

IBM Cloud Pak for Business Automation Demos and Labs 2021

Introduction to IBM Business Automation Workflow

Swapnil Agrawal
aswapnil@ca.ibm.com

V 1.0

NOTICES

This information was developed for products and services offered in the USA.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
United States of America

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

TRADEMARKS

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

IT Infrastructure Library is a Registered Trade Mark of AXELOS Limited.

ITIL is a Registered Trade Mark of AXELOS Limited.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Linear Tape-Open, LTO, the LTO Logo, Ultrium, and the Ultrium logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

© Copyright International Business Machines Corporation 2020.

This document may not be reproduced in whole or in part without the prior written permission of IBM.

US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Table of Contents

1 Introduction	4
1.1 IBM Business Automation Workflow	4
1.2 Lab Overview.....	4
1.3 Lab Setup Instructions	4
2 Exercise: Create the Client Onboarding solution	5
2.1 Introduction	5
2.2 Exercise Instructions.....	5
2.2.1 Create the solution in IBM Business Automation Studio	5
2.2.2 Create roles in the solution.....	7
2.2.3 Add document classes to the solution	8
2.2.4 Create properties in the solution.....	9
3 Exercise: Update the Client Onboarding Request Case Type	10
3.1 Introduction	10
3.2 Exercise Instructions.....	10
3.2.1 Add properties to the case type	10
3.2.2 Update the custom UI for the Case Details view	11
3.2.3 Add stages to the case type.....	13
4 Exercise: Implement activities in the Client Onboarding Request Case Type.....	14
4.1 Introduction	14
4.2 Exercise Instructions.....	14
4.2.1 Edit activities in the Case Builder	14
4.2.2 Implement activities in the Process Designer	16
4.2.3 View cases in the Case Client	22
4.2.4 Optional exercise: Filing documents to a case	25

1 Introduction

1.1 IBM Business Automation Workflow

Organizations often require workflows that are unstructured, require knowledge workers, implement straight-through processes, integrate documents with the workflows and access system of records. IBM Business Automation Workflow is software that combines business process management and case management capabilities in a single integrated workflow solution to provide all these capabilities.

Additional information about IBM Business Automation Workflow can be found [here](#).

1.2 Lab Overview

In this lab, you will learn how to create a sample Workflow solution for the client onboarding scenario. It covers how to build a solution that includes both case and process features and shows you how to build easy to use low-code UIs.

1.3 Lab Setup Instructions

1. Access the document that lists the available systems and URLs along with login instructions. For this lab, you will need to access **IBM Business Automation Studio** and **Case Client**.
2. Download the **Legacy Consulting - Banking Information.pdf** from the Lab Data folder onto your computer (this is only required for the optional exercise at the end of the lab).

2 Exercise: Create the Client Onboarding solution

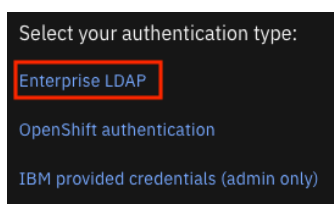
2.1 Introduction

In this exercise, you will learn how to [create a Workflow solution](#) that includes the case features. The solution you will create will be based on a template with a partial implementation which helps you complete the lab faster.

