



# Managing Decisions in IBM Operational Decision Manager V8.7.1

**Guide to using WB396-ZB396 course material  
on IBM ODM on Cloud  
June 2016**

**WB396 (Classroom)  
ZB396 (Self-paced)**

**ERC 1.0**

## About this document

This document contains information about how to use the exercise instructions for courses WB396 and ZB396, *Managing Decisions in IBM Operational Decision Manager V8.7.1*, on IBM ODM on Cloud.

This course was tested on IBM ODM on Cloud in June 2016. If you use this document after that date, some of the information might not apply.



## Requirements

Before you try to use the course materials on your cloud environment, be sure to review the requirements that are listed here.

***Note:** Apart from the guidance in this document, no additional support is provided to help students resolve issues that they might encounter in their cloud environment. Full student support is offered on the regular course platform.*

## Getting an IBM ODM on Cloud account and permissions

To use the course materials with IBM ODM on Cloud, you must have an ODM on Cloud account. Contact your ODM on Cloud administrator to obtain an account.

Be sure to include in your request that **Permissions Manager** permissions are required for this course. If you are assigned to a different user role, you might not be able to complete all of the exercise instructions.

## Getting the lab materials

When you enroll in the course, you receive the notebook and exercise instructions for the on-premises version of ODM.

A set of lab files is available for use with ODM on Cloud as file `WB396_ERC1.0_LABFILES.zip`. To obtain these lab files, send an email request to one of the following people:

- Tom Reed: [treed1@us.ibm.com](mailto:treed1@us.ibm.com)
- Tonya Teyssier: [teyssier@ca.ibm.com](mailto:teyssier@ca.ibm.com)
- June Yoshii: [jyoshii@us.ibm.com](mailto:jyoshii@us.ibm.com)

## Setting up the exercise environment on IBM ODM on Cloud

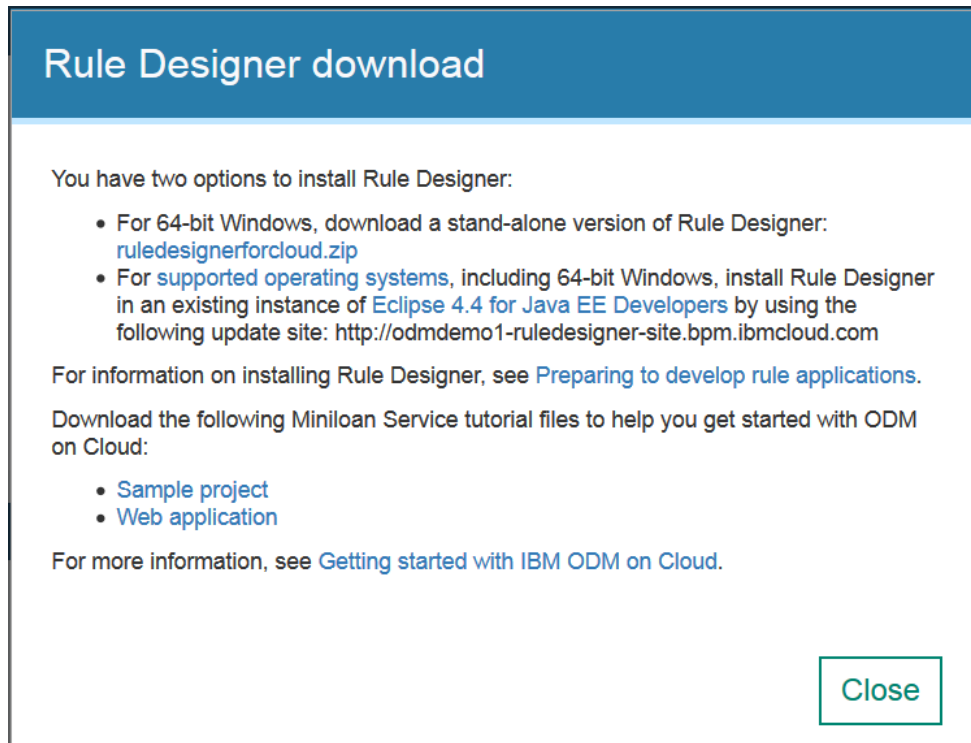
In order for you to work on the exercises on IBM ODM on Cloud, you must:

