



Lab Manual- Setup and Manage Azure SQL Database

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1. Introduction

Microsoft Azure SQL Database is an excellent, scalable, durable, intelligent database service that is built for the Cloud. Microsoft takes care of resource management, Storage Size, Infrastructure, etc.

Another most important part is, the resources scale on-demand automatically and it's always up to date and AI-Driven.

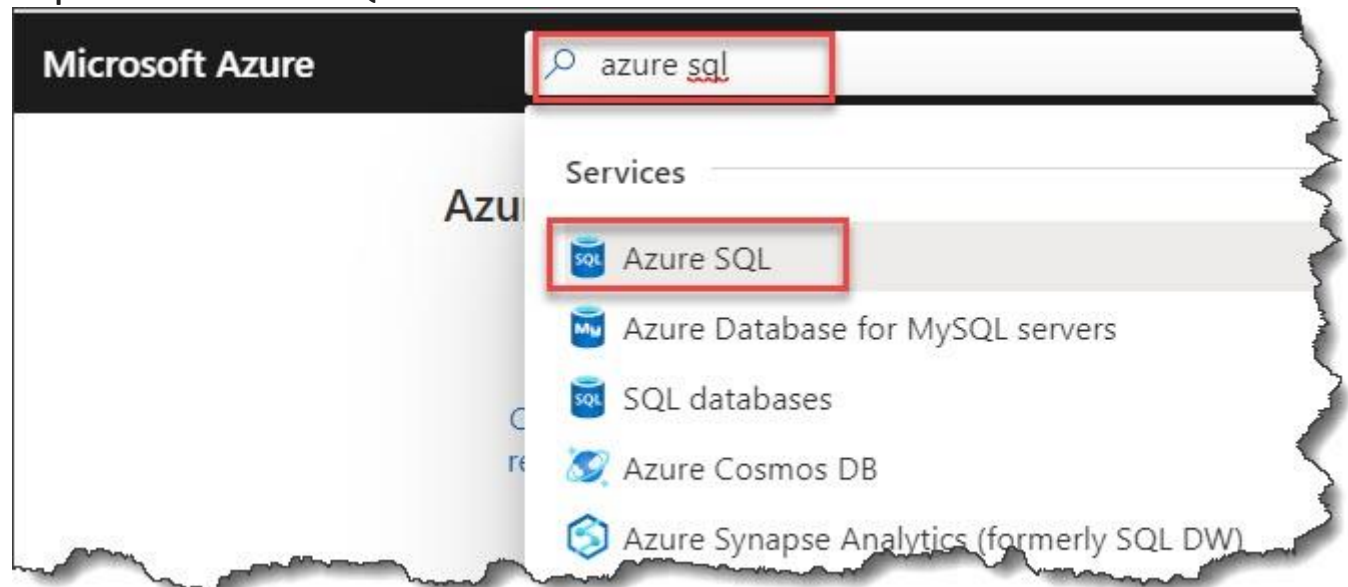
In this Lab we are going to deploy Azure SQL database and Create Basis Operation.

2. How to Create Free SQL Database in Azure

Follow the below steps to create a free SQL Database in Azure.

