

LINQ (Language-Integrated Query)

Visual Studio 2015

Language-Integrated Query (LINQ) is a set of features introduced in Visual Studio 2008 that extends powerful query capabilities to the language syntax of C# and Visual Basic. LINQ introduces standard, easily-learned patterns for querying and updating data, and the technology can be extended to support potentially any kind of data store. Visual Studio includes LINQ provider assemblies that enable the use of LINQ with .NET Framework collections, SQL Server databases, ADO.NET Datasets, and XML documents.

The MSDN Code Gallery includes [LINQ Samples](#). As a convenience, here are several quick links to samples:

- [LINQ - Sample Queries](#)
- [101 LINQ Samples](#)
- [LINQ - Using LINQ to SQL](#)
- [LINQ to DataSets - Linq Over Typed DataSet](#)
- [LINQ - Introduction to LINQ to XML](#)
- [LINQ - Using System.Reflection with LINQ Queries](#)

In This Section

[Introduction to LINQ](#)

Provides a general introduction to the kinds of applications that you can write and the kinds of problems that you can solve with LINQ queries.

[Getting Started with LINQ in C#](#)

Describes the basic facts you should know in order to understand the C# documentation and samples.

[Getting Started with LINQ in Visual Basic](#)

Describes the basic facts you should know in order to understand the Visual Basic documentation and samples.

[How to: Create a LINQ Project](#)

Describes the .NET Framework version, references, and namespaces required to build LINQ projects.

[Visual Studio IDE and Tools Support for LINQ](#)

Describes the Object Relational Designer, debugger support for queries, and other IDE features related to LINQ.

[Standard Query Operators Overview](#)

Provides an introduction to the standard query operators. It also provides links to topics that have more information about each type of query operation.

[LINQ to Objects](#)

Includes links to topics that explain how to use LINQ to Objects to access in-memory data structures,

[LINQ to XML](#)

Includes links to topics that explain how to use LINQ to XML, which provides the in-memory document modification capabilities of the Document Object Model (DOM), and supports LINQ query expressions.

[LINQ to ADO.NET \(Portal Page\)](#)

Provides an entry point for documentation about LINQ to DataSet, LINQ to SQL, and LINQ to Entities. LINQ to DataSet enables you to build richer query capabilities into [DataSet](#) by using the same query functionality that is available for other data sources. LINQ to SQL provides a run-time infrastructure for managing relational data as objects. LINQ to Entities enables developers to write queries against the Entity Framework conceptual model by using Visual Basic or Visual C#.

[Enabling a Data Source for LINQ Querying](#)

Provides an introduction to custom LINQ providers, LINQ expression trees, and other ways to extend LINQ.

[Supplementary LINQ Resources](#)

Links to other online sources of information about LINQ.

Related Sections

[LINQ to SQL \[LINQ to SQL\]](#)

Explains the LINQ to SQL technology and provides links to topics that help you use LINQ to SQL.

[LINQ to ADO.NET \(Portal Page\)](#)

Explains the LINQ to DataSet technology and provides links to topics that help you use LINQ to DataSet.

[LINQ Samples](#)

Provides links to samples that demonstrates various aspects of LINQ.

See Also

Other Resources

[Link to Everything: A List of LINQ Providers](#)

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