1. Download Rule Designer, the sample project (`miniloanservice-projects.zip`), and the web application (`miniloanservice-webapp.zip`) from your IBM ODM on Cloud instance.
2. Follow the instructions in the IBM Knowledge Center for IBM ODM on Cloud and in this document:
  - a. Install Rule Designer on your local computer.
  - b. Publish the provided `MiniloanService` decision service to Decision Center.
  - c. Deploy the `MiniloanService` decision service to Rule Execution Server.
  - d. Install the provided Miniloan web application.
3. Obtain the WB396-ZB396 Cloud lab files.
4. Publish the WB396-ZB396 decision services from the Cloud lab files to Decision Center.

## Downloading Rule Designer and the Miniloan tutorial files

1. After you log in to your ODM on Cloud account, download Rule Designer and the files for the sample project, and the web application.
  - a. In the Development Environment section, go to the Rule Designer section and click **Download**.

- b. In the “Rule Designer” download window, click **ruledesignerforcloud.zip** and save the file.
- c. Click the following tutorial file links and save the compressed files:
  - **Sample project** (miniloanservice-projects.zip)
  - **Web application** (miniloanservice-webapp.zip)



2. Move the miniloanservice-project.zip file and the miniloanservice-webapp.zip file to a directory of your choice.
3. Extract the contents of ruledesignerforcloud.zip to a directory of your choice. This action extracts a folder that is called **eclipse**.
4. Create a folder called **workspaces** in a directory of your choice. This folder holds the Rule Designer Eclipse workspaces that you use to import and publish decision services.

## Publishing the Miniloan sample decision service

1. Start Rule Designer.
  - a. In the **eclipse** folder, double-click the eclipse.exe file.
  - b. When you are asked for a workspace folder, browse to the **workspaces** folder that you created and make a new folder called Miniloan-sample
  - c. Click **OK** to create the new workspace folder, and click **OK** to select it.
  - d. In the “Configure IBM ODM on Cloud connection” window, enter the URL for your IBM ODM on Cloud portal instance and click **Connect**.
  - e. In the “IBM ODM on Cloud” window, enter your user ID and click **Continue**.
  - f. In the “IBM ODM on Cloud” window, enter your password and click **Continue**.
  - g. Back in the “Configure IBM ODM on Cloud connection” window, click **Finish**.
  - h. Close the **Welcome** tab.

2. Go to the IBM Knowledge Center for IBM ODM on Cloud at the following URL:  
[http://www.ibm.com/support/knowledgecenter/SS7J8H/welcome/kc\\_welcome\\_cloud.html](http://www.ibm.com/support/knowledgecenter/SS7J8H/welcome/kc_welcome_cloud.html)
3. Go to **Getting started with IBM ODM on Cloud > First steps with IBM ODM on Cloud** and complete the following sections:
  - Before you begin
  - Authoring the decision service in Rule Designer


