Red Hat Decision Manager 7.0

Getting started with decision services
Abstract

In this tutorial, you will create and test a driver's license suspension scenario.
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PREFACE

As a business analyst or rules developer, you can use Decision Central in Red Hat Decision Manager to design a variety of decision services. In this tutorial, you will create and test a driver’s license suspension scenario.

Prerequisites

- Installed Red Hat JBoss Enterprise Application Platform 7.1.0. See *Red Hat JBoss EAP 7.1.0 Installation Guide*.

- Installed Red Hat Decision Manager. For more information, see the *Installing Red Hat Decision Manager on premise*.

- Red Hat Decision Manager is running and you can log in to Decision Central with the **admin** role. For more information, see the *Installing Red Hat Decision Manager on premise*.
CHAPTER 1. CREATING THE TRAFFIC VIOLATIONS PROJECT

A project is the container for assets, such as data objects, guided decision tables, and guided rules. In this chapter, you will create the **Driver department traffic violations** project.

**Procedure**

1. Log in to Decision Central.

2. Go to **Menu → Design → Projects**.
   
   *Tip:* Red Hat Decision Manager provides a default space called **myteam**, as shown in the following image. You can use the default space to create and test example projects.

   **Figure 1.1. Default spaces**

   ![Default spaces](image)

3. Click **Add Project**.

4. Enter **Driver department traffic violations** in the **Name** field.

5. Click **Add**.

   **Figure 1.2. Add Project window**

   ![Add Project window](image)
CHAPTER 2. DATA OBJECTS

Data objects are the building blocks for the rule assets that you create. Data objects are custom data types implemented as Java objects in specified packages of your project. For example, you might create a Person object with data fields Name, Address, and Date of Birth to specify personal details for loan application rules. These custom data types determine what data your assets and your decision service are based on.

The following illustration shows the Violation and Driver data objects that you will create in this tutorial.

**Figure 2.1. Driver department traffic violations data objects**

<table>
<thead>
<tr>
<th>VIOLATION DATA OBJECT</th>
<th>DRIVER DATA OBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ID:</strong> code</td>
<td><strong>ID:</strong> name</td>
</tr>
<tr>
<td><strong>LABEL:</strong> Code</td>
<td><strong>LABEL:</strong> Full Name</td>
</tr>
<tr>
<td><strong>TYPE:</strong> String</td>
<td><strong>TYPE:</strong> String</td>
</tr>
<tr>
<td><strong>ID:</strong> points</td>
<td><strong>ID:</strong> age</td>
</tr>
<tr>
<td><strong>LABEL:</strong> Points</td>
<td><strong>LABEL:</strong> Age</td>
</tr>
<tr>
<td><strong>TYPE:</strong> Integer</td>
<td><strong>TYPE:</strong> Integer</td>
</tr>
<tr>
<td><strong>ID:</strong> violationDate</td>
<td><strong>ID:</strong> state</td>
</tr>
<tr>
<td><strong>LABEL:</strong> Violation Date</td>
<td><strong>LABEL:</strong> State</td>
</tr>
<tr>
<td><strong>TYPE:</strong> Date</td>
<td><strong>TYPE:</strong> String</td>
</tr>
<tr>
<td><strong>ID:</strong> type</td>
<td><strong>ID:</strong> city</td>
</tr>
<tr>
<td><strong>LABEL:</strong> Type</td>
<td><strong>LABEL:</strong> City</td>
</tr>
<tr>
<td><strong>TYPE:</strong> String</td>
<td><strong>TYPE:</strong> String</td>
</tr>
<tr>
<td><strong>ID:</strong> fineAmount</td>
<td><strong>ID:</strong> violations</td>
</tr>
<tr>
<td><strong>LABEL:</strong> Fine Amount</td>
<td><strong>LABEL:</strong> Violations</td>
</tr>
<tr>
<td><strong>TYPE:</strong> Double</td>
<td><strong>TYPE:</strong> Violation</td>
</tr>
<tr>
<td>(org.jboss.example.trafficViolations.Violation)</td>
<td></td>
</tr>
</tbody>
</table>

*Note: The violations field is set to “List” to hold multiple items for the given type.*
2.1. CREATING THE VIOLATION DATA OBJECT

The **Violation** data object contains data fields based on violation details, such as **Violation Date**, **Fine Amount**, and **Speed Limit**.

**Prerequisites**

You have created the **Driver department traffic violations** project.

