# Azure SQL Database

In this study, you will help us to understand the tasks and time required for completing various database and developer related tasks using Azure SQL Database.

## Prerequisites and general guidance

For this exercise, you should stay completely in a browser. Feel free to use Google, Bing, or other search services. There will be a quiz at the end of each task, to ensure you have properly completed the task. This is the first in a series of tasks, you must complete this task in order to proceed to the remaining tasks.

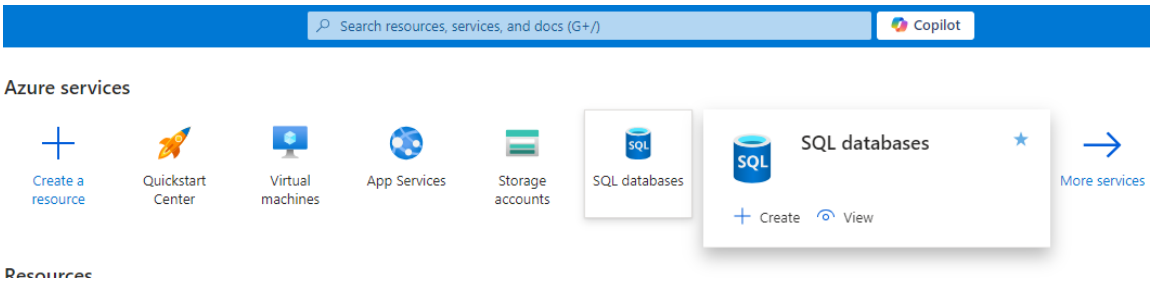
You have been given access to a Microsoft Entra account and the Azure portal. Please login at https://portal.azure.com.

## Task 1: Create a database with sample data

In this task, you'll deploy a database and load sample data into it, querying the database to confirm.

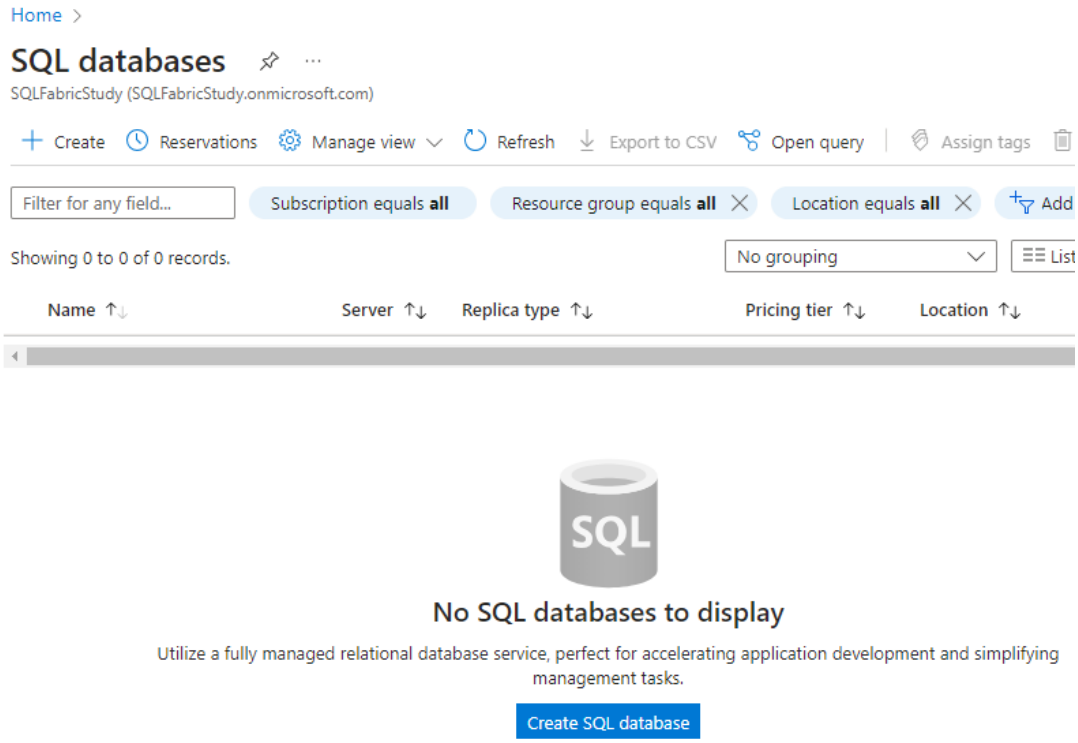
### Instructions

1. Navigate to https://portal.azure.com and confirm you are logged into Azure with the credentials provided. If you are logging in for the first time you may be presented with a Welcome screen, click Cancel to dismiss the window and continue into the portal.
2. Navigate to SQL databases from the Azure services menu at the top. If you do not see SQL databases, you can search for it in the search box at the top of the screen.

