Creating a Single SQL Database Using Azure Portal

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Abstract - In this article, I will be showing how to create a single SQL Database and retrieve the data using Query Editor using Azure Portal.

Keywords - *SQL*, *Database*, *Azure*, *Server*, *Portal*, *Create*, *Single*.

I. INTRODUCTION

For Azure SQL Database Single database is one resource type. Azure SQL database provides guaranteed to compute size its has own service tier within the DTUbased or vCore-based purchasing model. Azure resource group is used to manage a single database within a server in a specified Azure region.

A. Prerequisite

You will need an Azure free account, and you can create one from here.

B. Create a Single Database

To create a Single database, you can use Azure portal menus and screens. Once you login into your free Azure account, from the search bar, search and select "Azure SQL", as shown in figure a.

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Once you select option "Azure SQL", you will land on the Azure SQL home page. Click on Add button.

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On the Select SQL Deployment page, select the option "Single Database" under Resource Type and Click on the "Create" button. To view more information about the Single Database, you can click on Show Details.

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How do you plan to use the service? 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

You can select the correct Azure Subscription to manage deployed resources and costs and choose resource group if you have already created one or click on Create New.

Microsoft Azure O Upgrad Search resources, services, and docs (G+/) Image: Azure SQL > Select SQL deployment option > Create SQL Database Microsoft Basics Networking 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 B Project details Select the subscription 1 Select aresource group Create new Azure subscription 1 Create new Acture subscription 1 Microsoft Create new Database details A resource group is a container that holds related resources for an Azure solution. Networking Server * O OK Careel OK Careel
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Project details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.
Subscription * ① Azure subscription 1 V
Resource group * ① (New) myResourceGroup ✓ Create new

Under the Database details section, you will need to Enter the Database name and select the existing Server if you already have one or Create a New Server name by clicking on Create New.

Enter the unique name to create New Server. Create Server Admin login with username and password. If you want to replicate over different regions, you can select the Location and click the OK button.

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Database details		
Enter required settings for this datab resources	ase, including picking a logical server and cor	figuring the compute and storage
Database name *	mySampleDatabase	✓
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Document the server admin login and password so you can log in to the server and its databases. You can reset your username and password on the SQL server page after database creation. Select the server name on the database Overview page to open the SQL server page.

Select Public Endpoint under Connectivity method to configure connectivity to your Server on Networking Tab.

Select Current Client IP Address to "Yes" and click on the Next Additional Settings button to set up Firewall rules

Home >

Create SQL Database

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Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'binnysqlserver' and all databases it manages. Learn more 🛽

Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. Choosing no access creates with defaults and you can configure connection method after server creation. Learn more \square



Firewall rules

Setting 'Allow Azure services and resources to access this server' to Yes allows communications from all resources inside the Azure boundary, that may or may not be part of your subscription. Learn more \square Setting 'Add current client IP address' to Yes will add an entry for your client IP address to the server firewall.

Allow Azure services and resources to access this server *	No Yes
Add current client IP address *	No Yes
Review + create < Previous	Next : Additional settings >

Select the default Existing data as the data source. On the Additional Setting Tab, It will create Adventure Works LT as the sample database and click on the "Review + Create" button.

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Customize additional configura	tion parameters	including collation & sample data.					
Data source							
Start with a blank database, res	tore from a back	up or select sample data to populate your new database.					
Use existing data *		None Backup Sample					
AdventureWorksLT will be creat	ted as the sampl	e database.					
Database collation							
Database collation defines the default database collation is SC		nd compare data, and cannot be changed after database creation. The al_CP1_CI_AS. Learn more $\ensuremath{\mathbb{Z}}$					
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Advanced data security							
Protect your data using advance assessment and advanced three		a unified security package including data classification, vulnerability your server. Learn more $\ensuremath{\mathbb{Z}}$					
Get started with a 30 day free t	rial period, and t	then 15 USD/server/month.					
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When you click on the "Create" button, you will see the Database is being deployed. It will take some time to deploy your Database. Once it is deployed, click on "Go to Resource" to Query data from Database.

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C. Query Editor to Access the data from Database

Once the Database is connected, you will need to Query the Database. Click on Query editor Preview and Enter the server details, user name and password. Click on the OK button.

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When you are on the Query editor page, write a query to fetch the data from Database. To execute your query, you can click on the Run button. There are other several buttons given on the query editor page like Cancel, Save, Export and Show only editor page.

You can view your result in the result window.

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If you want to discard your unwanted changes, simply Close the Query editor page.

CONCLUSION

Azure SQL database is used to build modern cloud-based apps, and it gives maximum capabilities, different deployment options, predictable performance high –availability and machine learning.

REFERENCES

[1] https://docs.microsoft.com/en-us/azure/azure-sql/database/single-database-overview