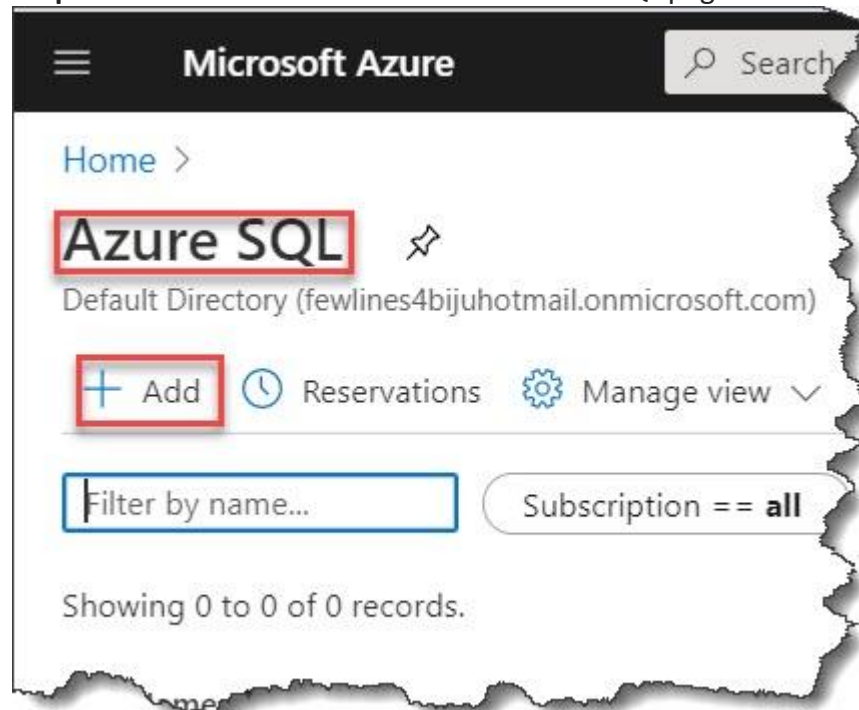
Step-1: Login to the **Azure portal** (<https://portal.azure.com/>)

Step-2: Search for **Azure SQL** and select it .

