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ASP.NET Core

Publish to Microsoft Azure

Hans-Petter Halvorsen

Video Contents

In this Video we will deploy or install an ASP.NET Core Web Application in Microsoft Azure

- Test the Web Application locally
- Create SQL Database in Azure and connect to the database
- Finally, Deploy the Web Application to Azure

Microsoft Azure

- Microsoft Azure is a Cloud Service from Microsoft
- You could say it is “Windows running in the Cloud”
- Azure Portal:
<https://portal.azure.com>

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
-	The Hobbit	0-04-319749-1	McGraw-Hill	J.R.R Tolkien	Novel	Delete Book
-	Introduction to Programming	0-07-066781-0	lalvorsen	Hans-Petter	Programming	Delete Book

Book Store

Welcome to my Book Store



BookApp

ASP.NET Core | Web Server IIS Deployment

Development



Test/Production



Introduction

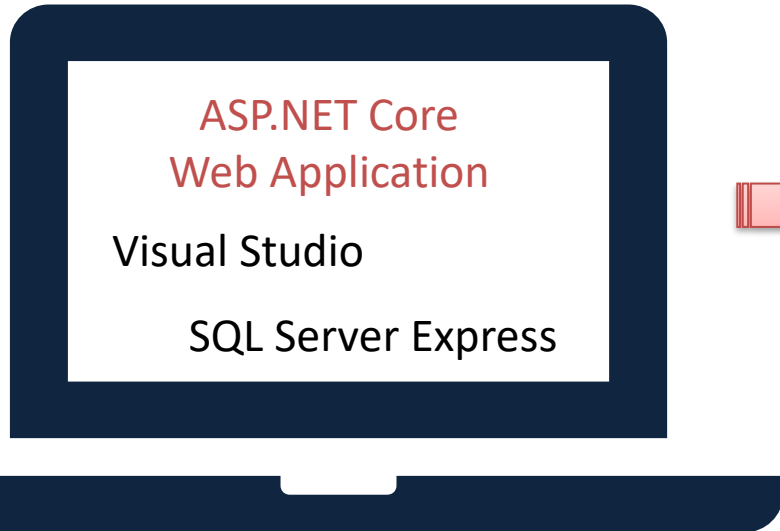
- Introduction to IIS deployment
- If you have never used ASP.NET Core, I suggest the following Videos:
 - ASP.NET Core - Hello World
<https://youtu.be/lcQsWYgQXK4>
 - ASP.NET Core – Introduction
<https://youtu.be/zkOtiBcwo8s>