**Procedure**

1. Log in to Decision Central. Click **Menu → Design → Projects**, then **Driver department traffic violations**.

2. Click **Create New Asset → Data Object**.

3. In the **Create new Data Object** wizard, enter the following values:
   - **Data Object**: Violation.
   - **Package**: `com.myteam.driverdepartmenttrafficviolations`.

4. Click **Ok**.
2.1.1. Adding the Violation data object data fields

**Prerequisites**
You have created the **Violation** data object.

**Procedure**
The data fields in the **Violation** data object define the available constraints that you can select from when you define your violation rules later.

1. In the **Violation-general properties** section, locate the **Label** property and enter: **Violation**.

**Figure 2.3. General properties**

2. Click **+ add field**.

3. Enter the following values:
- **Id**: code
- **Label**: Code
- **Type**: String

4. Click **Create and continue**, then enter the following values:
   - **Id**: points
   - **Label**: Points
   - **Type**: Integer

5. Click **Create and continue**, then enter the following values:
   - **Id**: violationDate
   - **Label**: Violation Date
   - **Type**: Date

6. Click **Create and continue**, then enter the following values:
   - **Id**: type
   - **Label**: Type
   - **Type**: String

7. Click **Create and continue**, then enter the following values:
   - **Id**: fineAmount
   - **Label**: Fine Amount
   - **Type**: Double

8. Click **Create and continue**, then enter the following values:
   - **Id**: speedLimit
   - **Label**: Speed Limit
   - **Type**: Integer

9. Click **Create and continue**, then enter the following values:
   - **Id**: actualSpeed
   - **Label**: Actual Speed
   - **Type**: Integer

10. Click **Create**.

11. Click **Save**, then click **Save** to confirm your changes.
12. Click the **Driver department traffic violations** label to return to the **Assets** view of the project.

**Figure 2.4. Violation data object fields**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Label</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>code</td>
<td>Code</td>
<td>String</td>
</tr>
<tr>
<td>points</td>
<td>Points</td>
<td>Integer</td>
</tr>
<tr>
<td>violationDate</td>
<td>Violation Date</td>
<td>Date</td>
</tr>
<tr>
<td>type</td>
<td>Type</td>
<td>String</td>
</tr>
<tr>
<td>fineAmount</td>
<td>Fine Amount</td>
<td>Double</td>
</tr>
<tr>
<td>speedLimit</td>
<td>Speed Limit</td>
<td>Integer</td>
</tr>
<tr>
<td>actualSpeed</td>
<td>Actual Speed</td>
<td>Integer</td>
</tr>
</tbody>
</table>

### 2.2. CREATING THE DRIVER DATA OBJECT

The **Driver** data object contains data fields based on driver details, such as **Name**, **Age**, and **Total Points**.

**Prerequisites**

You have created the **Driver department traffic violations** project.

**Procedure**

1. Log in to Decision Central. Click **Menu → Design → Projects**, then **Driver department traffic violations**.

2. Click **Create New Asset → Data Object**.

3. In the **Create new Data Object** wizard, enter the following values:
   - **Data Object**: Driver.
   - **Package**: select `com.myteam.driverdepartmenttrafficviolations`.

4. Click **Ok**.
2.2.1. Adding the Driver data object data fields

**Prerequisites**

You have created the **Driver** data object.

**Procedure**

The data fields in the **Driver** data object define the driver details that you can select from when you define your violation rules later.

1. In the **Driver**- general properties section, locate the **Label** property and enter: **Driver**.

2. Click **+ add field**.

3. Enter the following values:
   - **Id**: name
   - **Label**: Full Name
   - **Type**: String

4. Click **Create and continue**, then enter the following values:
   - **Id**: age
   - **Label**: Age
   - **Type**: Integer

5. Click **Create and continue**, then enter the following values:
   - **Id**: state
   - **Label**: State
6. Click **Create and continue**, then enter the following values:
   - **Id**: city
   - **Label**: City
   - **Type**: String

7. Click **Create and continue**, then enter the following values:
   - **Id**: violations
   - **Label**: Violations
   - **Type**: Violation(com.myteam.driverdepartmenttrafficviolations.Violation)
   - **List**: Select this check box to enable the field to hold multiple items for the specified type.