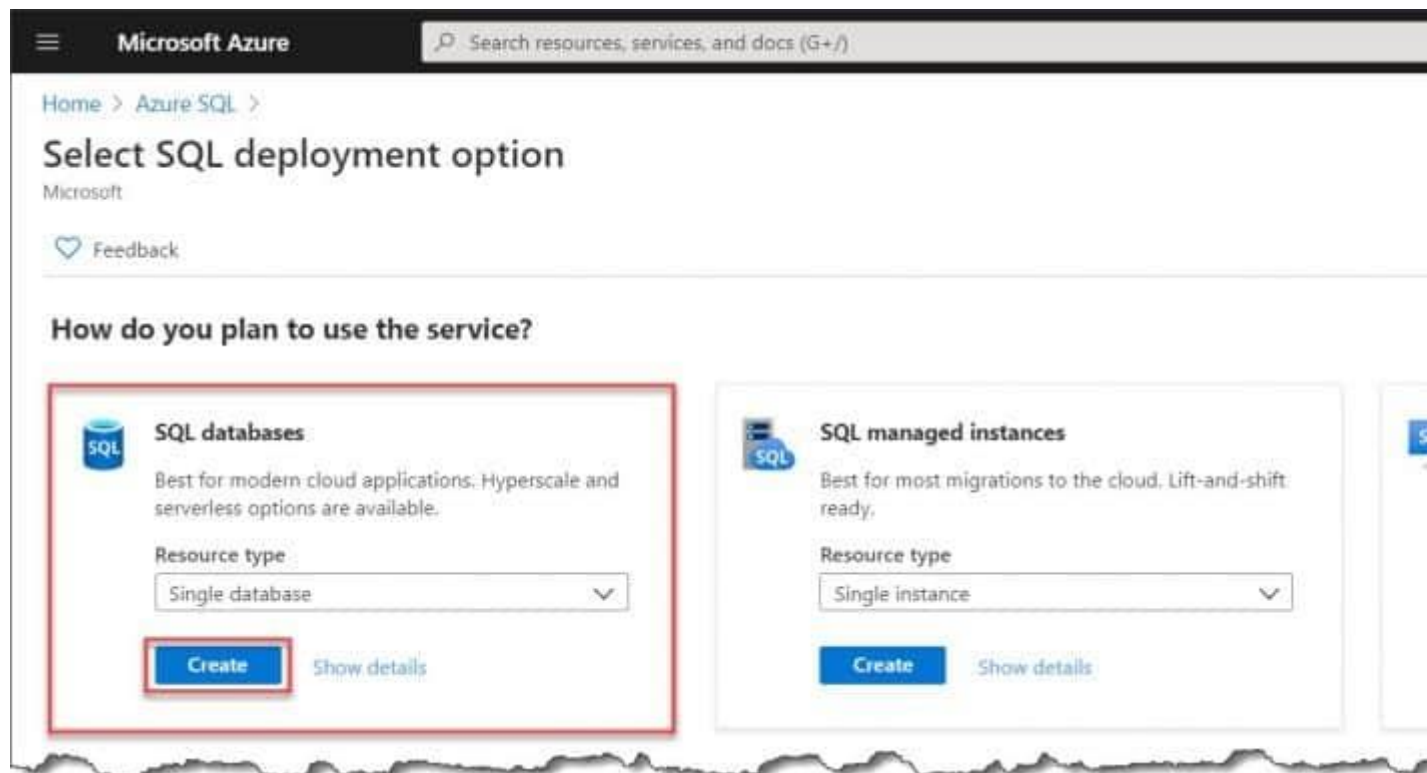


Create an Azure SQL database

Step-3: Click on the **Add** button On the **Azure SQL** page.



Step-4: On the **Select SQL deployment option** window, click on the **Create** button from the SQL database option.



Step-5: On the **Basics**, Fill the below details.

- **Subscription:** Select the correct subscription.
- **Resource group:** Create a new resource group by clicking on the Create new link.
- **Database name:** Provide a meaningful database name.

Server: Click on the **Create new** link to create a new server. Enter the below details on the **New server** form.

- **Server name:** Enter *a unique server name*
- **Server admin login:** Enter *azure user*.
- **Password:** Enter a **password** and enter it again in the **Confirm password** field.
- **Location:** Choose a location here

Click on the **OK** button

New server ×

Microsoft

Server name *
mysqldbtsinfo ✓
.database.windows.net

Server admin login *
rajkishore ✓

Password *
..... ✓

Confirm password *
..... ✓

Location *
(US) East US ✓

OK

Step-6: Compute + storage: It will load a default one. if you want to reconfigure the defaults, select **Configure database** link.

On the **Configure** page, you can choose the below details.

- You can change the **Compute tier** from **Provisioned** to **Serverless**.
- Change the settings for **vCores** and **Data max size**.
- Click on the **Change configuration** button to change the hardware generation.

Now click on the **Apply**.

Microsoft Azure

Search resources, services, and docs (G+/-)

Home > Azure SQL > Select SQL deployment option >

Create SQL Database

Microsoft

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to manage all your resources.

Subscription * ⓘ

Visual Studio Enterprise

Resource group * ⓘ

newresgroup

Create new

Database details

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

Database name *

MySQLDB

Server * ⓘ

(new) mysqlbtsinfo (East US)

Create new

Want to use SQL elastic pool? * ⓘ

☐ Yes ☒ No

Compute + storage * ⓘ

General Purpose

Gen5, 2 vCores, 32 GB storage

Configure database

Review + create

Next : Networking >

Step-7: Click on the **Next:Networking>** button to go the Networking tab.
In the Networking tab, Choose the below options

- Select the **Connectivity method** as **Public endpoint**.
- Choose the **No** option for **Allow Azure services and resources to access this server**.
- Select **Yes** option for **Add current client IP address**.

Microsoft Azure


Search resources, services, and docs (G+/I)

[Home](#) > [Azure SQL](#) > [Select SQL deployment option](#) >


Create SQL Database

Microsoft

[Basics](#) **[Networking](#)** [Additional settings](#) [Tags](#) [Review + create](#)

Configure network access and connectivity for your server. The configuration selected below will be applied to server 'mysqldbtsinfo' and all databases it manages. [Learn more](#) 

Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. The public endpoint creates with defaults and you can configure connection method after server creation. [Learn more](#) 


Connectivity method * ⓘ

☐ No access

☒ **Public endpoint**

☐ Private endpoint

Firewall rules

Setting 'Allow Azure services and resources to access this server' to Yes allows communications from outside the Azure boundary, that may or may not be part of your subscription. [Learn more](#) 

Setting 'Add current client IP address' to Yes will add an entry for your client IP address to the server's firewall rules.

