# 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**.

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## 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)**

Table

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## 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 |

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## 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 |

## 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**
* BookLibraryContextas the **Data Context class**
* Tick the [Generate Views]option
* In the "**Select a Layout Page**", browse through Views 🡪 Shared 🡪 \_Layout.cshtml

## Register Configuration Class

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

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

## 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** <li> **element**.



## Change View

Change the title and link. In \_Layout.cshtmlchange 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".

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## 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:

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