Solving the riddle of slow SQL

Often we hear the complaint that our program gets slower over time. This tends to occur when our programs are accessing data through an SQL server. The general pattern is that everything starts out fine and data retrieval seems very quick and "bright". Then slowly, as time goes on, the speed of the same data retrieval becomes slower and slower. Normally, restarting the server (or actually just restarting the SQL Server Service) is all that needed to resolve this issue of slow performance.
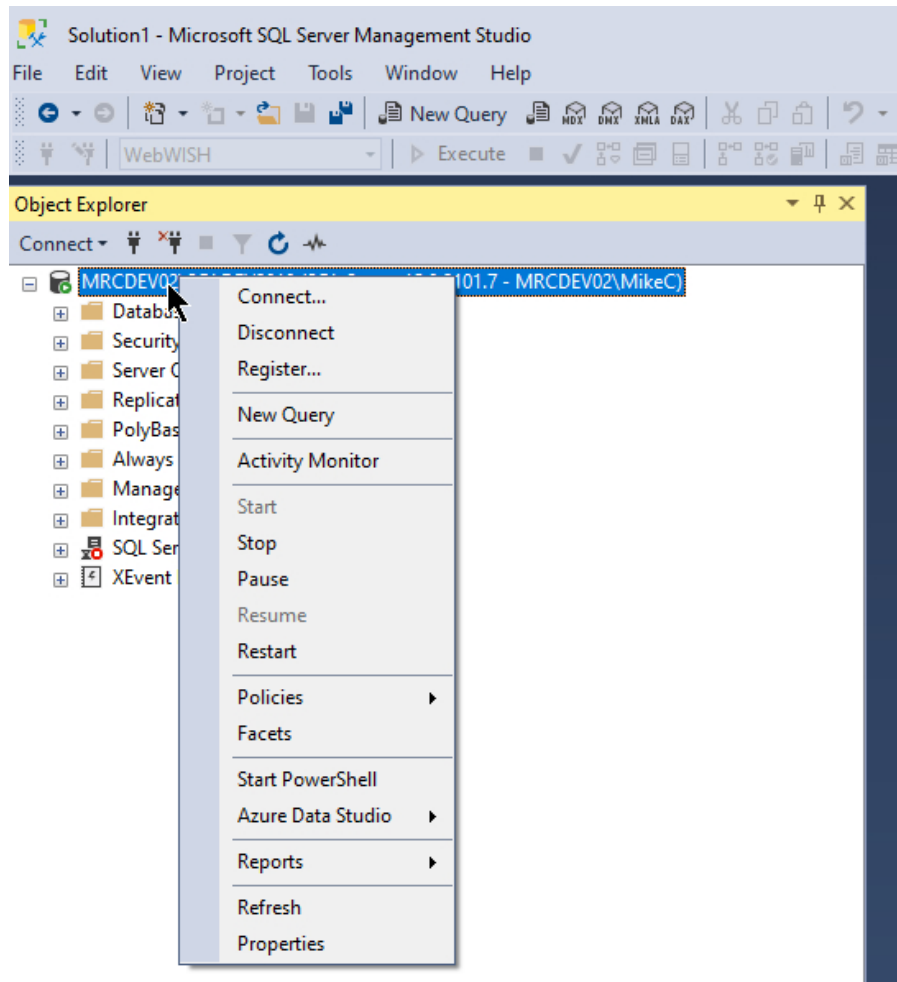
There are many issues that can affect speed, but when you observe a behaviour that is described above, it is almost always a simple SQL memory tuning issue that is needed. Very simply, for reasons that I do not know the answer to, MS SQL Server will continue to consume memory for queries and not bother to release previously used memory. This simple "overreaching" is likely the cause of your performance issues.

Setting the maximum amount of memory that SQL is allowed to consume.
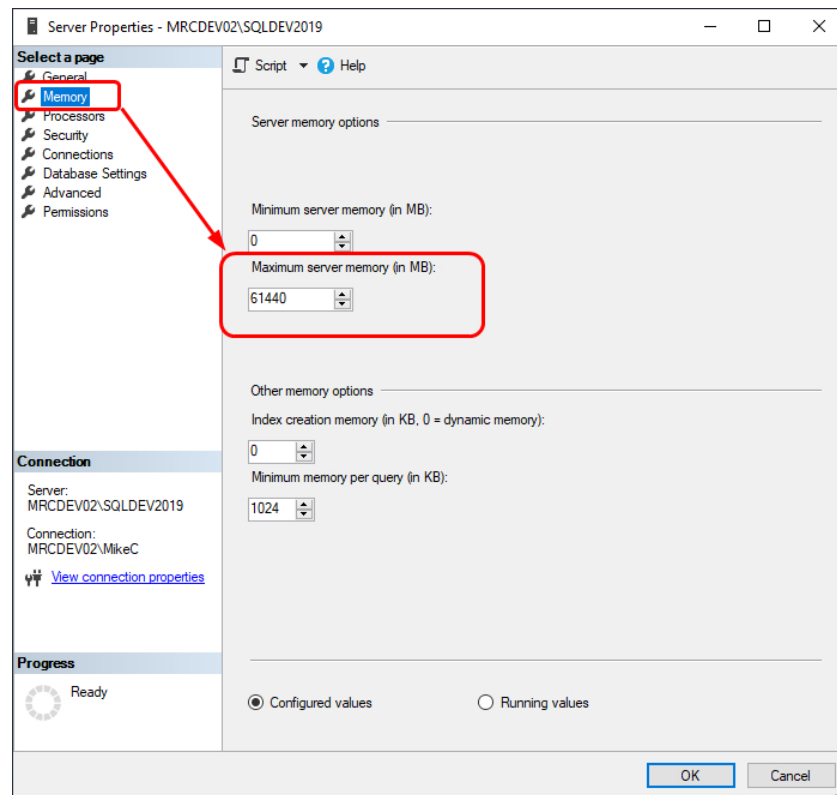
Fortunately, you can restrict the amount of memory that SQL is allowed to consume. For some strange reason, SQL can't do this on its own, so it is up to you to set this very crucial setting to keep your performance zipping along.

1. Open up the MS SQL Server Manager:

    a. Click **Win + R**

    b. Type **SSMS**

2. After logging into the SQL Studio, right click on the Server Instance name and
    select **Properties**

3. From the **Properties** menu, select **Memory** and set the **Maximum Server Memory** to a setting that is less than the physical RAM memory that is installed in your computer.

Summary and Notes

Be aware that you may have other programs installed on the server which also try to grab as much memory as they can, so sometimes being aware of other such programs, and tuning them appropriately, helps you to manage memory use by your server for the best performance of all applications.

Making these changes are normally a task designated for IT professionals. You are advised to seek their assistance to make these changes. Only proceed to change this yourself if you do not have a managed IT person or team for your agency.

After you make these changes, you should either restart your server, or more simply restart the SQL Server service from **services.msc**