

<https://www.halvorsen.blog>



ASP.NET Core Class Library

Hans-Petter Halvorsen

Introduction

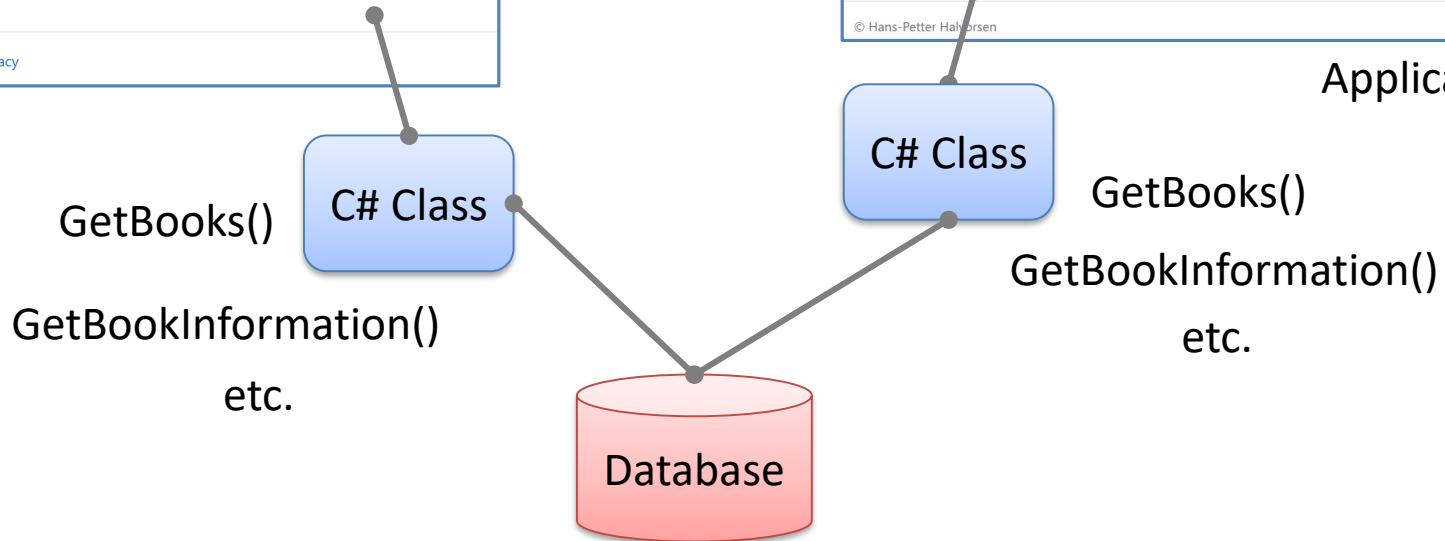
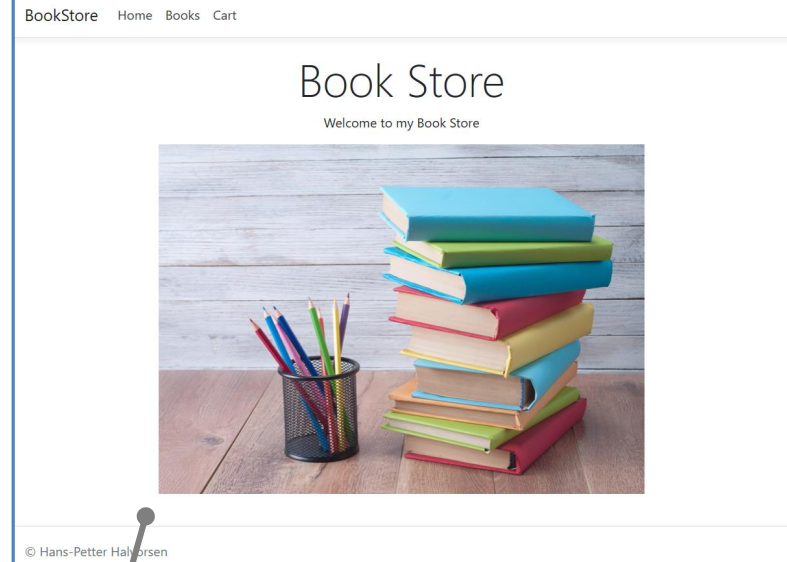
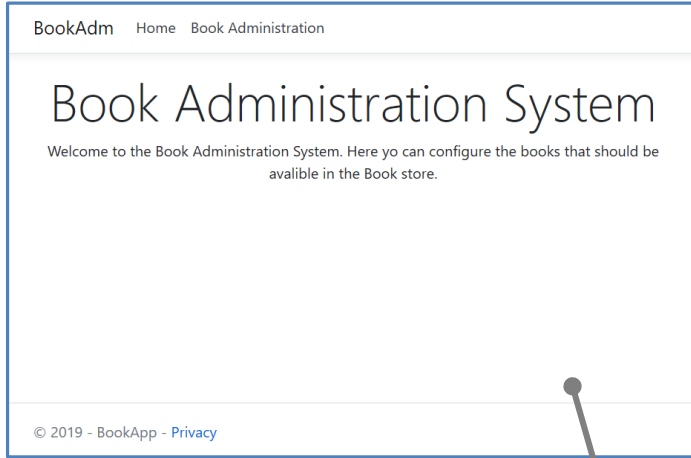
- Introduction to Class Libraries
- If you have never used ASP.NET Core, I suggest the following Videos:
 - ASP.NET Core - Hello World
<https://youtu.be/lcQsWYgQXK4>
 - ASP.NET Core – Introduction
<https://youtu.be/zkOtiBcwo8s>

