Writing Integration Tests for ASP.NET Core UI Apps

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Overview

Discussing similarities and differences between API and UI applications

Testing expected URLs for pages

Testing HTML content using AngleSharp

Testing dynamic page content

Comparing APIs and UI Applications

Comparing APIs and UI Applications

API Applications

Designed for application consumers

Structured contract

Rely on status codes

Use headers to exchange metadata

Return serialised content

UI Applications

Designed for human users

Return HTML
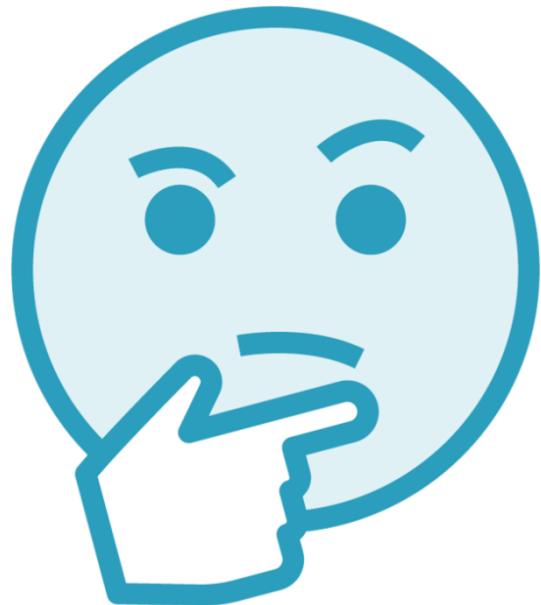
Design elements may change often

Also rely on status codes

Use cookies for transferring state

UI Testing Challenges

HTML content must be parsed

Potential for brittle tests

Content may require authorization

Security features add complications

Focus UI testing to critical behavior.
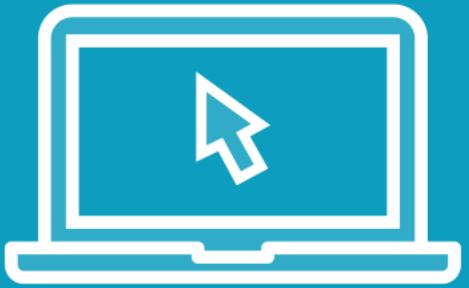
Plan

Establish a foundation and techniques for testing UI applications by covering common testing scenarios and strategies.

Demo

Touring the integration test project

Exercise Files
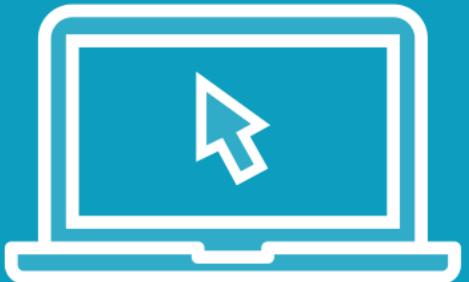
Download the course exercise files to follow along!

Ensure your tests do not run against production data!

Demo
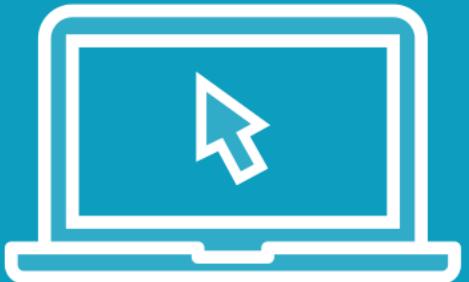
Add integration tests for the Tennis Booking web application

- Validate that pages return expected responses

Demo

Testing HTML content
- Add a library to parse HTML
- Write a test to validate content

Demo
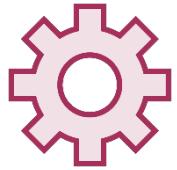
Testing dynamic HTML content
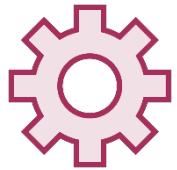
- Test conditional page content, controlled by configuration
- Provide application configuration during integration testing
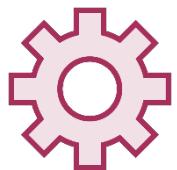
Configuration Combinations
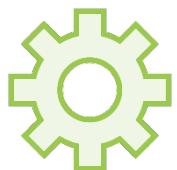
Globally disabled and disabled on home page = Do not show forecast

Globally enabled and disabled on home page = Do not show forecast

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Globally enabled and enabled on home page = Show forecast

Configuration Providers

Configuration providers read configuration data from key-value pairs using a variety of configuration sources.

Using Configuration and Options in .NET Core and ASP.NET Core Apps

by Steve Gordon

This course will teach you everything you need to know about using configuration and options in ASP.NET Core. The skills you will learn will help you to build complex ASP.NET Core applications which can be configured from multiple sources.

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Course author

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Course info

Level	Intermediate
Rating	★★★★★ (86)
My rating	★★★★★
Duration	2h 10m
Released	23 Sep 2019
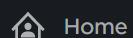
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▶ Getting Started with Configuration Concepts	🔖	34m 48s	⌄
▶ Applying the Options Pattern	🔖	54m 41s	⌄
▶ Working with Configuration Providers	🔖	38m 43s	⌄

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Use the in-memory configuration provider to control application configuration during testing.

Summary

Confirmed existence of pages for URLs

Used AngleSharp to parse HTML content

Tested dynamic page content

Overrode application configuration

Up Next:
Testing Advanced Requirements in
ASP.NET Core UI Applications