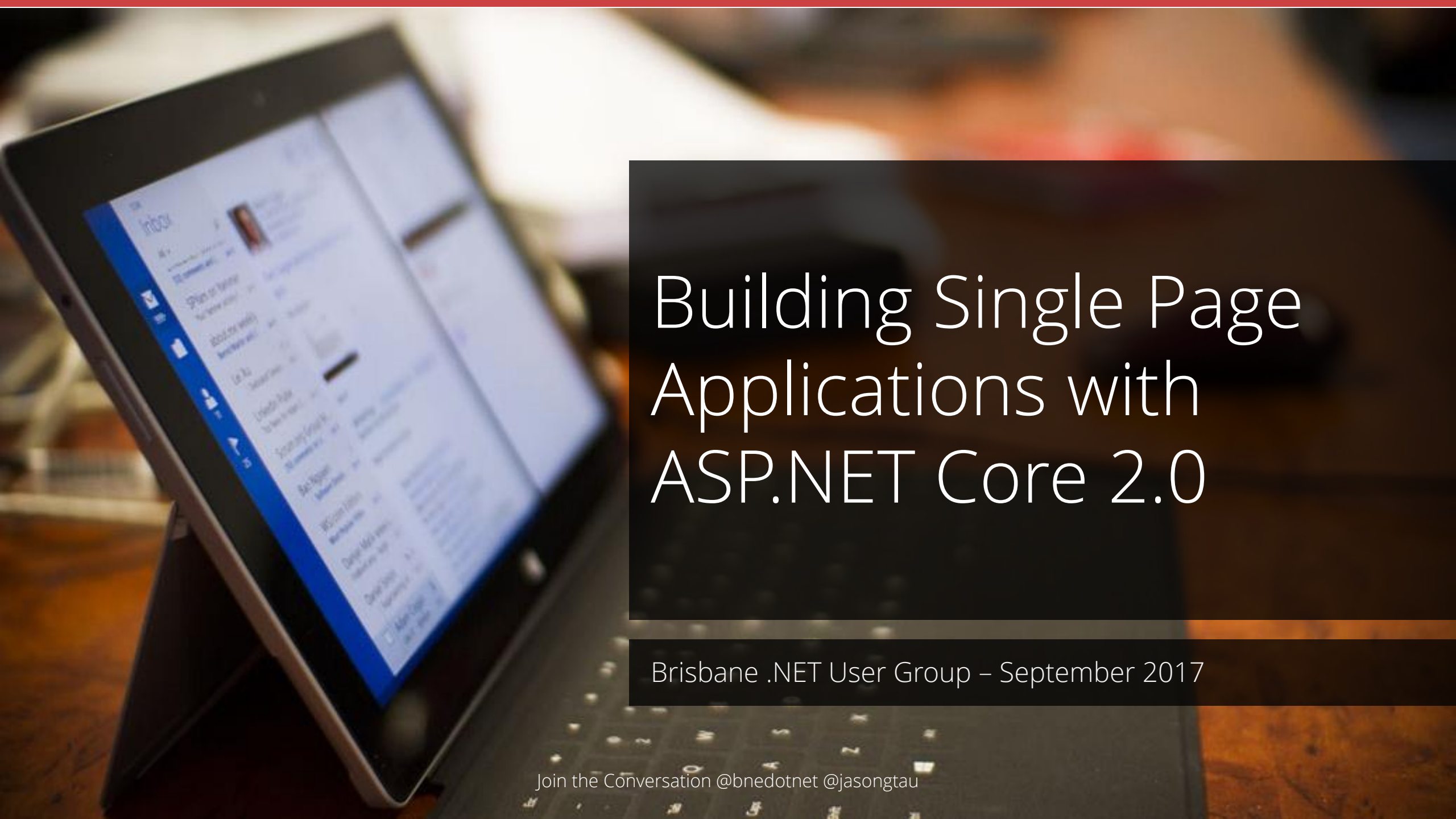
Enterprise Software Development

Join the Conversation @bnedotnet @jasongtau



Building Single Page Applications with ASP.NET Core 2.0

Brisbane .NET User Group – September 2017

Join the Conversation @bnedotnet @jasongtau

Jason Taylor

SSW Solution Architect

Master of Information Technology

Microsoft Certified Solutions Developer

Certified Scrum Master (CSM)

@JasonGtAu

codingflow.net

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SignalR for ASP.NET Core 2.0

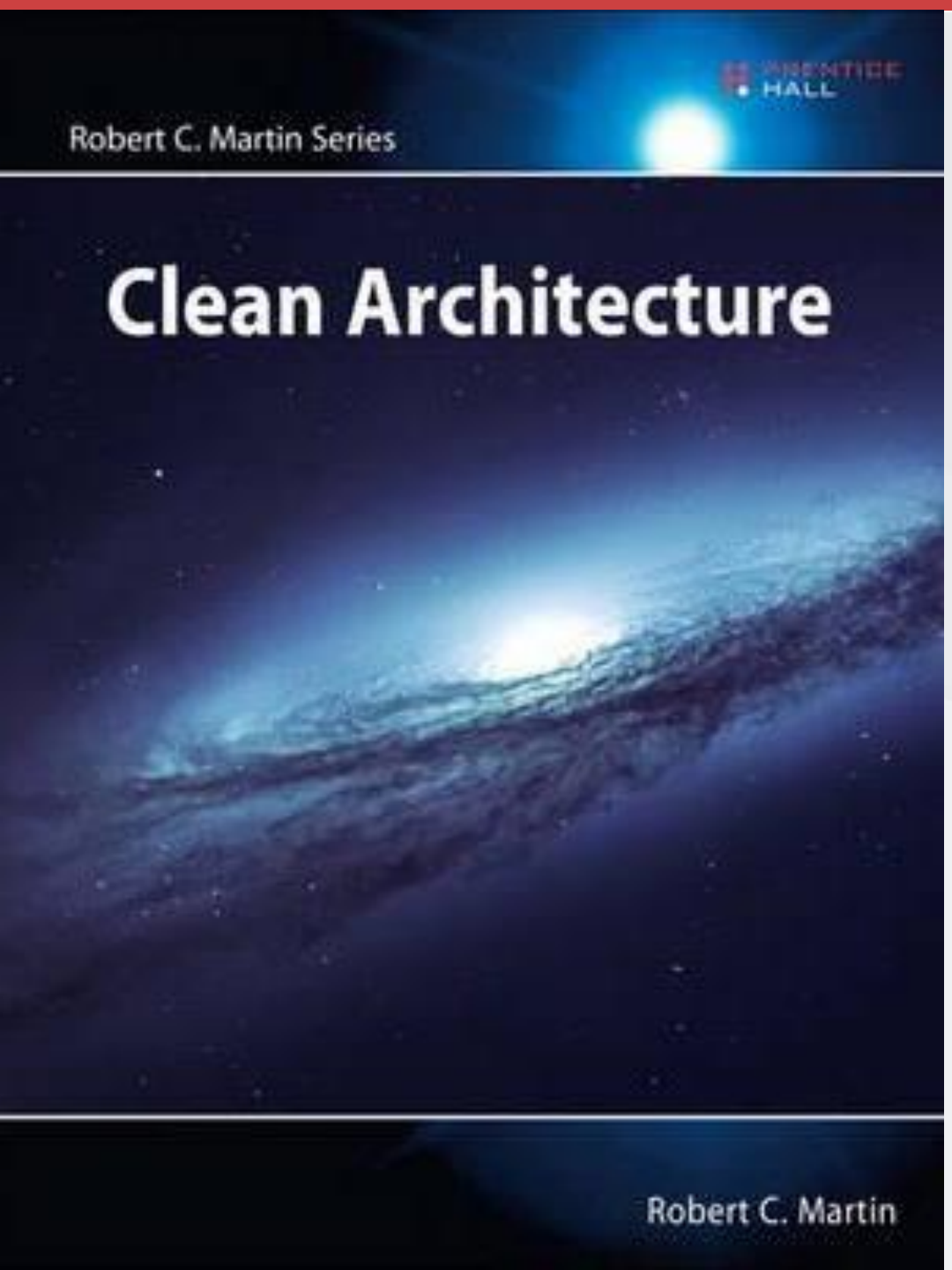
Incredibly simple real-time web for .NET