Scenario

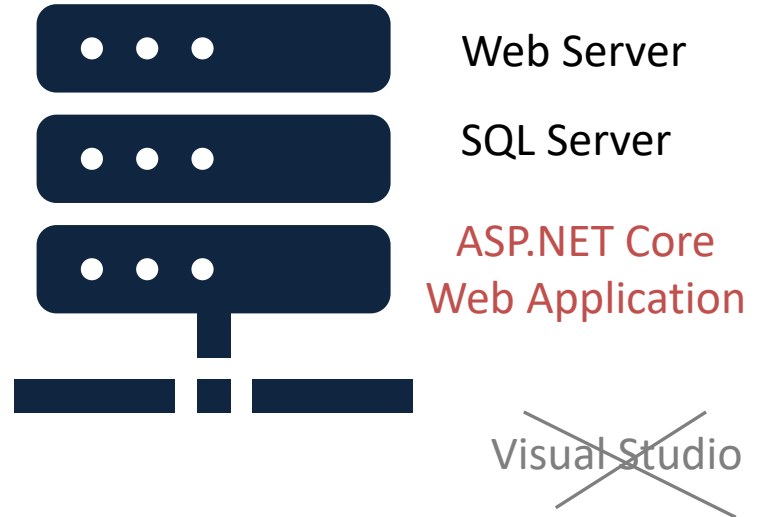
Development Environment

Test/Production Environment

Local PC with Windows 10



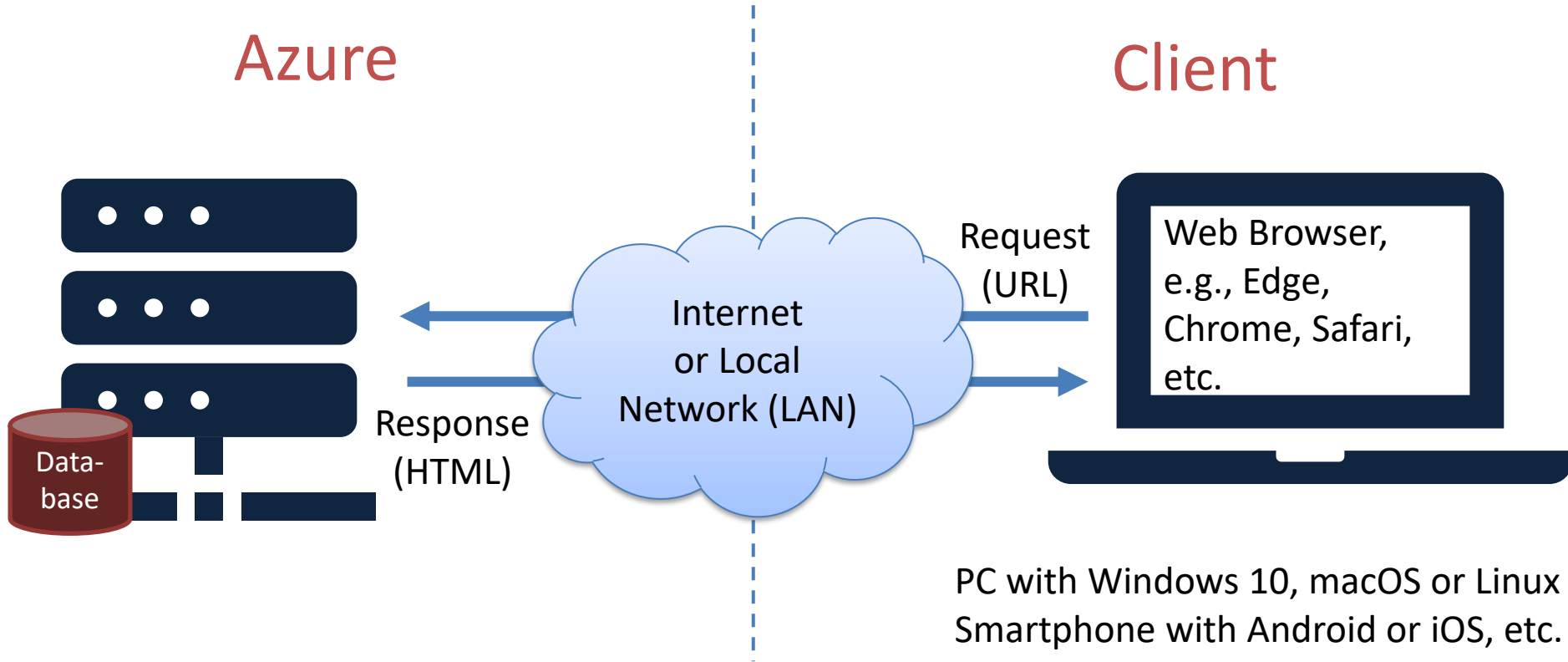
Server (either local or in the Cloud)



Web Pages and Web Applications

Azure

Client



PC with Windows 10, macOS or Linux
Smartphone with Android or iOS, etc.

