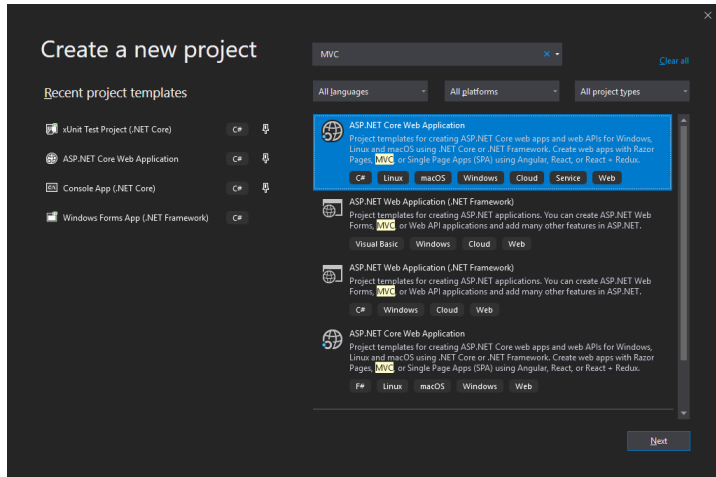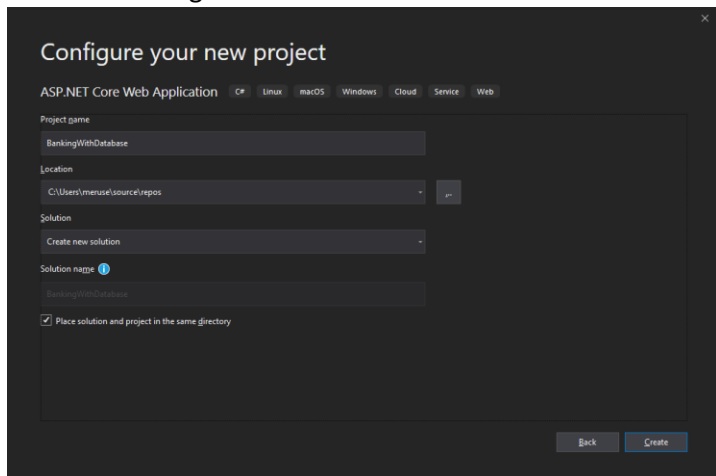# Create a Web Application using a Database
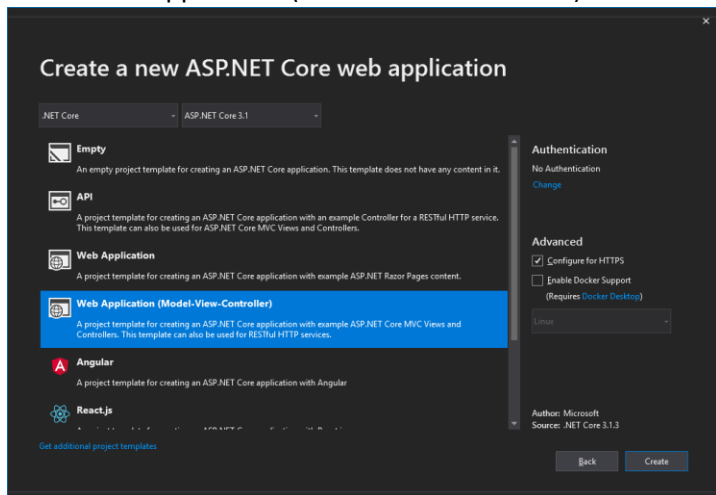
Configure MVC Web Application