Rewrite of original SignalR

JavaScript/TypeScript Client – no more jQuery

Distributed as an npm module

Learn more; bit.ly/signalr-aspnetcore2



Clean Architecture

Independent of frameworks

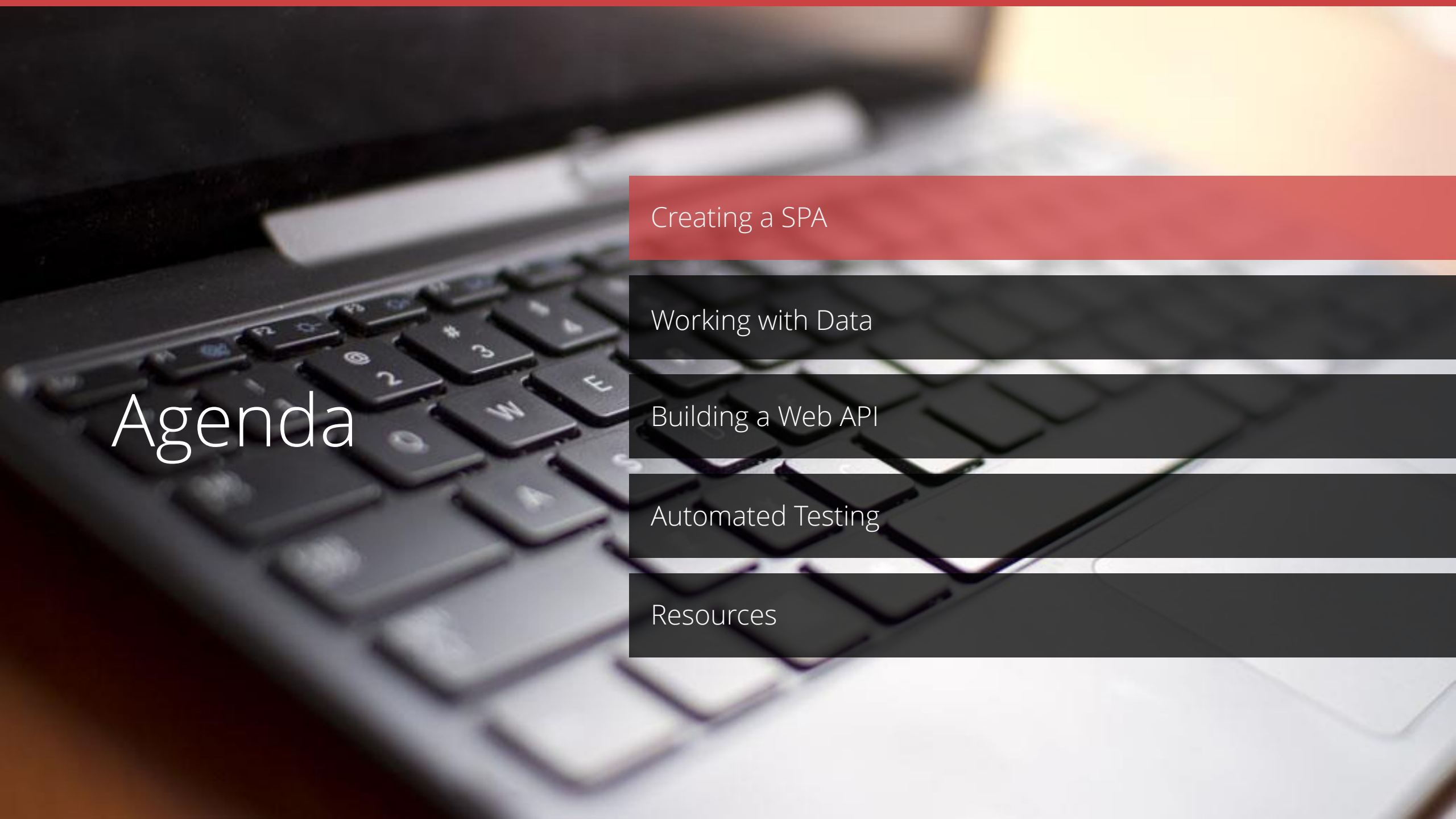
Testable

Independent of UI

Independent of database

Independent of external agency

bit.ly/clean-architecture-book



Agenda

- Creating a SPA
- Working with Data
- Building a Web API
- Automated Testing
- Resources