---

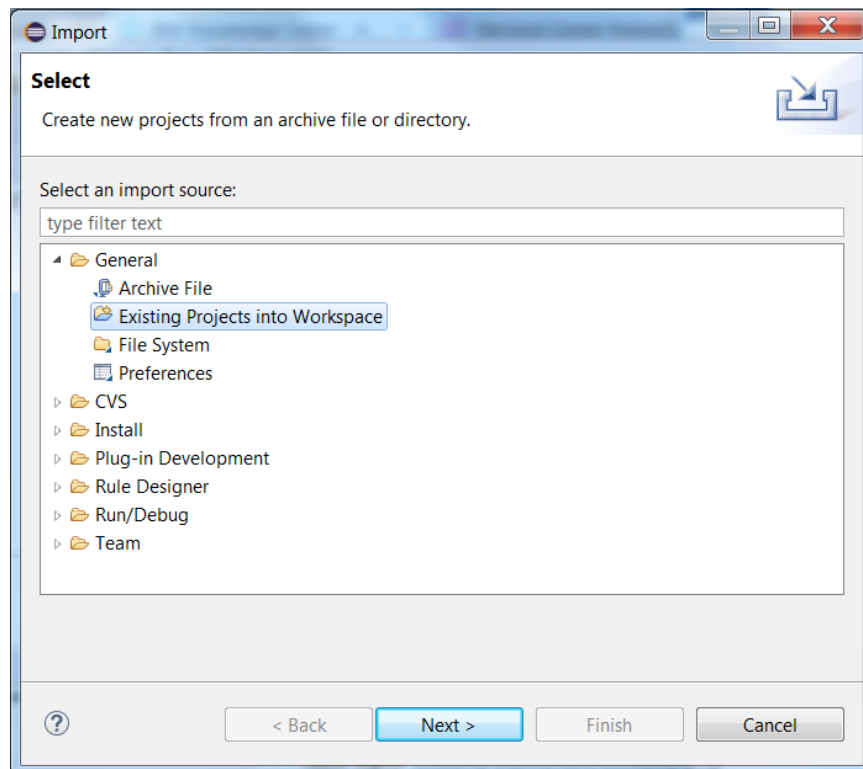
**Note:**

To import the projects into Rule Designer:

1. Make sure that Rule Designer is in the Rule perspective.  
You can see the perspective in use in the upper-right corner of the Rule Designer window:



- a. If you need to change perspectives, click **Open Perspective** .
- b. From the list of perspectives, select **Rule**.
- c. Click **OK**.
2. Click **File > Import**.
3. In the Select window, expand **General**, select **Existing Projects into Workspace**, and click **Next**.



4. In the Import Projects window, select **Select archive file** and click **Browse**.
5. In the “Select archive containing the projects to import” window, go to the folder where you put the Miniloan tutorial files, select `miniloanservice-projects.zip`, and click **Open**.
6. Back in the Import Projects window, click **Finish**.

The `miniloan-xom` and `MiniloanService` projects are now in your workspace.

---

4. Follow the steps in **Getting started with IBM ODM on Cloud > First steps with IBM ODM on Cloud > Before you begin > Cloning the sample project**:

[https://www.ibm.com/support/knowledgecenter/SS7J8H/com.ibm.odm.cloud.tutorial/topics/tsk\\_clone\\_project.html](https://www.ibm.com/support/knowledgecenter/SS7J8H/com.ibm.odm.cloud.tutorial/topics/tsk_clone_project.html)

When you follow these steps, you make sure that the `MiniloanService` project is unique, which helps avoid conflicts with other users who might use the tutorial files. Only one instance of a decision service can be published to IBM ODM on Cloud.


5. In **Getting started with IBM ODM on Cloud > First steps with IBM ODM on Cloud > Creating deployment configurations**, complete steps 1-6 to create a deployment configuration for the development environment.

You do not need to create deployment configurations for the test or production environments.

6. Publish the `MiniloanService` decision service to Decision Center on Cloud.
  - a. Complete steps 1-5 in **Getting started with IBM ODM on Cloud > First steps with IBM ODM on Cloud > Publishing the decision service to Decision Center**.
  - b. Do not select the **Use Decision Governance Framework** check box.  
In the exercises for this course, you use `MiniloanService` as an ungoverned decision service.
  - c. Click **Finish**.
  - d. In the Synchronize Complete window, click **OK** to close the window.
  - e. In the Confirm Open Perspective window, click **No**.

You do not need to open the Team Synchronizing perspective because the decision service has no changes.

The decision service is now published to Decision Center on Cloud.

7. Deploy the `MiniloanService` decision service to Rule Execution Server on Cloud.
  - a. In the ODM on Cloud user portal, in the Development Environment section, go to the “Decision Center Business console” section and click **Launch**.
  - b. If needed, sign in with your ODM on Cloud user name and password.
  - c. When you are in the **Home** page, click **Library** and click the `MiniloanService` decision service that you published to Decision Center.
  - d. In the decision service main view, click **Branches**, and then click **Main**.
  - e. Click the **Deployments** tab, and then click the **development** configuration.
  - f. Click the **Deploy** icon in the upper-right corner of the window.
  - g. In the “Deploy main” window, click **Deploy**.
  - h. In the “Deployment status” window, click **OK** to close it.
  - i. In the **Reports** tab, make sure that the **Status** column shows a green check mark: 

The green check mark icon means that the deployment was successful.

## Installing the Miniloan web application

1. Follow the instructions in **Getting started with IBM ODM on Cloud > First steps with IBM ODM on Cloud > Calling the decision service from the sample web application** to set up the Miniloan web application.