8. Click **Create and continue**, then enter the following values:
   - **Id**: fineAmount
   - **Label**: Fine Amount
   - **Type**: Double

9. Click **Create and continue**, then enter the following values:
   - **Id**: totalPoints
   - **Label**: Total Points
   - **Type**: Integer

10. Click **Create and continue**, then enter the following values:
    - **Id**: reason
    - **Label**: Reason
    - **Type**: String

11. Click **Create**.

12. Click **Save**, then click **Save** to confirm your changes.

13. Click the **Driver department traffic violations** label to return to the **Assets** view of the project.
### Figure 2.6. Driver data object fields

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Label</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Full Name</td>
<td>String</td>
</tr>
<tr>
<td>age</td>
<td>Age</td>
<td>String</td>
</tr>
<tr>
<td>state</td>
<td>State</td>
<td>String</td>
</tr>
<tr>
<td>city</td>
<td>City</td>
<td>String</td>
</tr>
<tr>
<td>violations</td>
<td>Violations</td>
<td>Violation [List]</td>
</tr>
<tr>
<td>fineAmount</td>
<td>Fine Amount</td>
<td>Double</td>
</tr>
<tr>
<td>totalPoints</td>
<td>Total Points</td>
<td>Integer</td>
</tr>
<tr>
<td>reason</td>
<td>Reason</td>
<td>String</td>
</tr>
</tbody>
</table>
CHAPTER 3. GUIDED RULES

Guided Rules are business rules that you can create in a UI-based Guided Rules designer that leads you through the rule creation process. The rule designer provides fields and options for acceptable input based on the object model of the rule being edited. All data objects related to the rule must be in the same project package as the rule. Assets in the same package are imported by default. You can use the Data Objects tab of the rule designer to verify that all required data objects are listed or to import any other needed data objects.

Figure 3.1. The Guided Rule designer

3.1. CREATING THE DRIVER LICENSE SUSPENSION RULE

The Driver license suspension rule is created using the Guided Rule wizard and is comprised of various conditions and their resulting actions.

Prerequisite

Created both the Violation and Driver data objects.

Procedure

1. Log in to Decision Central. Click Menu → Design → Projects, then Driver department traffic violations.

2. Click Create New Asset → Guided Rule, then enter:
   - Guided Rule: DriverLicenseSuspensionRule
   - Package: com.myteam.driverdepartmenttrafficviolations

3. Click Ok to open the Guided Rule designer.
3.2. SETTING THE SUSPENSION RULE CONDITIONS

The Suspension rule contains conditions that are used to determine the driver’s violation.

Prerequisite

You have created the Driver License Suspension rule

Procedure

1. Click next to the WHEN label to open the Add a condition to the rule window. Select Driver and click Ok.
2. Click the **There is a Driver** label to open the **Modify constraints for Driver** window.

3. Enter *driver* in the **Variable name** field and click **Set**.

4. Click the **There is a Driver[driver]** and click **Expression editor**.

5. Click **[not bound]** to open the **Expression editor**.

6. In the **Bind the Expression to a new variable** field, enter: \(\text{previousPts}\) and click **Set**.

7. From the **Choose** menu, select **totalPoints**.

8. Click **+** next to line 1 (the **previousPts** label) to open the **Add a condition to the rule** window.

9. Select **From Accumulate** and click **Ok**.

10. Click **click to add pattern** above the **From Accumulate** label and select **Number** from the **choose fact type** pull-down menu.
11. Click There is a number label to open the Modify contraints for Driver window.

12. Click Expression editor and select intValue() from the [not bound]: Choose menu.

13. Click [not bound] to open the Expression editor.

14. In the Bind the Expression to a new variable field, enter: totalNewPoints and click Set.

15. Click click to add pattern and select Violation from the choose fact type pull-down menu.

16. Click All Violation with: to open the Modify contraints for Violation window and select points from the Add a restriction on a field pull-down menu.

17. Click please choose next to the points label and select greater than.

18. Click , then click Literal value.

19. Click the points label to open the Add a field window and enter vPoints and click Set.

20. In the Function field, enter sum(vPoints).

21. Select greater than or equal to from the totalNewPoints → please choose pull-down menu.

22. Click , click New formula, and enter 20 - previousPts in the new field.

23. Click Save, then click Save to confirm your changes.

Figure 3.4. Suspension Rule conditions

3.3. SETTING THE SUSPENSION RULE ACTIONS

The Suspension rule actions determine a driver's resulting penalties including points and fine amounts based on the Suspension rule conditions.

Prerequisite

You have created set the Suspension rule conditions

Procedure
1. Click (show options...).

