Rules Engine with .NET

cc

.NET

.NET is a free & modern open-source cross-platform framework

.NET updated with improvements & features each year

.NET with C# for modern software development

.NET for apps on any device & platform

dot.net

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Console

Console App to create command-line applications with .NET

Standard Output for displaying information to users

Standard Input from users such as keyboard input

Designed for single-window utility applications

.NET desktop development workload

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Blazor

Blazor for full-stack web applications without JavaScript in .NET

Blazor is a front-end framework based on HTML, CSS & C#

Components in browser, server or native applications

ASP.NET and web development workload

blazor.net

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What is a Rules Engine?

Overview

Rules Engine defines actions based on Conditions

Conditions could be configurable at runtime

Prevent coupling code to use cases

Requirements can or will change

Consolidate business logic

Source: How to Design Software - Rules Engines by Joseph Gefroh - link.medium.com/IryJavuhznb

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Components

Rules Engine checks any inputs against one or more Rules

Rules are a policy with Triggers, Conditions & Effects

Triggers determine if a Rule should be performed

Conditions perform checks that will Pass or Fail

Effects are outcomes when Conditions met

Source: How to Design Software - Rules Engines by Joseph Gefroh - link.medium.com/IryJavuhznb

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Microsoft Rules Engine

Overview

Microsoft Rules Engine open-source .NET Library

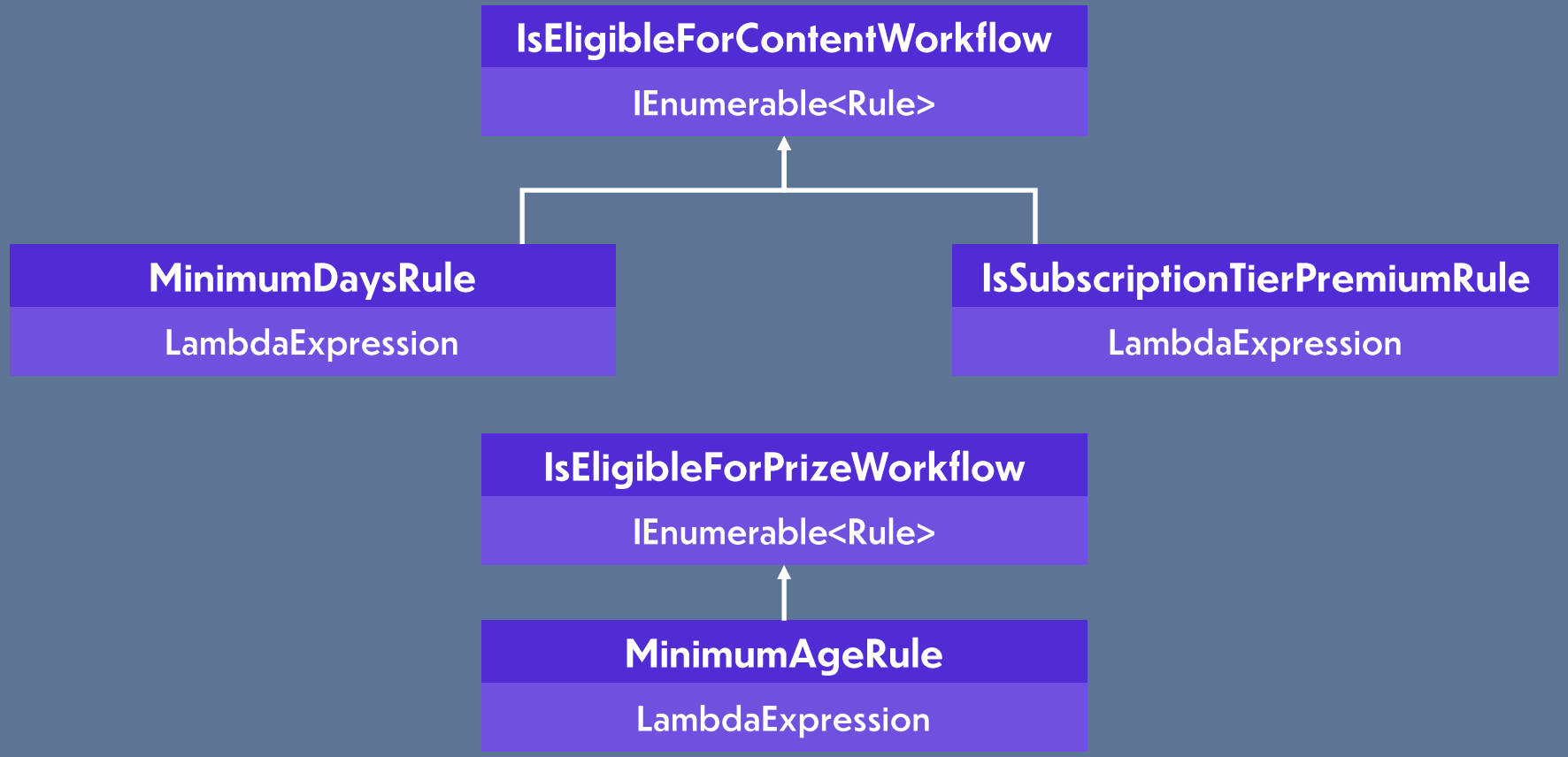
JSON based Rules using dynamic expressions

