

Language INtegrated Query (LINQ) in C#

강대기

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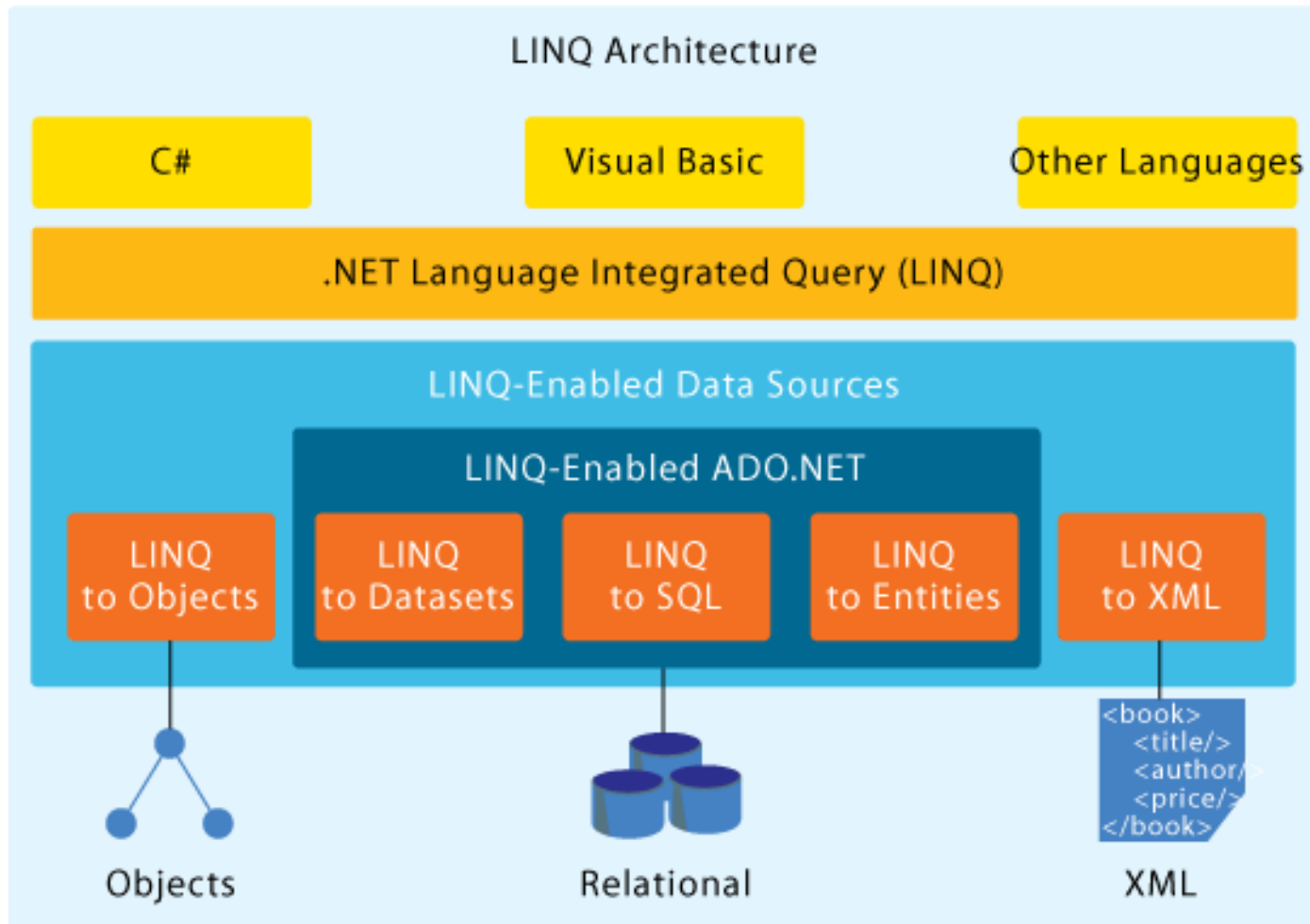
차례