Class Library

- In object-oriented programming , a class library is a collection of prewritten classes or coded templates, any of which can be specified and used by a programmer when developing an application program.
- The Class Library can have been written by others or you
- If it is written by other, the purpose is to save time compared to write it yourself from scratch
- If you write it yourself the purpose is typically to share code between different applications, both for better structure and to save time. You can change the code once instead of changing/updating your code multiple places

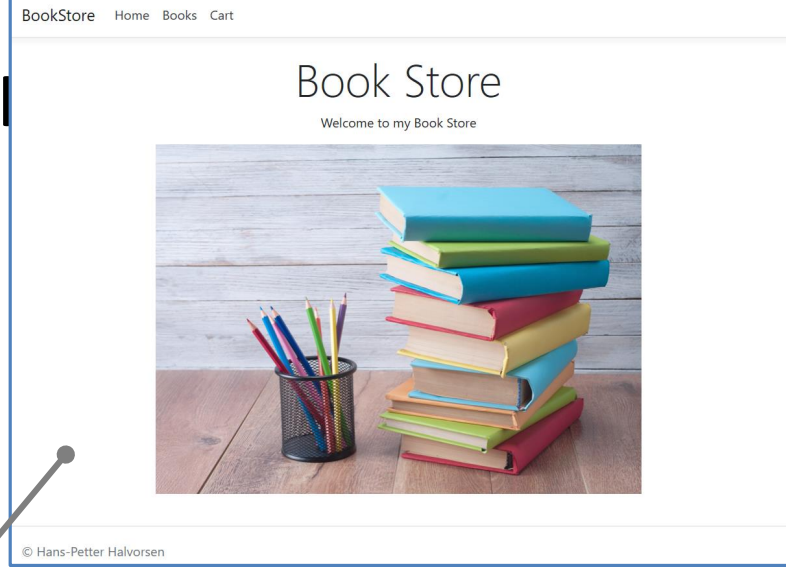
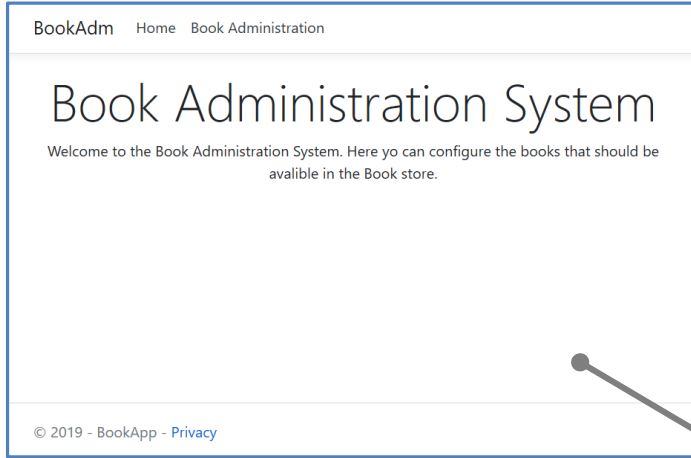
Application #1

Example



Application #1

Using Class Library



Application #2

Put everything that is common for these 2 Application into a Class Library



GetBooks()
GetBookInformation()
etc.