Allow Azure services and resources to access this server *

☒ **No** ☐ Yes

Add current client IP address *

☐ No ☒ **Yes**

[Review + create](#)

[< Previous](#)

[Next : Additional settings >](#)

Step-8: Click on **Next : Additional settings >** button to go to **Additional settings** page

- Select the **Sample** option for **Use existing data**
- Click on the **Review + Create** button.

The screenshot shows the 'Create SQL Database' page in the Microsoft Azure portal. The breadcrumb navigation is 'Home > Azure SQL > Select SQL deployment option >'. The page title is 'Create SQL Database' by Microsoft. There are four tabs: 'Basics', 'Networking', 'Additional settings' (which is selected and highlighted with a red box), and 'Review + create'. Below the tabs, a description says 'Customize additional configuration parameters including collation & sample data.' The 'Data source' section has the text 'Start with a blank database, restore from a backup or select sample data to populate your new database.' Under 'Use existing data *', there are three buttons: 'None', 'Backup', and 'Sample' (highlighted with a red box). Below this, it says 'AdventureWorksLT will be created as the sample database.' The 'Database collation' section explains that collation defines sorting rules and cannot be changed after creation, with the default being 'SQL_Latin1_General_CP1_CI_AS'. A dropdown menu for 'Collation' shows 'SQL_Latin1_General_CP1_CI_AS'. The 'Advanced data security' section describes a unified security package and includes a 'Learn more' link. At the bottom, it mentions a 30-day free trial followed by a cost of 991,44375 INR/server/month. At the very bottom, there are three buttons: 'Review + create' (highlighted with a red box), '< Previous', and 'Next : Tags >'.

Microsoft Azure

Search resources, services, and docs (G+ /)

Home > Azure SQL > Select SQL deployment option >

Create SQL Database

Microsoft

Basics Networking **Additional settings** Tags Review + create

Customize additional configuration parameters including collation & sample data.

Data source

Start with a blank database, restore from a backup or select sample data to populate your new database.

Use existing data *

None Backup **Sample**

AdventureWorksLT will be created as the sample database.

Database collation

Database collation defines the rules that sort and compare data, and cannot be changed after creation. The default database collation is SQL_Latin1_General_CP1_CI_AS. [Learn more](#)

Collation ⓘ SQL_Latin1_General_CP1_CI_AS

Advanced data security

Protect your data using advanced data security, a unified security package including data classification, assessment and advanced threat protection for your server. [Learn more](#)

Get started with a 30 day free trial period, and then 991,44375 INR/server/month.

Review + create < Previous Next : Tags >

Step-9: Finally, click on the **Create** button which will create the **Azure SQL database**.

Note: Do not forget to read the terms properly before clicking on the **Create** button.

Microsoft Azure

Search resources, services, and docs (G+/I)

Home > Azure SQL > Select SQL deployment option >

Create SQL Database

Microsoft

Basics Networking Additional settings Tags **Review + create**

Product details

SQL database by Microsoft
[Terms of use](#) | [Privacy policy](#)

Estimated cost per month
15286.93 INR
[View pricing details](#)

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 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 purposes. For additional details see [Azure Marketplace Terms](#).

Basics

Subscription: Visual Studio Enterprise
Resource group: newresgroup
Region: East US
Database name: MySQLDB
Server: (new) mysqlbtsinfo
Compute + storage: General Purpose: Gen5, 2 vCores, 32 GB storage

Create < Previous Download a template for automation

This is how we can create **Microsoft Azure SQL Database Step By Step**.