**Figure 3.5. show options selection**

```
THEN

(show
options...)
```

2. Click + next to the THEN label and select Change field values of driver, then click Ok.

3. Click the Set value of Driver [driver] field and select state from the Add field pull-down menu.

4. Click 🍃 next to state in the Set value of Driver [driver] section to open the Field value window.

5. Click Literal value and enter suspend in the new field.

**Figure 3.6. New field**

```
THEN

1. Set value of Driver [driver] state suspend
```

6. Click + next to the (options) label below the Set value of Driver [driver] section.

7. From the Add an option to the rule window, select the ruleflow-group option from the Attribute pull-down menu.

8. Enter trafficViolation in to the ruleflow-group field.

9. Click Save, then click Save to confirm your changes.

**Figure 3.7. Suspension rule actions**

```
THEN

1. Set value of Driver [driver] state suspend
   |options|
   Attributes:
   dialect
   ruleflow-group trafficViolation
```

CHAPTER 3. GUIDED RULES
CHAPTER 4. GUIDED DECISION TABLES

Guided decision tables are a wizard-led alternative to uploaded decision table spreadsheets for defining business rules in a tabular format. With guided decision tables, you are led by a UI-based wizard in Decision Central that helps you define rule attributes, metadata, conditions, and actions based on specified data objects in your project. After you create your guided decision tables, the rules you defined are compiled into Drools Rule Language (DRL) rules as with all other rule assets.

All data objects related to a guided decision table must be in the same project package as the guided decision table. Assets in the same package are imported by default. After the necessary data objects and the guided decision table are created, you can use the Data Objects tab of the guided decision tables designer to verify that all required data objects are listed or to import other existing data objects by adding a New item.

4.1. CREATING A TRAFFIC VIOLATION GUIDED DECISION TABLE

Use the Guided Decision Table designer to create the traffic violation guided decision table, which specifies the driver’s specific violation and the resulting fine and points.

**Prerequisite**

Created both the Violation and Driver data objects.

**Procedure**

1. Log in to Decision Central. Click Menu → Design → Projects, then Driver department traffic violations.

2. Click Create New Asset → Guided Decision Table, then enter:
   - Guided Decision Table: SpeedViolationRule
   - Package: com.myteam.driverdepartmenttrafficviolations

3. Select Unique Hit from the Hit Policy pull-down menu.

4. Select Extended entry, values defined in table body in the Table format section.

5. Click Ok to open the Guided Decision Tables designer.
4.1.1. Inserting Violation Type columns

The Violation Type column contains the violation details such as the driver’s speed and if the driver was under the influence of drugs or alcohol.

**Prerequisite**

Created the traffic violation guided decision table.

**Procedure**

1. Click Columns → Insert Column and select Include advanced options.

**Figure 4.2. Column tab**

2. Select Add an Attribute column and click Next.
3. Select `Ruleflow-group` and click Finish.

4. Expand Attribute columns and enter `trafficViolation` in the Default value field.

5. Click Insert Column, select Add a Condition → Pattern → +Create a new Fact Pattern.

6. Select Violation from the Fact type pull-down menu, enter `v` in the Binding field, and click OK.
7. Select **Calculation type** → **Literal value**.

8. Select **Field** and then select **type** from the **Field** pull-down menu.

9. Select **Operator** and then **equal to** from the **Operator** pull-down menu.

10. Select **Value options** and enter **Speed, Driving while intoxicated, DWI=Driving while under the influence of drugs** in the **Value list (optional)** field.

11. Select **Additional info**, enter **Violation Type** in the **Header (description)** field, and click **Finish**.
Figure 4.7. Violation Type header

<table>
<thead>
<tr>
<th>Add a new column</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Column</td>
</tr>
<tr>
<td>Pattern</td>
</tr>
<tr>
<td>Calculation type</td>
</tr>
<tr>
<td>Field</td>
</tr>
<tr>
<td>Operator</td>
</tr>
<tr>
<td>Value options</td>
</tr>
<tr>
<td>Additional info</td>
</tr>
</tbody>
</table>

12. Click **Insert Column**, select **Add a Condition → Pattern**, and select **Violation[v]** from the **Pattern** pull-down menu.

13. Select **Calculation type → Predicate → Field** and enter `actualSpeed-speedLimit > $param`.

14. Select **Value options**, then select **Additional info** and enter **Speed Limit (MPH) >** in the **Header (description)** field.

