



# **IT4090**

## **Cloud Computing**

### **4<sup>th</sup> Year, 1<sup>st</sup> Semester**

*Azure Lab 5*

## **Practical Session**

Submitted to

Sri Lanka Institute of Information Technology

**Student ID: IT21172878**

**Student Name: D.P. Liyanagama**

In partial fulfillment of the requirements for the  
Bachelor of Science Special Honors Degree in Information Technology

09/24/2024

## Table of Contents

1. Create a single database .....	3
2. Query the database .....	10
3. Clean up resources .....	11

## Table of Figures

Figure 1. 1: Under SQL databases, leave Resource type set to Single database, and select Create. ....	3
Figure 1. 2: Choose Subscription, create Resource group, create Database name and select SQL elastic pool No. ....	3
Figure 1. 3: Select the Server name and Location. ....	4
Figure 1. 4: Enter Server admin login and Password. ....	4
Figure 1. 5: For Workload environment, specify Development and choose a redundancy. ....	5
Figure 1. 6: Service tier set to General Purpose (Most budget-friendly, serverless compute) and set Compute tier to Serverless. Select Apply.....	5
Figure 1. 7: On the Networking tab, for Connectivity method, select Public endpoint and for Firewall rules, set Add current client IP address to Yes. ....	6
Figure 1. 8: Choose the Default connection policy, and Minimum TLS version at the default of TLS 1.2. ....	6
Figure 1. 9: On the Security page, choose to start a free trial of Microsoft Defender for SQL.	7
Figure 1. 10: in the Data source section, for Use existing data, select Sample.....	7
Figure 1. 11: Review database and click Create. ....	8
Figure 1. 12: Complete deployment database and click Go to resources. ....	8
Figure 1. 13: Created database's Overview.....	9
Figure 2. 1: Enter your SQL authentication server admin Login information and Password.	10
Figure 2. 2: Enter the query in the Query editor pane and select Run. ....	10
Figure 3. 1: Click Delete to delete a resource group. ....	11
Figure 3. 2: Resource group deleted succeeded.....	11

# 1. Create a single database

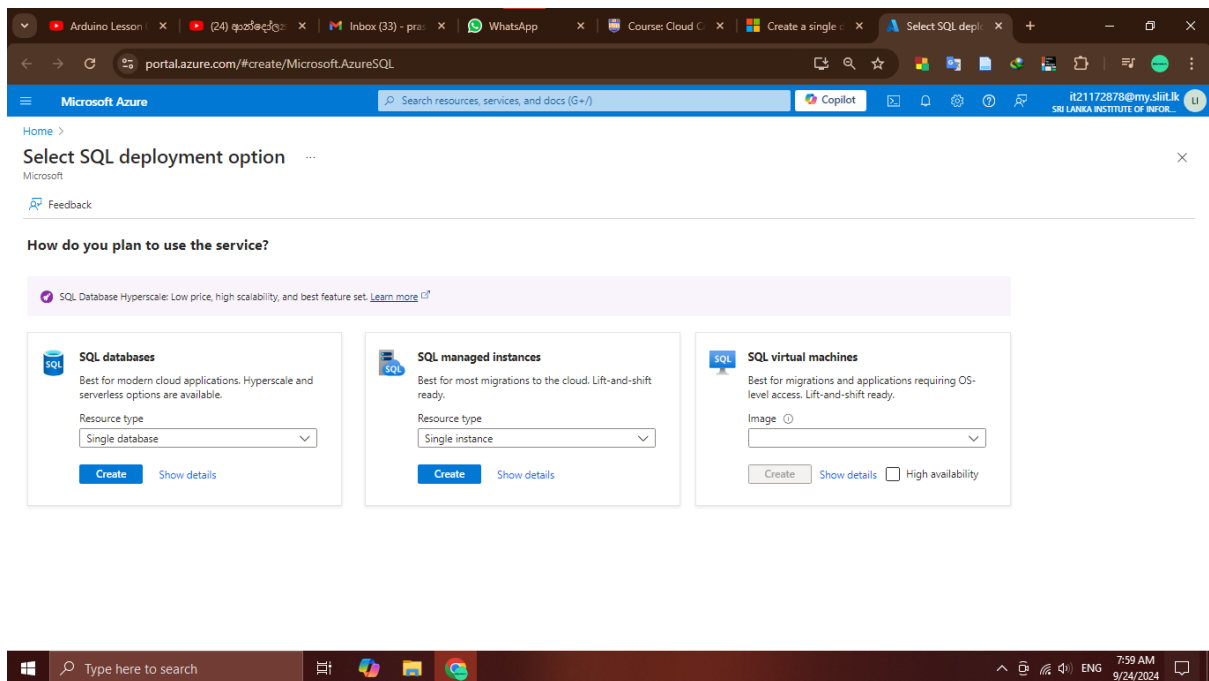


Figure 1. 1: Under SQL databases, leave Resource type set to Single database, and select Create.

