Windows Service

# Overview

Microsoft Windows services are long-running executable applications that run in the background, similar to daemons found in Unix-like OSes.

//The Service in this document is named **DBReadService**. It reads from a database named DBReadService located in a local SQL server instance, specifically the table tbo.Person to retrieve data of records where IsWritten is False, then append to a json file at fileLocation (a file path configured in app.config).

# Windows Service Project vs Regular Windows Application

Here are some key differences:

The compiled executable file must be installed on the server before the project can function in a meaningful way.

You cannot debug or run a service application by regular means. Instead, you must install and start your service, and then attach a debugger to the service's process.

The installation process install and register the service on the server and create an entry for your service with the Windows **Services Control Manager**.

Windows service applications run in their own security context and are started before the user logs on, beware of the permissions you give to your service.

# Service Lifetime

A service goes through several internal states in its lifetime. First, the service is installed onto the system on which it will run. This process executes the installers for the service project and loads the service into the **Services Control Manager** for that computer. The **Services Control Manager** is the central utility provided by Windows to administer services.

After the service has been loaded, it must be started. Starting the service allows it to begin functioning. You can start a service from the **Services Control Manager**, from **Server Explorer**, or from code by calling the [Start](https://docs.microsoft.com/en-us/dotnet/api/system.serviceprocess.servicecontroller.start) method. The [Start](https://docs.microsoft.com/en-us/dotnet/api/system.serviceprocess.servicecontroller.start) method passes processing to the application's [OnStart](https://docs.microsoft.com/en-us/dotnet/api/system.serviceprocess.servicebase.onstart) method and processes any code you have defined there.