Supports multiple & dynamic object input

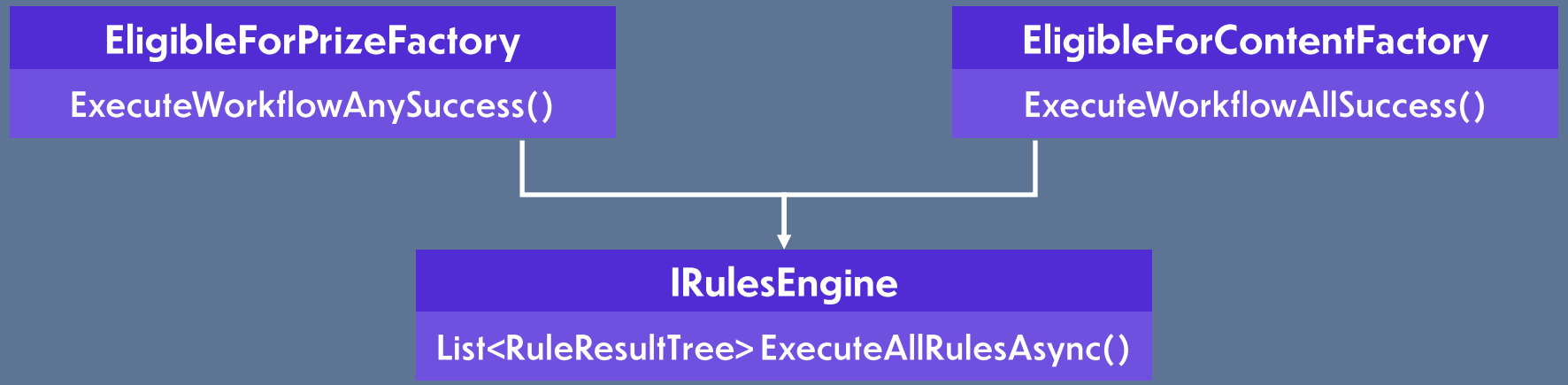
Extend expressions via custom injection

github.com/Microsoft/RulesEngine

Workflows & Rules



Engine & Factories



Results & Outcome

RuleResultTree
Rule Rule
bool IsSuccess
IEnumerable<RuleResultTree> ChildResults
Dictionary<string,object> Inputs
ActionResult ActionResult
string ExceptionMessage

Demo

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Summary

.NET for building modern apps & services for any platform

Rules Engines define Conditional actions as Rules

Evaluate any Rules with one or more Conditions

Perform Outcomes when Conditions are met

Leverage Microsoft Rules Engine Library

About

How to Design Software – Rules Engines
link.medium.com/IryJavuhznb

dot.net
blazor.net
github.com/Microsoft/RulesEngine

tutorialr.com/talks/rules-engine-with-dot-net
github.com/tutorialr/rules-engine-with-dot-net-talk