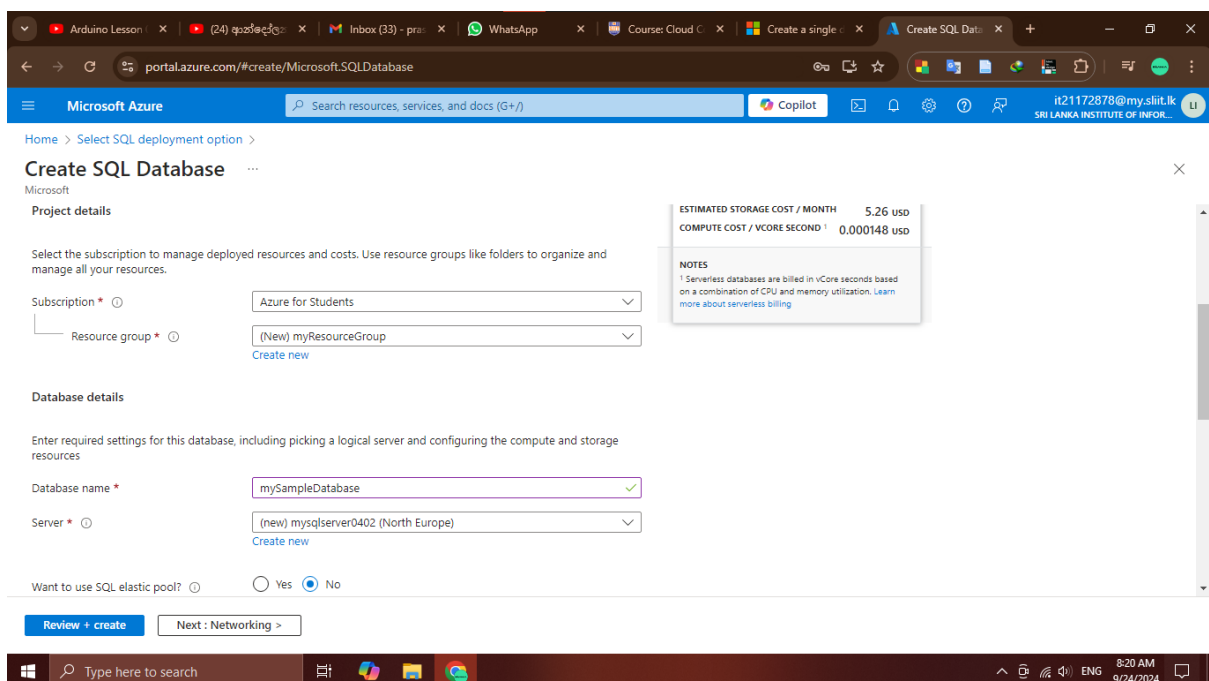


Figure 1. 2: Choose Subscription, create Resource group, create Database name and select SQL elastic pool No.

Microsoft Azure

Home > 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 \*  ✓  
 .database.windows.net

Location \*  ✓

Authentication

**i** 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.

**OK**

Figure 1. 3: Select the Server name and Location.

Microsoft Azure

Home > Select SQL deployment option > Create SQL Database

## Create SQL Database Server

Microsoft

**i** 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 \*  ✓

Password \*  ✓

Confirm password \*  ✓

**OK**

Figure 1. 4: Enter Server admin login and Password.

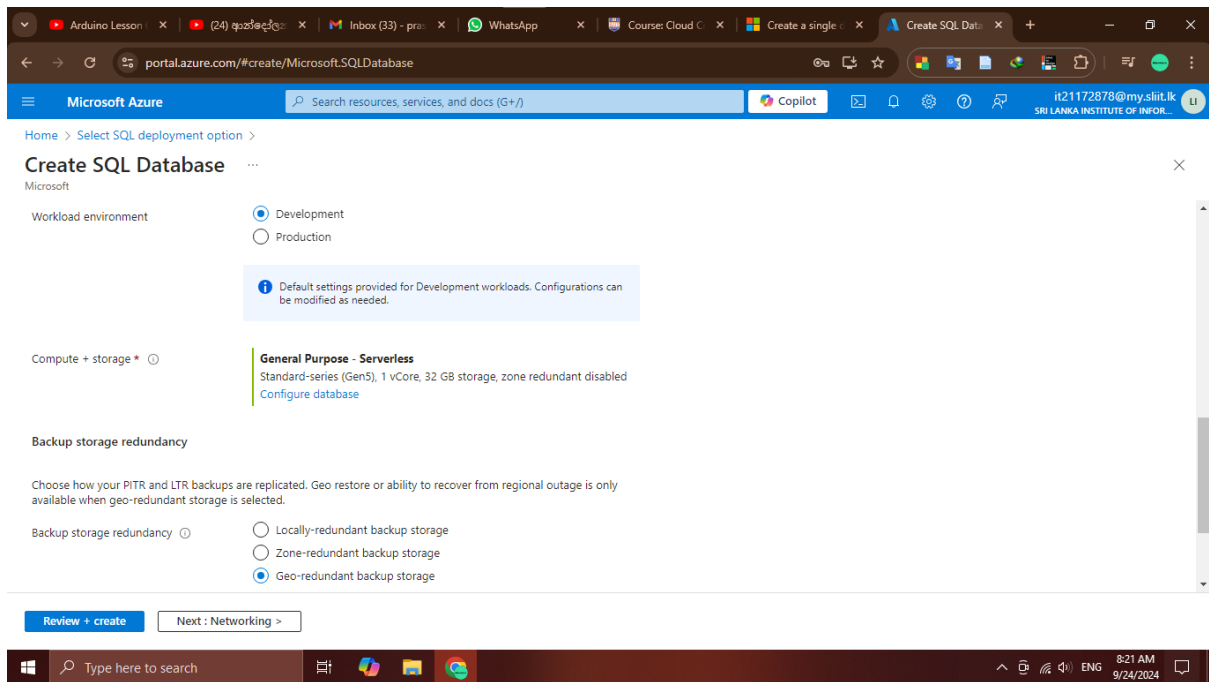


Figure 1. 5: For Workload environment, specify Development and choose a redundancy.