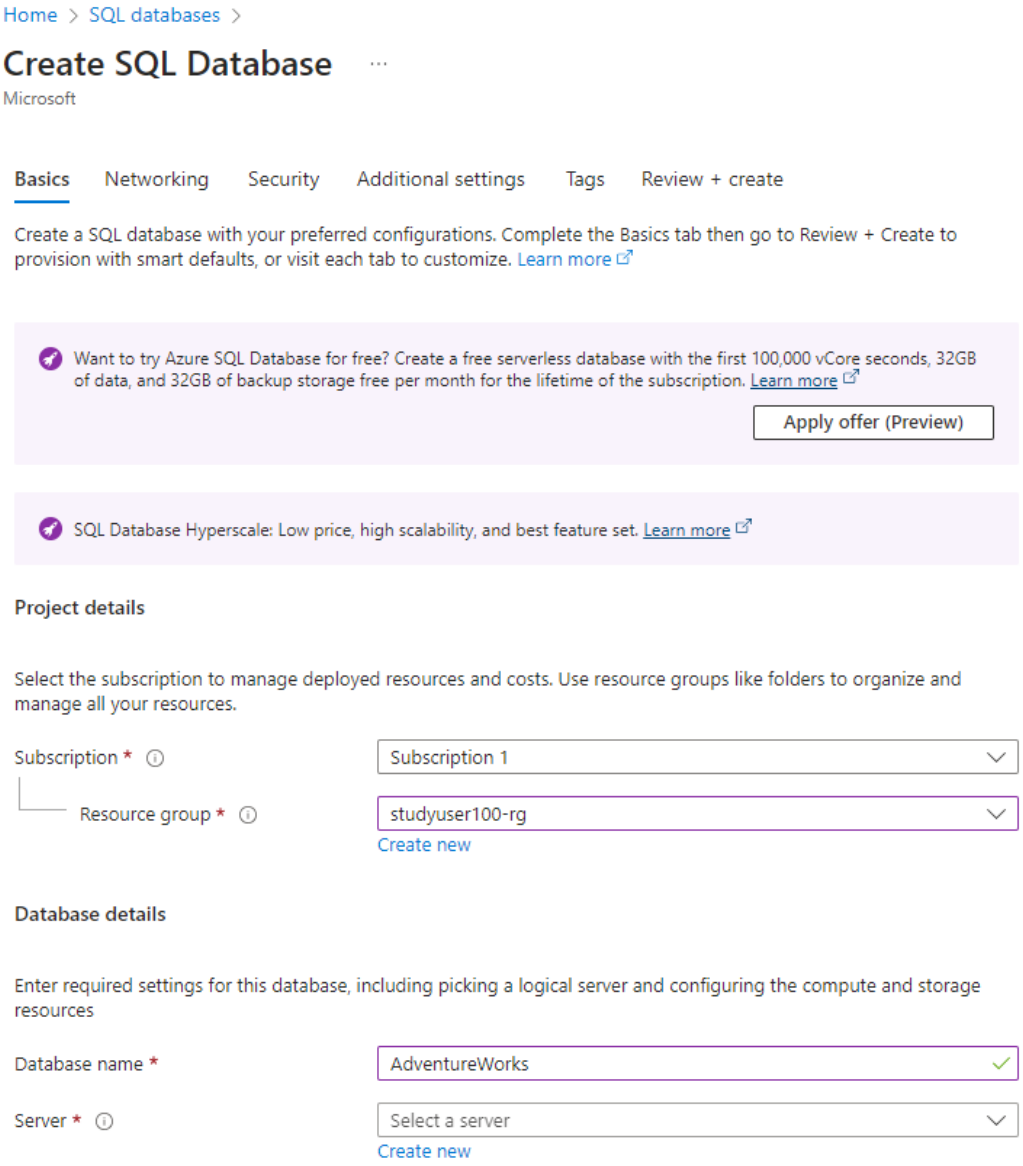



3. Create a new SQL Database with the name “AdventureWorks.”

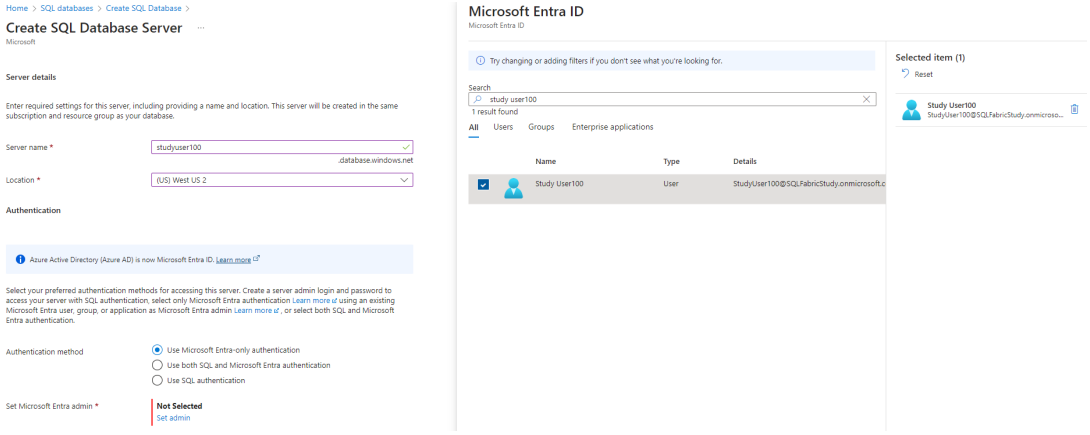
a. Click the **Create SQL database** button on the SQL databases screen.



