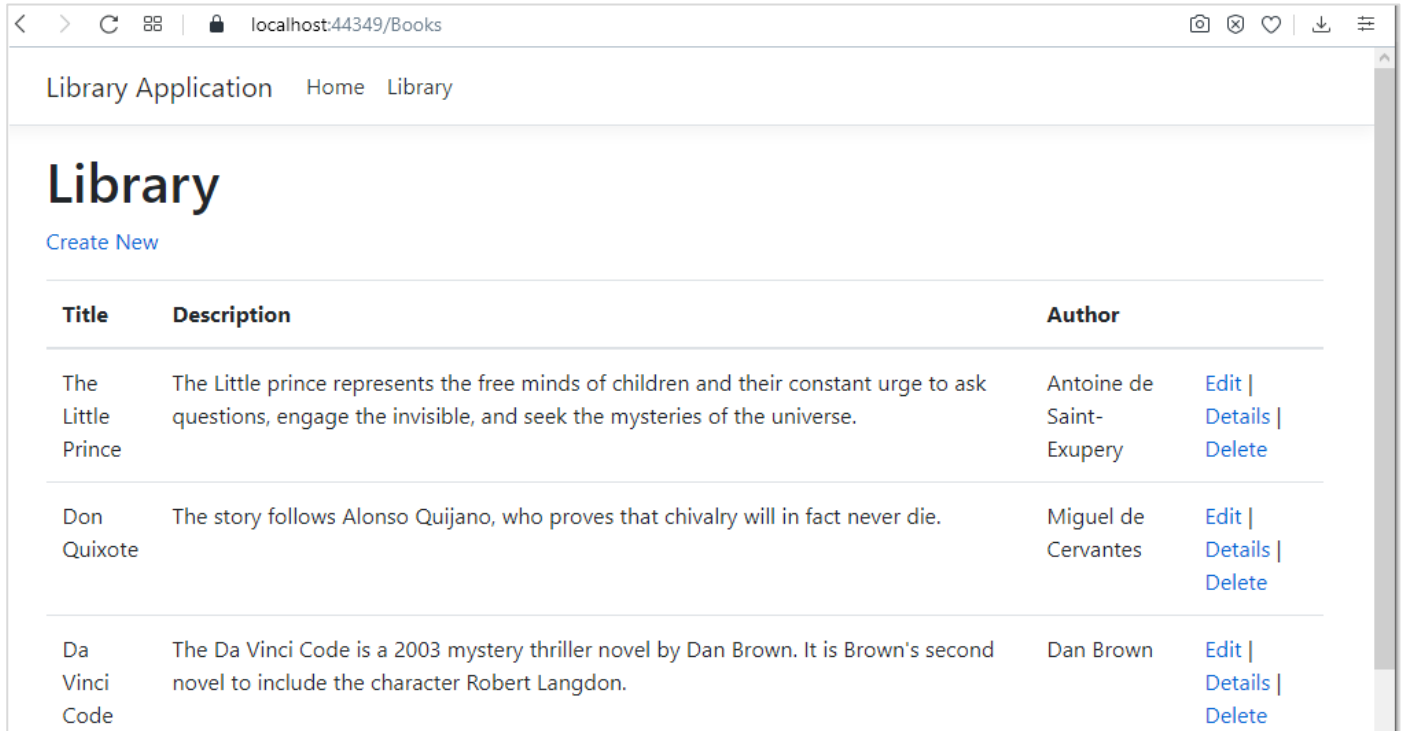


Exercises: ASP.NET MVC with DB


This document defines several walkthroughs for creating ASP.NET MVC-based apps, from setting up the **framework** to implementing the fully functional **applications**.



1. Create Database

Create **database** named "**BookLibrary**" in **Microsoft SQL Management Studio**. It will have a **Book** table with **4** columns:

- **Id** – a unique integer
- **Title** – nchar(50)
- **Description** – nvarchar(250)
- **Author** – nvarchar(50)

	Column Name	Data Type	Allow Nulls
	Id	int	<input type="checkbox"/>
	Title	nchar(50)	<input checked="" type="checkbox"/>
	Description	nvarchar(250)	<input checked="" type="checkbox"/>
	Author	nvarchar(50)	<input checked="" type="checkbox"/>

Column Properties	
Identity Specification	Yes
(Is Identity)	Yes
Identity Increment	1
Identity Seed	1

2. Create a New Project

Create new project and name it **BookLibraryApp**.