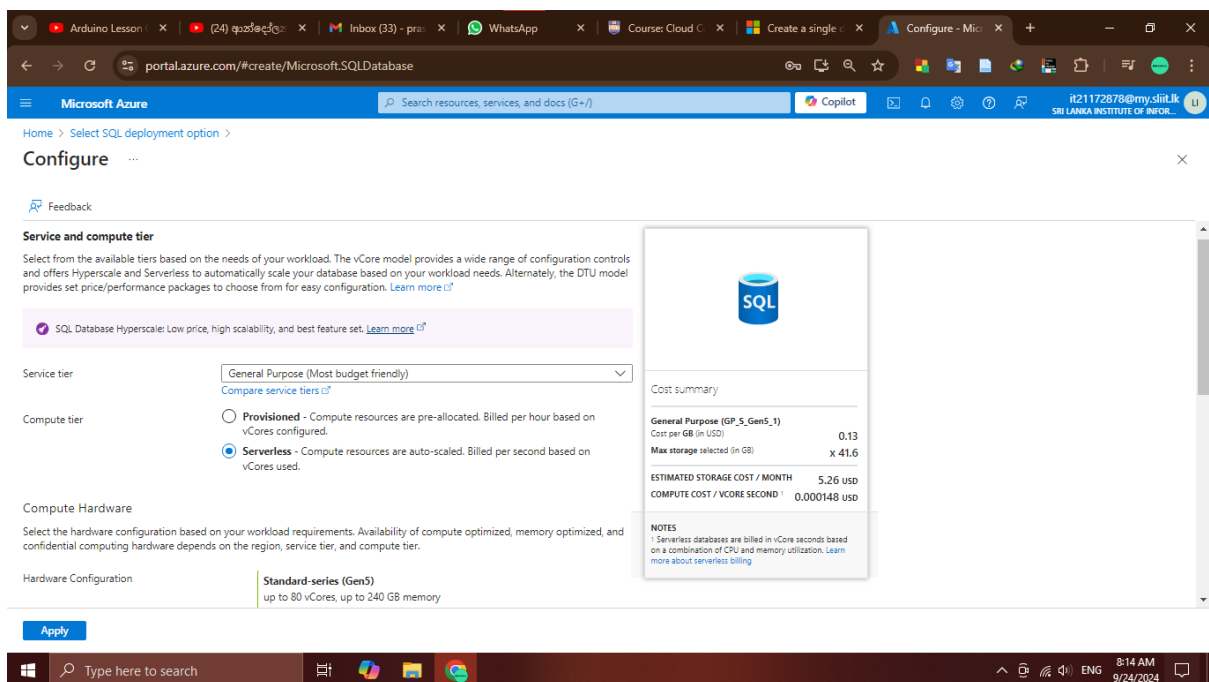


Figure 1. 6: Service tier set to General Purpose (Most budget-friendly, serverless compute) and set Compute tier to Serverless. Select Apply.

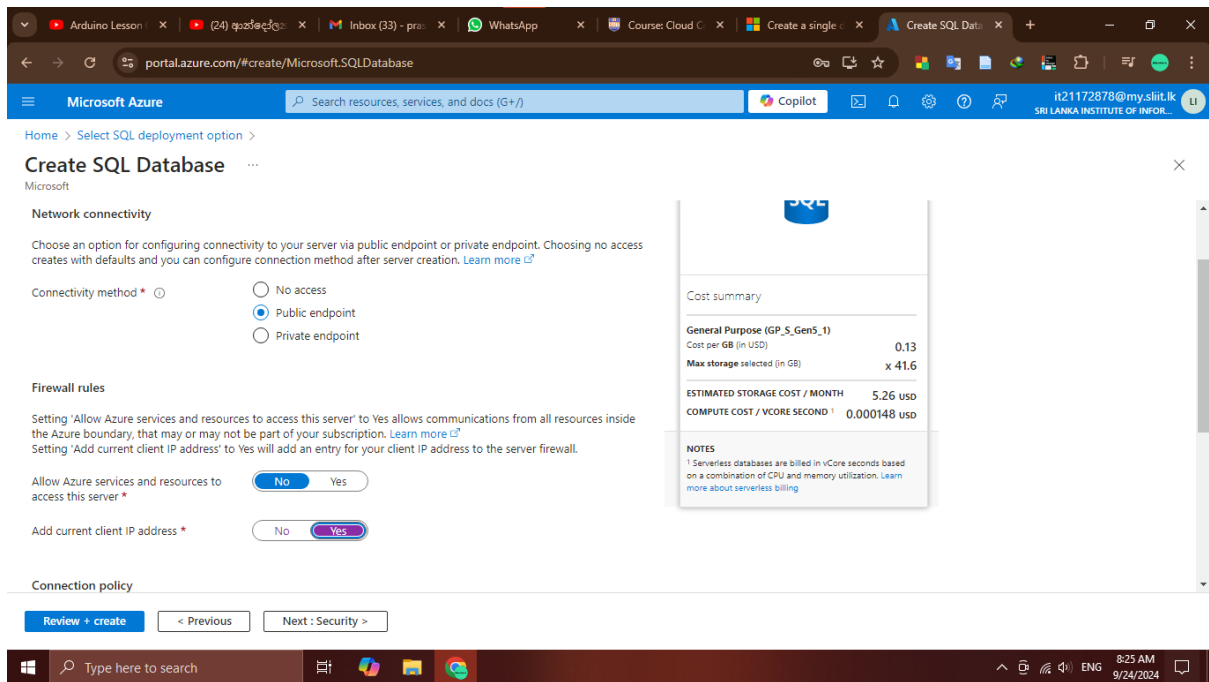


Figure 1. 7: On the Networking tab, for Connectivity method, select Public endpoint and for Firewall rules, set Add current client IP address to Yes.