ASP.NET Core JavaScript Services

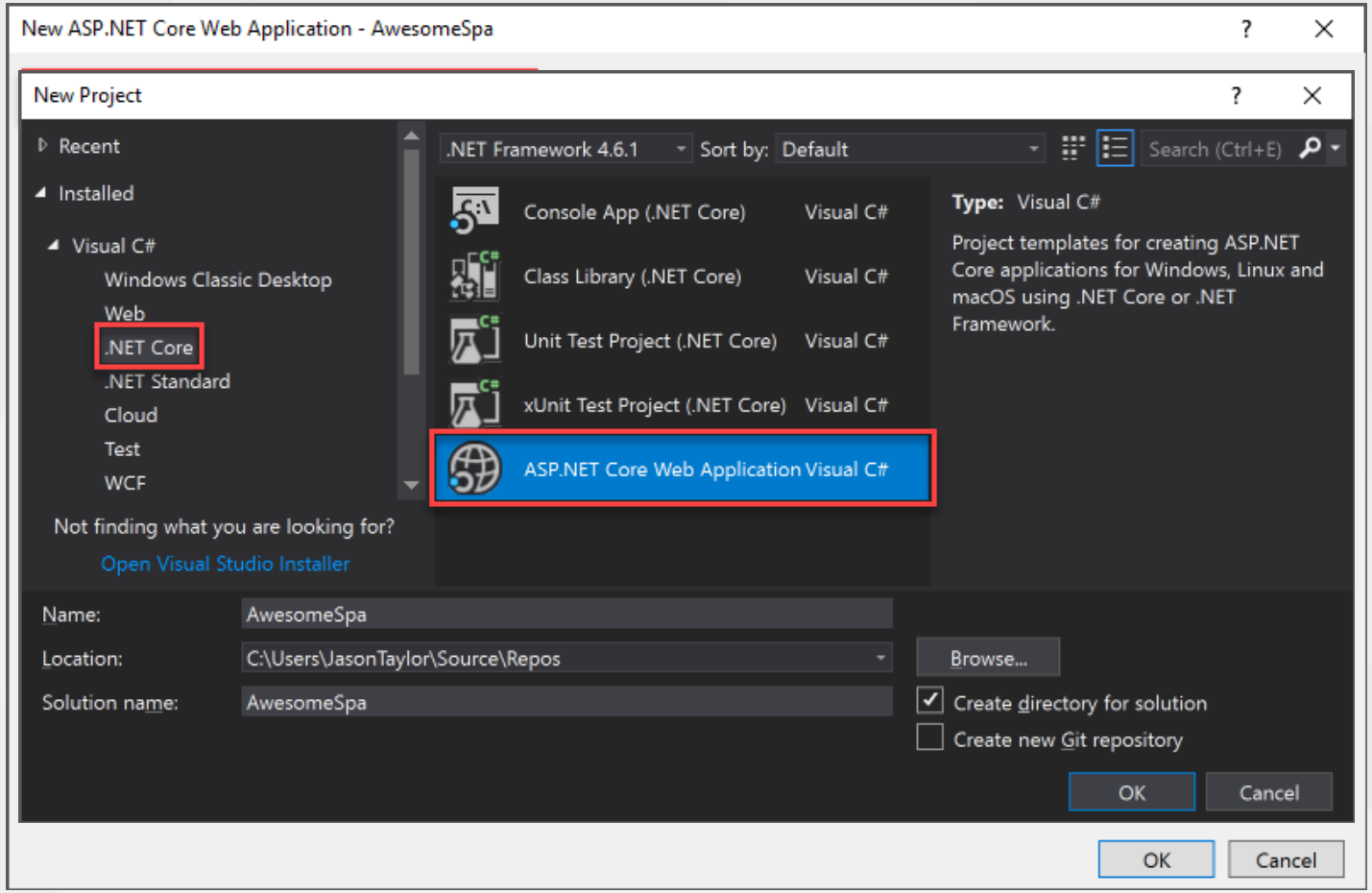
ASP.NET Core has built-in support for SPA