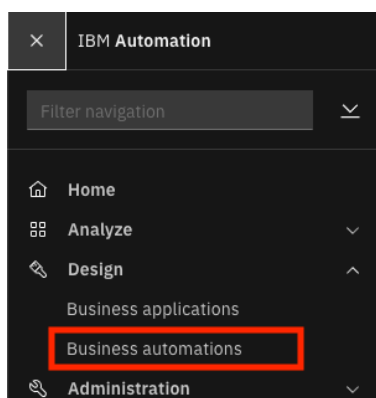
2.2 Exercise Instructions

2.2.1 Create the solution in IBM Business Automation Studio

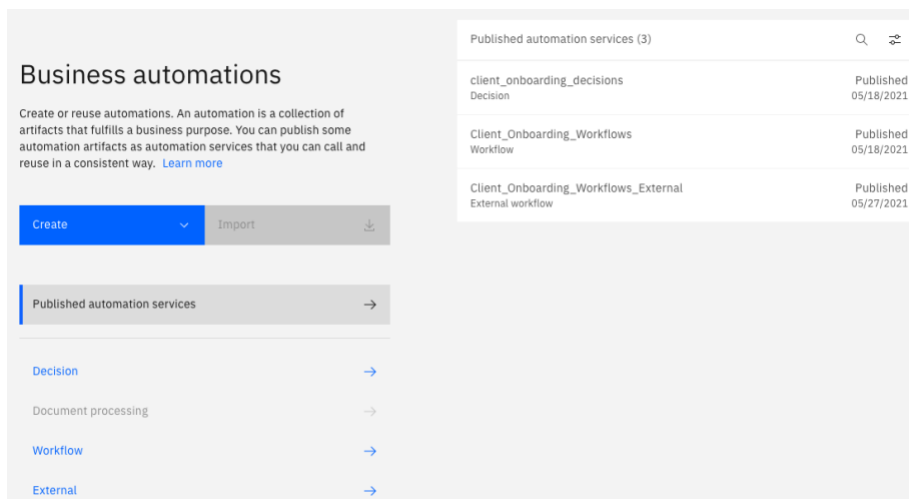
1. In your browser, login to IBM Business Automation Studio using the Enterprise LDAP option. Use the credentials you have received.



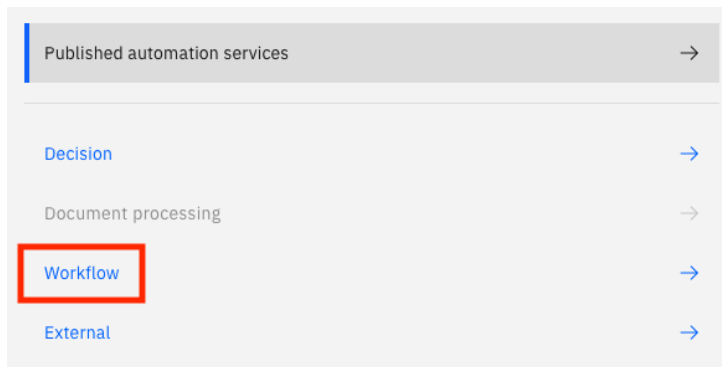
2. In the top-left corner, click on the hamburger menu icon and select **Design** → **Business automations** to access the automation repository.



This brings up the Business automations page where you can create or reuse automations from different capabilities of IBM Cloud Pak for Business Automation. At this point, you may see a dialog for a guided tour which you can choose to do later.



3. Click on **Workflow**.



4. Click on **Create → Workflow automation**.

5. Check the **Includes case features** checkbox.

Note: As a best practice, you should include the case features when you want to create a Workflow automation project that contains unstructured activities, is content intensive (i.e., activities triggered by documents) and/or requires persistence (i.e., a permanent system of record).

6. In the **Create from template** field, select **Client Onboarding Template**.
7. In the **Name** field, enter **UsrNNN Client Onboarding** where *UsrNNN* is your username.
8. Click on **Create**.

A screenshot of a web application's 'Create a workflow automation' form. The form has a title bar with a close button (X). The form contains several fields: a checkbox labeled 'Includes case features' which is checked and highlighted with a red box; a 'Create from template (optional)' dropdown menu showing 'Client Onboarding Template (COT)' and highlighted with a red box; a 'Name' text input field with a help icon and the text 'Usr011 Client Onboarding', also highlighted with a red box; a 'Purpose (optional)' text area with the text 'Solution to orchestrate different tasks required to onboard a client'; and a blue 'Create' button at the bottom right, highlighted with a red box.

This launches the Case Builder where you can [define your case management solution](#). Since this solution was created from a template, a partial implementation already exists. As a part of the lab, you will complete the implementation.

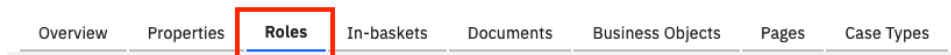
Note that the Case Builder may take a few seconds to load.

2.2.2 Create roles in the solution

[Roles](#) are the different personas/teams that are required as part of the client onboarding solution i.e., Client Rep & Account Manager.

1. Click on the **Roles** tab.

Usr011 Client Onboarding



The Client Rep role already exists as a part of the template. You will now add the **Account Manager** role.

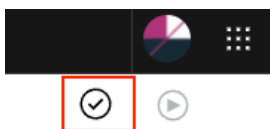
2. Click on **Add Role +** in the upper-right corner.
3. In the **Role** field, enter **Account Manager**.
4. Click on **OK**.