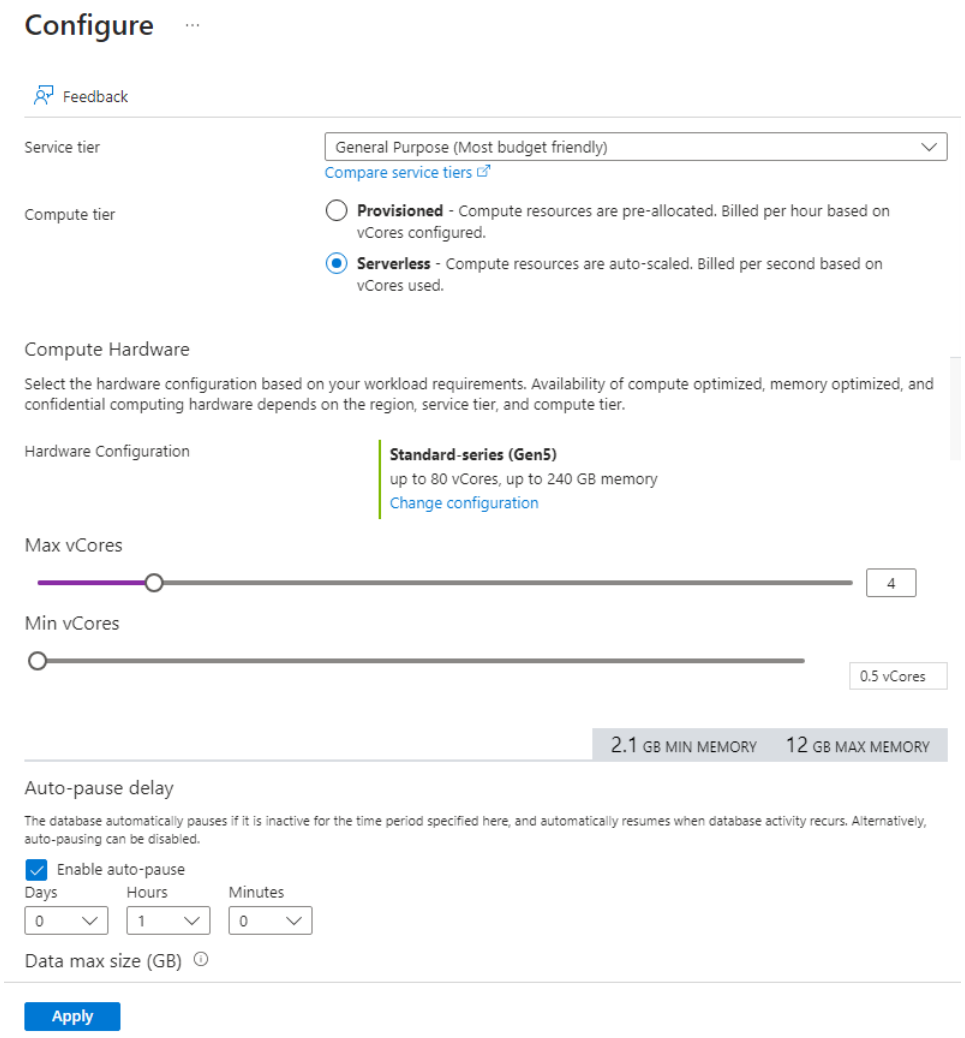

b. Use the subscription and resource group you were provided with for the exercise.
c. The *Database name* should be **AdventureWorks**.



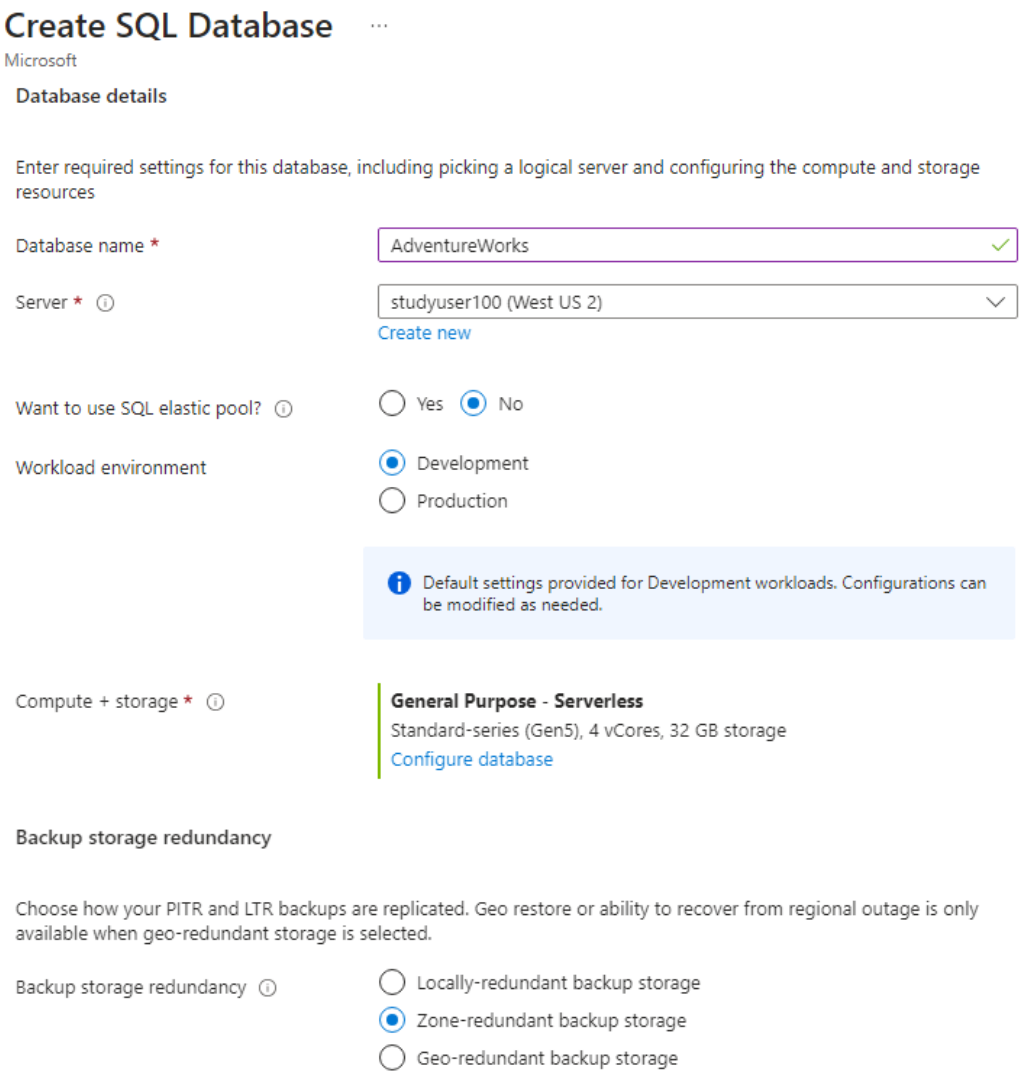

d. Click **Create new** under the *Server* dropdown to create a new Server with a unique name. Use the same location (region) as the resource group that has been provided. Use Microsoft Entra-only authentication. Make yourself the Microsoft Entra admin by clicking **Set admin** and searching for and selecting your username in the Microsoft Entra ID search window. Once you have set yourself as the admin, click OK to return to the Create SQL database window.