---

### Notes:

- Extract the `miniloanservice-webapp.zip` file that you downloaded from the ODM on Cloud user portal. You should now have the `miniloan-webapp.war` file.
- You use the command prompt to install the Liberty profile and start the `ODMSample` server.
- In step 1b, enter the full file name for the `.jar` file. For example, if the `.jar` file is called `wlp-runtime-8.5.5.9.jar`, the command should be:

```
java -jar wlp-runtime-8.5.5.9.jar
```

- In step 4, make sure that you have the correct values in the Ruleset Path. It should take the form:

```
<RuleApp name>\<Ruleset name>
```

You can find these values by going to the deployment configuration in the Business console.

- In the Business console, make sure that you are in the **main** branch of the `MiniloanService` decision service that you published and deployed.
- Click the **Deployments** tab, and then click the **development** deployment configuration.
- The RuleApp name is listed in the **General** tab.
- The Ruleset name is listed in the **Operations** tab.

---

### Important:

- When you install the Liberty profile, make note of the installation directory, which is referred to as `<TargetDirectory>` in this document.
  - To start the `ODMSample` server, you must change the directory in the command prompt to `<TargetDirectory>` before you run the `server start ODMSample` command.
- 

## Publishing the WB396 decision services

WB396 includes some decision services that you must publish to Decision Center before you can work on some of the exercises.

1. Extract the `WB396_ERC1.0_LABFILES_cloud.zip` file to a directory of your choice. This directory will be referred to as `<labfilesDir>`.

The decision services that you need to publish are in `<labfilesDir>` > **Eclipse-decision services**. These decision services are used in the rule authoring exercises:

- `carinsurance_ds-action-start.zip`: Used in Exercise 13, "Writing complete rules"
- `carinsurance_ds-conditions-start.zip`: Used in Exercise 11, "Working with conditions in rules"

- `carinsurance_ds-definitions-start.zip`: Used in Exercise 12, “Working with definitions in rules”
- `carinsurance_ds-dt-start.zip`: Used in Exercise 14, “Authoring decision tables and trees” and Exercise 15, “Authoring rules: Putting it all together”

2. For each decision service in the lab files:

- Start a new workspace and switch to the Rule perspective, if needed.
- Import each decision service by using the instructions from the Note on page 4.
- Refactor each decision service:
  - Rename the decision service so that you can identify it when you are working on the exercises. For example, you might append `WB396_<your name>` to the decision service name.
  - Update the UUID.

These steps help you differentiate your decision services from the decision services that other users might publish to Decision Center to complete the training on IBM ODM on Cloud.

- Publish each decision service to Decision Center on Cloud.
  - When you are in the connection window, click **Next** twice in the connection window, and then click **Finish**.
  - Do not publish these decision services as governed decision services.

## Exercise 1, “Operational Decision Manager in Action”

### Section 1.1, “Setting up your environment”

#### Step 1

If you installed the Miniloan web application according to the tutorial instructions, you installed both WebSphere Liberty Profile and the Miniloan web application to your local computer. During the installation process, you created a server that is called `ODMSample`, which runs on WebSphere Liberty.

In Windows, you can start the `ODMSample` server by using the following steps:

- Open a command prompt window.
- Enter the following command:

```
cd <TargetDirectory>/wlp/bin
```

where `<TargetDirectory>` is the WebSphere Liberty installation directory.

- Run the following command:

```
server start ODMSample
```

### Section 1.2, “Running the application”

#### Step 1

If you installed the Miniloan application according to the tutorial, the web application is running locally on your computer at the following URL:

```
http://localhost:9080/miniloan-webapp
```

Make sure that you use the correct port for your environment.

Also, make sure that you complete the **Server Information** fields in the Miniloan web application, and that you select the correct ODM on Cloud environment.

Server Information:

- **Server Hostname:** Enter the URL of your ODM on Cloud environment.
- **Ruleset Path:** Enter the name of the ruleset path for the Miniloan decision service that you published to ODM on Cloud.

It usually takes the following format: *<RuleApp name>\<Ruleset name>*

**Note:** You can find this information on the **General** and **Operations** tabs of the Miniloan decision service deployment configuration.

- **User name:** Your ODM on Cloud user name.
- **Password:** Your ODM on Cloud password.

Select environment:

- Use the menu to select the **Development** environment.