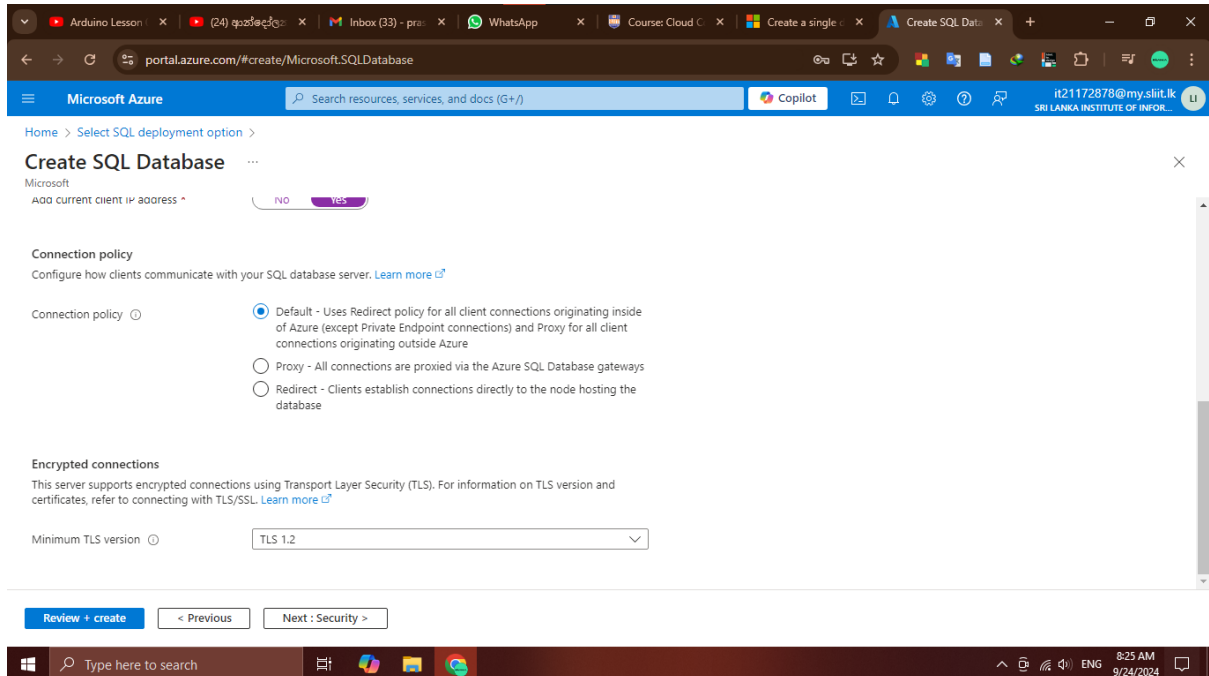


Figure 1. 8: Choose the Default connection policy, and Minimum TLS version at the default of TLS 1.2.

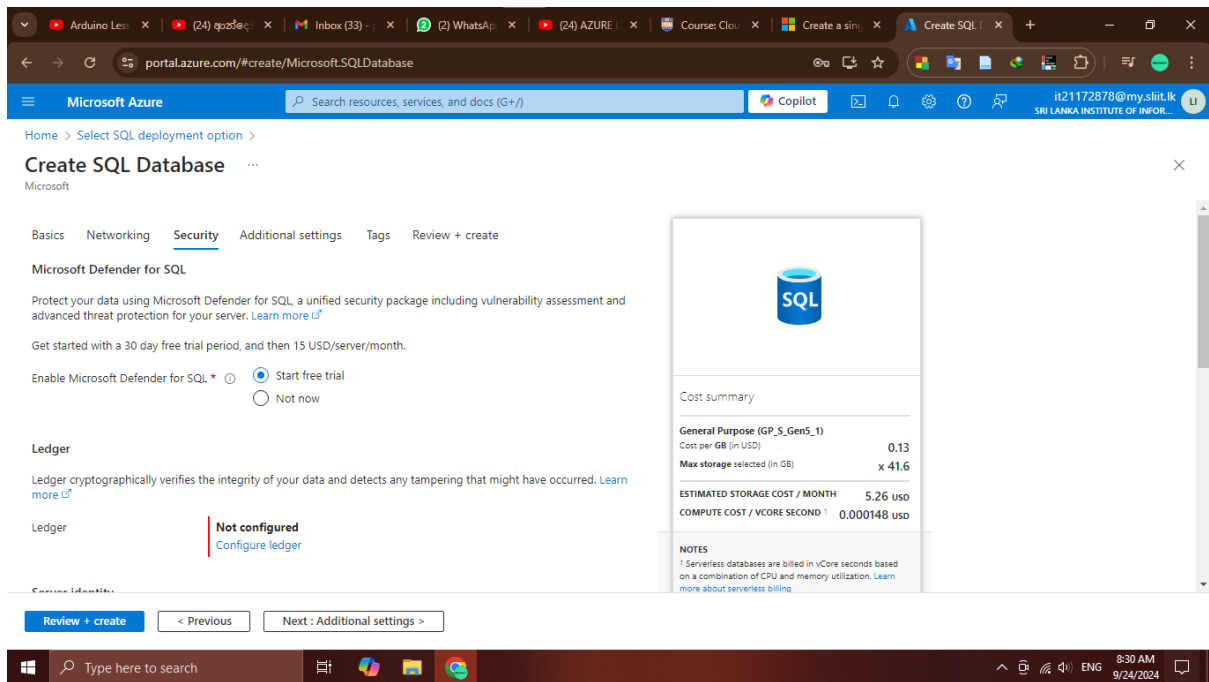


Figure 1. 9: On the Security page, choose to start a free trial of Microsoft Defender for SQL.