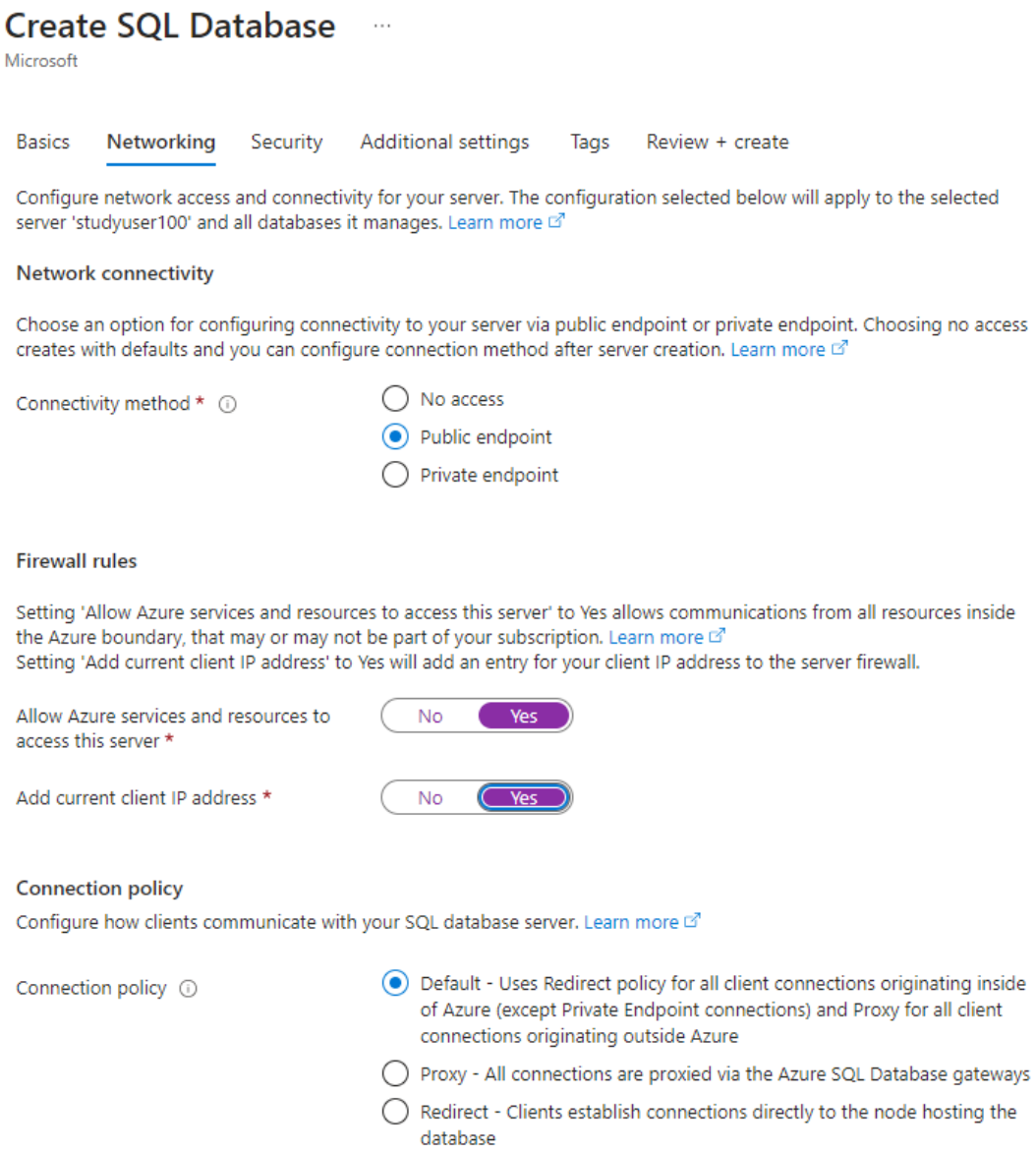

e. In the *Compute + storage* section, click **Configure database** to select a General Purpose - Serverless database with a Max vCores of 4 and Min vCores of 0.5. Auto-pause delay should be enabled.




f. For *Backup storage redundancy*, select **Zone-redundant backup storage**.