Select ASP.NET Core Web Application, you can search MVC to find it

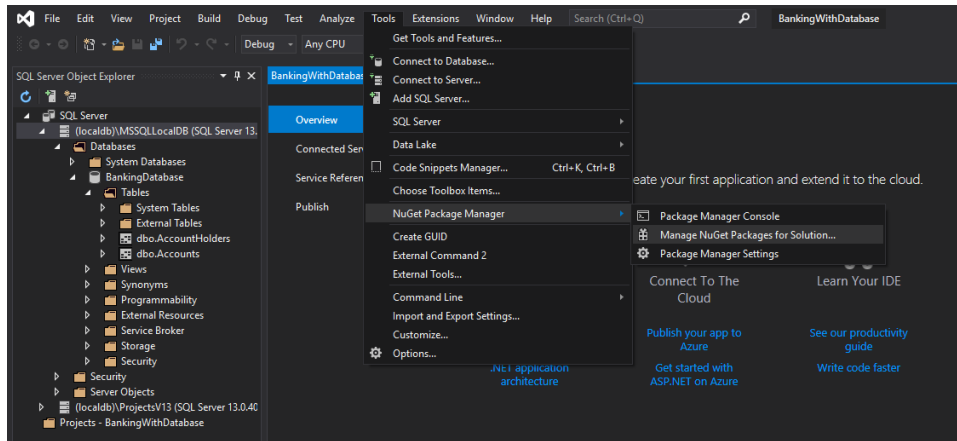Name it BankingWithDatabase

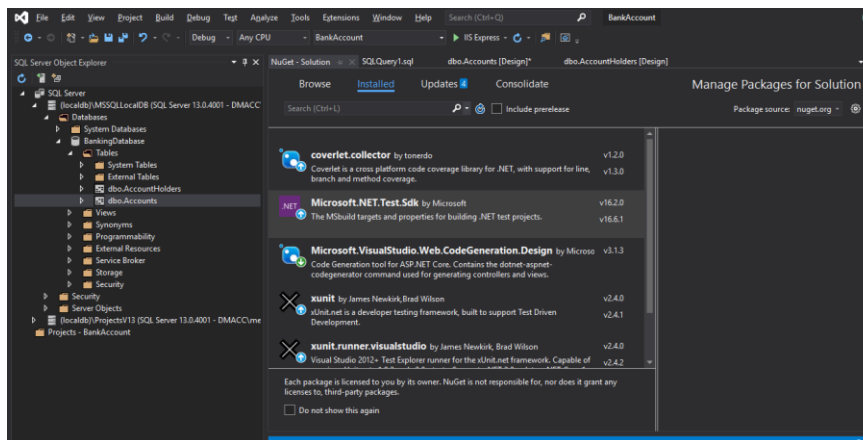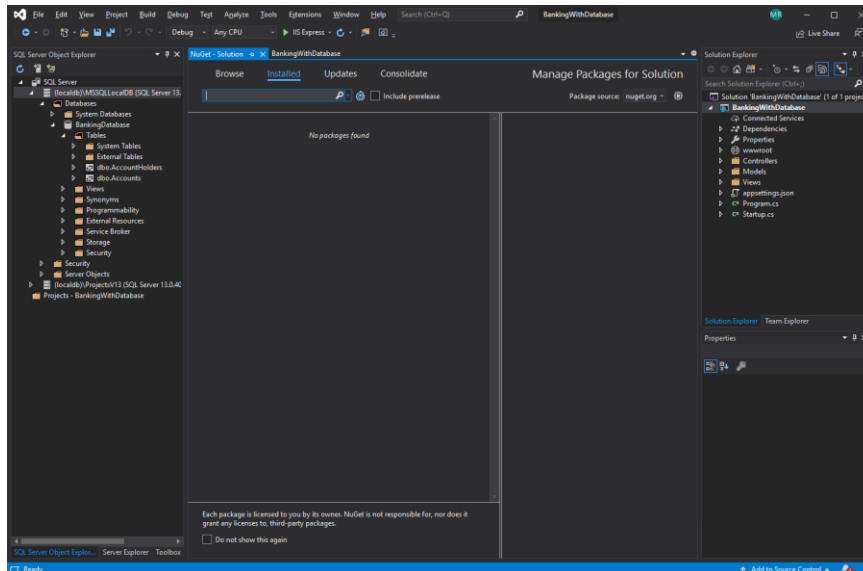Select Web Application (Model-View-Controller)

Install NuGet

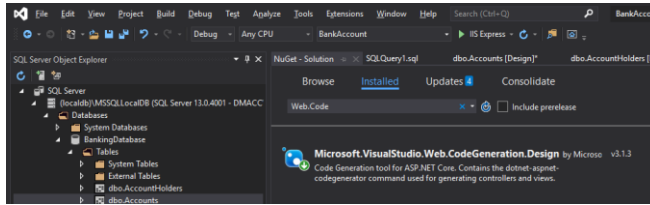Tools→NuGet Package Manager→Mange NuGet Packages for Solution