Supports all major client-side frameworks

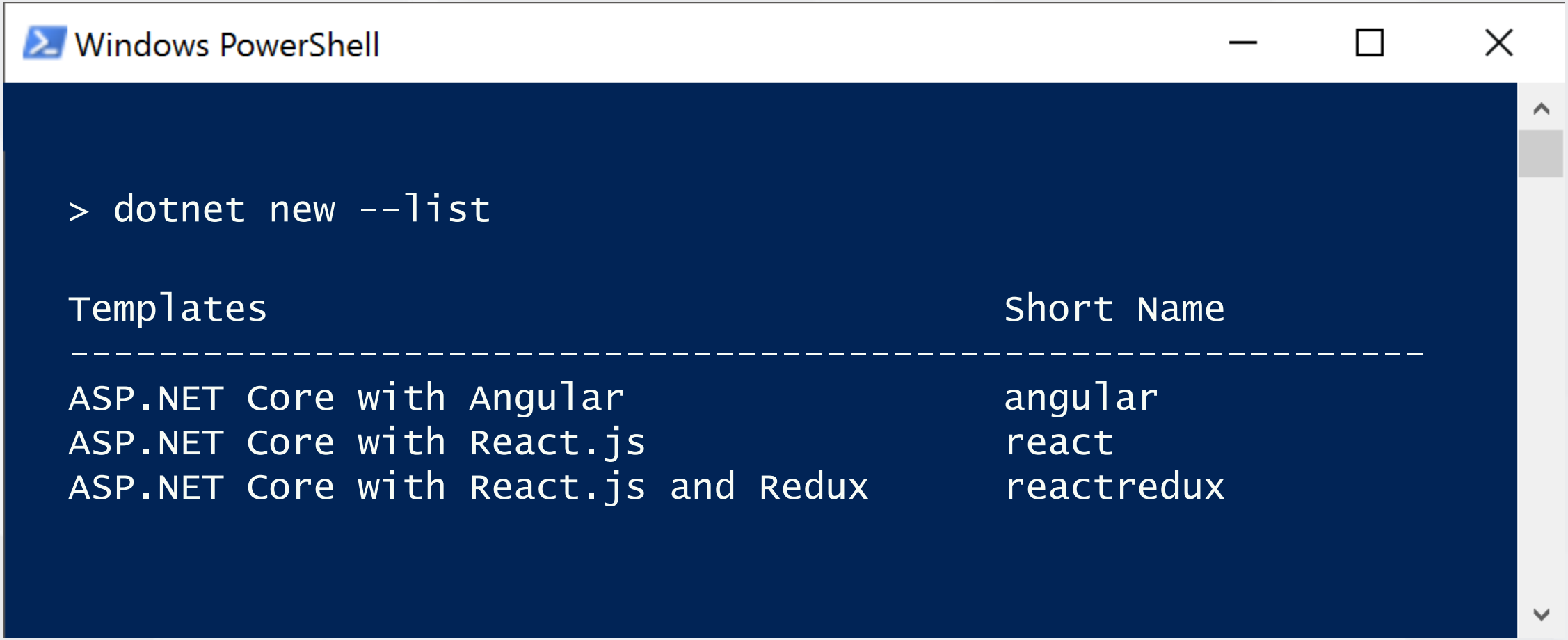
Cross-platform Windows, Mac, or Linux

Use your preferred IDE or code editor

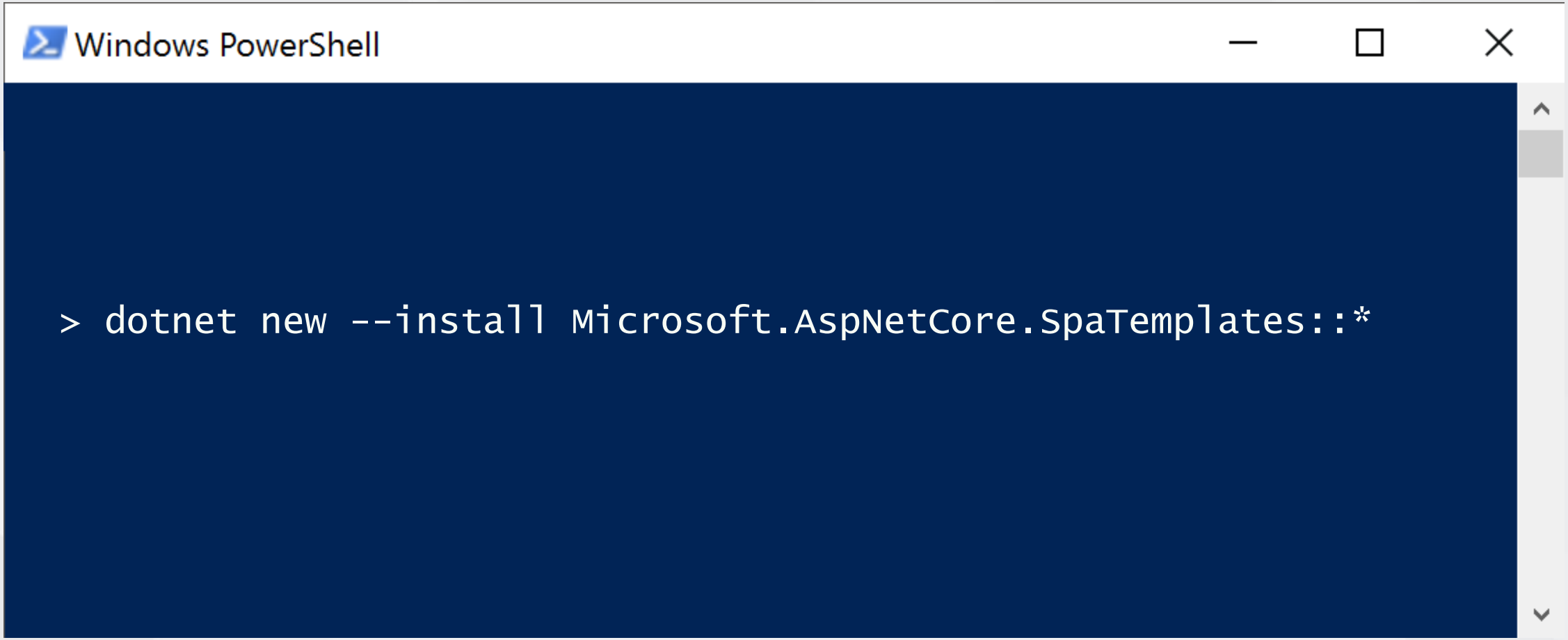
Using Visual Studio 2017



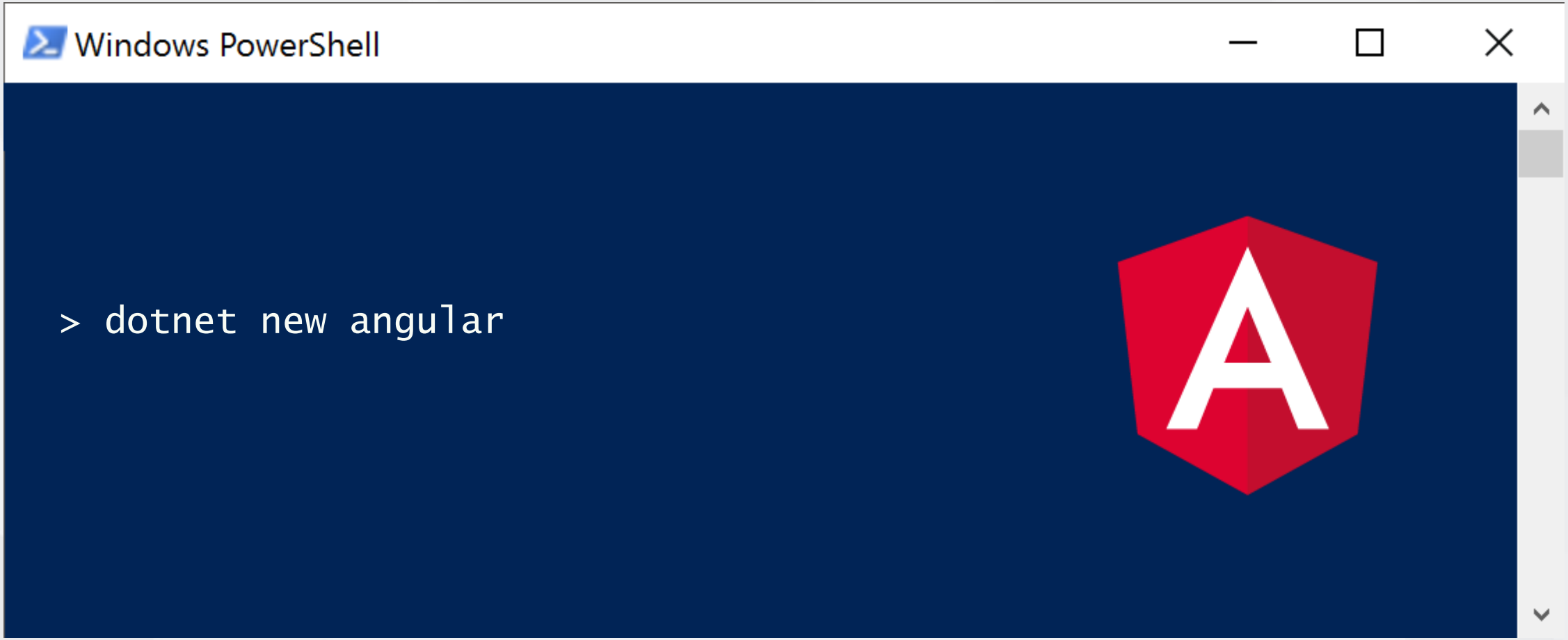
Using .NET Core CLI



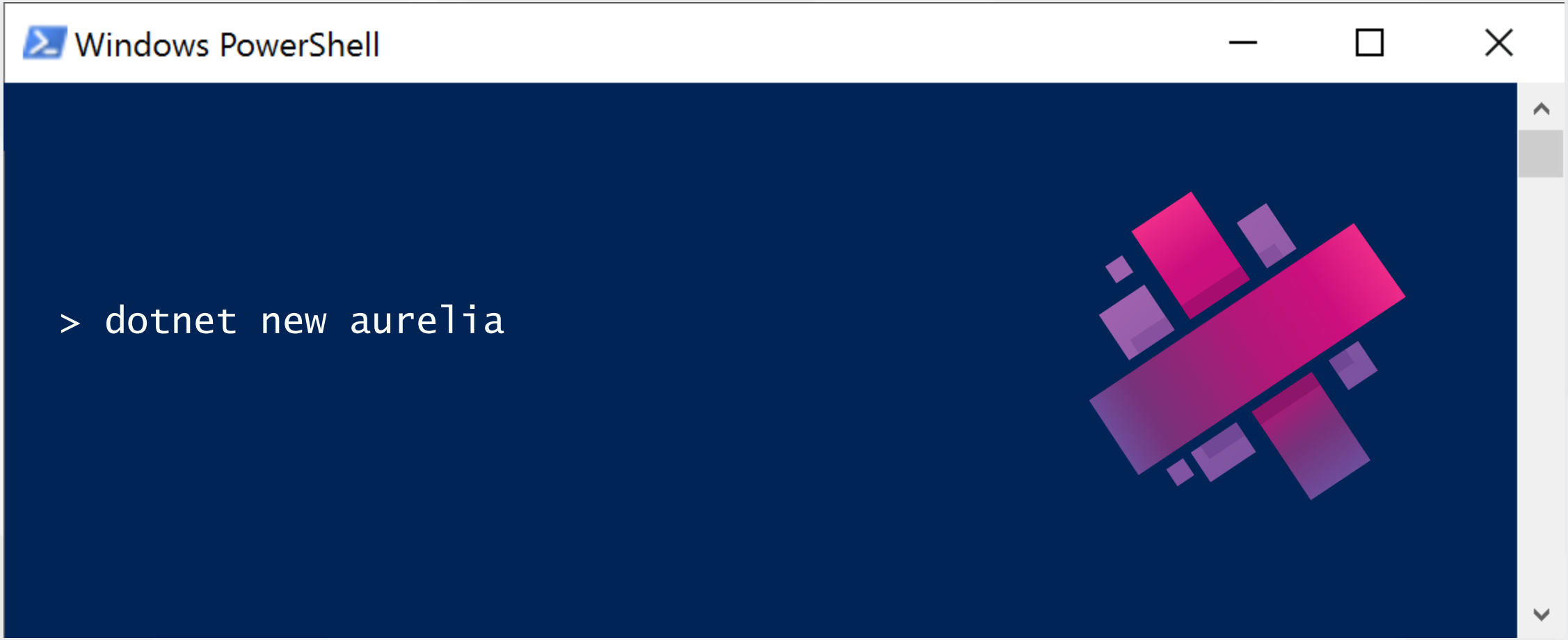
