

# Select Many

## SelectMany

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- ✓ SelectMany is used to project each element of a sequence to an `IEnumerable<T>` and flattens the resulting sequence into one sequence.
- ✓ SelectMany combines records from a sequence of result and convert it into one result.
- ✓ SelectMany comes under Projection category

## Example

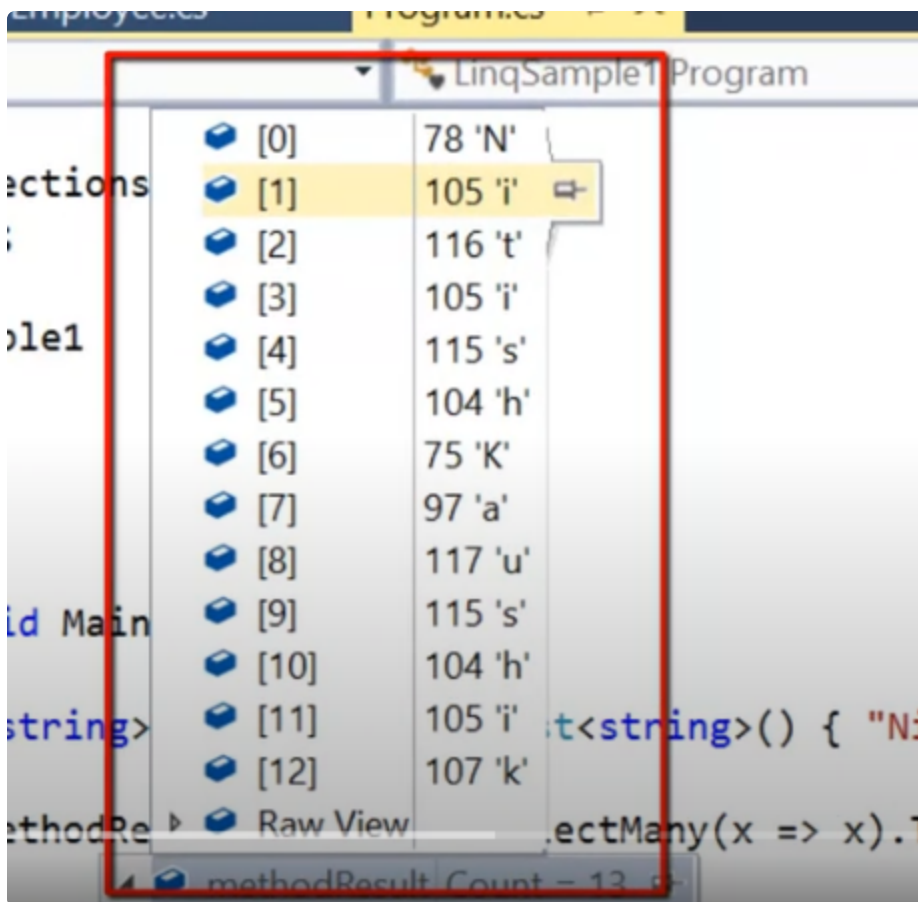
```
using System;
using System.Collections.Generic;
using System.Linq;

namespace LinqSample1
{
    0 references
    class Program
    {
        0 references
        static void Main(string[] args)
        {
            ▶ List<string> strList = new List<string>() { "Nitish", "Kaushik" };

            var methodResult = strList.SelectMany(x => x).ToList();

            Console.ReadLine();
        }
    }
}
```

## Output



There is no select many in query syntax

```
static void Main(string[] args)
{
    List<string> strList = new List<string>() { "Nitish", "Kaushik" };

    var methodResult = strList.SelectMany(x => x).ToList();

    var queryResult = (from rec in strList
                       from ch in rec
                       select ch).ToList();

    Console.ReadLine();
}
```

Performing it in a object

```

var dataSource = new List<Employee>()
{
    new Employee(){Id =1, Name = "Tom", Email = "Tom@gmail.com", Programming = new List<string>(){ "C#", "PHP", "JAVA" } },
    new Employee(){Id =2, Name = "Kim", Email = "Kim@gmail.com", Programming = new List<string>(){ "LINQ", "C#", "MVC" } },
    new Employee(){Id =3, Name = "Harry", Email = "Harry@gmail.com", Programming = new List<string>(){ "LINQ", "VB", "SQL" } }
};

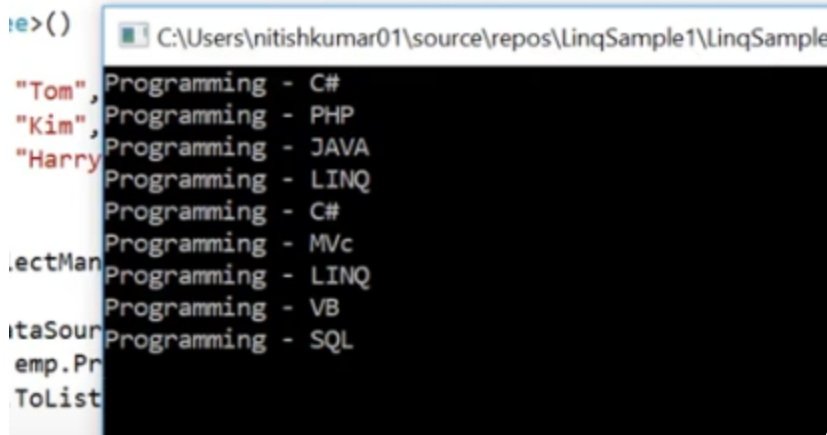
var methodSyntax = dataSource.SelectMany(emp => emp.Programming).ToList();

foreach (var item in methodSyntax)
{
    Console.WriteLine("Programming - " + item);
}

Console.ReadLine();

```

## Output



```

C:\Users\nitishkumar01\source\repos\LinqSample1\LinqSample
>
"Tom", Programming - C#
"Tom", Programming - PHP
"Tom", Programming - JAVA
"Kim", Programming - LINQ
"Kim", Programming - C#
"Kim", Programming - MVC
"Harry", Programming - LINQ
"Harry", Programming - VB
"Harry", Programming - SQL

```

## In query syntax

```

static void Main(string[] args)
{
    var dataSource = new List<Employee>()
    {
        new Employee(){Id =1, Name = "Tom", Email = "Tom@gmail.com", Programming = new List<string>(){ "C#", "PHP", "JAVA" } },
        new Employee(){Id =2, Name = "Kim", Email = "Kim@gmail.com", Programming = new List<string>(){ "LINQ", "C#", "MVC" } },
        new Employee(){Id =3, Name = "Harry", Email = "Harry@gmail.com", Programming = new List<string>(){ "LINQ", "VB", "SQL" } }
    };

    var methodSyntax = dataSource.SelectMany(emp => emp.Programming).ToList();

    var querySyntax = (from emp in dataSource
                        from skill in emp.Programming
                        select skill).ToList();

    foreach (var item in querySyntax)
    {
        Console.WriteLine("Programming - " + item);
    }

    Console.ReadLine();
}

```