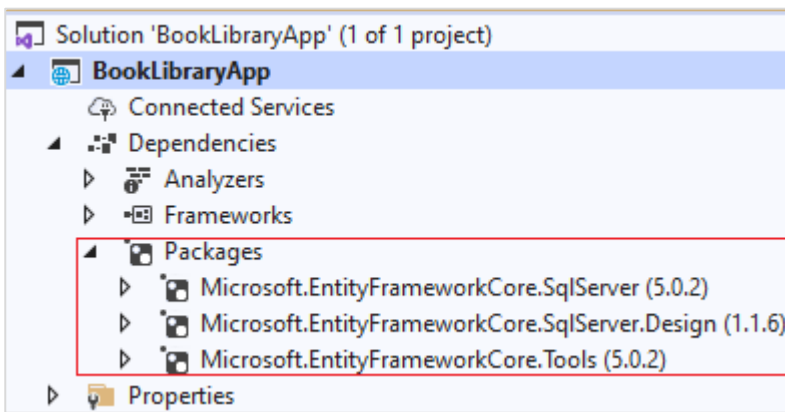
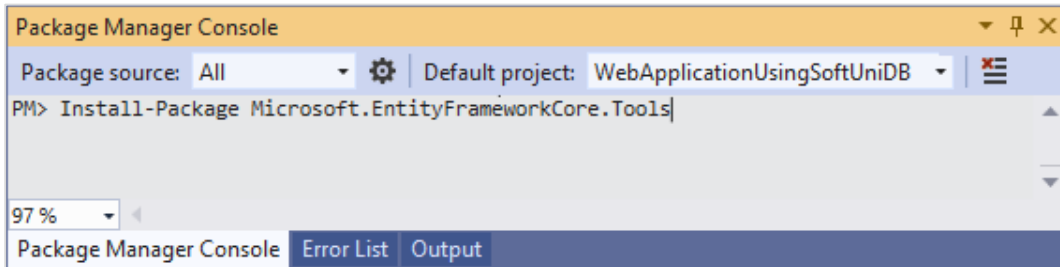
Open **Visual Studio** and create a C# web project using the **ASP.NET Web Application (.NET Framework) template**.

In the "**Create a new ASP.NET Core Web Application**" window, choose **[Model-View-Controller (MVC)]**.

Integrating Entity Framework Core:

Go to [Tools] → [NuGet Package Manager] → [Package Manager Console] and run the following command individually:

```
Install-Package Microsoft.EntityFrameworkCore.Tools
Install-Package Microsoft.EntityFrameworkCore.SqlServer.Design
Install-Package Microsoft.EntityFrameworkCore.SqlServer
```



3. Create Model and Database Context

In the Package Manager Console run the following command:

```
Scaffold-DbContext -Connection "Server=(localdb)\MSSQLLocalDB;Database={put database name here};Integrated Security=True;" -Provider Microsoft.EntityFrameworkCore.SqlServer -OutputDir Models
```

4. Scaffold Controller with Views

Create an ASP.NET Core MVC Controller for handling data and performing basic CRUD operations.

Right-click on the **Controllers** folder in Solution Explorer and select [Add] → [Controller]

Select [MVC Controller with Views using Entity Framework].

- Select **Book** as **Model** class
- **BookLibraryContext** as the **Data Context** class
- Tick the [Generate Views] option
- In the "Select a Layout Page", browse through Views → Shared → _Layout.cshtml

5. Register Configuration Class

Register your configuration class at the **ConfigureServices()** method in **Startup.cs**, by adding:

```
services.AddDbContext<put the Context class here>();
```

6. Display Page

To **display the page** in the app, you need to add it to the title page.

In **Solution Explorer** go to: **Views** → **Shared** → **_Layout.cshtml**.

In the `<ul class="navbar-nav flex-grow-1">` add new `` element.