You may see one of the following:

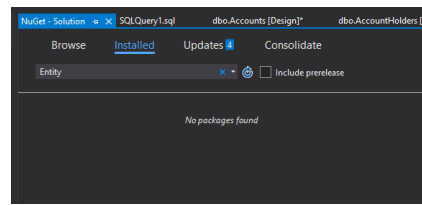Search for Microsoft.EntityFrameworkCore.Tools, Microsoft.VisualStudio.Web.CodeGeneration.Design and Microsoft.EntityFrameworkCore.SqlServer.
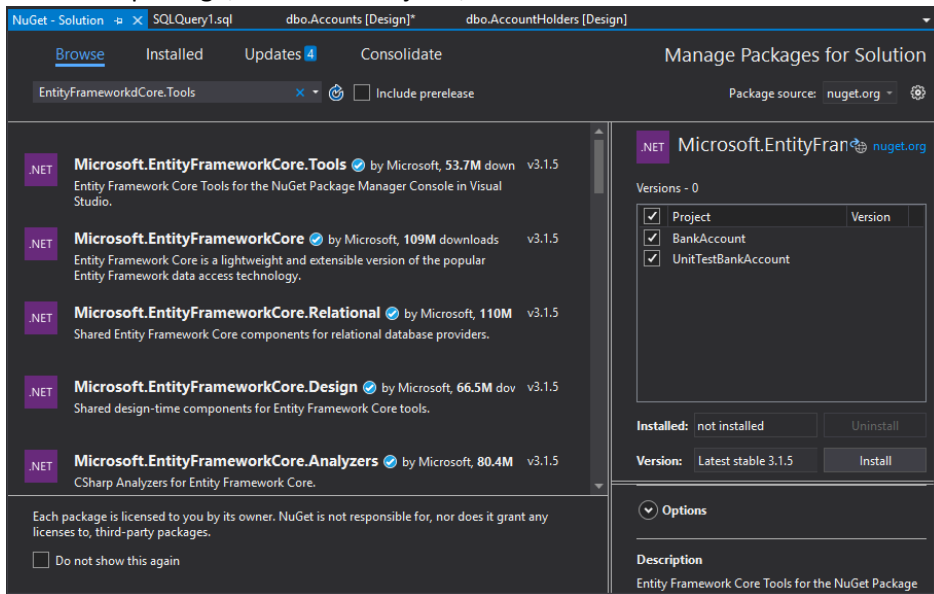
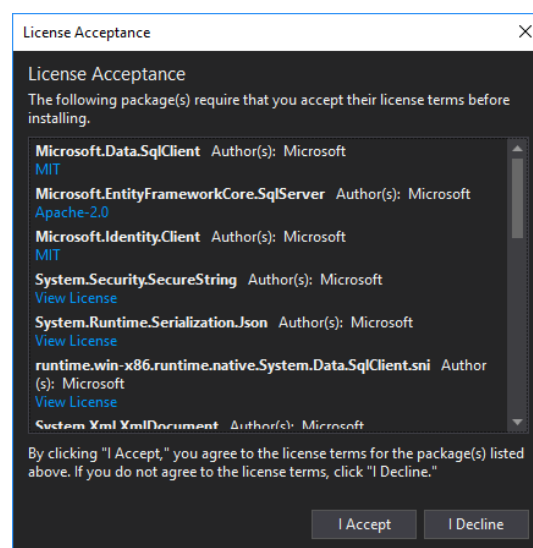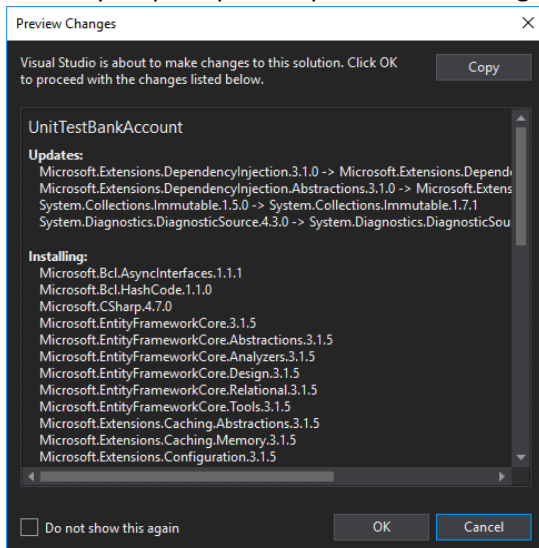Found   Not Found

Go to Browse tab to install any missing packages.
Select the package, check the Projects, click install


You may be prompted to preview the changes.