15. Click **Finish**.

Figure 4.8. Speed Limit (MPH) > header

<table>
<thead>
<tr>
<th>Add a new column</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Column</td>
</tr>
<tr>
<td>Pattern</td>
</tr>
<tr>
<td>Calculation type</td>
</tr>
<tr>
<td>Field</td>
</tr>
<tr>
<td>Operator</td>
</tr>
<tr>
<td>Value options</td>
</tr>
<tr>
<td>Additional info</td>
</tr>
</tbody>
</table>

16. Click **Insert Column**, select **Add a Condition → Pattern**, and select **Violation[v]** from the **Pattern** pull-down menu.

17. Select **Calculation type → Predicate**.

18. Select **Field** and enter `actualSpeed-speedLimit < $param` in the **Field** field.
19. Select Operator, select Value options, then select Additional info.

20. Enter Speed Limit (MPH) < in the Header (description) field and click Finish.

Figure 4.9. Condition columns

![Figure 4.9. Condition columns]

4.1.2. Inserting Fine Amount and Points columns

The Fine Amount and Points columns contain the fines and points based on the corresponding Violation Type field values.

Prerequisite

Inserted the Violation Type column.

Procedure

1. Click Insert Column, select Set the value of a field → Pattern, and select Violation[v] from the Pattern pull-down menu.

2. Select Field and then fineAmount from the Field pull-down menu.

3. Select Value options, then select Additional info and enter Fine Amount in the Header (description) field.
4. Select the **Update engine with changes** option and click **Finish**.

**Figure 4.10. Fine Amount header**

5. Click **Insert Column**, select **Set the value of a field → Pattern**, and select **Violation[v]** from the **Pattern** pull-down menu.

6. Select **Field** and then **points** from the **Field** pull-down menu.

7. Select **Value options**, then select **Additional info** and enter **Points** in the **Header (description)** field.

8. Select the **Update engine with changes** option and click **Finish**.

**Figure 4.11. Action columns**

9. Click **Columns**, expand **Attribute columns**, and select the **Hide column** option.

**Figure 4.12. Column attributes**
4.1.3. Inserting guided decision table rows

After you have created your columns in the guided decision table, you can add rows and define rules within the decision table designer.

Prerequisite

You have created the **Violation Type**, **Fine Amount**, and **Points** columns.

Procedure

1. Click **Editor → Insert → Append row**. Repeat this step to add a total of five table rows.

   ![Figure 4.13. Appending rows](image)

2. Fill out the table as shown in the following example.

   ![Figure 4.14. Populated data fields](image)

3. Click **Save**, then click **Save** to confirm your changes.
CHAPTER 5. TEST SCENARIOS

Test Scenarios in Red Hat Decision Manager enable you to validate the functionality of rules, models, and events before deploying them into production. A test scenario uses data for conditions that resemble an instance of your fact or project model. This data is matched against a given set of rules and if the expected results match the actual results, the test is successful. If the expected results do not match the actual results, then the test fails.

After you run all test scenarios, the status of the scenarios is reported in a Reporting panel.

**Figure 5.1. Speed test scenario screen**

Test scenarios can be executed one at a time or as a group. The group execution contains all the scenarios from one package. Test scenarios are independent, so that one scenario cannot affect or modify the other.

5.1. TESTING THE SPEED LIMIT SCENARIO

Test the speed limit scenario using the data that you specified when you created the speed violation guided decision table.

**Prerequisites**

- Created the **Driver department traffic violations** project

- Created the **Violation** and **Driver** data objects

- Created the speed violation guided decision table

**Procedure**

1. Log in to Decision Central. Click **Menu → Design → Projects**, then **Driver department traffic violations**.

2. Click **Projects → Create New Asset → Test Scenario**.

3. In the **Create new Test Scenario window** wizard, enter the following values:


4. Click Ok.

5. Click +GIVEN to open the New input window.

6. Select Violation from the Insert a new fact pull-down menu.

7. Enter violation in the Fact name field and click Add.

8. Click Add a field located under Insert 'Violation'[violation] to open the Choose a field to add window.

9. Select speedLimit from the Choose a field to add pull-down menu and click OK.

10. Click , then click Literal value next to speedLimit.

11. Click Literal value in the Field value window, then enter 40 in the speedLimit field.

12. Click Insert 'Violation'[violation] and select type from the Choose a field to add pull-down menu in the Choose a field to add window, and click OK.

13. Click , then click Literal value next to Literal value.

14. Enter Speed in the type field.

15. Click Insert 'Violation'[violation], and select actualSpeed from the Choose a field to add pull-down menu, and click OK.