Additional Templates



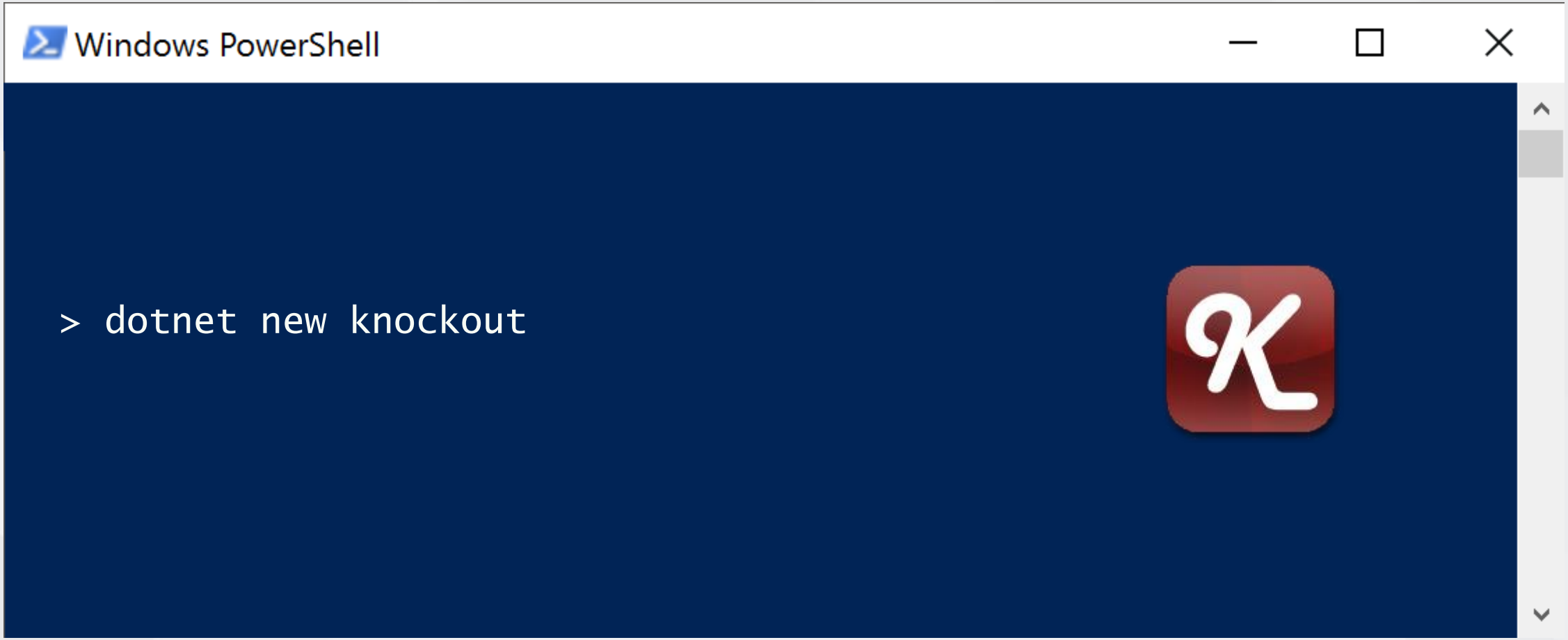
Angular + ASP.NET Core



Aurelia + ASP.NET Core



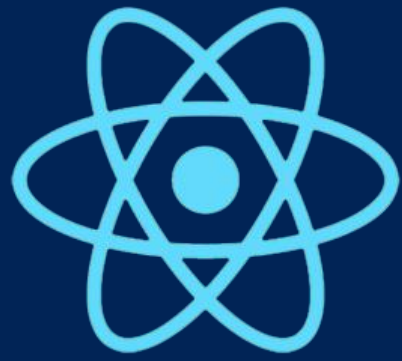
Knockout + ASP.NET Core



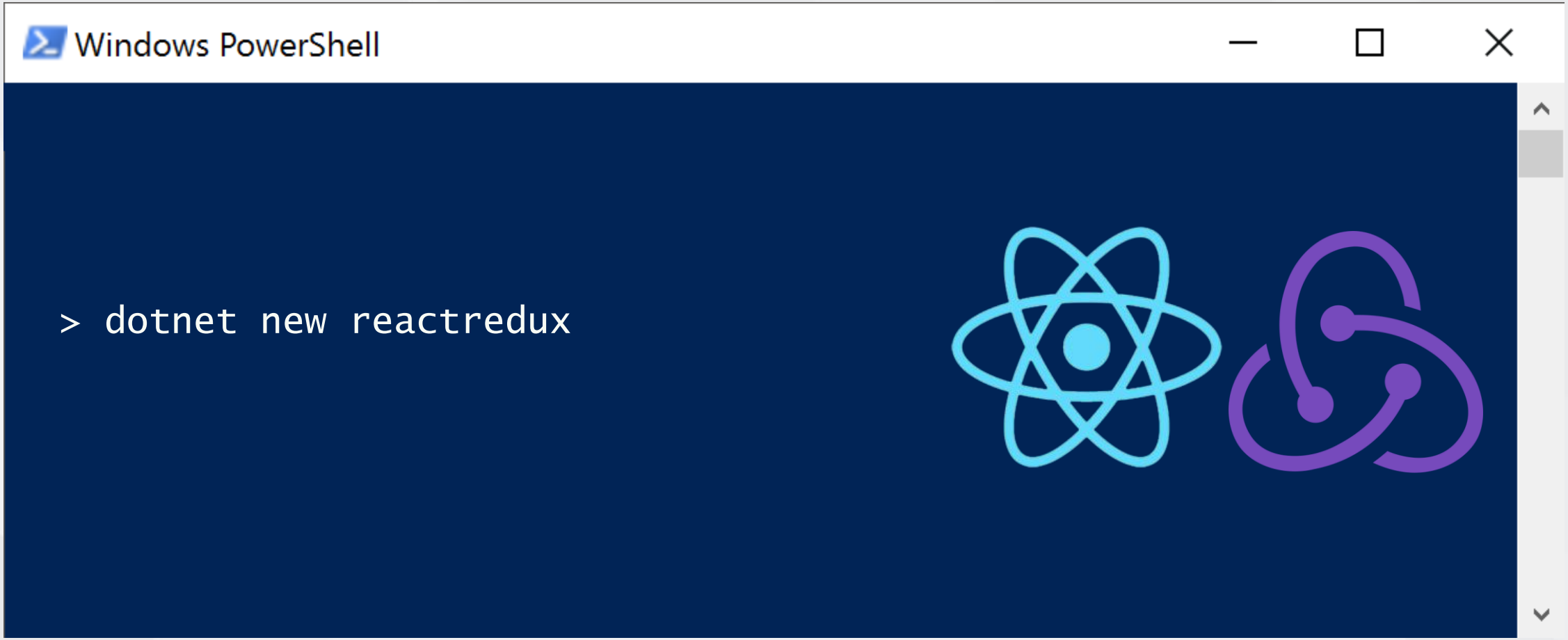
React + ASP.NET Core

Windows PowerShell

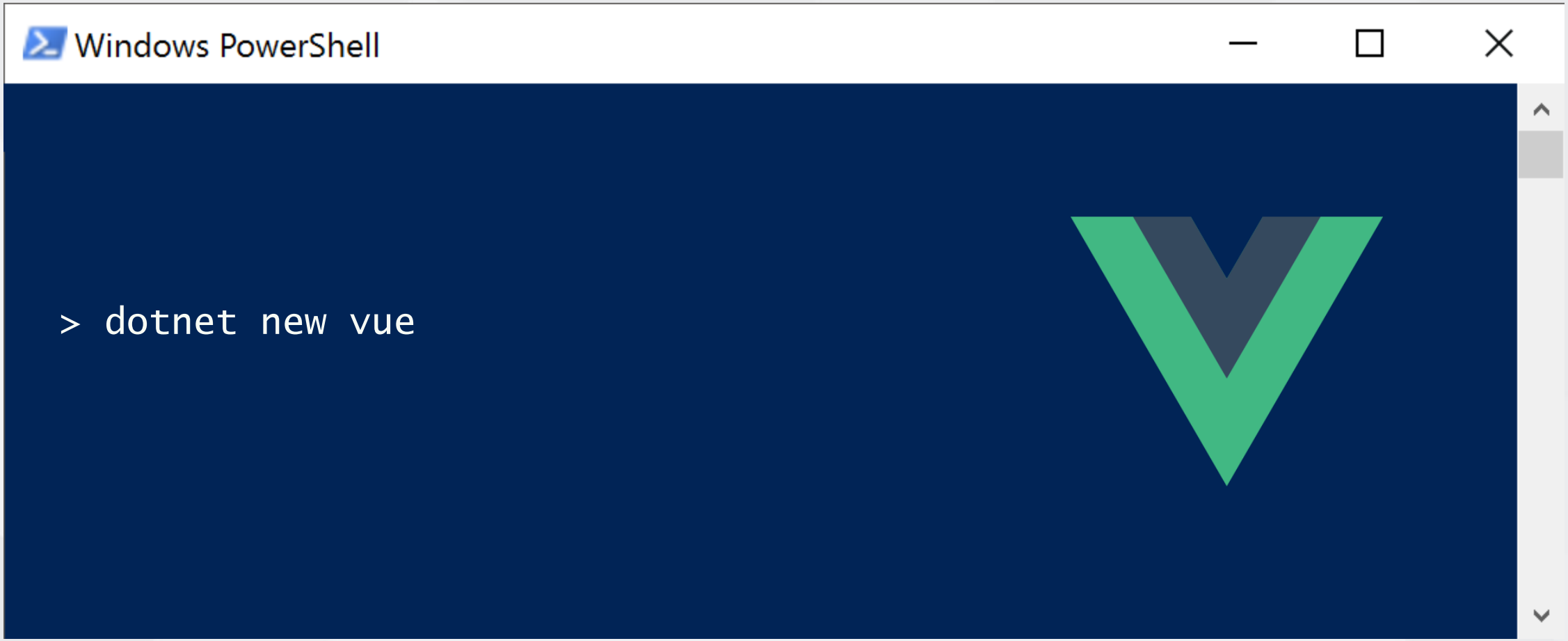
```