Repeat for all uninstalled packages.

Scaffolding

ASP.NET has a scaffolding feature that uses [T4 templates](#) for code generation. It can create the [POCO](#) (Plain Old C# Object) classes and a context class (more when you move on to Advanced C#). It can also create [CRUD](#) code for the database using EF Core (controllers and views). That's also something you can learn more about in the advanced course.

Run the following scaffolding command in Package Manager Console
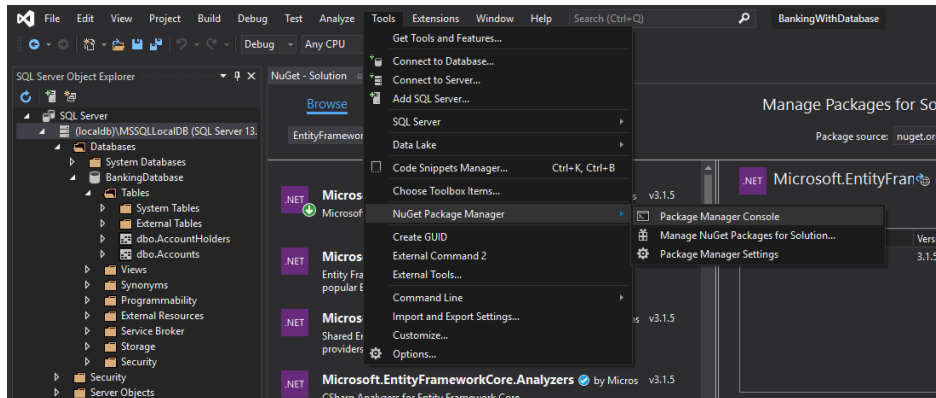
Run the following command in the Package Manager Console, and see the Web App populated with files, change *MSSQLLocalDB* with your SQL server name:

> Scaffold-DbContext "Server=(localdb)*MSSQLLocalDB*;Database=BankingDatabase;Integrated Security=True" Microsoft.EntityFrameworkCore.SqlServer -OutputDir Models

Common errors may be fixed with PM console commands
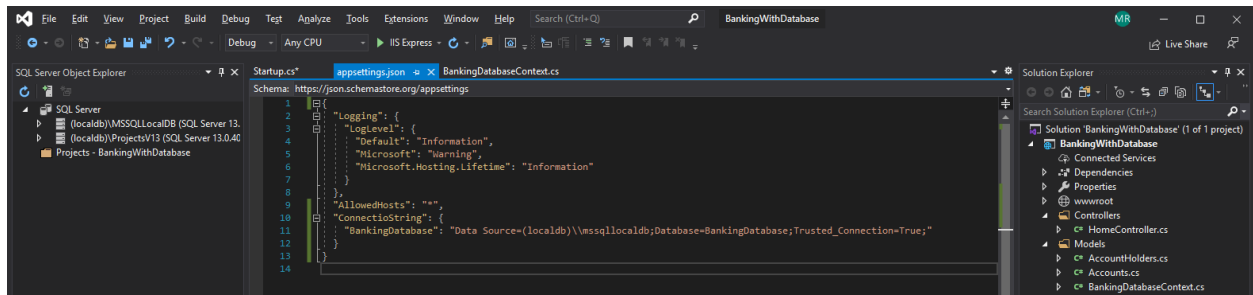
> Install-Package Microsoft.EntityFrameworkCore.Tools