<https://www.halvorsen.blog>

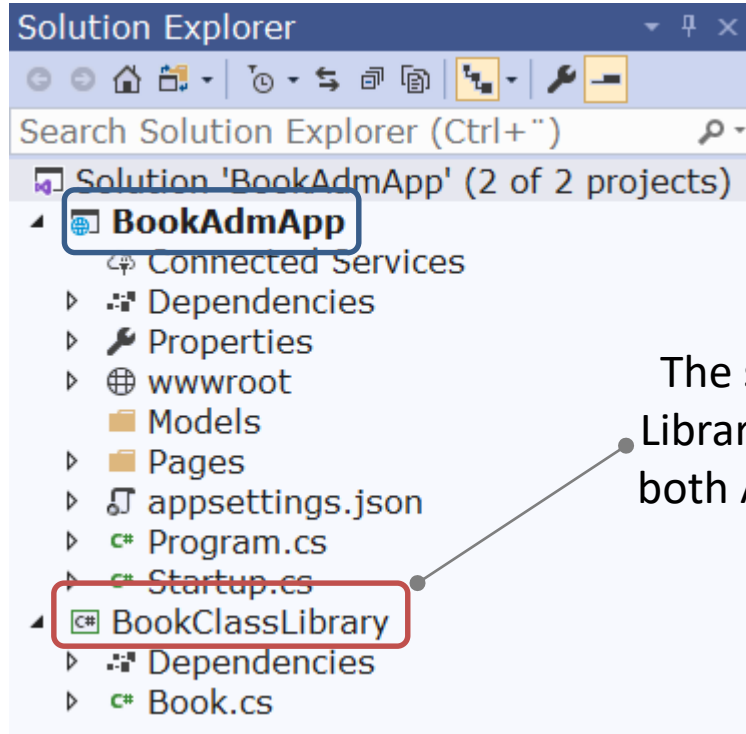


Visual Studio

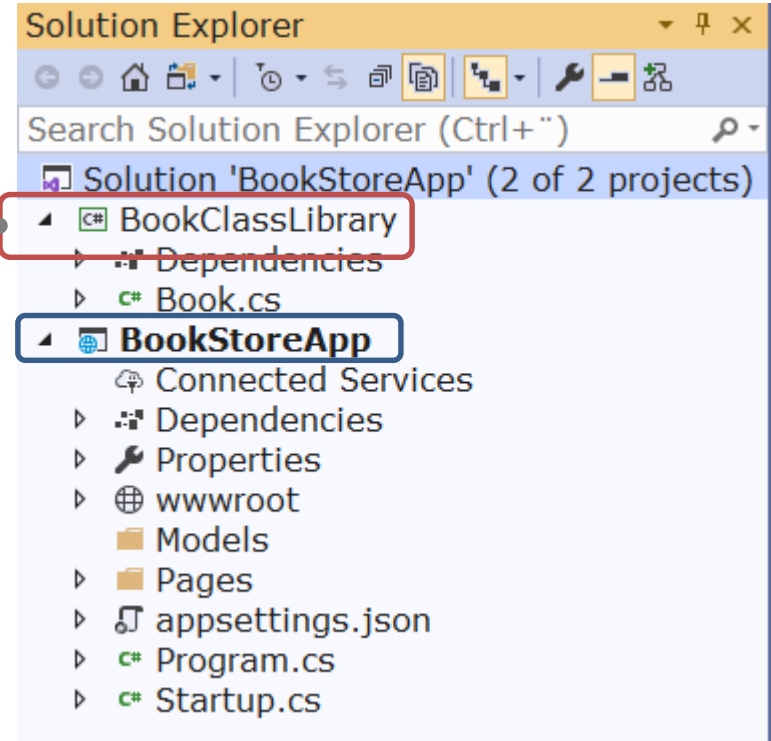
Hans-Petter Halvorsen

Solution Explorer

Application #1



Application #2



The same Class Library is used by both Applications

<https://www.halvorsen.blog>

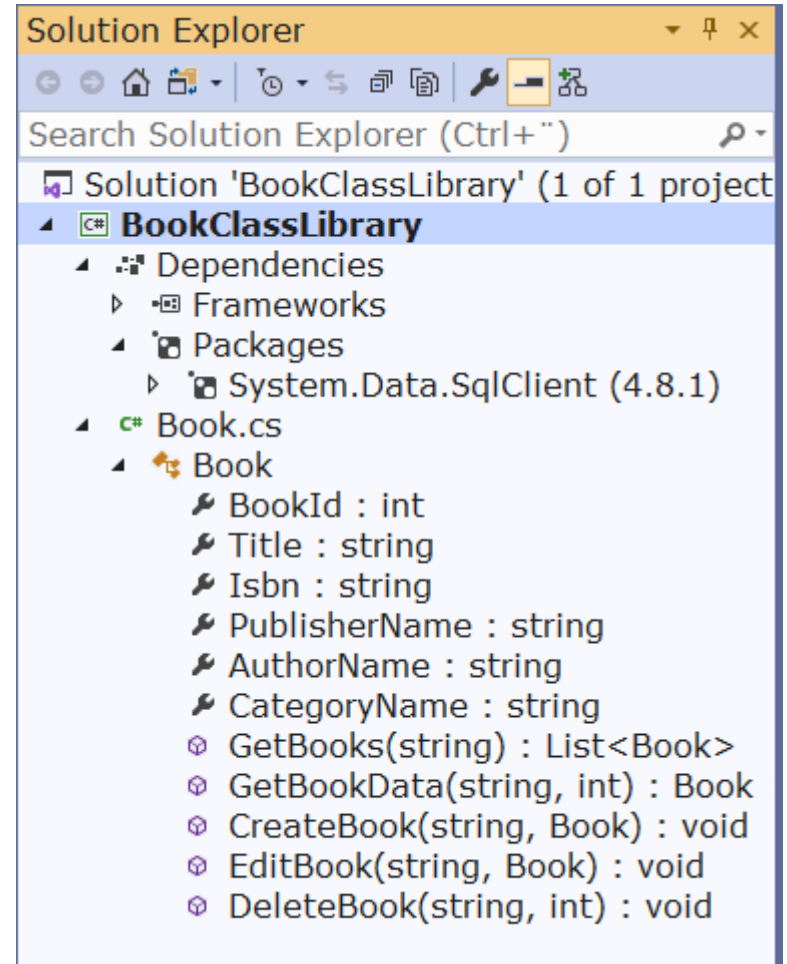


Class Library

Hans-Petter Halvorsen

Solution Explorer

Here we create one or more Classes with different Methods that shall be used by our ASP.NET Core Web application



Create a new project

Recent project templates

- ASP.NET Core Web Application C#
- Windows Forms App (.NET Framework) C#
- NI Windows Forms Application
- Windows Forms App (.NET Core) C#
- ASP.NET Web Application (.NET Framework) C#
- ASP.NET Web Application (.NET Framework) Visual Basic
- Python Application Python

class library .NET Core

Clear all

C# Windows Desktop

- WPF User Control Library (.NET Core)
Windows Presentation Foundation user control library
C# Windows Desktop Library
- WPF Custom Control Library (.NET Core)
Windows Presentation Foundation custom control library
C# Windows Desktop Library
- JUnit Test Project (.NET Core)
A project that contains NUnit tests that can run on .NET Core on Windows, Linux and MacOS.
C# Linux macOS Windows Desktop Test Web
- WPF App (.NET Core)
Windows Presentation Foundation client application
C# Windows Desktop
- Windows Forms App (.NET Core)
A project for creating an application with a Windows Forms (WinForms) user interface
C# Windows Desktop
- Class Library (.NET Core)**
A project for creating a class library that targets .NET Core.
C# Windows Linux macOS Library
- Class Library (.NET Core)
A project for creating a class library that targets .NET Core.
Visual Basic Windows Linux macOS Library
- Class Library (.NET Core)

Back

Next

using ...

namespace BookClassLibrary

```
{  
    public class Book  
    {  
        public int BookId { get; set; }  
        public string Title { get; set; }  
        public string Isbn { get; set; }  
        public string PublisherName { get; set; }  
        public string AuthorName { get; set; }  
        public string CategoryName { get; set; }  
  
        public List<Book> GetBooks(string connectionString)  
        public Book GetBookData(string connectionString, int bookId)  
        public void CreateBook(string connectionString, Book book)  
        public void EditBook(string connectionString, Book book)  
        public void DeleteBook(string connectionString, int bookId)  
    }  
}
```

Code

<https://www.halvorsen.blog>



BookAdm App

Hans-Petter Halvorsen

Book Administration System

Welcome to the Book Administration System. Here yo can configure the books that should be available in the Book store.

