

JRules v7 Authoring and Deployment Demo Audio Script

Introduction

Welcome to this IBM WebSphere ILOG JRules demonstration. This video will use a real-world scenario to show you the strengths of the WebSphere ILOG JRules Business Rule Management System, also known as the JRules BRMS. You will see how it allows organizations to easily adapt the behavior of business systems as their business policies and decision requirements evolve, making change a competitive advantage.

This demonstration is based on a fictional car insurance company whose aim is to provide a highly customized car insurance quotation online from its website. You will see how the JRules BRMS can automate decision making for Data validation, Eligibility and pricing in a car insurance underwriting process.

The quotation process is composed as follows:

After submitting the application data through the web interface, data validation rules are applied to ensure that the data are compliant with the requirements of the underwriting system.

Once validated, eligibility rules will evaluate the risk associated to the applicant. If the risk is too high, the application will be rejected and the applicant will be notified.

If the applicant is eligible for insurance, the rules-based system will automatically estimate a quote based on a set of pricing rules.

In this section, we will see how a prospective customer can apply for car insurance using the company's Web site to get an online quotation.

As soon as the information is submitted, JRules will handle the data validation, eligibility and pricing automatically. All the rules will be executed and logged on the JRules Rule Execution Server, the central runtime component of the JRules BRMS.

Using the rules-based system's web interface, customers can apply for car insurance.

The first set of information to submit are the driver details such as name, occupation and some historical driving information, for example the number of accidents and driving infractions. This data will be used to set a risk factor to the applicant during the eligibility determination.

Next, the user submits details about the vehicle and the driver's vehicle usage.

The last step is to decide what kind of coverage the applicant wants to apply for. The user is offered various types of coverage such as Liability, Comprehensive or Collision.

All the data submitted will be used by JRules to provide an instant quotation to the applicant.

All the data are now sent to the Rules Execution Server. Based on this applicant's past driving history, she does not qualify for insurance with this company based on the defined eligibility rules.

Let's now look at this same applicant with slightly different driving record inputs, allowing the BRMS to invoke the 3 decision steps in sequence and compute a customized price using the currently deployed pricing rules.

In this scenario the applicant has been accepted and a price corresponding to her profile is displayed.

As we can see some pricing details are displayed in the quote. For example, the Comprehensive base premium price of \$48 has been set from a JRules decision table.

In addition, business rules are used to determine applicable surcharges and/or discounts, depending on the data entered by the applicant.

Updating a Business Policy

In this section, we will see how the insurance company's pricing manager can easily update a pricing policy by submitting new business rules.

In this scenario, a new pricing rule will be added to the rule management system using the IBM WebSphere ILOG Rule Solutions for Office component of the JRules BRMS. Rule Solutions for Office allows business users to add or modify their business rules using Microsoft Word, or Microsoft Excel for decision tables.

Let's see how a new pricing rule is created in a Word document.

The company has determined it is losing money in NJ for drivers with coverage for sedan cars. The pricing manager is going to create a new pricing rule using Microsoft Word.

From Word he can open a Rule Solutions for Office ruledoc containing all the pricing rules he is responsible for. The document is scanned by Rule Solutions for Office, or RSO, to identify all the rules artifacts contained in the document.

Through a lightweight plug-in to Microsoft Office, RSO provides dedicated business rule menus directly from within Word.

Every rule for this particular pricing ruleset is packaged individually inside the Word document. Thus, the business user can navigate all the different rules governing the pricing policy.

From the vocabulary view, the user can search among all the defined vocabulary terms he can use to write or modify a rule. For example, by typing "driver", all the statements referring to the driver are automatically selected.

From within the document, the user can also see a description of the rule flows that are used to execute pricing decisions, providing a complete view of the pricing policy.

A new rule is now being added to the ruledoc. The name of the rule is specified, and the user can also specify in which rule package the new rule belongs. This allows him to organize the way the rule will be stored in the business rule repository. From the property view the structure of the pricing project is displayed making the package specification easier.

During the rule authoring, a specific pane in the ruledoc will assist the user by listing all the problems detected in order to help the user to solve them, and making Word an active rule authoring environment.

