Integrating LINQ Queries Into A New Page
(Using our JSON File and the Service we created)

This demonstrates the use of LINQ (query syntax and method syntax) by creating a new page to display statistics about our data.

We are going to use the existing service to bring back all the books and then run some LINQ queries on the data.

As we did when we created our BookList.cshtml page, we must carry out the following steps in the CodeBehind file of our new HTML page.

- Add the BookService property
- Add a list of books
- Store the service in the constructor
- Call the GetBooks() method of our service in the OnGet() method

Statistics.cshtml.cs

Statistics.cshtml | Statistics.cshtml.cs

MyBooks | MyBooks.Pages.StatisticsMod

```
1   using System;
2   using System.Collections.Generic;
3   using System.Linq;
4   using System.Threading.Tasks;
5   using Microsoft.AspNetCore.Mvc;
6   using Microsoft.AspNetCore.Mvc.RazorPages;
7   using MyBooks.Models;
8   using MyBooks.Services;
9
10  namespace MyBooks.Pages
11  {
12      public class StatisticsModel : PageModel
13      {
14          public JsonBookService BookService;
15
16          public IEnumerable<Book> Books { get; private set; }
17
18          public StatisticsModel(JsonBookService bookService)
19          {
20              BookService = bookService;
21          }
22
23
24          public void OnGet()
25          {
26              Books = BookService.GetBooks();
27          }
28      }
29  }
```

Statistics.cshtml

Statistics.cshtml | Statistics.cshtml.cs

```
@page
@model MyBooks.Pages.StatisticsModel
@{



    // Using LINQ to query the list of books and display some statistics

    // Using query syntax

    int bookCount = (from book in Model.Books select book).Count();


    int shortBookCount = (from book in Model.Books
                          where book.Pages < 100
                          select book).Count();

    int englishBookCount = (from book in Model.Books
                            where book.Language == "English"
                            select book).Count();


    // Using method syntax

    int sumOfPages = Model.Books.Sum(b => b.Pages);
    double averageBookLength = Model.Books.Average(b => b.Pages);


        <ul>
            <li>There are @bookCount books in total. </li>
            <li>There are @shortBookCount short books. </li>
            <li>There are @englishBookCount English books. </li>
            <li>The average book length is @averageBookLength pages. </li>
        </ul>


}

```

This code example demonstrates the use of LINQ query syntax and method syntax to obtain some statistical information about the data in our JSON file and display it on the page.