> dotnet new react
```



React + Redux + ASP.NET Core



Vue + ASP.NET Core



Demo: Creating a SPA

Building single page applications with ASP.NET Core

Summary

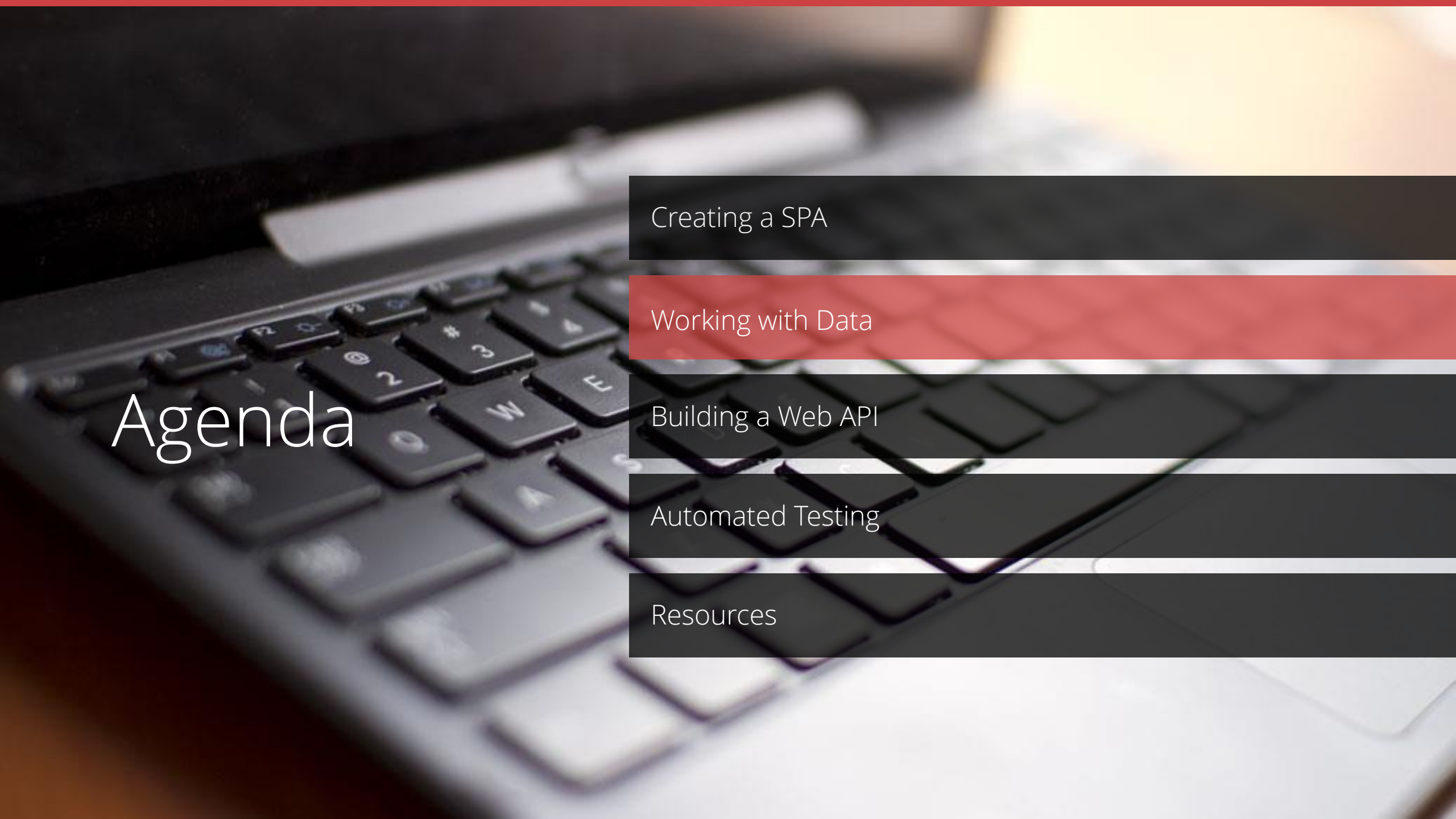
Creating a SPA using .NET Core CLI

Server-side + client-side navigation

Webpack dev middleware

Hot module replacement (HMR)

.NET Core Watcher tool



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Entity Framework Core

Lightweight, extensible, and cross-platform

Runs on .NET Core or .NET Framework

Choosing between EF6.x and EF Core (bit.ly/ef6-vs-core)

Porting from EF6.x to EF Core (bit.ly/ef6-to-core)

EF Core Roadmap (bit.ly/efcore-roadmap)