## Step 2

After you submit the loan request, the Miniloan web application for IBM ODM on Cloud does not list the executed rules.

## Section 2, “Managing business rules in Decision Center”

### Section 2.1, “Editing the rules in Decision Center”

#### Step 1

Instead of going through your operating system, you start the Business console by logging in to the User Portal, then clicking **Launch** under Decision Center Business console.

The Business console is configured to open to the URL of your ODM on Cloud instance, so you do not need to enter a URL or port number.

#### Step 3

When you start an IBM ODM on Cloud application, such as the Business console, it is configured to use your account.

If you are asked to log in after starting an application, enter your IBM ODM on Cloud user name and password.

#### Steps 6-7

IBM ODM on Cloud supports decision services, but not classic rule projects. Here, you work with the Miniloan decision service that you published to ODM on Cloud when you set up the environment.

To open the Miniloan decision service:


- When you click **Library**, the list of decision services opens.
- In the list of decision services, click the Miniloan decision service that you published to ODM on Cloud.
- Click the **Branches** tab, and then click **main** to open the main branch.

Make sure that you are on the **Decision Artifacts** tab, and then click the **eligibility** folder in the left menu. The rules are listed in the middle pane.



Name	Last Changed By	Last Changed On
minimum credit score	jyoshii@us.ib...	May 25, 2016 ...
minimum income	jyoshii@us.ib...	May 25, 2016 ...
repayment and score	jyoshii@us.ib...	May 25, 2016 ...

#### Step 8a

When you open the rule in the middle pane, the **Edit** icon is a green pencil: 

### Section 2.3, “Changing the credit score requirements”

#### Step 1

When you are back in the main branch view, click the **eligibility** folder in the left pane to return to the list of rules.

#### Step 3

Do not log out of the Business console. You use the Business console to deploy the updated rules.

### Section 3, “Validating changes with Decision Validation Services”

This section cannot be completed on IBM ODM on Cloud.

In this section, students run tests with the on-premises Enterprise console feature Decision Validation Services (DVS), which users can use to run tests and simulations on rule projects. ODM on Cloud does not support DVS.

You can run tests and simulations in the Business console by using test scenario files, which are Microsoft Excel spreadsheets that hold your test and simulation data. However, a scenario file for use with the Miniloan decision service is not available at this time.

### Section 4, “Deploying updated rules from Decision Center to Rule Execution Server”

Instead of using the Enterprise console, you use the Business console to deploy the updated rules. You do not need to create a new ruleset or RuleApp.

Complete the following instructions to deploy the rules that you updated.

1. Go back to the Business console and click the **Deployments** tab.

2. Make sure that you are on the **Configurations** subtab, and click the **development** deployment configuration.
3. Click **Deploy**.
4. In the “Deploy main” window, notice that the value for the **New Version** column is **1.1**.

**Deploy main**

Specify how to deploy the branch.

**Deployment configuration:**  
development (v1.2)

**Target:**  
☒ Server  
 Development Environment  
☐ RuleApp archive

**Ruleset versions:**  
Increment minor ruleset version numbers.

RuleApp: development/1.0

Rulesets	Base Version	Latest Deployed Version	New Version
MiniloanService...	1.0	1.0	1.1

\*Deployment snapshot name:  
development\_2016-06-08T21\_48\_10Z

**Deploy** **Cancel**

5. Click **Deploy**.
6. In the “Deployment status” window, click **OK** to close it.
7. You should see a green check mark in the **Status** column, which indicates that the deployment was successful.

## Section 5, “Monitoring the deployed rules with Rule Execution Server”

### Section 5.1, “Opening the Rule Execution Server console”

#### Steps 1-2

Instead of going through your operating system, you start the Rule Execution Server console by logging in to the User Portal, then clicking **Launch** under Rule Execution Server console.

The Rule Execution Server console is configured to open to the URL of your ODM on Cloud instance, so you do not need to enter a URL or port number.

If you are asked to log in to the Rule Execution Server console, use your ODM on Cloud user name and password.

### Section 5.2, “Viewing the deployed RuleApp”

#### Step 1

The RuleApp that you use in this step is the one that you originally deployed by following the tutorial instructions.

In the **Explorer** tab, in the Navigator, expand **RuleApps** and expand the Miniloan RuleApp that you deployed in the previous section. You should see the two deployed rulesets under the RuleApp.