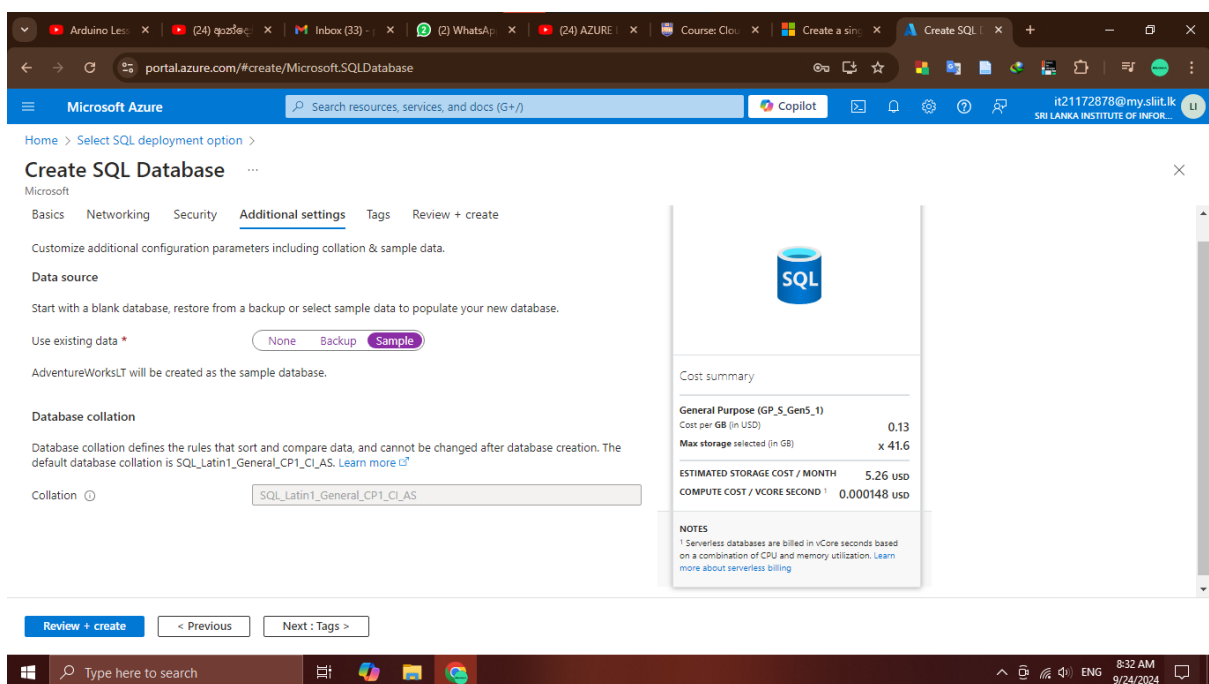


Figure 1. 10: in the Data source section, for Use existing data, select Sample.

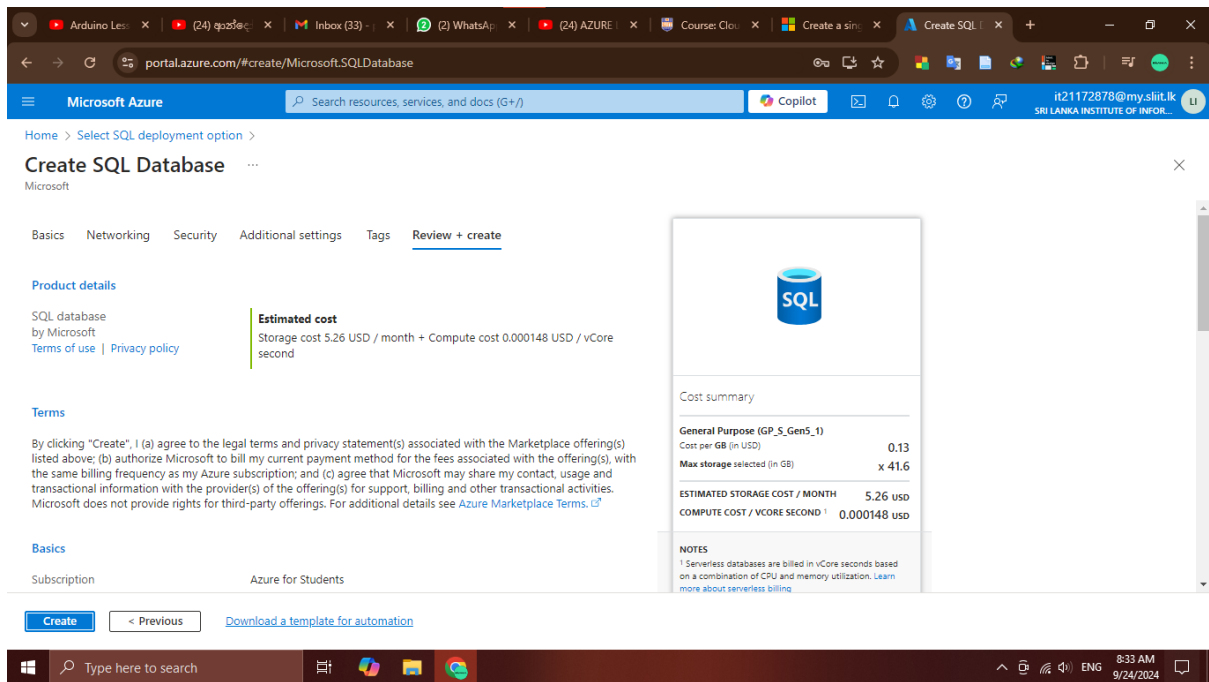


Figure 1. 11: Review database and click Create.