Books

Below you see all the Books in the Book Store:

BookId	Title	ISBN	Publisher	Author	Category	Action
1	Introduction to Linear Algebra	0-07-066781-0	Prentice Hall	Gilbert Strang	Science	Delete Book
2	Modern Control System	1-08-890781-0	Wiley	Dorf Bishop	Programming	Delete Book
3	The Lord of the Rings	2-09-066556-2	McGraw-Hill	J.R.R Tolkien	Novel	Delete Book
4	Python	5555568	Halvorsen	Hans-Petter	Programming	Delete Book

New Book

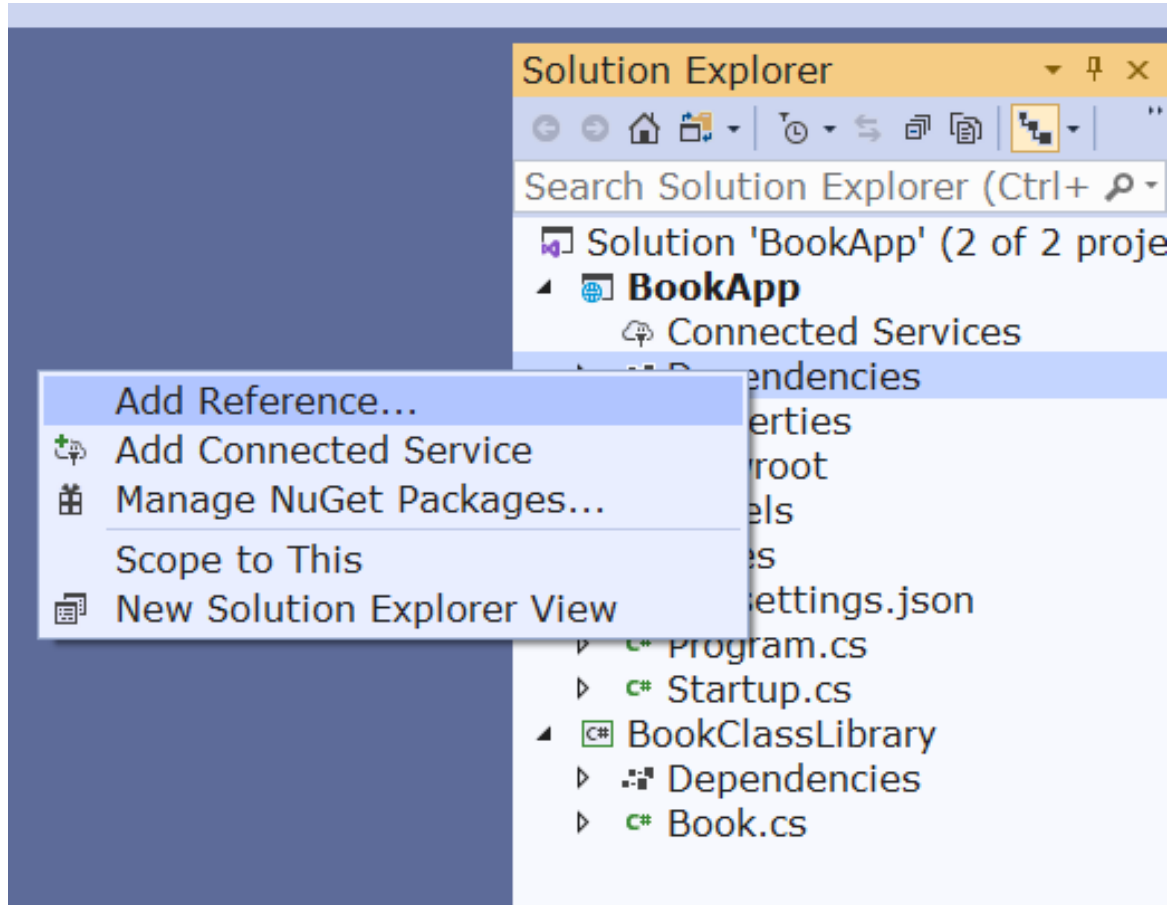
Add Existing Project

The screenshot shows the Visual Studio interface with the 'Project' menu open. The 'Add' submenu is also open, and 'Add Existing Project...' is highlighted. The Solution Explorer shows a project named 'BookApp' with files like 'Program.cs' and 'Startup.cs'. The Properties window is also visible at the bottom right.