3. Query the SQL database in Azure

Once your data base is created by using the above steps, now time to query the database.

To query the database follow the below steps.

Step-1: Login to the **Azure portal** and search for **SQL databases** and select it.

Microsoft Azure

SQL databases

Services

- SQL databases**
- Azure Database for MySQL servers
- SQL Server stretch databases
- Managed databases
- Azure Database for PostgreSQL servers

Step-2: From the **SQL databases window** select the **database** you have created.

Step-3: Select the **Query editor (preview)** option from the left menu from the database page.

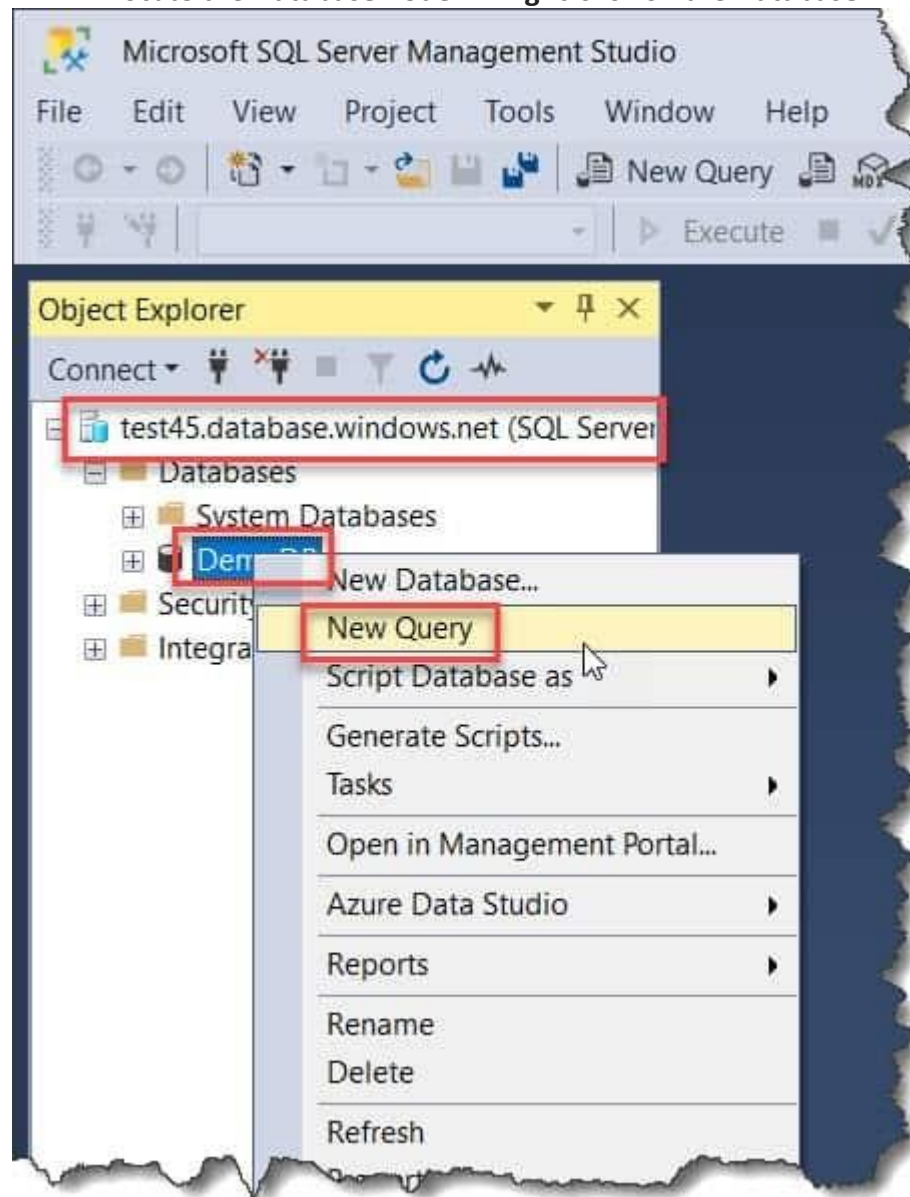
Step-4: Enter your **credentials** under **SQL server authentication** which you have generated earlier on the **New server** page and then click on the **OK** button.

