**What is an Extended Event?**

An Extended Events is a SQL Server tool that allows the DBA to monitor what's going on in a SQL Server instance. It monitors, very much like its predecessor, the SQL Profiler, a way to granularly capture events in the SQL environment. But unlike SQL Server Profiler and SQL Trace it has several great benefits: it has little performance impact, the DBA does not need to write code to extract data and there is an easy front end graphical user interface.

Extended Events was introduced in SQL Server 2008, but with no GUI that interfaced with the events directly it made the task for the DBA to write complex code to gather data. In version 2012 and beyond, the introduction of the GUI has made the life of a DBA a lot easier.

**Benefits of using the Extended Events:**

* Extended Events built into SQL Server Management Studio
* Extended Events sessions can be created without any T-SQL commands or query XML data
* Hardly any overhead when using them on the SQL Server
* Less than 2% of the CPU’s resource
* Replaces SQL Profiler and SQL Traces
* Easy to use and powerful (wizard driven)

**The reason to use Extended Events**

* Finding long-running queries
* Tracking DDL operations
* Find missing statistics
* Resolving and finding blocking and deadlocking
* Queries that cause specific wait stats to occur
* Monitoring SQL Server memory stress

**Terminology:**

**Package**

A package is a container which contains all the extended events objects; like Events, Actions, Targets, and Predicates

**Events**

SQL categories of event driven data for analysis

**Actions**

When an event is fired a response to that event is actions.

**Targets**

The consumers of the events are called Targets. For example, buffers to disk in the files and Ring Buffer which holds the event data in

**Predicates**

Filter for events

**Session**

A session is way of grouping events, their associated actions and predicates for filtering and different targets to process event firing.

**Demo of Extended Event using the Wizard**

Find who, what, when altered the size of a database?