

Lab Exercise 02.05: Rule Modification Challenge

Objective:

This lab exercise aims to deepen the understanding of Drools rule management. Students will modify existing rules related to claim validation and payout issuance to handle claims exceeding maximum coverage more dynamically.

Background:

In the `ClaimValidation.drl` file found under `Lesson4, demo5`, there exists a rule that invalidates claims when the claimed amount exceeds the maximum coverage. This exercise challenges you to remove this rule and instead issue payouts equal to the maximum coverage for claims that are approved but exceed this coverage limit.

Requirements:

- Basic understanding of Drools rule syntax, session management, and rule attributes.
- Access to the provided Java classes and repository setup.

Tasks:

1. **Remove the Rule from `ClaimValidation.drl`:**
 - Locate and remove/comment out the rule that invalidates claims for exceeding maximum coverage. This will allow claims to be approved even if the claim amount is higher than the coverage.
2. **Modify `PayoutIssue.drl` File:**
 - You will add a new rule to this file to handle approved claims exceeding the maximum coverage.
3. **Create a New Rule in `PayoutIssue.drl`:**
 - **Rule Name:** "Adjust Payout for Exceeding Coverage"
 - **Salience:** Assign a higher salience to this rule to ensure it evaluates before any other payout issuance rules.
 - **Condition:** This rule should only apply to claims with `Status.APPROVED` that have a claim amount exceeding the policy's coverage.
 - **Action:** For claims meeting the above condition, issue a payout equal to the maximum policy coverage instead of the claimed amount.
4. **Use Salience to Prioritize Rule Execution:**
 - Ensure that the new rule has a higher priority over other rules to prevent issuing payouts that exceed the policy's maximum coverage.

Expected Outcome:

- Claims exceeding maximum coverage but approved should receive a payout equal to the maximum coverage.
- The rule prioritization ensures that payouts are correctly limited to the policy's terms.

Submission:

Evaluation Criteria:

- Correctness of the rule modification and creation.
- The logical implementation of salience to manage rule execution order.
- The effectiveness of the test scenario in demonstrating the rule's intended functionality.