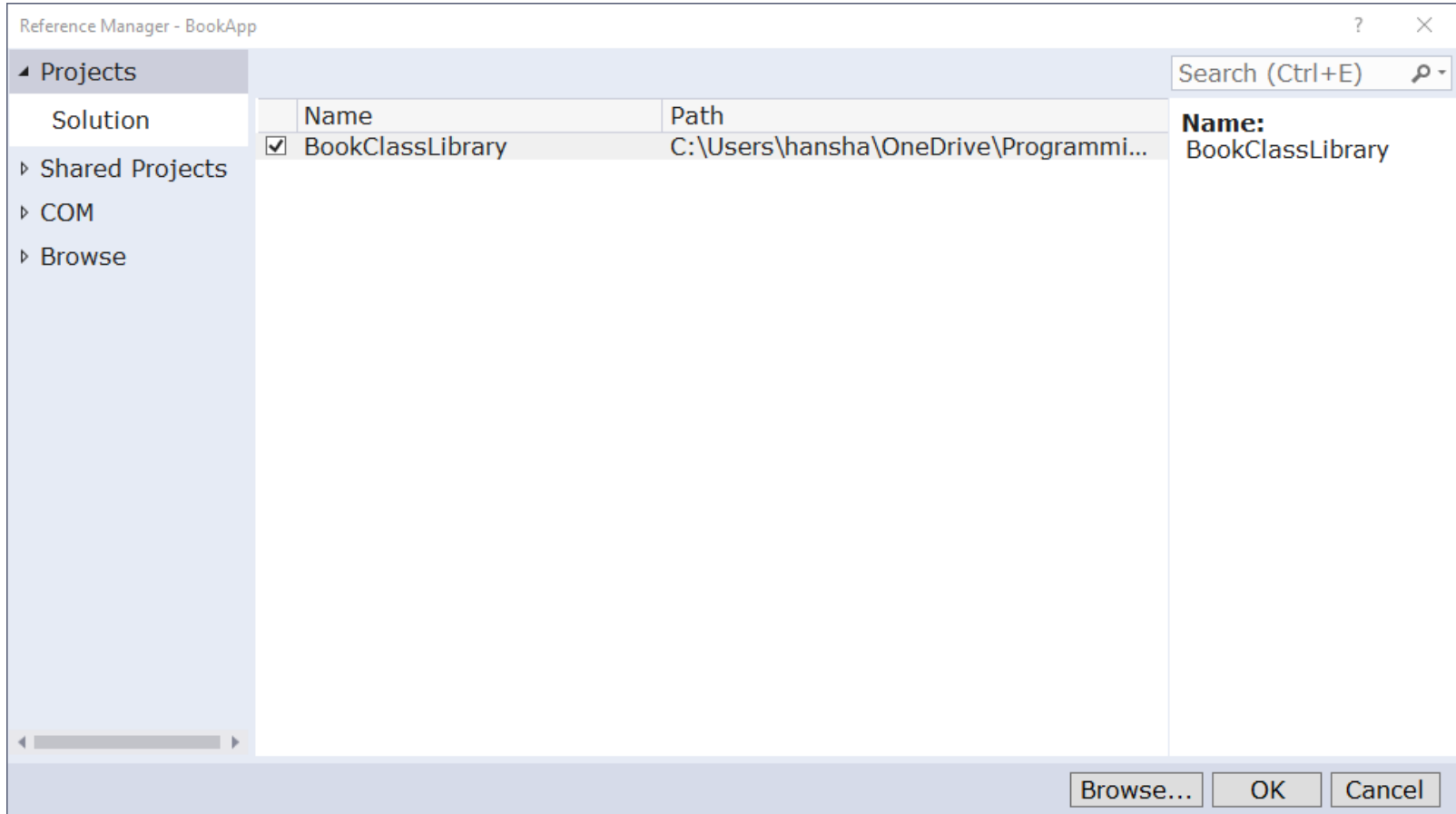
String);