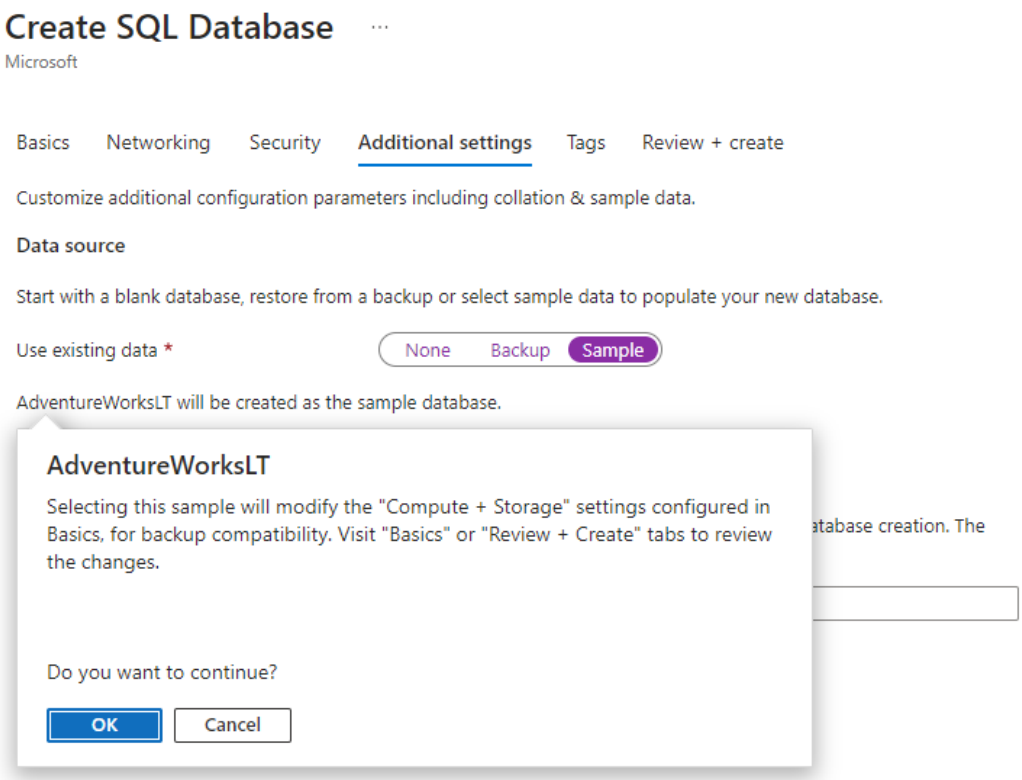



g. Click **Next: Networking** to move to the Networking section. Set the *Connectivity method* to **Public endpoint**. Set *Allow Azure services and resources to access this server* and *Add current client IP address* to **Yes**. Use the default *Connection Policy* and *TLS*.




h. Click **Next: Security** to move to the Security tab and keep the defaults.

i. Click **Next: Additional settings** to move to the Additional settings tab, for the *Use existing data* option choose **Sample** and click **OK** when prompted.




j. Click **Review + create**, review your selections, then click **Create** to create the database.

4. The database will take several minutes to deploy. Then the AdventureWorksLT sample database is imported into the database. You should see a notification once complete. Select **Go to resource**.
   ***Tip:*** *If you are unable to create a database because the vCore quota has been exceeded, try creating your database in a different region (location).*
5. Navigate to the **Query editor** in the left menu bar and click **Continue as <*username*>** to log in with your Microsoft Entra account.
6. Create a new query, and paste in the following:

```
SELECT pc.Name AS CategoryName, SUM(sod.OrderQty * sod.UnitPrice) AS TotalSales
FROM SalesLT.ProductCategory pc
JOIN SalesLT.Product p ON pc.ProductCategoryID = p.ProductCategoryID
JOIN SalesLT.SalesOrderDetail sod ON p.ProductID = sod.ProductID
JOIN SalesLT.SalesOrderHeader soh ON sod.SalesOrderID = soh.SalesOrderID
WHERE p.ProductCategoryID = 36
GROUP BY pc.Name, p.ProductCategoryID
ORDER BY TotalSales DESC;
```

7. View the results of the query and answer the question in the quiz.