The pricing manager can now edit the content of the rule using the JRules Intellirule editor, integrated inside Word. An automatic completion editor will guide the user as he writes the rule. At any time the user can type and complete or just click the various options suggested by the editor. The Intellirule editor is a contextual environment, with the suggested completions depending on what the user has previously typed.

The editor also allows the user to select predefined sentences that he will just have to fill according to a template. The reason part of this rule is the message that will be displayed as an explanation to the applicant in the quotation system web interface. The rule is now finished and no problems are reported. The Table of Contents can be updated to direct access to the new rule. The document is saved and the new pricing rule can now be imported into the rule repository by one of the pricing group's business analysts.

Synchronization and hot deployment

In this section, we will see how to update the rule repository with the rules created using Rule Solutions for Office. We will also see how to hot deploy rules for execution in a few clicks.

In the first step, we will see the synchronization process between Rule Solutions For Office and IBM WebSphere ILOG Rule Team Server, the JRules BRMS collaboration and rule management environment for business analysts.

Once the new rule is added to the repository, we will see how rules can be rapidly deployed to the running production environment. This demonstration scenario will not show the testing and validation capabilities that can be performed in the JRules BRMS before rule deployment.

Barbara, a business rules analyst works daily within Rule Team Server, or RTS, to manage the business policies stored in the rules repository.

From the pricing project, she can access all business rules related to pricing policies. Business rules are organized into packages and sub-packages, such as pricing type and geographic locations,

making their management much easier when dealing with large number of rules. As you can see, the New Jersey comprehensive surcharge package contains one rule for Sport Utility Vehicles.

Barbara is now going to synchronize the rule repository with the policy changes made by the pricing manager. The RTS synchronization detects that one rule has been created in the imported RSO ruledoc and some synchronization actions are suggested. Barbara will add the new rule in the Rule Team Server repository within the specified package.

Once the synchronization is complete, Barbara can see the rule that has been added and where it has been stored in the repository. Going back to the rule package in the explorer view, she can now preview the new rule.

In this scenario, we are going to hot deploy the new rule directly from RTS. Barbara will set the status of the new rule as deployable. As stated previously, in this scenario we will skip the testing and validation phases that are usually performed in a real application.

Barbara will now hot deploy the new pricing policy from Rule Team Server. The entire rule project is packaged in a rule application that will be deployed to the Rule Execution Server. Barbara can specify how to version this new ruleapp using major or minor versioning for either the ruleApp or the individual rulesets that it contains.

All the artifacts of the ruleapp defining the new business policy are now being deployed on the Rule Execution Server. The deployment is now finished. The next pricing request will take the new pricing policy into account.

Business policy change impact

In this section, we will see the impact of the new policy update on the customer-facing web quotation system.

The new pricing policy has been deployed. The implementation is immediate in the quotation system without interrupting the service. The new change will be applied to the next request.

Let's see the effect of this new policy by re-entering the same information for an insurance quote request.

Let's now return to the customer-facing quotation system to simulate a new application request using the exact same information as the previous submission. Identical driver, vehicle and coverage details are entered into the web interface and submitted for processing against the business rules.

The pricing has changed from the first execution. Let's examine the Comprehensive coverage pricing details. In addition to the base premium, the new surcharge rule has been applied according to the newly deployed rule specification.

Conclusion

The IBM WebSphere ILOG JRules business rule management system provides organizations with the ability to build agile, flexible systems that can handle the complexity, variability and dynamic nature of the decisions that are used to improve operational efficiency and gain competitive advantage. JRules allows systems to behave with more intelligence, precision and consistency, while enabling increased automation of activities, transactions and processes.

As you have seen in this demonstration, the JRules BRMS provides valuable benefits in the management and execution of decisions in business systems by:

- Providing an easy, safe and predictable way to implement changes
- Reducing the time and cost of managing changes to decisions that guide business systems
- Allowing IT and business to collaborate in the rule maintenance life cycle, by providing the right tool for each stakeholder
- And increasing the visibility and understanding of the decision logic that drives system behavior

With the JRules BRMS, you have a comprehensive set of capabilities to manage rules with confidence.

Should you want to get more information on JRules or other WebSphere ILOG BRMS solutions, and to download a free trial version of our BRMS products, please visit our website.

Thank you for your time in viewing this demonstration.