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How to: Create Clustered Indexes

In Microsoft SQL Server databases you can create a clustered index. In a clustered index, the physical order of the rows in the table is the same as the logical (indexed) order of the index key values. A table can contain only one clustered index. UPDATE and DELETE operations are often accelerated by clustered indexes because these operations require large amounts of data to be read. Creating or modifying a clustered index can be time-consuming, because it is during these operations that the table's rows are reorganized on disk.

Consider using a clustered index for:

- Columns that contain a limited number of unique values, such as a **state** column that contains only 50 unique state codes.
- Queries that return a range of values, using operators such as BETWEEN, >, >=, <, and <=.
- Queries that return large result sets.

Note

A new version of Table Designer appears for databases in the SQL Server 2012 format. This topic describes the old version of Table Designer, which you use with databases in earlier formats of SQL Server.

In the new version, you can change a table definition through a graphical interface or directly in a script pane. If you use the graphical interface, the table's definition is automatically updated in the script pane. To apply the SQL code in the script pane, choose the **Update** button. For more information about the new version, see [How to: Create Database Objects Using Table Designer](#).

Note

Your computer might show different names or locations for some of the Visual Studio user interface elements in the following instructions. The Visual Studio edition that you have and the settings that you use determine these elements. For more information, see [Customizing Development Settings in Visual Studio](#).

To create a clustered index

1. In **Server Explorer**, right-click the table for which you want to create a clustered index and click **Open Table Definition**.

The table opens in **Table Designer**.

2. From the **Table Designer** menu, click **Indexes/Keys**.
3. In the **Indexes/Keys** dialog box, click **Add**.

4. Select the new index in the **Selected Primary/Unique Key or Index** list.
5. In the grid, select **Create as Clustered**, and choose **Yes** from the drop-down list to the right of the property.

The index is created in the database when you save the table.

See Also

Reference

[Indexes/Keys Dialog Box](#)

Other Resources

[Working with Indexes](#)

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