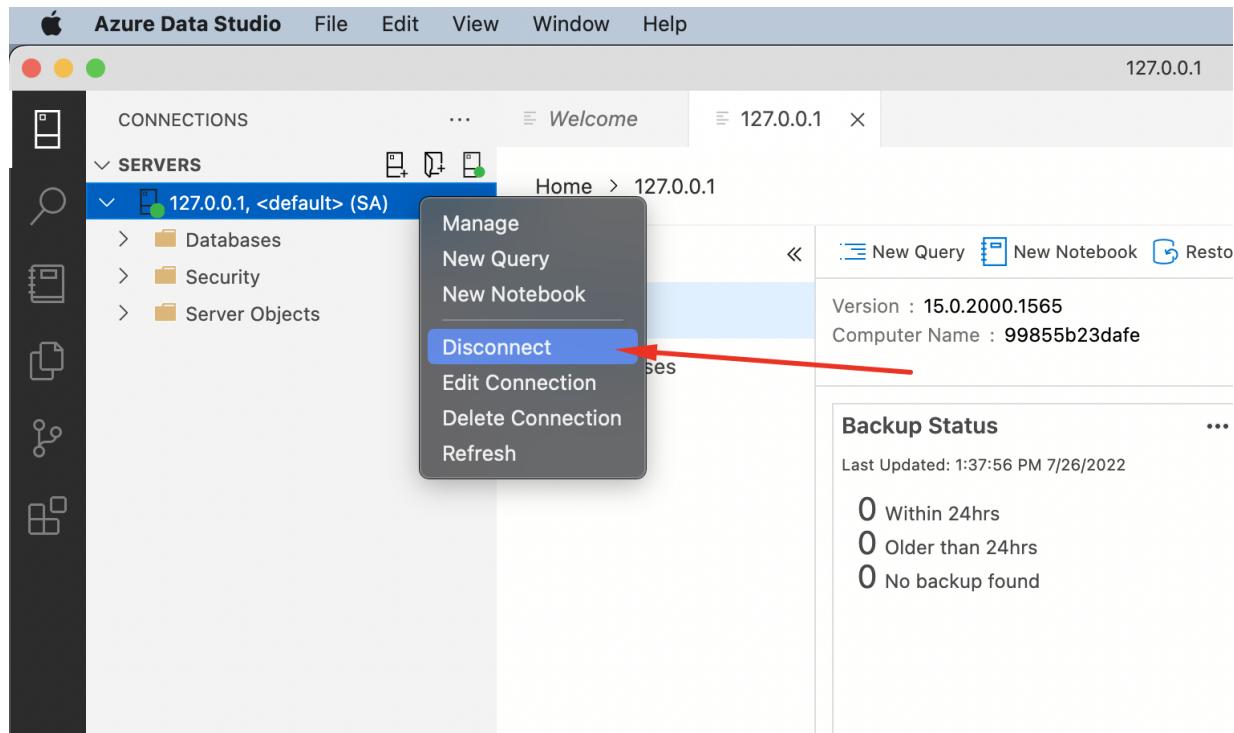
Although the program interfaces are quite different, all of the code that will be written in SSMS throughout the course will be done the same way in Azure Data Studio.

