Business Rule Engine

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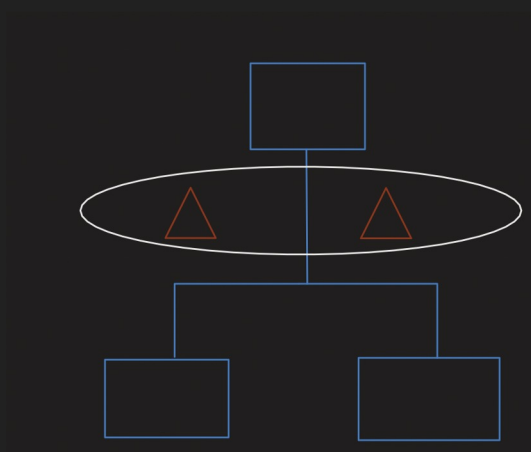
Background

QTC (Quality, Timeliness, Customer Service) handles all medical, disabilities, or occupational health services through a medical focused examination and diagnostics test. They needed a dashboard in order to investigate errors from different data sources and they needed a rule engine to quickly classify information.

Objective

The system will be receiving the "ExecuteRules" request which will contain the name of the rules that are to be executed. The Engine will then execute the rule accordingly and determine the appropriate outcome with the processes it goes through. After which, either the result will be returned to the user or another rule will be executed recursively depending on the outcome.

Data



This diagram depicts the structure of a rule and expression, the rule (blue) starts with a rule at the top and can evaluate to rule/output. An expression (white) handles the logic of each rule.

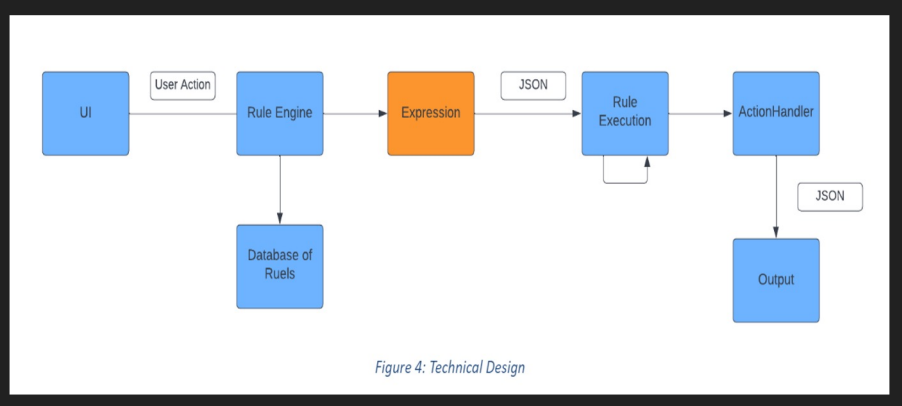


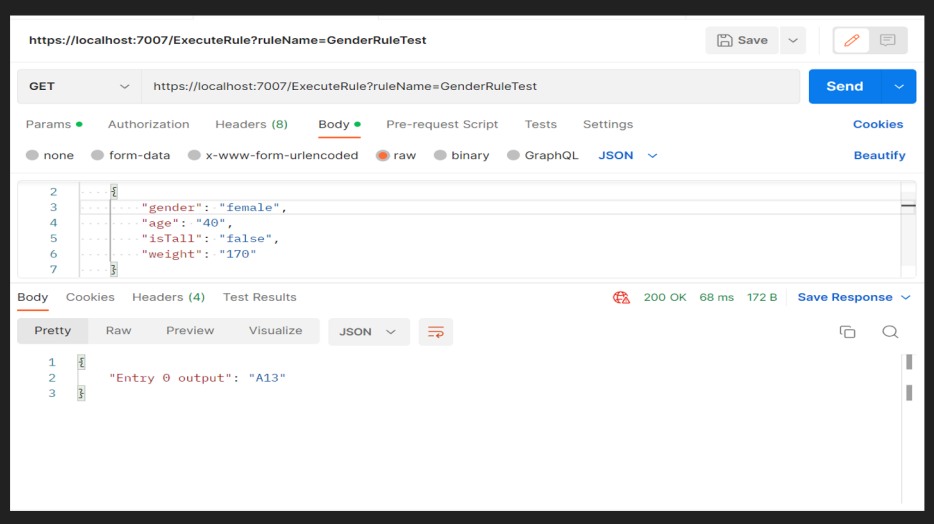
Figure 4: Technical Design

This diagram depict a technical diagram of the Business Rule Engine.

Result



The rule engine is designed to be able to add/remove rules and expressions as well as execute rules by using the following commands.



This is an example of an output of the rule engine given one item.

Tools and Technologies

GitHub, C#, Visual Studio, Microsoft ASP.NET, Azure, Bootstrap, HTML5, CSS3, JS, Microsoft SQL Server