Step-5: Enter your **SQL query** in the **query editor** and then click on the **Run** button to execute the query. It will show the output at the **Results** pane.

4. How To Create Tables In SQL Azure Database

Now, the time to create a table in Azure SQL database. Follow the below simple steps to create a table in Azure SQL DB.

1. Connect to **Azure SQL DB Instance** using **SQL Server Management Studio (SSMS)**
2. Locate the **Database node** → **Right-click** on the **Database** → click on the **New Query** option.



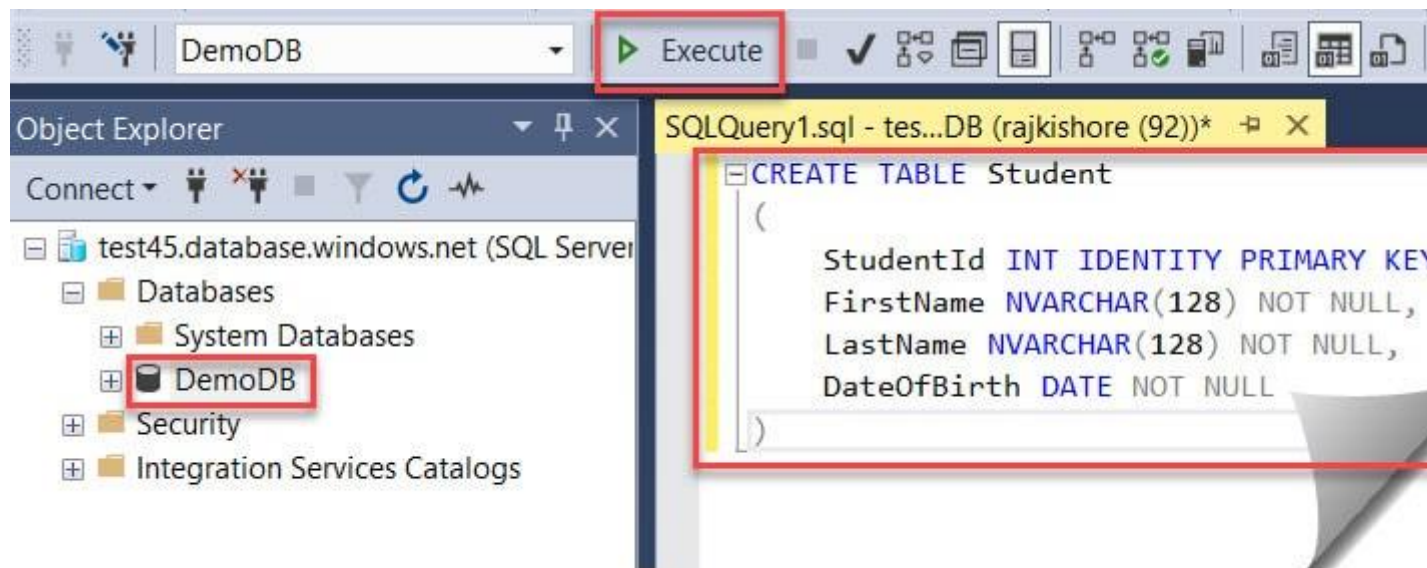
3. On the Query window, write the query as below.

```
CREATE TABLE Student  
(  
    StudentId INT IDENTITY PRIMARY KEY,  
    FirstName NVARCHAR(128) NOT NULL,
```