DISCONNECTING AND RECONNECTING TO THE SERVER

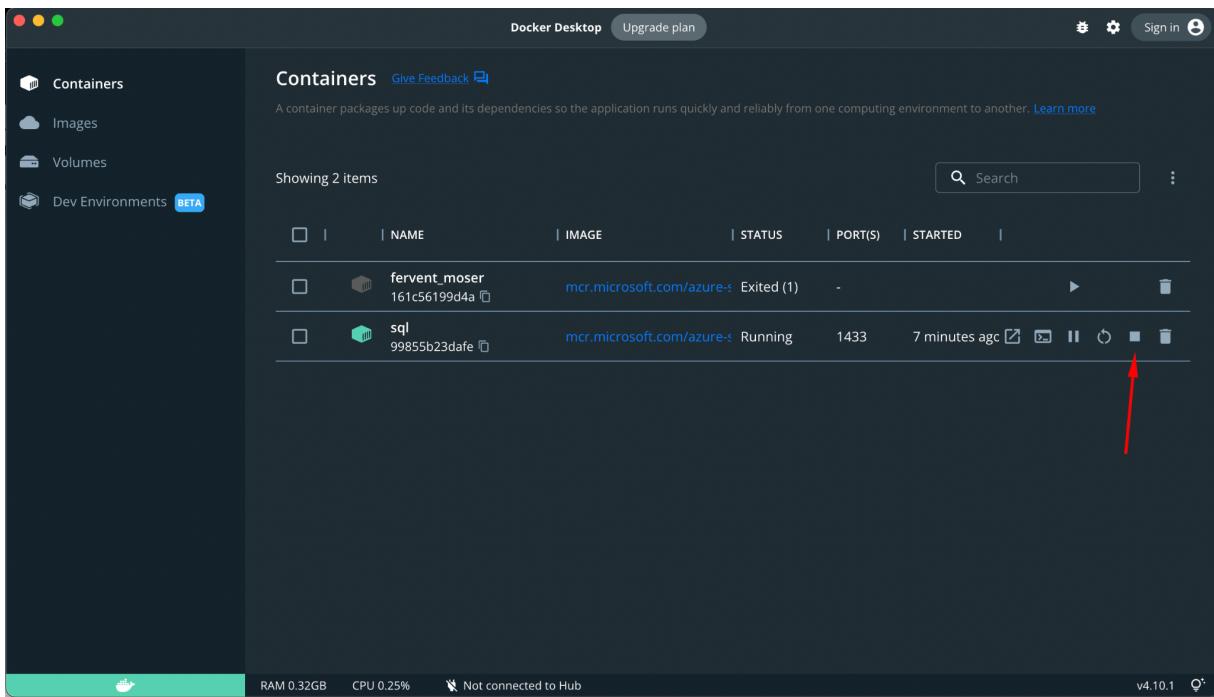
1) *Disconnecting*

When you are done working on your course material for the day, it is best practice to shut down your server. To do this, you need to first disconnect from your server. Follow these steps to disconnect from your server:

1. Go to Azure Data Studio, right click (to right click on a mac press control and press down on the mouse pad at the same time) on your server (127.0.0.1, <default> (SA) should be the name of your server), then click 'Disconnect'.



2. Once you have disconnected from the server in Azure Data Studio, you will need to stop your Docker container. Open Docker Desktop, and click on the 'Containers' tab on the left. From here you will see a container named 'sql' that is currently running. At the end of the row is a list of actions that can be taken. If you hover your mouse over the icon that looks like a square, there is a popup that says stop. Click on it and this will stop your container from running.

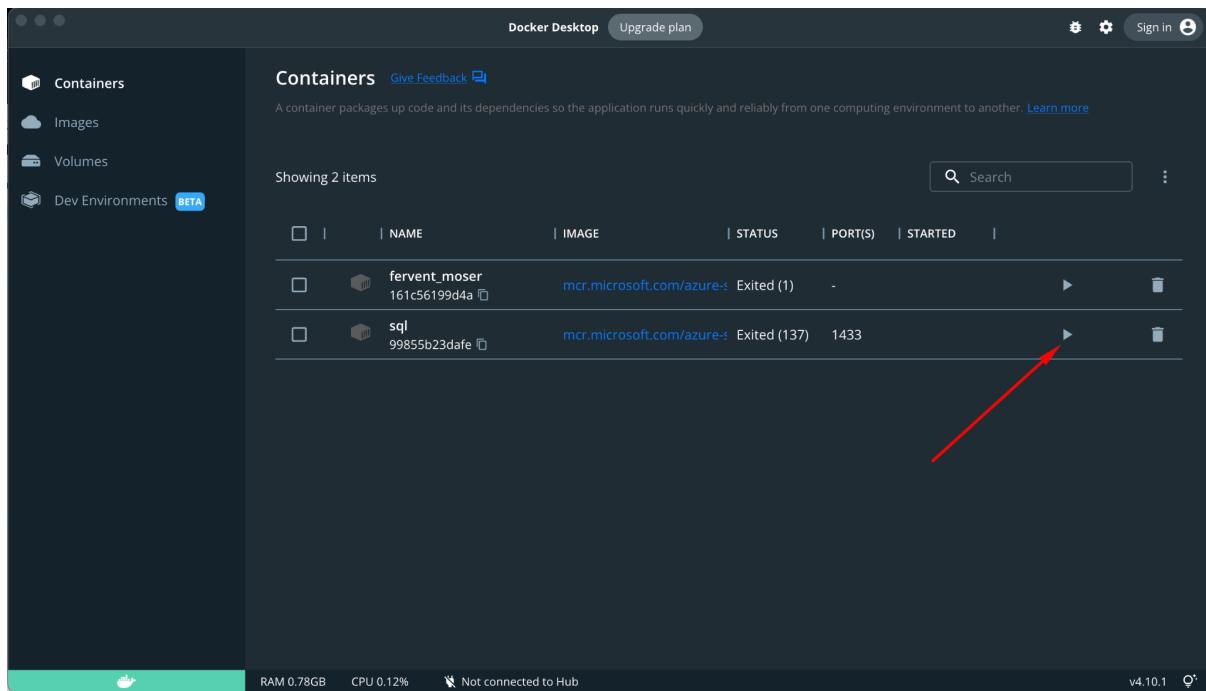


Well done, you have properly disconnected from your server in Azure Data Studio and stopped your Docker container!