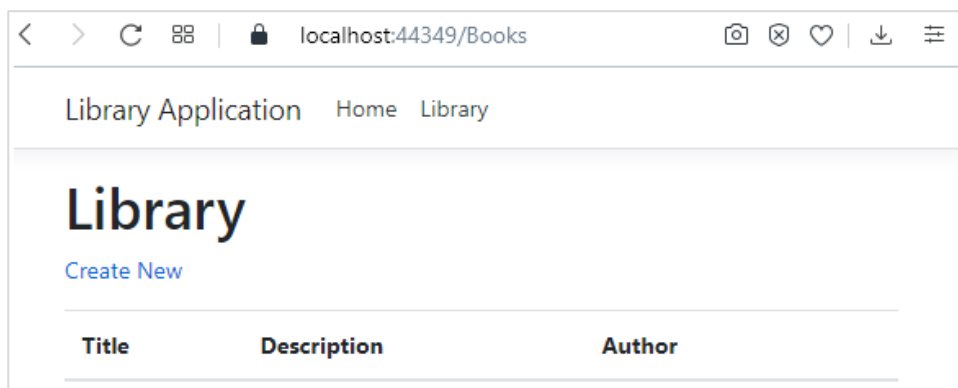
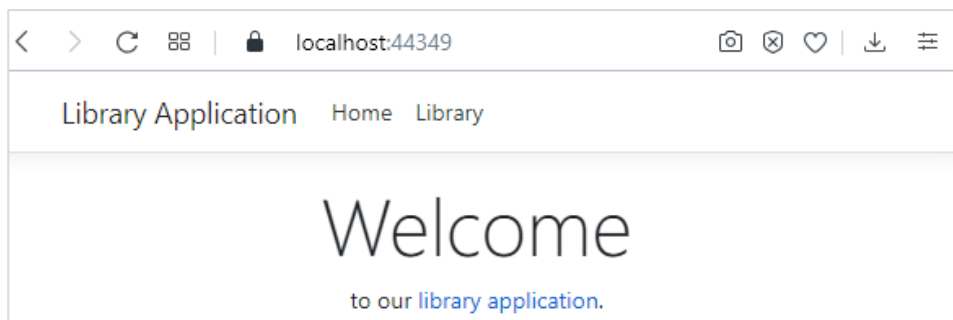
BookLibraryApp Home Privacy Library

7. Change View

Change the title and link. In **_Layout.cshtml** change the text of the first `<a>` element to **Library Application** and the asp-controller to lead to the **Library** page. Delete the `<li class="nav-item">` that gives the **[Privacy] button** in the navigation bar.

Change the **Index** page. In **Solution Explorer** go to: **Views** → **Home** → **Index.cshtml**. Change the **paragraph text** to: "to our library application" and make the **last two words link** which leads to "Library" page.

Change the **Library** page. In **Solution Explorer** go to: **Views** → **Books** → **Index.cshtml**. Change the heading to "Library".



8. Create Books

Create **3 books**, using your ASP.NET MVC app:

Title	Description	Author
The Little Prince	The Little prince represents the free minds of children and their constant urge to ask questions, engage the invisible, and seek the mysteries of the universe.	Antoine de Saint-Exupery

Don Quixote	The story follows Alonso Quijano, who proves that chivalry will in fact never die.	Miguel de Cervantes
Da Vinci Code	The Da Vinci Code is a 2003 mystery thriller novel by Dan Brown. It is Brown's second novel to include the character Robert Langdon.	Dan Brown

This is how your app with the new book may look like:

The screenshot shows a web browser at localhost:44349/Books. The application has a header with 'Library Application', 'Home', and 'Library' links. Below the header is a section titled 'Library' with a 'Create New' link. A table lists three books:

Title	Description	Author	
The Little Prince	The Little prince represents the free minds of children and their constant urge to ask questions, engage the invisible, and seek the mysteries of the universe.	Antoine de Saint-Exupery	Edit Details Delete
Don Quixote	The story follows Alonso Quijano, who proves that chivalry will in fact never die.	Miguel de Cervantes	Edit Details Delete
Da Vinci Code	The Da Vinci Code is a 2003 mystery thriller novel by Dan Brown. It is Brown's second novel to include the character Robert Langdon.	Dan Brown	Edit Details Delete