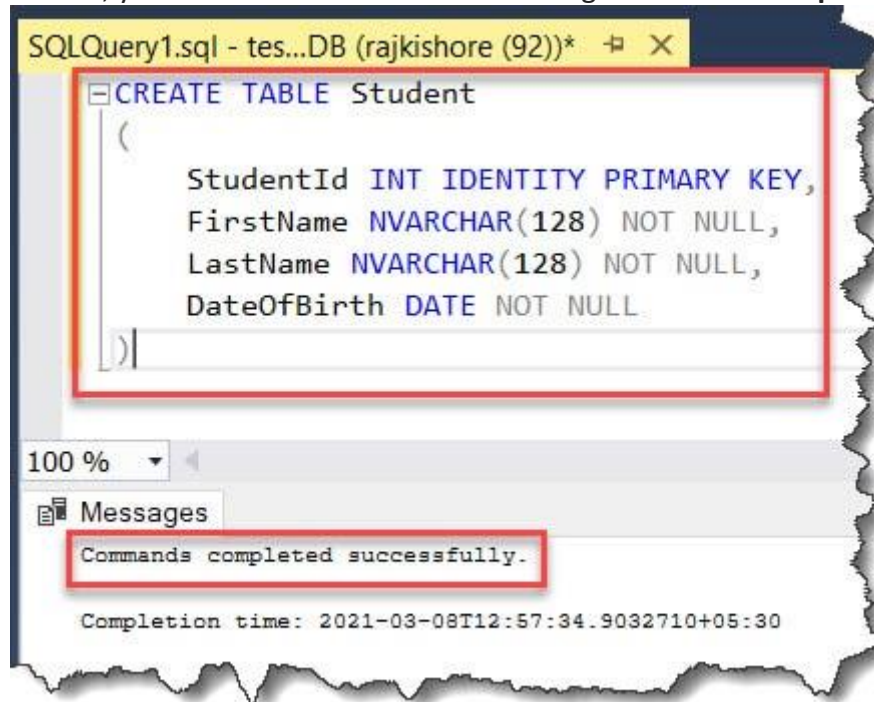
LastName NVARCHAR(128) NOT NULL,
DateOfBirth DATE NOT NULL

)

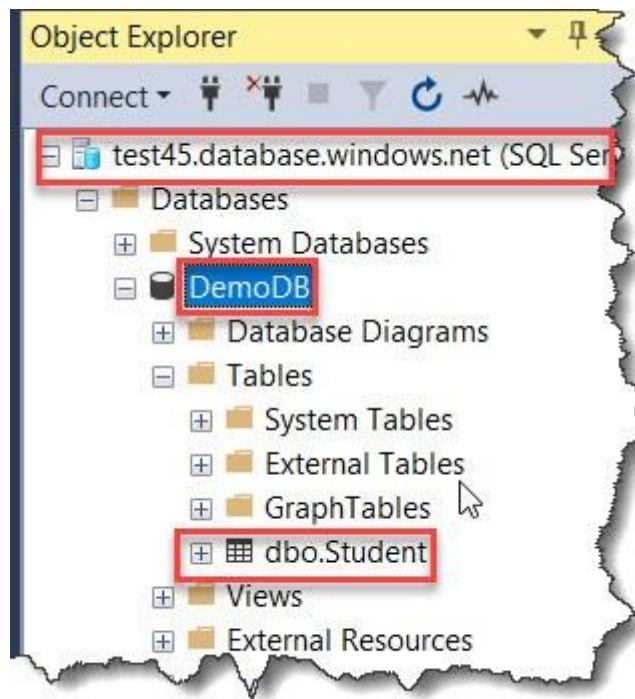
4. After writing the Query click on the Execute button as shown below.



5. Now, you can able to see that it is showing **Commands completed successfully.**



6. To, verify if the table is created, you can expand the **Database node** → **Expand the Tables** → You can able to see the **dbo.Student** table has been created successfully without any issue.



This is **How To Create Tables In SQL Azure Database**.