## Step 2

You can click the most recent deployed RuleApp from your list to view its details.

## Step 3

The baseline property is not included in the properties list for the ruleset that you deployed.

## Step 4

If more than one person completes these exercises on ODM on Cloud, you might see more than one **miniloan-xom.zip** listed under **Resources**. In that case, the one that you deployed is most likely the most recent version. You can click the most recent **miniloan-xom.zip**, click **Show references from rulesets**, and compare the dates in the **Creation Date** column with the dates when you deployed the rulesets.

## Section 6, “Viewing the effects in the Miniloan application”

### Section 6.1, “Running the Miniloan application with the updated ruleset”

#### Step 1

To open the Miniloan application, use the following URL: `http://localhost:9080/miniloan-webapp`

Make sure that you use the correct port for your environment.

## Section 7, “Synchronizing environments between Rule Designer and Decision Center”

### Section 7.1, “Opening Rule Designer”

Open Rule Designer and use the same workspace that you used to complete the tutorial. You can skip ahead to Section 7.2.

### Section 7.2, “Taking a quick tour of Rule Designer”

#### Step 1

The Miniloan decision service has the following folders:

- **rules**: This folder contains the rule packages and rule artifacts for the decision service.
- **bom**: This folder contains the Java project for the Miniloan application, and includes the borrower and loan Java classes.
- **deployment**: This folder contains the files that you use to deploy the decision service, such as the deployment operation and the deployment configuration.
- **queries**: This folder is for queries, which are used to find rule artifacts based on certain search criteria. The Miniloan decision service does not have any queries.

### Section 7.3, “Synchronizing Rule Designer and Decision Center”

#### Step 3

If you completed the tutorial to publish the Miniloan decision service, you can synchronize the decision service that you published with Decision Center.

#### Step 6c

You might see that the entire decision service has changes. You can still open the rule artifacts that you updated and see the changes that you made.

#### Step 7

Right-click the decision service main project and click **Override and Update** to push your changes to ODM on Cloud.

### Exercise 3, “Implementing the model”

You can complete this exercise in Rule Designer.

#### Section 1, “Setting up the rule authoring environment”

##### Step 1a

Go to the folder where you downloaded the Rule Designer for Cloud, open the **eclipse** folder, and double-click **eclipse.exe** to start Rule Designer.

##### Step 1b

Add your workspace to the **workspaces** folder that you created.

If you are asked to establish a connection:

1. Enter your IBM ODM on Cloud URL and click **Connect**.
2. Enter your IBM ODM on Cloud user name and password.
3. Click **Finish**.

### Exercise 4, “Setting up a decision service”

You can work on this exercise in Rule Designer.

#### Section 1, “Creating a standard rule project”

##### Section 1.1, “Opening a new workspace in Rule Designer and viewing the Decision Service Map”

##### Step 1

If you do not have Eclipse open, go to the folder where you downloaded the Rule Designer for Cloud, open the **eclipse** folder, and double-click **eclipse.exe** to start Rule Designer.

If you have Eclipse open, go to **File > Switch Workspace > Other** to open the Workspace Launcher window.

##### Step 2

Add your workspace to the **workspaces** folder that you created.

If you are asked to establish a connection:

1. Enter your IBM ODM on Cloud URL and click **Connect**.
2. Enter your IBM ODM on Cloud user name and password when prompted.
3. Click **Finish**.

## Section 2, “Importing the XOM and creating the BOM”

### Section 2.1, “Importing the XOM”

Steps 1b-1c

The **start** file for this exercise links to a folder in the **gettingstarted** directory, which is not available for IBM ODM on Cloud. The XOM is not physically included in the start folder.

As a workaround, you can import the Miniloan XOM from the Exercise 1 lab files.

- In Rule Designer, go to **File > Import**.
- In the Import window, select **General > Existing Projects into Workspace** and click **Next**.
- Select the **Select root directory** option and click **Browse**.
- Go to `<labfilesDir> > InstallDir-studio-training > training > BA01 - Intro > start`, select **miniloan-xom**, and click **OK**.
- In the Import window, select the **Copy projects into workspace** check box.
- Click **Finish**.