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ASP.NET Core Web Application in Visual Studio

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-	The Hobbit	0-04-319732-9	McGraw-Hill	J.R.R Tolkien	Novel	Delete Book
-	Introduction to Algorithms	0-262-19402-1	MIT Press	Thomas H. Cormen Charles I. Leiserson Ronit Rubinfeld Seth Gilbert	Programming	Delete Book

Book Store

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BookApp

BookApp

- ASP.NET Core - Database CRUD Application
- YouTube: <https://youtu.be/k5TCZDwTYcE>
- Blog: <https://halvorsen.blog/>
- ASP.NET Core Resources:
https://halvorsen.blog/documents/programming/web/asp_net.php

<https://www.halvorsen.blog>

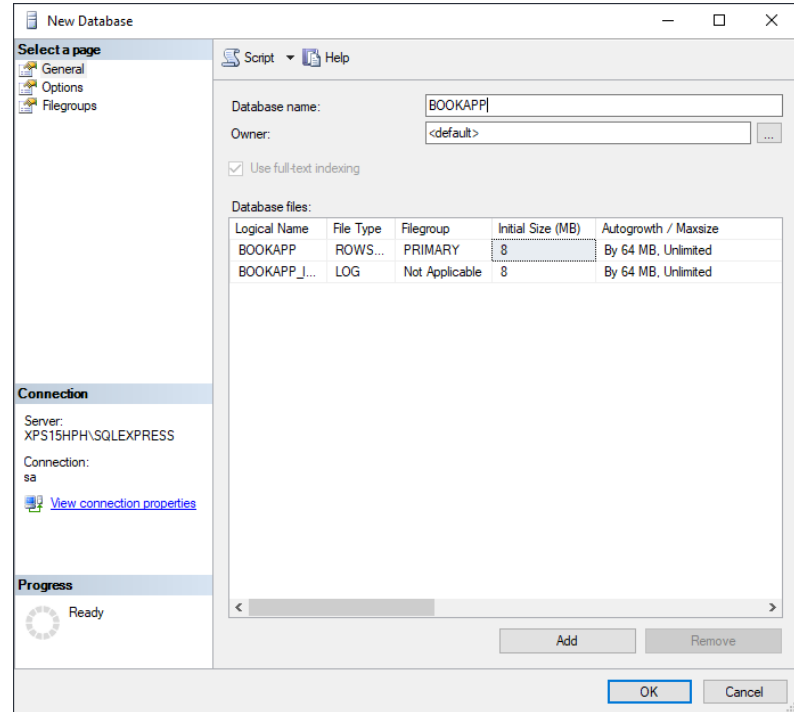


SQL Server

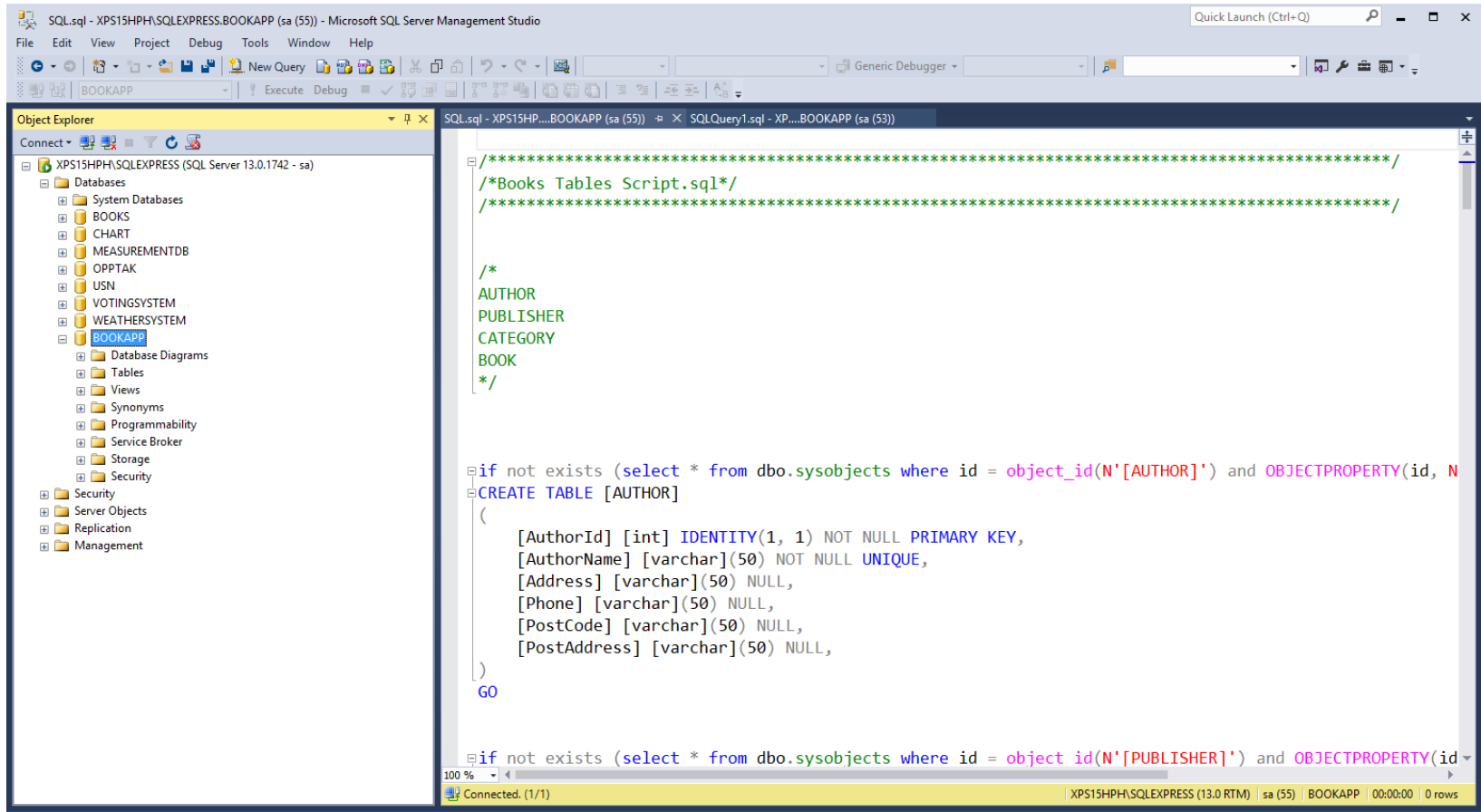
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Create Database