> Install-Package Microsoft.EntityFrameworkCore.SqlServer
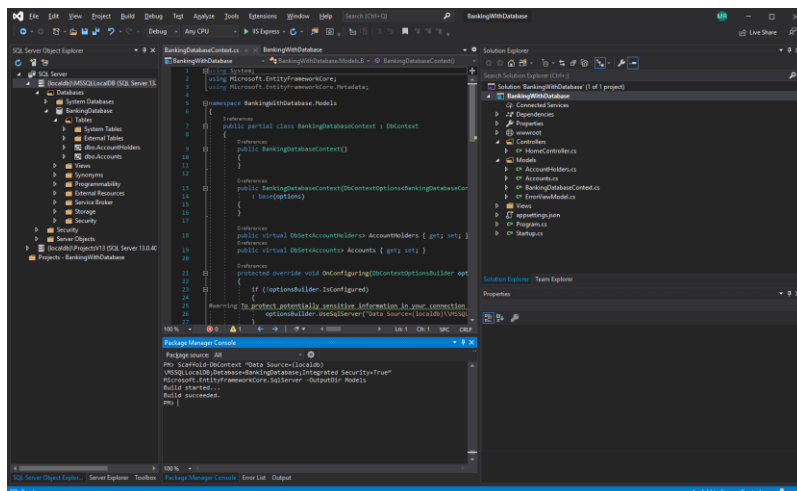
You will notice files in the Models folder. The warning in BankingDatabaseContext.cs that the connection string is stored in the code. This is a bad, idea! You can read more at http://go.microsoft.com/fwlink/?LinkId=723263.

Time to move it to appsetting.json as an environment variable. Again, *mssqllocaldb* is your database. Open appsetting.json, add a command after "AllowedHosts": "*", and add the following

```
"ConnectionStrings": {
  "BankingDatabase":
"Server=(localdb)\\mssqllocaldb;Database=BankingDatabase;Integrated Security=True;"
},
```


Then open Startup.cs and add directives (use your project name in place of *YourProjectName*)

```
using Microsoft.EntityFrameworkCore;
using YourProjectName.Models;
```

Still in Startup.cs, register the database context service (BankingDatabaseContext) by adding the following into Configure Services

```
        var connection = Configuration.GetConnectionString("BankingDatabase");
        services.AddDbContext<BankingDatabaseContext>(options =>
options.UseSqlServer(connection));
```
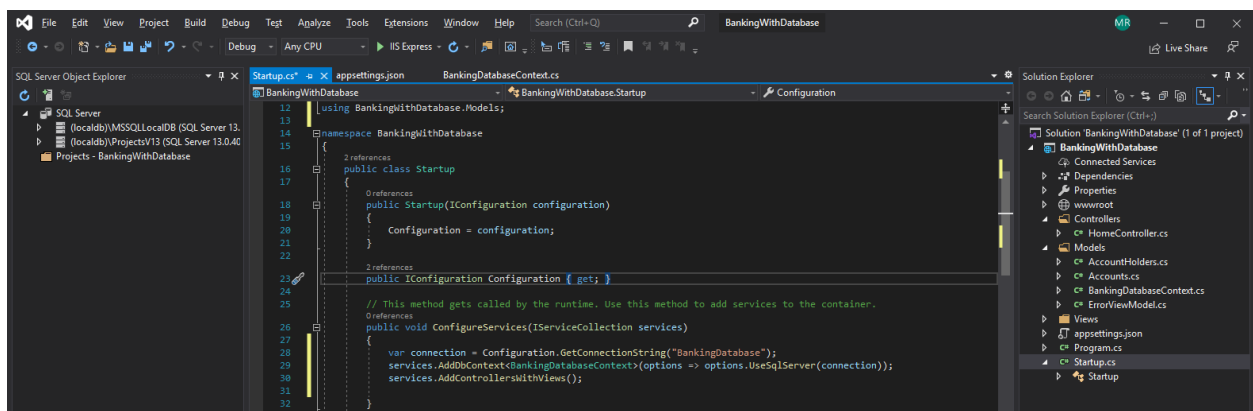