Step 5

The only two options for XOM in IBM ODM on Cloud are:

- Java execution object model
- Dynamic execution object model (XSD)

## Section 3, “Creating the main rule project for the decision service”

Step 3

If other users at your organization also complete these exercises, make sure that you make the main rule project name unique. For example, you can add your name or initials to the rule project name.

Having a unique project name helps to avoid conflicts when you publish the decision service to Decision Center.

## Section 6, “Publishing and synchronizing the rule project”

### Section 6.1, “Publishing the rule project to Decision Center”

Step 3

You should already have your ODM on Cloud login credentials authenticated. (You authenticated your credentials when you created the workspace.)

If needed, you can authenticate your login credentials by going to **File > Configure IBM ODM on Cloud connection**. Enter the URL for your ODM on Cloud environment in the **Portal URL** field, and click **Connect** to enter your ODM on Cloud user name and password.

## Section 6.2, “Viewing the published project in the Decision Center Business console”

### Step 1

In the IBM ODM on Cloud user portal, in the Business Console section, click **Launch** to start the Business console.

### Step 2

If you are asked to log in to the Business console, use your IBM ODM on Cloud user name and password.

### Step 3

IBM ODM on Cloud supports decision services, but does not support classic rule projects. You do not see a **Classic Rule Projects** tab in the IBM ODM on Cloud Business console.

The `myRuleProject` decision service that you published should be in the list of decision services.

### Step 4

Click the **Decision Artifacts** tab, and in the left pane, expand **myRuleProject** to see the **eligibility** and **validation** folders.

## Section 6.3, “Changing the rule project in the console”

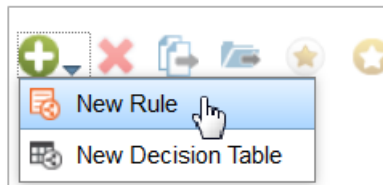
### Steps 1-2

To create a rule:

1. In the left pane, click the eligibility folder. In the center pane, click the “create an artifact” plus sign (+) icon:



2. Click **New Rule**.



## Section 6.5, “Deleting the project from Decision Center”

Depending on the role that is assigned to your user account, you might not be able to delete the decision service from Decision Center.

### Step 1

In the IBM ODM on Cloud user portal, in the Enterprise Console section, click **Launch** to start the Enterprise console.

### Step 2

If you are asked to sign in to the Enterprise console, use your IBM ODM on Cloud user name and password.

#### Step 4

If you do not see the **Configure** tab, you do not have the permissions to delete decision services.

## Exercise 5

### Section 1, “Reviewing the vocabulary”

#### Section 1.1, “Switching to a new workspace”

##### Step 2

- Add your workspace to the **workspaces** folder that you created.
- In the “Configure IBM ODM on Cloud connection” window, enter your IBM ODM on Cloud connection details to establish the connection
  - Enter the URL for your IBM ODM on Cloud and click **Connect**.
  - Enter your IBM ODM on Cloud user name and password when prompted.
  - Click **Finish**.

##### Step 4

To import the start project for this exercise:

- In Rule Designer, go to **File > Import**.
- In the Import window, select **General > Existing Projects into Workspace** and click **Next**.
- Select the **Select root directory** option and click **Browse**.
- Go to `<labfilesDir> > InstallDir-studio-training > training > BA05a - Vocabulary`, select **start**, and click **OK**.
- In the Import window, select the **Copy projects into workspace** check box.
- Click **Finish**.

When you import the start project, you see an error because the miniloan-rules decision service uses the classic rule engine. IBM ODM on Cloud supports the decision engine.

To update the decision service rule engine to the decision engine:

- Right-click **miniloan-rules** and click **Properties**.
- Click **Rule Engine** to open the Rule Engine settings.
- Select **Decision engine** and click **OK**.
- The error should disappear.

### Section 4, “Creating a domain”

#### Section 4.3, “Viewing the solution (optional)”

These steps are optional.

### Step 1a

When you switch to a new workspace, add the workspace to your **workspaces** folder.

In the “Configure IBM ODM on Cloud connection” window, enter your IBM ODM on Cloud connection details to establish the connection:

- Enter the URL for your IBM ODM on Cloud and click **Connect**.
- Enter your IBM ODM on Cloud user name and password when prompted.
- Click **Finish**.

