

# MVC 4.0, Part 08 of 11: Architecture

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**Meet the expert:** Don Kiely is a featured instructor on many of our SQL Server and Visual Studio courses. He is a nationally recognized author, instructor, and consultant specializing in Microsoft technologies. Don has many years of teaching experience, is the author or co-author of several programming books, and has spoken at many industry conferences and user groups. In addition, Don is a consultant for a variety of companies that develop distributed applications for public and private organizations.

**Prerequisites:** This course assumes that you are familiar and experienced with Microsoft's .NET Framework and ASP.NET development tools. You should be familiar with Web development and understand how HTTP and HTML work to produce Web pages for the user. You should have experience writing applications with ASP.NET 4.0 or later Web forms, and be familiar with how ASP.NET processes page requests, and have strong experience with .NET Framework 4.0 or later programming. You should have experience with Visual Studio 2012 for building Web application projects. Experience with building database applications using these tools will be helpful, although not strictly necessary.

**Runtime:** 01:10:27

**Course description:** In this course we'll explore some of these real-time communication options, including HTTP polling, HTTP long polling, server-sent events, and the news of the bunch, Web sockets. You'll also learn about Microsoft's response to this need with a variety of technologies, including the SignalR library. Next we'll explore two pieces of the basic ASP.NET infrastructure that are useful in some situations when building applications. The first is HTTP handlers and the other is HTTP modules, each of which are implemented as .NET classes that implement specific interfaces. An HTTP handler executes whenever a client makes a request for a certain path or file so that you can generate a response on the fly or retrieve resources from unusual places. An HTTP module executes with every client request, letting you implement various cross-cutting features in your application.

## Course outline:

### Real Time Communications

- Introduction
- Communication Models
- HTTP Polling
- HTTP Long Polling
- Server-Sent Events
- Web Sockets
- Communication with SignalR
- Programming and Communication
- Demo: Nuget Package
- Demo: Run App
- Demo: View App Code
- Demo: Global.asax
- Demo: Server and Client Side
- Demo: Chatter View
- Demo: JS Scripts
- Summary

- Demo: Views
- Demo: Image Handler
- Demo: Invoking the Handler
- HTTP Modules
- Demo: HTTP Module
- Demo: MiniProfiler
- Demo: MiniProfiler File
- Demo: Code for Module
- Summary

### HTTP Handlers and Modules

- Introduction
- HTTP Handlers
- Synchronous and Asynchronous
- What is Reusable
- Demo: Overview of App
- Demo: Home Controller