Next, open the Models/BankingDatabaseContext.cs. Remove the following method:

```
        protected override void OnConfiguring(DbContextOptionsBuilder optionsBuilder)
        {
            if (!optionsBuilder.IsConfigured)
            {
#warning To protect potentially sensitive information in your connection string, you
                optionsBuilder.UseSqlServer("Data
Source=(localdb)\\MSSQLLocalDB;Database=BankingDatabase;Integrated Security=True");
            }
        }
```
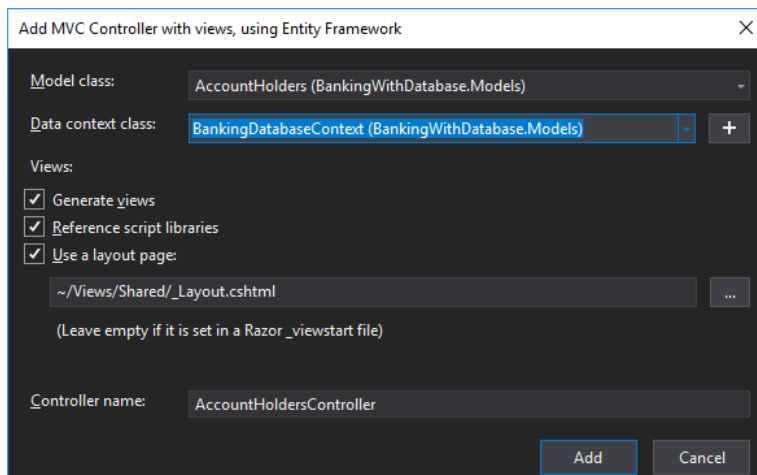
Add Controllers