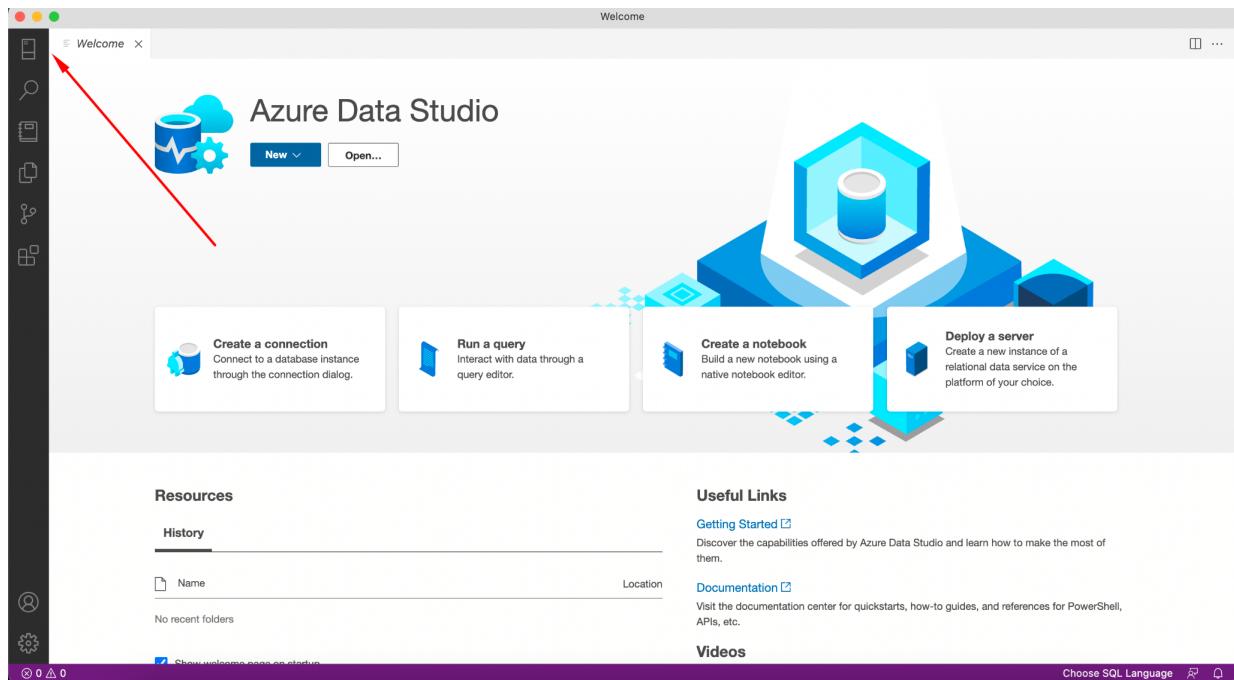
2) *Reconnecting*

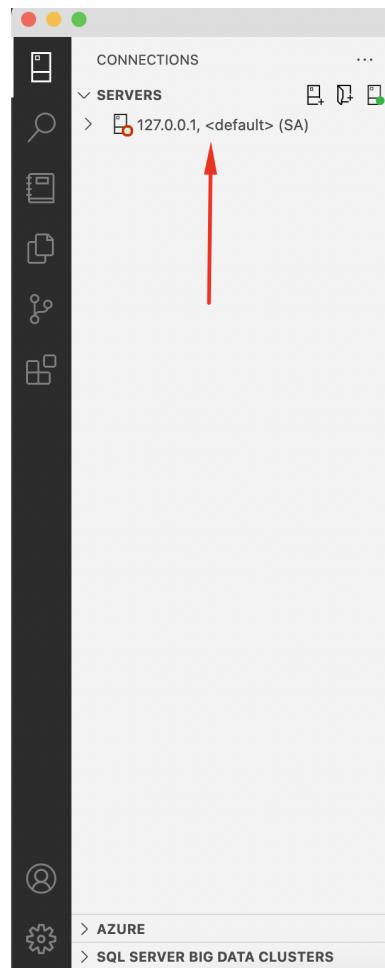
To reconnect to your server, complete these actions:

1. The first step is to run your Docker container - without your Docker container running, you will not be able to connect to your server in Azure Data Studio. To run your docker container, open Docker Desktop, and click on the 'Containers' tab on the left-hand side. Then, click on the Play button next to the container named 'sql'.



- Once your container is running, open Azure Data Studio. Click on the first icon on the left-hand side named 'Connections'. Double click on the server named '127.0.0.1 <default> (SA)'.





3. Once you have double-clicked on the server name in the list, you will be taken to the landing page for the server. It will look like this:

A screenshot of the Azure portal showing the landing page for the '127.0.0.1' server. The left sidebar has 'Databases', 'Security', and 'Server Objects' listed. The main content area shows 'Backup Status' with 'Last Updated: 1:37:56 PM 7/26/2022' and three items: 'Within 24hrs', 'Older than 24hrs', and 'No backup found'. It also shows 'Database Size (MB)' with 'No results to show'. At the bottom, it says 'Choose SQL Language 127.0.0.1 : <default>'.

Well done, you have properly started running your Docker container and connected to your server in Azure Data Studio!