A screenshot of the 'Add Role' dialog box. The dialog has a title bar 'Roles ⓘ' and a button 'Add Role +' in the top right corner. Below the title bar is a table with two columns: 'Name' and 'Description'. The table is currently empty. Below the table, there is a form with two fields: '* Role:' and 'Description:'. The '* Role:' field contains the text 'Account Manager'. The 'Description:' field contains the text 'Reviews the client onboarding request'. To the right of the 'Description:' field are two buttons: 'Cancel' and 'OK'. The 'OK' button is highlighted with a red box.

You should now have 2 roles defined in your solution:

A screenshot of the 'Roles' table. The table has two columns: 'Name' and 'Description'. The table contains two rows of data. The first row has 'Account Manager' in the 'Name' column and 'Reviews the client onboarding request' in the 'Description' column. The second row has 'Client Rep' in the 'Name' column and 'Handles all activities associated with client interaction' in the 'Description' column. The 'Account Manager' text is highlighted in blue.

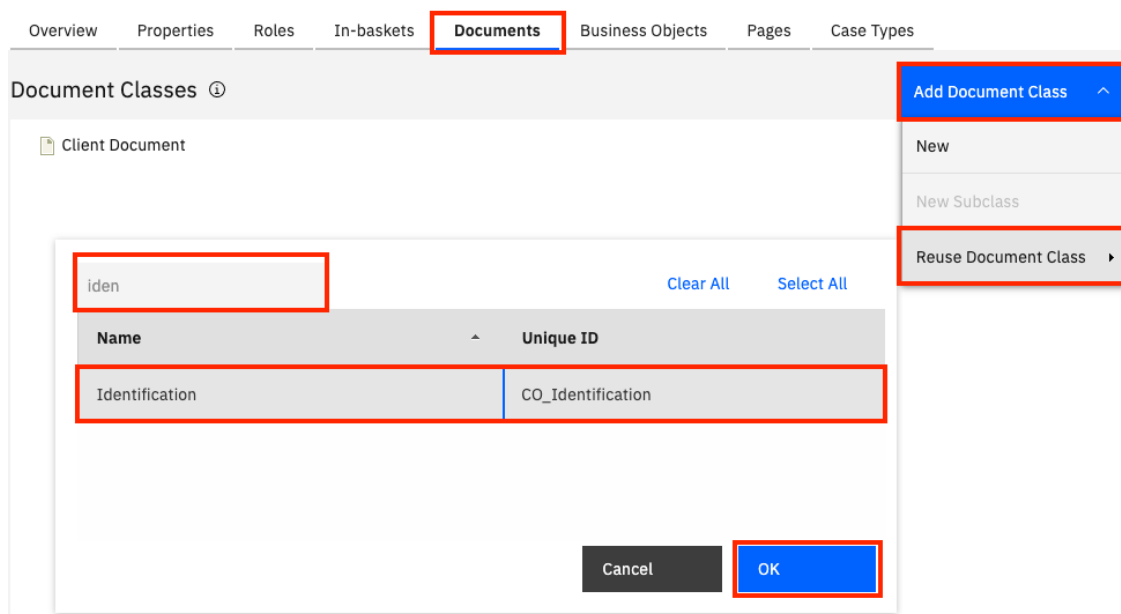
5. Click on **Save** in the upper-right corner.



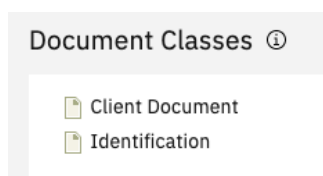
2.2.3 Add document classes to the solution

Next, we will add [document classes](#) that are required as a part of the solution. Document classes help you organize and classify the documents that belong to a case and can contain custom properties. The document classes required for this solution are **Client Document** and **Identification**. These classes have already been defined in the environment and can be re-used in the solution.

1. Click on the **Documents** tab.
2. Click on **Add Document Class** → **Reuse Document Class**.
3. Select the **Identification** class.
4. Click on **OK**.



You should now have two document classes defined in your solution:



5. Click on **Save**. ✓

2.2.4 Create properties in the solution

Next, we will add some of the [properties](#) required for this solution. Properties are artifacts that can be reused within the solution at various levels to define things such as names, dates, approval status, amounts, etc. Some properties already exist as a part of the template. You will add a **Services Requested** property that will hold the values of the services requested by the client to be onboarded.

1. Click on the **Properties** tab.
2. Click on **Add Property → New**.
3. In the **Name** field, enter **Services Requested**.
4. For the **This property can have** field, select **Multiple values**.
5. Provide an optional description.
6. Click on **OK**.