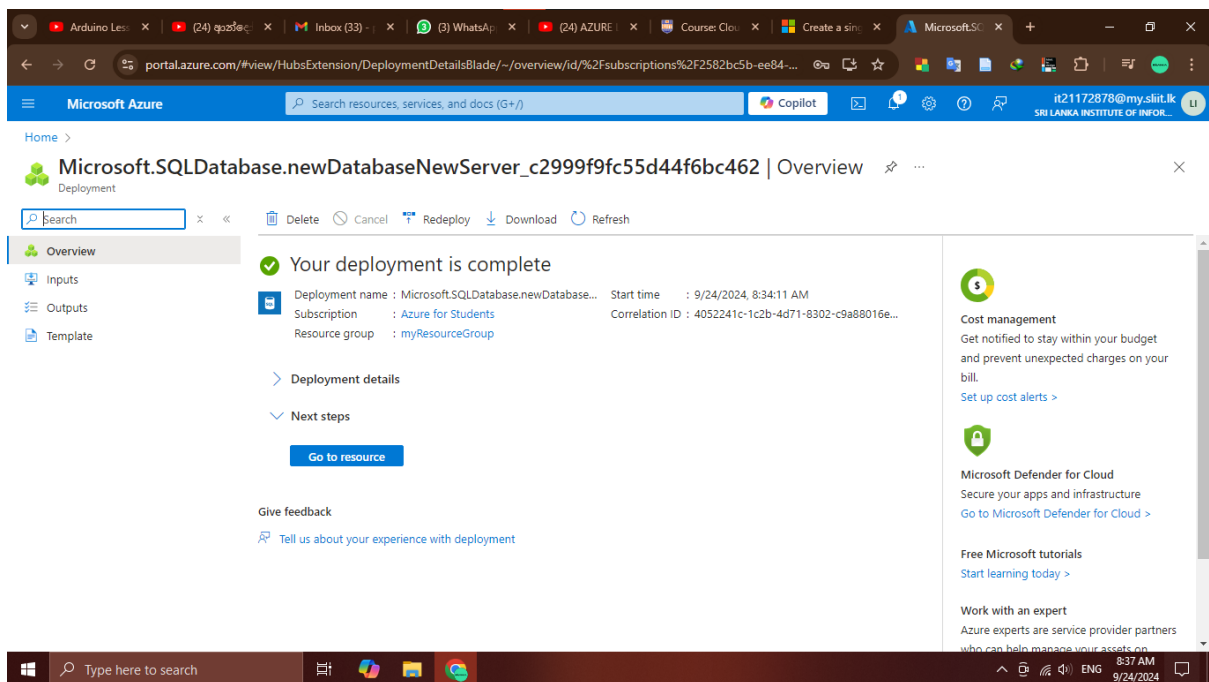


Figure 1. 12: Complete deployment database and click Go to resources.



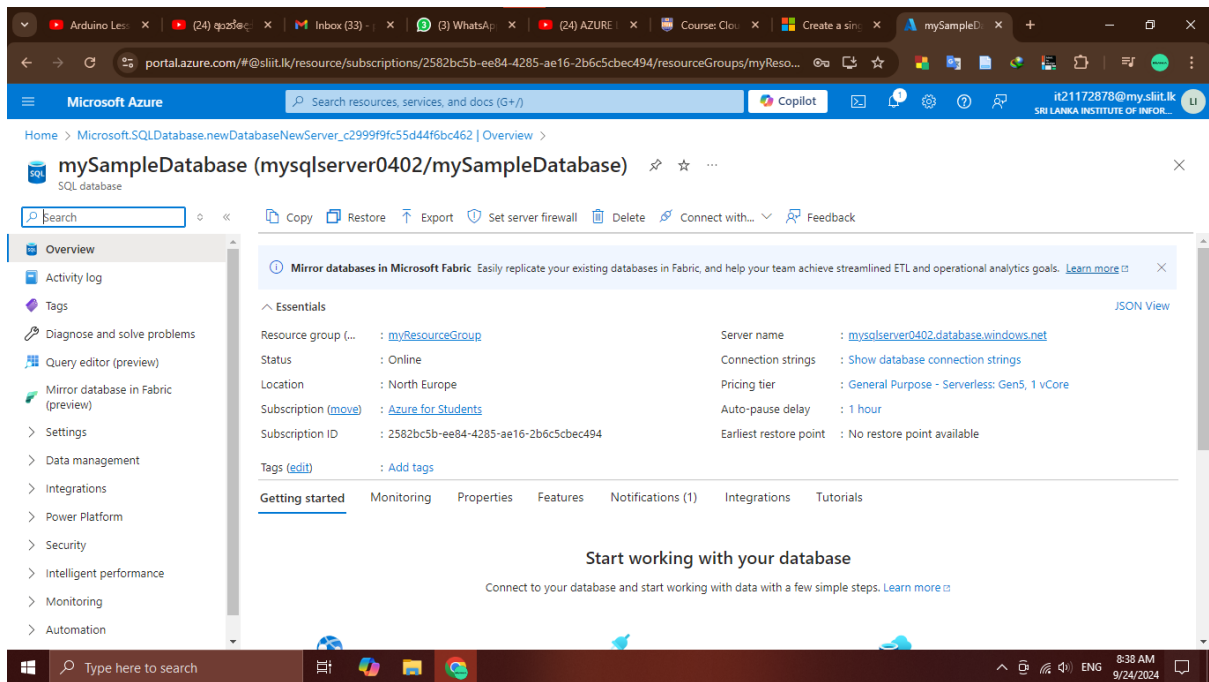


Figure 1. 13: Created database's Overview.