Use SQL Server Management Studio in order to create the Database



Create Tables, Views, Stored Procedures, etc.

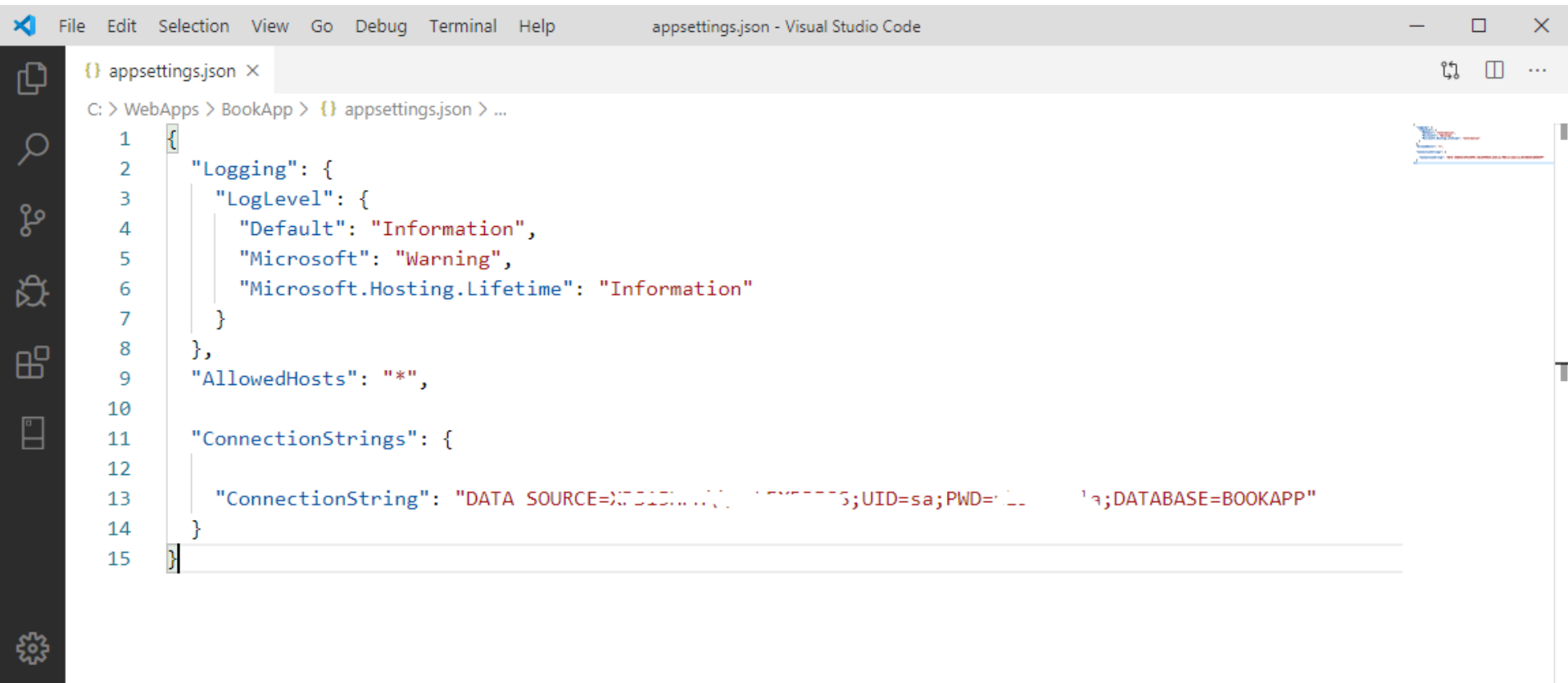


The screenshot displays the Microsoft SQL Server Management Studio (SSMS) interface. The left-hand pane shows the Object Explorer with the 'BOOKAPP' database selected under the 'XPS15HPH\SQLEXPRESS' server. The right-hand pane shows a SQL query window with the following script:

```
/*  
/*Books Tables Script.sql*/  
/*  
  
/*  
AUTHOR  
PUBLISHER  
CATEGORY  
BOOK  
*/  
  
if not exists (select * from dbo.sysobjects where id = object_id(N'[AUTHOR]') and OBJECTPROPERTY(id, N'  
CREATE TABLE [AUTHOR]  
(  
    [AuthorId] [int] IDENTITY(1, 1) NOT NULL PRIMARY KEY,  
    [AuthorName] [varchar](50) NOT NULL UNIQUE,  
    [Address] [varchar](50) NULL,  
    [Phone] [varchar](50) NULL,  
    [PostCode] [varchar](50) NULL,  
    [PostAddress] [varchar](50) NULL,  
)  
GO  
  
if not exists (select * from dbo.sysobjects where id = object_id(N'[PUBLISHER]') and OBJECTPROPERTY(id,
```

The status bar at the bottom indicates the connection is successful and shows the current database context: XPS15HPH\SQLEXPRESS (13.0 RTM) | sa (55) | BOOKAPP | 00:00:00 | 0 rows.

appSettings.json



The image shows a screenshot of the Visual Studio Code editor. The title bar at the top reads "appsettings.json - Visual Studio Code". The editor window displays the content of the "appsettings.json" file, which is a JSON configuration file. The file path in the breadcrumb is "C: > WebApps > BookApp > {} appsettings.json > ...". The JSON content is as follows:

```
1 {
2   "Logging": {
3     "LogLevel": {
4       "Default": "Information",
5       "Microsoft": "Warning",
6       "Microsoft.Hosting.Lifetime": "Information"
7     }
8   },
9   "AllowedHosts": "*",
10
11  "ConnectionStrings": {
12
13    "ConnectionString": "DATA SOURCE=XPB150117\\SQLSERVERS;UID=sa;PWD=1234567890;DATABASE=BOOKAPP"
14  }
15 }
```

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Deploy to Azure

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Azure

- **Azure Portal:**
<https://portal.azure.com>
- Create **SQL Database** in Microsoft Azure
- Create **App Service** (the service that hosts the Web Site, i.e., the Web Server) or in Visual Studio when deploying the Application to Azure

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