Feature Flag Fundamentals with Microsoft Feature Management

GETTING STARTED WITH MICROSOFT FEATURE MANAGEMENT

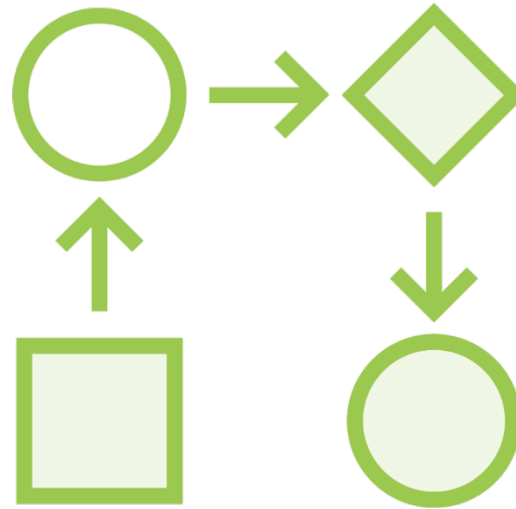**Jason Roberts**
.NET DEVELOPER

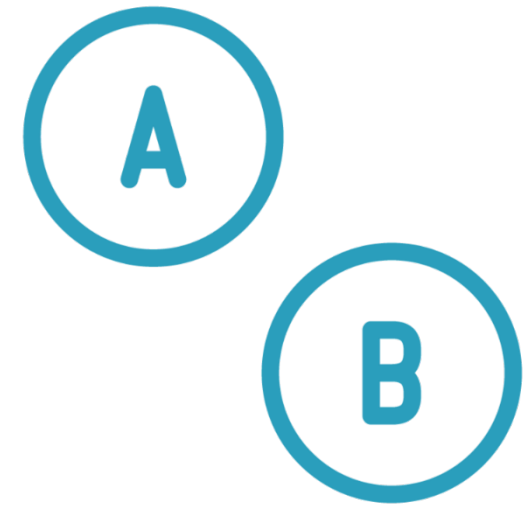@robertsjason   dontcodetired.com

Reduce production deployment risk

Increase software development process flexibility

A/B testing in production

Course Overview

Getting Started with Microsoft Feature Management

Configuring and Using Feature Flags in ASP.NET Core Apps

Controlling Feature Flag Consistency across Multiple ASP.NET Core Requests

Understanding and Using Feature Filters

Creating Custom Feature Filters

Controlling Feature Flags with Azure App Configuration

Overview

- Benefits and uses of feature flags

- An overview of Microsoft Feature Management

- Getting started with Microsoft Feature flags

- Configuring feature flags in-memory

- Configuring feature flags in an external configuration file

- Feature flag considerations

Feature Flags

A technique that allows the modification of a deployed application's behavior, without changing code or deploying a new version of the application.

Feature flags.
Feature toggles.
Feature switches.
Feature flippers.
Conditional features.

Benefits and Uses of Feature Flags

Enable & disable features at runtime

Revert changes to features without rollback

"Instantly" hide a faulty feature

A/B testing in production

Rollout features gradually

Selective feature activation (e.g. by browser)

Beta feature access to specific users/groups

User opt-in to beta features

Reduce branching/merging complexity

Feature release != code deployment

An Overview of Microsoft Feature Management

Feature (on/off)

Configuration (local/remote) (e.g. Azure App Configuration)

Feature filters (additional logic to determine on/off)

Multiple .NET app types (via NuGet)

Additional ASP.NET Core support (e.g. Tag Helper)

Feature Flag Considerations

Additional dependencies/complexity

Additional learning by development team

Feature flags need to be removed in future

Additional testing considerations

Additional configuration to be managed

Do not reuse/repurpose feature flags

Summary

Benefits and uses of feature flags

- Rollout features gradually
- A/B testing in production

An overview of Microsoft Feature Management

Microsoft.FeatureManagement NuGet

FeatureManager.IsEnabledAsync(...)

Configuring feature flags in-memory

appsettings.json

Feature flag considerations

- Additional testing considerations
- Feature flags need to be removed

Up Next:
Configuring and Using Feature Flags in
ASP.NET Core Apps