## 2. Query the database

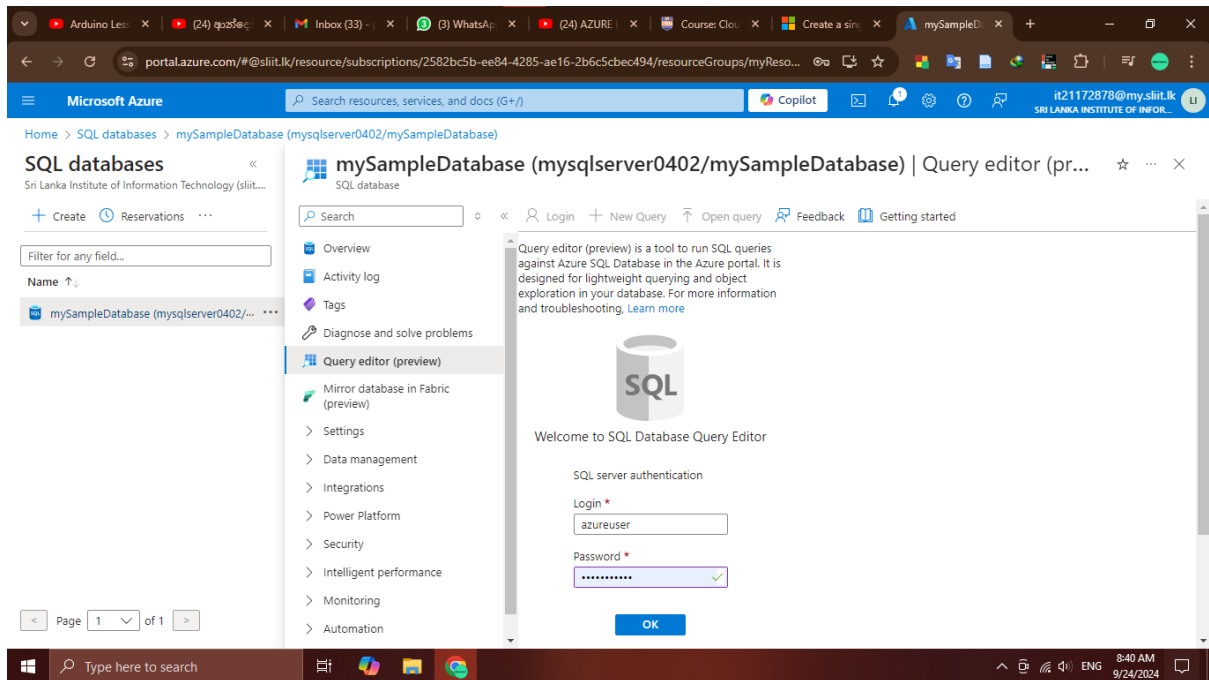


Figure 2. 1: Enter your SQL authentication server admin Login information and Password.

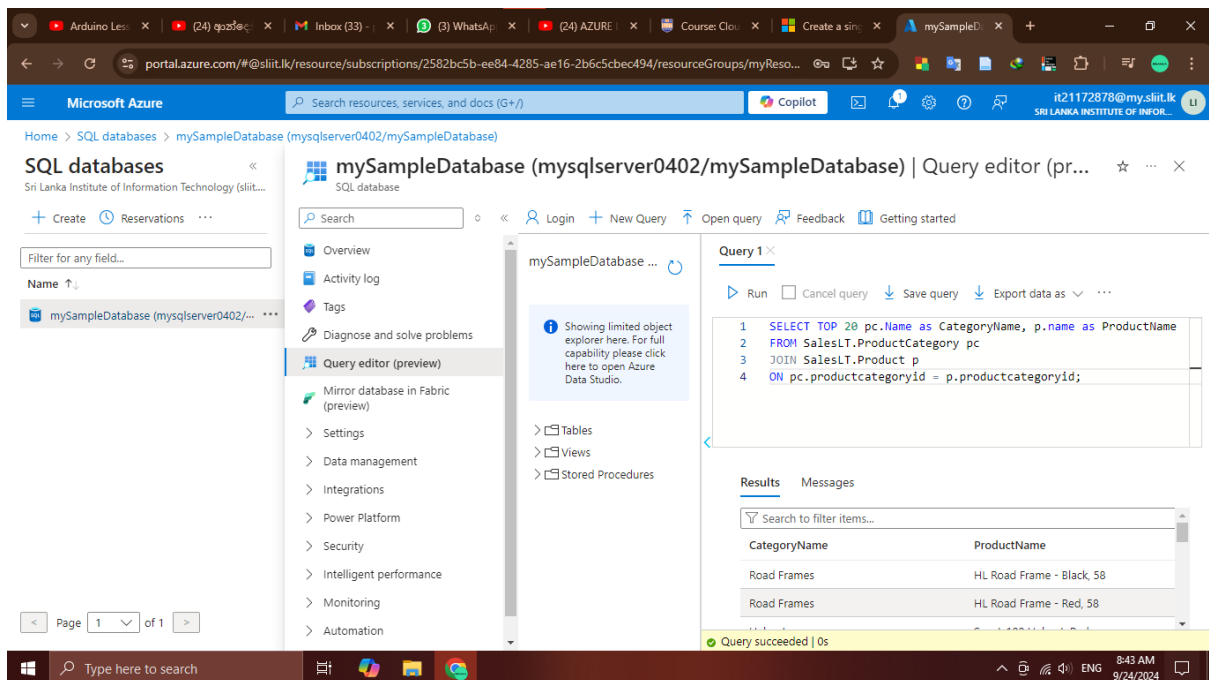


Figure 2. 2: Enter the query in the Query editor pane and select Run.