16. Click , then click Literal value next to Literal value.

17. Enter 55 in the actualSpeed field.

18. Click +Expect to open the New expectation window.

19. Expand the Rule pull-down menu, select Row 1 SpeedViolationRule, and click OK.

20. Click +GIVEN to open the New input window, enter trafficViolation in the Activate rule flow group field, and click Add.

21. Click +Expect to open the New expectation window and click Add next to Fact value: violation.

22. Click Violation 'violation' has values: to open the Choose a field to add window.

23. Select fineAmount from the Choose a field to add pull-down menu and click OK.

24. Enter 100.0 in the fineAmount: equals field.

25. Click Violation 'violation' has values: to open the Choose a field to add window.

26. Select points from the Choose a field to add pull-down menu and click OK.

27. Enter 1 in the points: equals field.
28. Click **Save**, then click **Save** to confirm your changes.

29. Click **Run scenario**.

**Figure 5.2. Speed test results screen**

![Speed test results screen](image)

5.2. TESTING THE DRIVER LICENSE SUSPENSION SCENARIO

Test the driver license suspension scenario using the data that you specified when you set the Driver License Suspension rules and actions.

**Prerequisites**

- Created the **Driver department traffic violations** project
- Created the **Violation** and **Driver** data objects
- Set the Driver License Suspension rules and actions

**Procedure**

1. Log in to Decision Central. Click **Menu → Design → Projects**, then **Driver department traffic violations**.

2. Click **Create New Asset → Test Scenario**.

3. In the **Create new Test Scenario window** wizard, enter the following values:
   a. **Test Scenario**: Suspend due to total points.
   b. **Package**: select **com.myteam.driverdepartmenttrafficviolations**.

4. Click **Ok**.
5. Click +GIVEN to open the New input window.

6. Select Driver from the Insert a new fact pull-down menu.

7. Enter driver in the Fact name field and click Add.

8. Click Add a field located under 'Driver'[driver] to open the Choose a field to add window.

9. Select totalPoints from the Choose a field to add pull-down menu and click OK.

10. Click 🎨 next to totalPoints, click Literal value, then enter 10 in the totalPoints field.

11. Click +GIVEN to open the New input window.

12. Select Violation from the Insert a new fact pull-down menu.

13. Enter violation in the Fact name field and click Add.

14. Click Add a field located under Insert 'Violation'[violation] to open the Choose a field to add window.

15. Select points from the Choose a field to add pull-down menu and click OK.

16. Click 🎨, then click Literal value next to Literal value.

17. Enter 10 in the points field.

18. Click +Expect to open the New expectation window.

19. Expand the Rule pull-down menu, select DriverLicenseSuspensionRule, and click OK.

20. Click +GIVEN to open the New input window, enter trafficViolation in the Activate rule flow group field, and click Add.

21. Click +Expect to open the New expectation window and click Add next to Fact value: driver.

22. Click Driver 'driver' has values: to open the Choose a field to add window.

23. Select state from the Choose a field to add pull-down menu and click OK.

24. Enter suspend in the state: equals field.

25. Click Save, then click Save to confirm your changes.

26. Click Run scenario.

Result

The rule is fired and the driver’s license is suspended because the total number of points is >= 20.
5.3. TESTING THE MULTIPLE VIOLATIONS SCENARIO

Copy the **Suspend due to total points** asset and modify it to create the driver license suspension scenario for drivers with multiple violations using the data that you specified when you set the Driver License Suspension rules and actions.

**Prerequisites**

- Created the **Driver department traffic violations** project
- Created the **Violation** and **Driver** data objects
- Set the driver license suspension rules and actions

**Procedure**

1. Log in to Decision Central. Click **Menu → Design → Projects**, then **Driver department traffic violations**.

2. Click **Suspend due to total points → Copy**, enter **Suspend due to multiple violations** in the **New Asset Name** field, and click **Make a Copy**.
Figure 5.4. Make a copy window

3. Click Space → myteam → Driver department traffic violations, and then select the Suspend due to multiple violations Asset.

4. Click +GIVEN to open the New input window.

5. Select Violation from the Insert a new fact pull-down menu.

6. Enter violation2 in the Fact name field and click Add.

7. Click next to points, click Literal value, then enter 5 in the points → violation2 field.

8. In the totalPoints field, change the value from 10 to 5.

9. Click Save, then click Save to confirm your changes.

10. Click Run scenario.

Figure 5.5. Suspension test results screen
APPENDIX A. VERSIONING INFORMATION

Documentation last updated on: Monday, October 1, 2018.