On the Controller folder, right click and Add Controller…
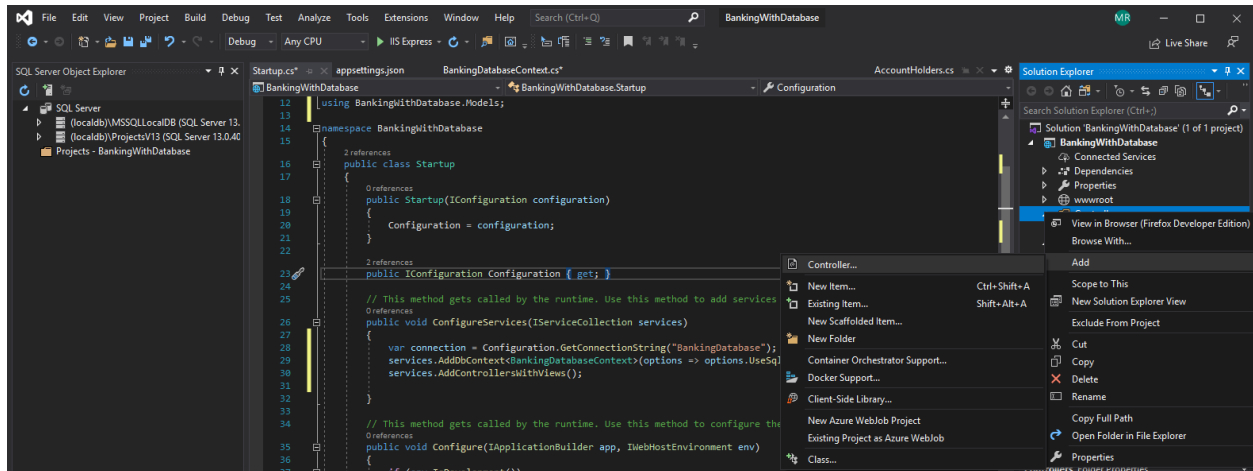
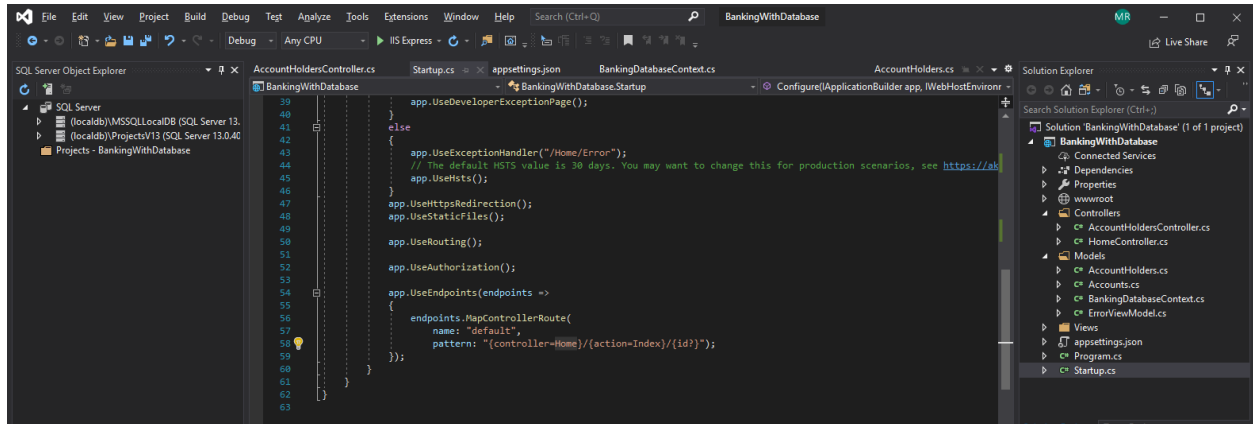Select the MVC Controller with views, using Entity Framework option and click Add.
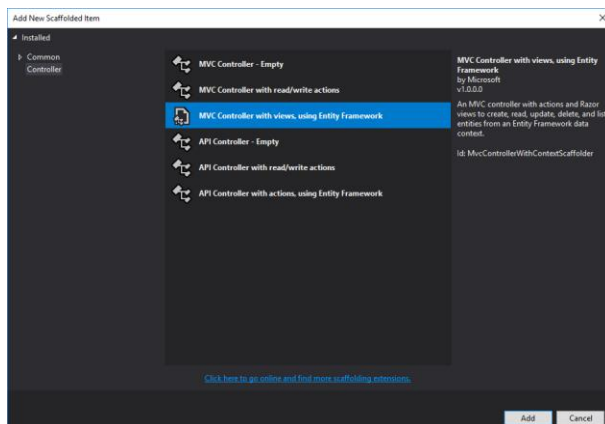
Next, choose a database model class and data context class which were created during scaffolding. You can select the layout as well using the button "…" . Start with AccountHolders and name it AccountHoldersController and click Add.
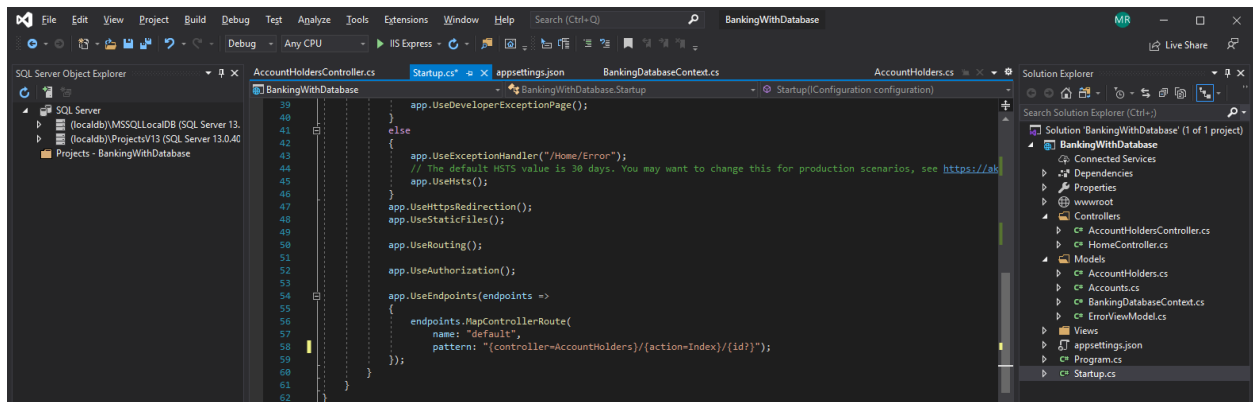
You are ready to run CRUD operations!
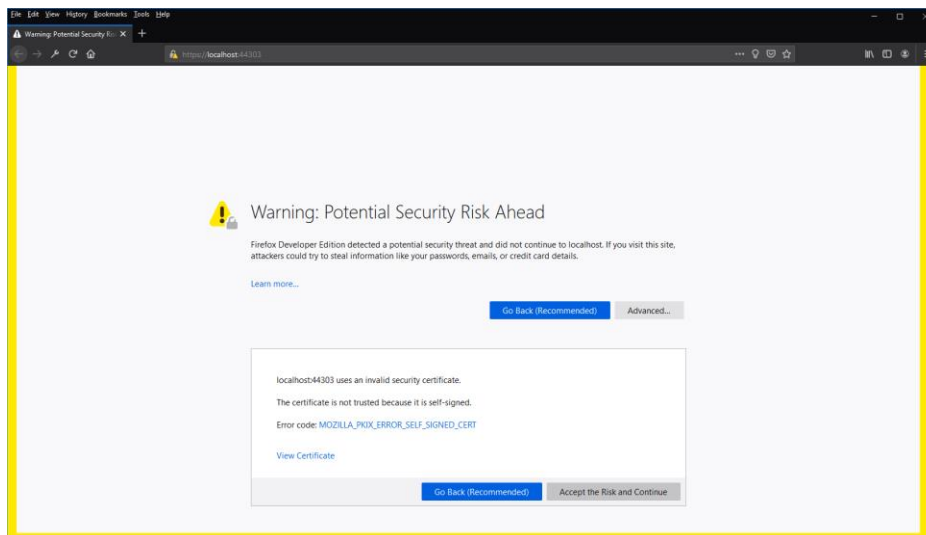
Open Startup.cs