### 3. Clean up resources

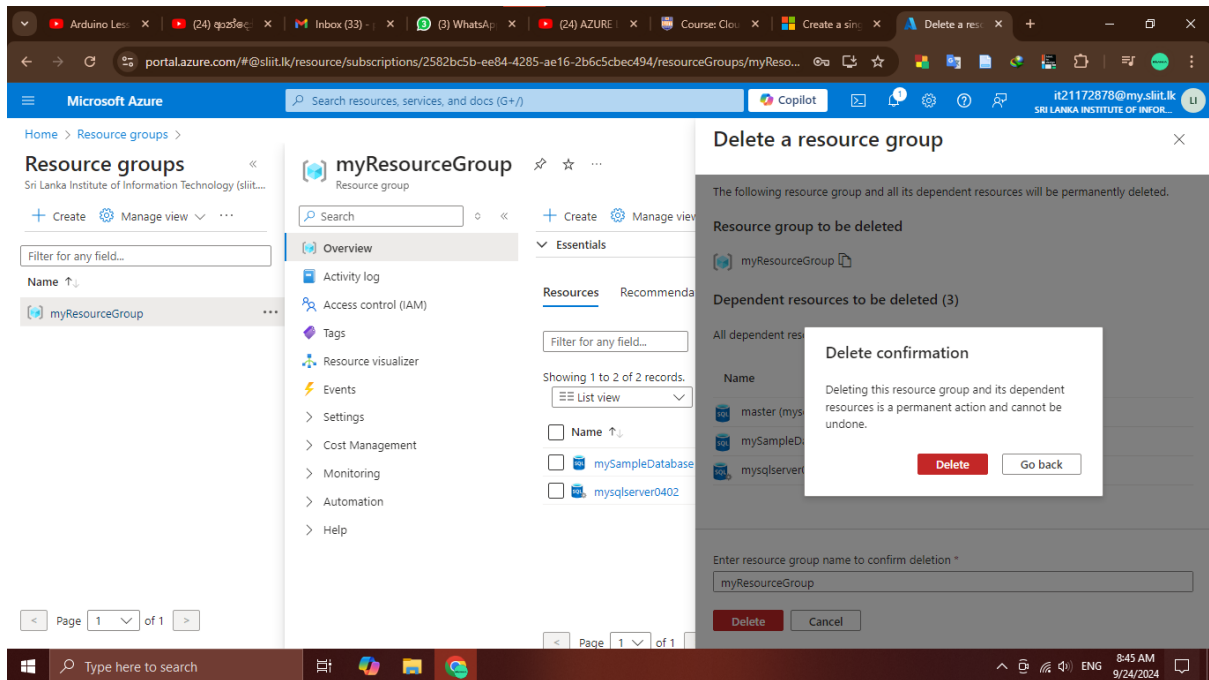


Figure 3. 1: Click Delete to delete a resource group.

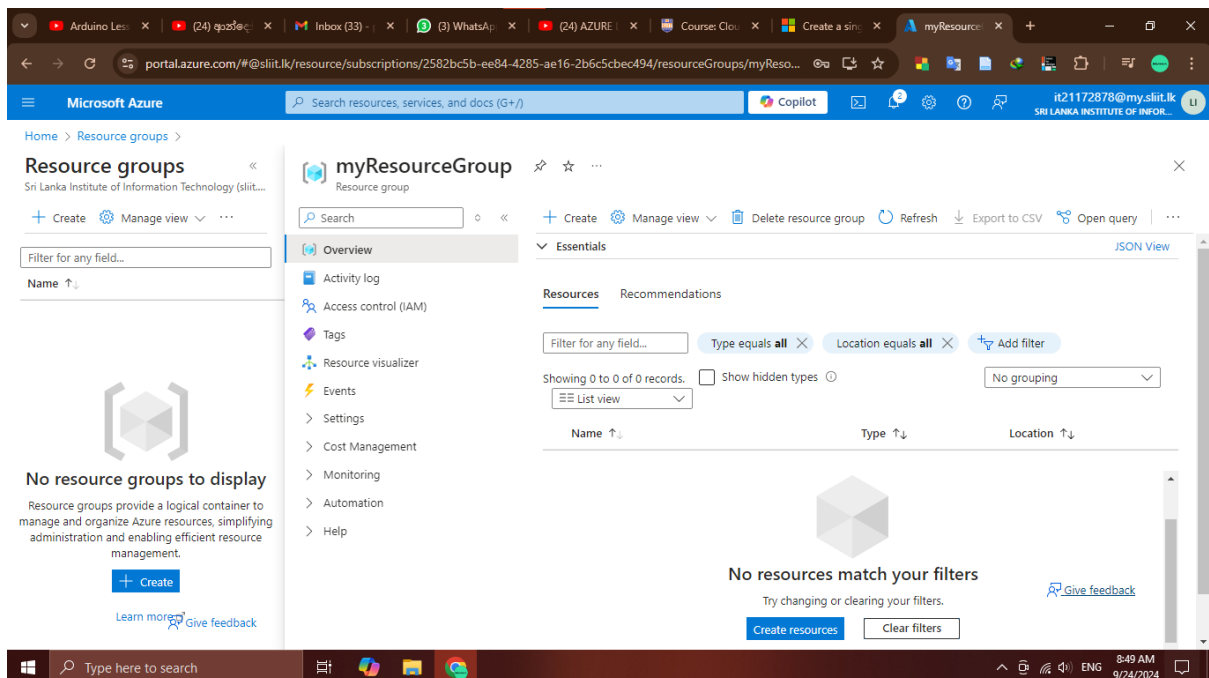


Figure 3. 2: Resource group deleted succeeded.