PublisherName, AuthorName, CategoryName from GetBookData";

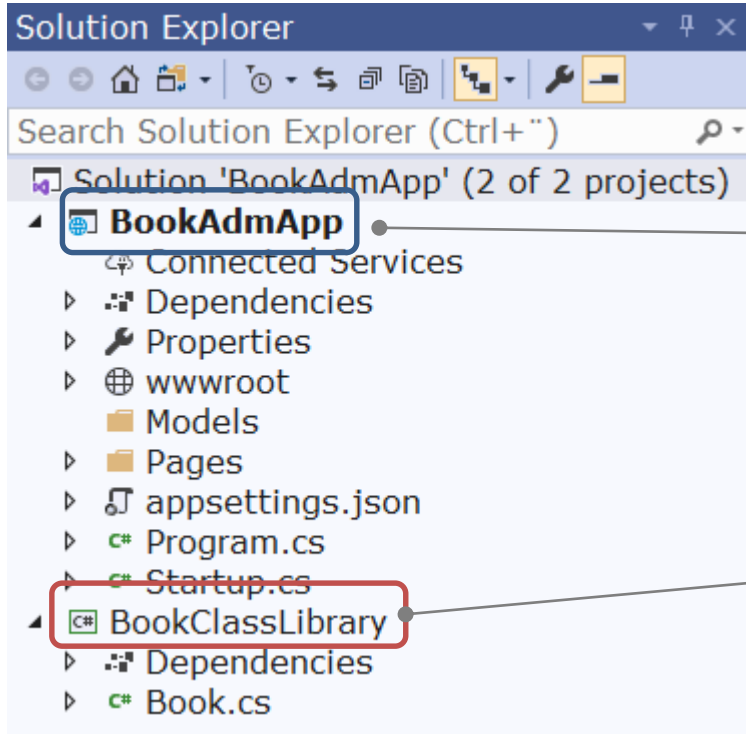
Add Reference



Add Reference



Solution Explorer



BookAdm Application

Class Library

<https://www.halvorsen.blog>



BookStore App

Hans-Petter Halvorsen

Book Store

Welcome to my Book Store



Books

Below you see all the Books in the Book Store:

Introduction to Linear Algebra

Gilbert Strang

Prentice Hall

0-07-066781-0

Science

Buy

Modern Control System

Dorf Bishop

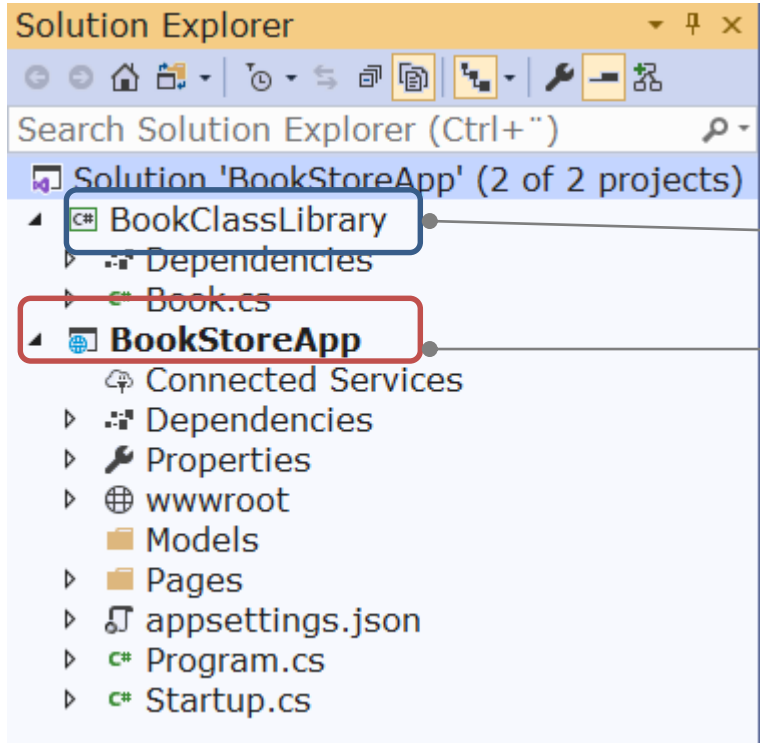
Wiley

1-08-890781-0

Programming

Buy

Solution Explorer



• Class Library

• BookStore Application

<https://www.halvorsen.blog>

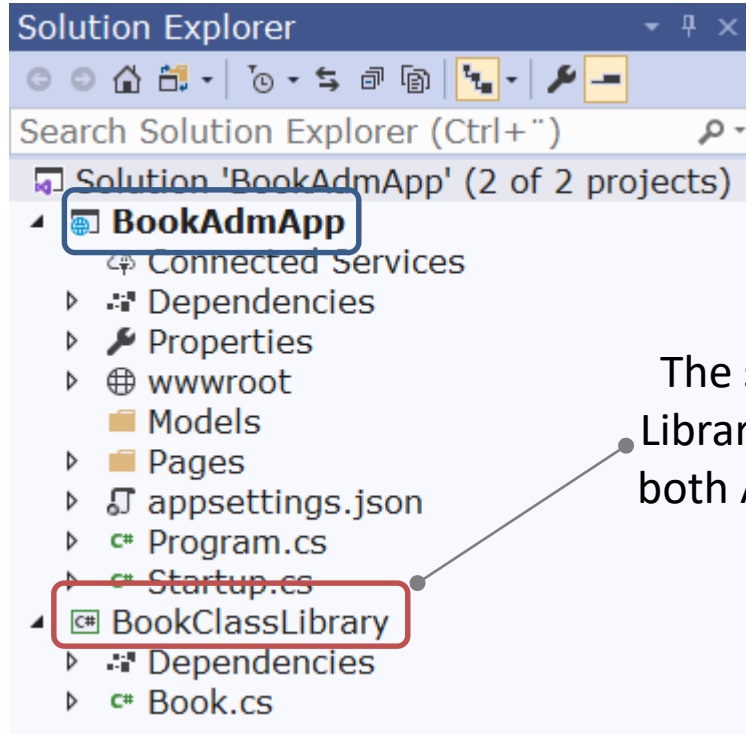


Final System

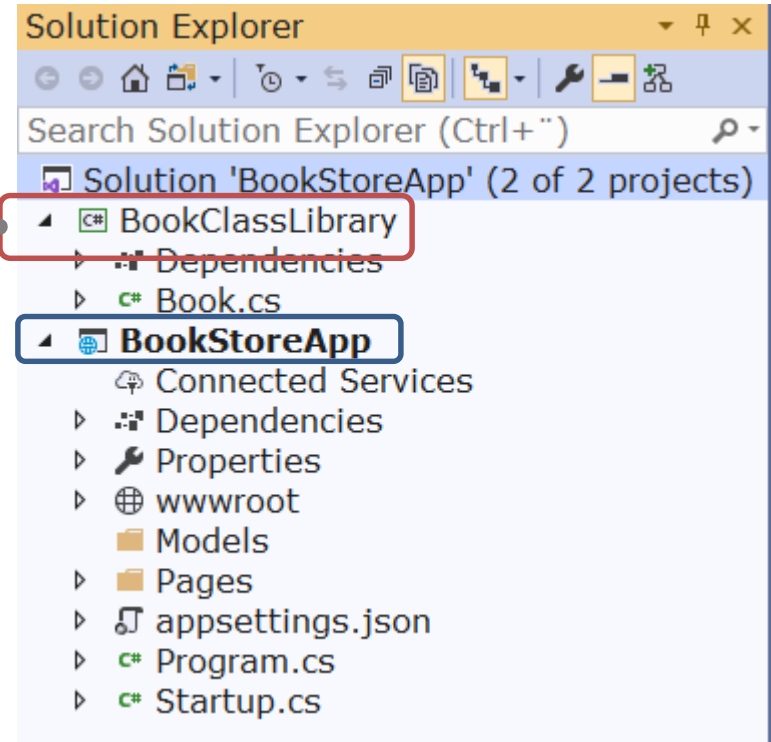
Hans-Petter Halvorsen

Solution Explorer

Application #1



Application #2



The same Class Library is used by both Applications

File Explorer

Name



.vs



BookAdmApp



BookClassLibrary



BookStoreApp



BookAdmApp.sln



BookClassLibrary.sln



BookStoreApp.sln



MultipleApps.sln

Project Folders

Solutions Files

Hans-Petter Halvorsen

University of South-Eastern Norway

www.usn.no

E-mail: hans.p.halvorsen@usn.no

Web: <https://www.halvorsen.blog>