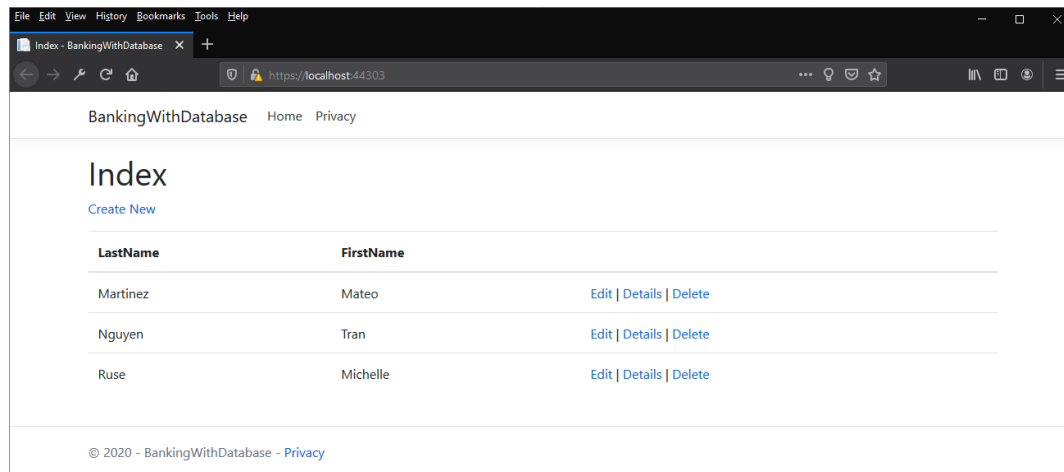In Configure method, change the default controller from Home to AccountHolders

Run the Web App!

A browser will open and you will see a message, Click advanced and "Accept the Risk and Continue "
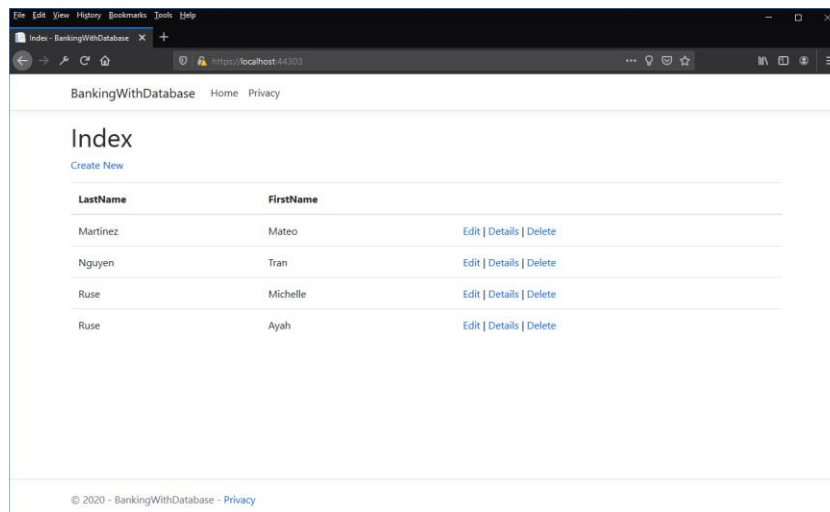
Then you will see your database entries

Take a screen shot, name it FirstRun.jpg with your 3 entries, including your name.

Use the Web Page to add a new account holder.

Take a screen shot, name it Add.jpg

Now delete the new added entry.

You could add a controller for Accounts and continue building! For now, you can submit FirstRun.jpg, Add.jpg