Demo: Working with Data

Create and managing databases using EF Core and .NET Core CLI

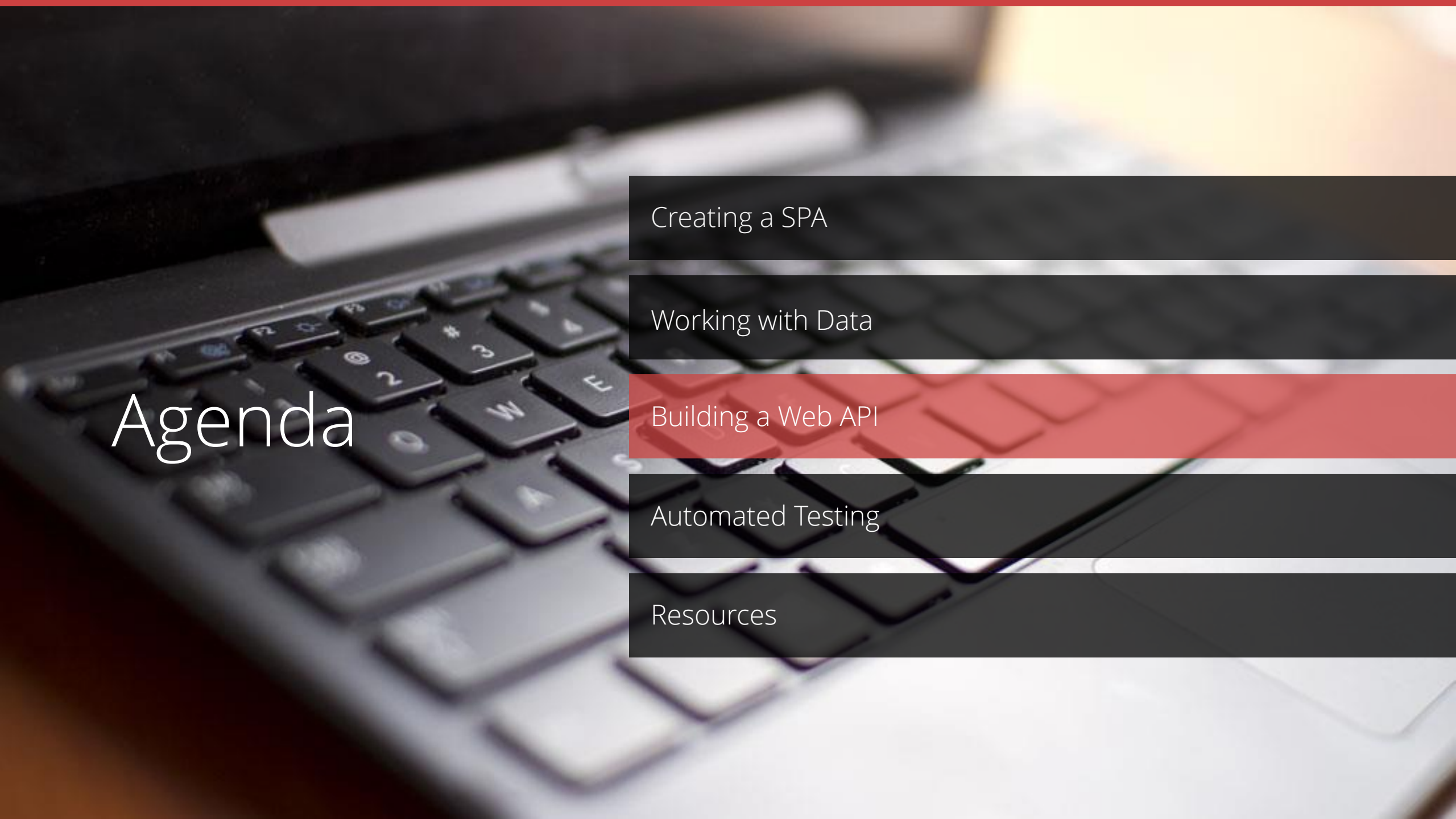
Summary

Requirements for the EF Core / .NET Core CLI tools

Creating an initial migration

Updating the database

Seeding the database



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Demo: Building a Web API

Creating an awesome ASP.NET Core Web API

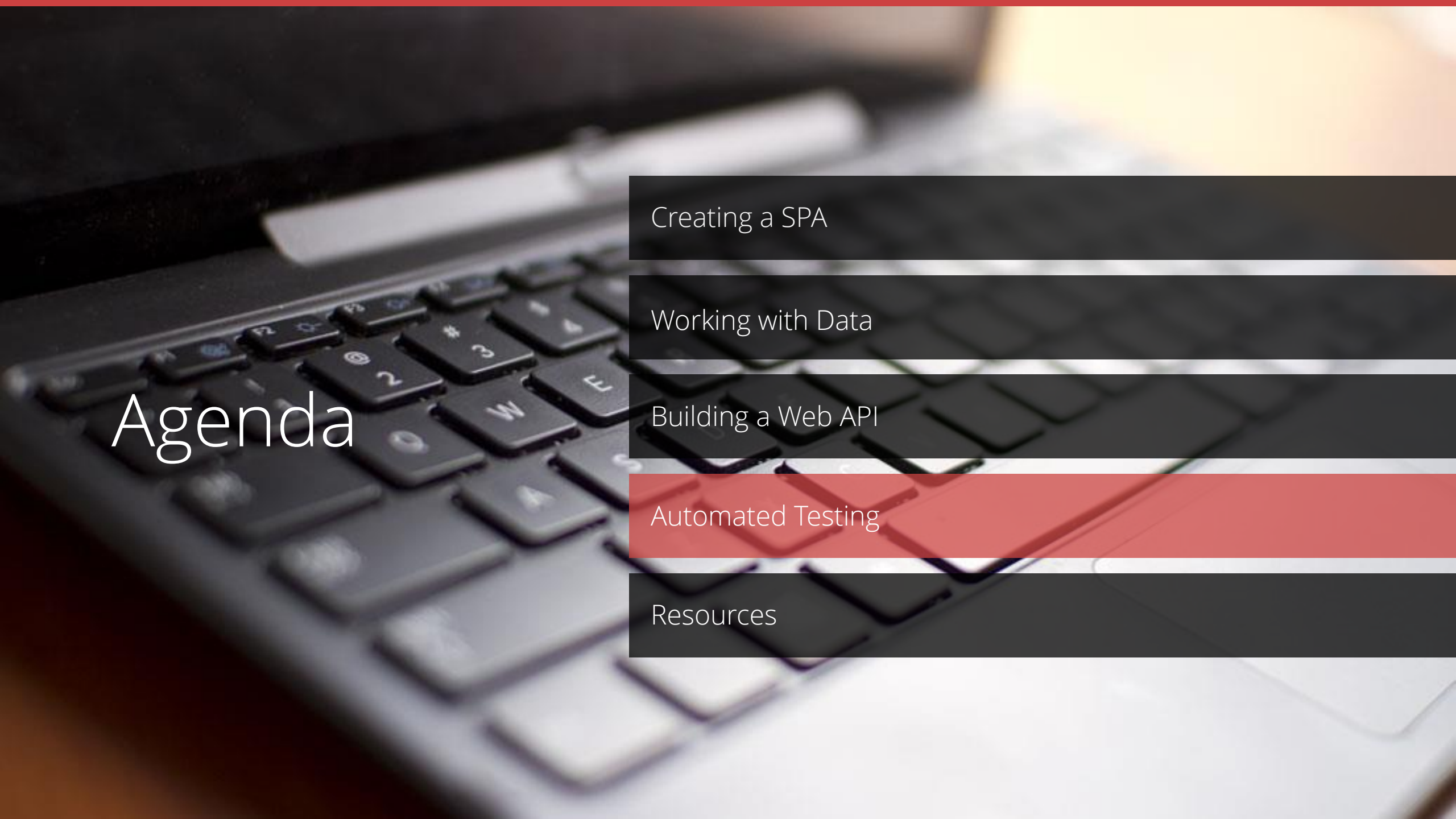
Summary

Using CQRS to improve separation of concerns

Using filters to manage cross-cutting concerns

Documenting your API using NSwag

Generating client-side code with the NSwag CLI



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EF Core InMemory Provider

Just a database provider

Uses in-memory database

Built for testing purposes

No overhead of I/O operations

Lightweight with minimal dependencies

Demo: Unit Testing

Creating simple unit tests using the EF Core InMemory provider.

Summary

Using the EF Core InMemory provider

A simple approach for testing commands

A simple approach for testing queries

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SSW .NET Core Dev Superpowers Tour – Melbourne – Thursday, 19th October 2017

DURATION
1 Day

PRICE
$49 inc GST

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FRI, 20TH OCTOBER 2017
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Hosted by SSW

.NET Core is out and it's the most powerful and flexible version ever!

Much of the day-to-day code you write will be the same...but much of the architecture and how your project fits together has changed

Jason Taylor

Jason is a passionate solution architect with over 16 years professional experience. He has worked with .NET since 2001, and currently specialises in teaching and developing enterprise applications utilising .NET Core, ASP.NET Core, EF Core and Angular. He achieved a Master of Information Technology (Software Architecture) in 2011 and Microsoft Certified Solutions Developer (Web Applications) in 2016. Jason loves a challenge and is skilled at progressing

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The demo code and slides for my Building Single Page Applications with ASP.NET Core presentation.

Edit

single-page-applications asp-net-core clean-architecture Manage topics

11 commits 1 branch 0 releases 1 contributor MIT

Branch: master New pull request

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JasonGT Finished tests for application layer. Latest commit 431dfb6 2 days ago

.vscode	Added presentation layer.	7 days ago
Northwind.Application.Tests	Finished tests for application layer.	2 days ago
Northwind.Application	Implementated CQRS	6 days ago
Northwind.Domain	Completed domain and added customers controller.	6 days ago
Northwind.Persistance	Added swashbuckle.	6 days ago
Northwind.Presentation	Changed fetchdata component to use generate sample data service and m...	2 days ago
.gitignore	Initial commit	7 days ago
LICENSE	Initial commit	7 days ago
README.md	Initial commit	7 days ago

Slides & Code - bit.ly/spa-aspnetcore2

README.md

Thank you!

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