### Step 2c

To import the answer project for this exercise:

- In Rule Designer, go to **File > Import**.
- In the Import window, select **General > Existing Projects into Workspace** and click **Next**.
- Select the **Select root directory** option and click **Browse**.
- Go to `<labfilesDir> > InstallDir-studio-training > training > BA05b - Domains`, select **answer**, and click **OK**.
- In the Import window, select the **Copy projects into workspace** check box.
- Click **Finish**.

When you import the start project, you see an error because the miniloan-rules decision service uses the classic rule engine. IBM ODM on Cloud supports the decision engine.

To update the decision service rule engine to the decision engine:

- Right-click **miniloan-rules** and click **Properties**.
- Click **Rule Engine** to open the Rule Engine settings.
- Select **Decision engine** and click **OK**.
- The error should disappear.

## Exercise 6

This exercise cannot be completed on IBM ODM on Cloud. It uses a classic rule project that is included in the samples that are included in the on-premises version of Operational Decision Manager V8.7.1.

## Exercise 7

This exercise cannot be completed on IBM ODM on Cloud. It uses a classic rule project that is included in the samples that are included in the on-premises version of Operational Decision Manager V8.7.1.



## Notes for all rule authoring exercises:

- Exercise 11, “Working with conditions in rules”
- Exercise 12, “Working with definitions in rules”
- Exercise 13, “Writing complete rules”
- Exercise 14, “Authoring decision tables and trees”
- Exercise 15, “Authoring rules: Putting it all together”

### Using the Enterprise console

If you published the rule authoring decision services for this course, you can access them through the Enterprise console for IBM ODM on Cloud.

In the Enterprise Console section of the IBM ODM on Cloud Applications page, click **Launch**. If you are asked to sign in to the Enterprise console, use your IBM ODM on Cloud user name and password.

### Saving your work in the Enterprise console

When you write a rule in the Enterprise console editor, you might need to click **Finish** twice to save the rule. Alternatively, you can click in the white space of the rule editor to make sure that your changes are in the rule editor, and then click **Finish**.

## Exercise 11, “Working with conditions in rules”

### “Before starting the exercise”

### “Starting the sample server”

You do not need to start the server because the Enterprise console runs on ODM on Cloud.

## Section 1, “BAL condition constructs”

### Section 1.1, “Looking up BAL constructs in the product documentation”

#### Step 1

Use the link in this step to view the Business Action Language (BAL) reference in the Operational Decision Manager V8.7.1 product documentation.

## Section 3, “Writing comparison conditions”

### Section 3.1, “Creating the ‘Car age’ rule in the Enterprise console”

#### Steps 1-3

Launch the Enterprise console from the ODM on Cloud Applications page. If needed, sign in with your ODM on Cloud user name and password.

## Exercise 12, “Working with definitions in rules”

**“Before starting the exercise”**

**“Starting the sample server”**

You do not need to start the server because the Enterprise console runs on ODM on Cloud.

### Section 2, “Using the from <object>” construct

#### Section 2.1, “Creating the ‘Collision cover in [min, max]’ rule”

Step 1

If needed, start the Enterprise console from the ODM on Cloud Applications page.

## Exercise 13, “Writing complete rules”

**“Before starting the exercise”**

**“Starting the sample server”**

You do not need to start the server because the Enterprise console runs on ODM on Cloud.

## Exercise 14, “Authoring decision tables and trees”

**“Before starting the exercise”**

**“Starting the sample server”**

You do not need to start the server because the Enterprise console runs on ODM on Cloud.

## Exercise 15, “Authoring rules: Putting it all together”

**“Before starting the exercise”**

**“Starting the sample server”**

You do not need to start the server because the Enterprise console runs on ODM on Cloud.

## Exercise 16

This exercise cannot be completed on IBM ODM on Cloud. It uses features that are not available in IBM ODM on Cloud:

- This exercise uses a classic rule project.
- The Enterprise console in ODM on Cloud does not include support for Decision Validation Services (DVS) and the Scenario Service Provider (SSP).

## Exercise 17, “Working with the decision governance framework”

This exercise cannot be completed in IBM ODM on Cloud.

- It requires the user accounts that are included with the sample server installation of the on-premises version of IBM Operational Decision Manager.
- The decision service that is used in this exercise does not work with the IBM ODM on Cloud simulation feature.

***End of document***