- LINQ to Objects
- LINQ to XML
- LINQ to ADO.NET

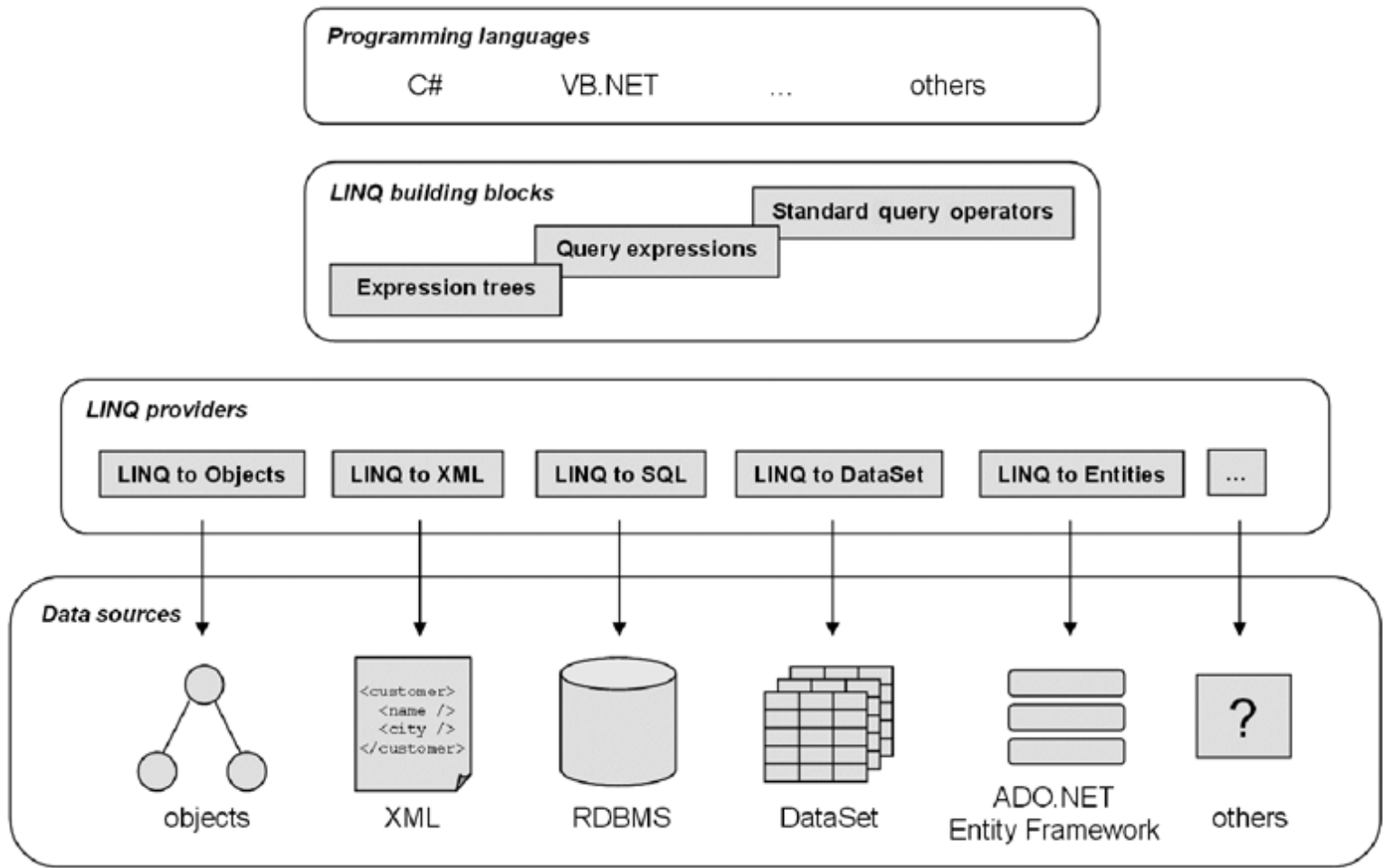
LINQ

- 데이터를 쿼리하는 기능을 언어 구문의 일부로 통합한 것
- 언어의 데이터 형식에 안전한 방식으로 데이터 쿼리를 지원하는 일련의 언어 확장
- <http://msdn.microsoft.com/ko-kr/library/bb397926.aspx>

기본 구조



LINQ building blocks, LINQ providers, 그리고 데이터 소스



Hello, LINQ to Objects #1

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace HelloLINQ1
{
    class Hello
    {
        public static void Main()
        {
            string[] words = { "hello", "wonderful", "linq", "beautiful", "world" };
            var shortWords =
                from word in words
                where word.Length <= 5
                select word;
            foreach (var word in shortWords)
                Console.WriteLine(word);
        }
    }
}
```

Hello, LINQ to Objects #1 결과

hello
linq
world

Hello, LINQ to Objects #2

```
namespace HelloLINQ2
{
    class Hello
    {
        public static void Main()
        {
            string[] words = { "hello", "wonderful", "linq", "beautiful", "world" };
            var groups =
                from word in words
                orderby word ascending
                group word by word.Length into lengthGroups
                orderby lengthGroups.Key descending
                select new { Length = lengthGroups.Key, Words = lengthGroups };
            foreach (var group in groups)
            {
                Console.WriteLine("Words of length " + group.Length);
                foreach (string word in group.Words)
                    Console.WriteLine(" " + word);
            }
        }
    }
}
```


Hello, LINQ to Objects #2 결과

Words of length 9

beautiful

wonderful

Words of length 5

hello

world

Words of length 4

linq

LINQ to XML

LINQ to ADO.NET

- <http://msdn.microsoft.com/ko-kr/library/bb397942.aspx>

LINQ to DataSet

- <http://msdn.microsoft.com/ko-kr/library/bb386977.aspx>

LINQ to SQL

- <http://msdn.microsoft.com/ko-kr/library/bb386976.aspx>