The screenshot shows the 'Property Definitions' dialog box. At the top right, there is a blue 'Add Property' button with a dropdown arrow. Below this is a table with columns: Name, Type, Attributes, and Description. The 'Name' column has a red box around the text 'Services Requested'. The 'Type' column has a red box around the text 'String'. The 'Description' column has a red box around the text 'Services requested by the client'. Below the table, there are several fields: 'This property can have:' with radio buttons for 'A single value' and 'Multiple values' (the latter is selected and has a red box around it); 'Maximum length:' with a value of '64'; 'Choice list:' with a dropdown menu showing 'None'; and 'Unique Identifier' with a text field containing 'U011C_ServicesRequested'.

Note: In the current solution, we have only used simple types such as String, Boolean, etc. However, you can configure a property to be of type **Business Object** which allows you to create more complex types with nested properties. You can also configure a **choice list** that allows the values of a property to be limited to the items in the list. This is done for the **Approval Status** property with the choices set to **Under Review**, **Approved**, and **Rejected**.

7. Click on **Save**. ✓

This concludes the first exercise. In this exercise, we setup the framework necessary to create a case solution. In the next exercise, we will use the various properties, roles, etc. to create a [case type](#) for the solution.

3 Exercise: Update the Client Onboarding Request Case Type

3.1 Introduction

In this exercise, you will learn more about [case types](#). A case type identifies the activities, content, views, etc. that are required to manage the case. A case solution can have multiple case types.

3.2 Exercise Instructions

3.2.1 Add properties to the case type

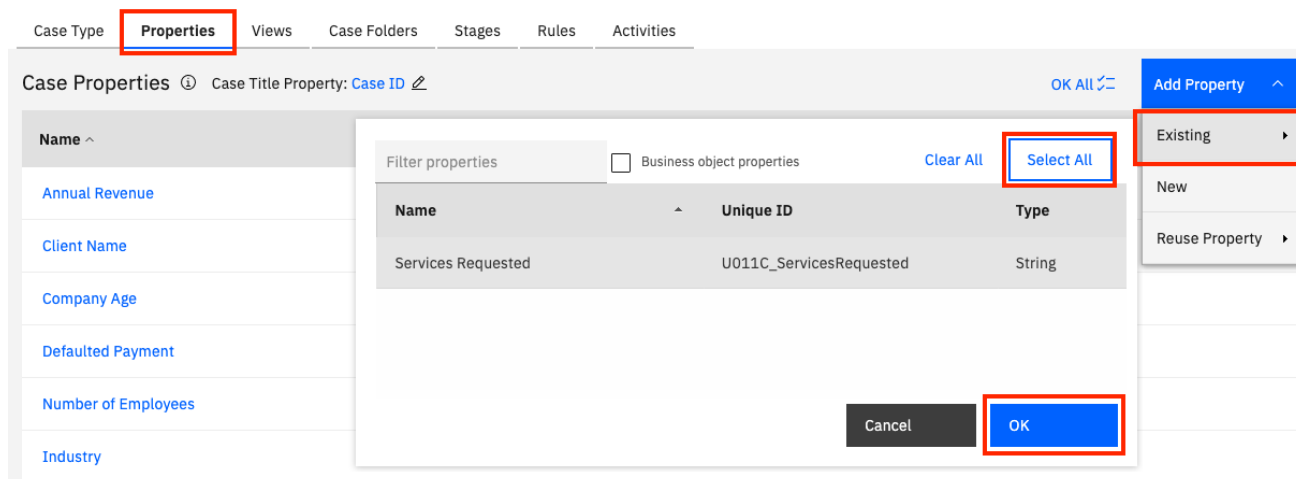
1. In your Workflow solution, click on the **Case Types** tab.
2. Click on the existing **Client Onboarding Request** case type to open it.

Note 1: The field **Starting document class** is set to **<None>** but it's an important field to note. This field allows the case to be triggered automatically when a document of the selected class is added to the content repository backing the Workflow server. This has several use cases like - starting a mortgage application case if a mortgage application form is uploaded, starting an insurance claim request if a picture of a car is submitted. Case types can also be triggered via API and manually by Case workers.

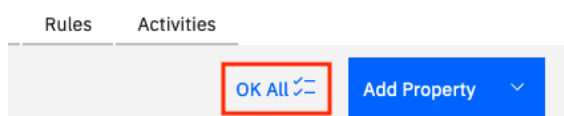
Note 2: In the **Default layout for Case Details page** field at the bottom, **Custom Case Details (Human Service)** is selected. This page shows the case details when a case worker works on the case. For this solution, a custom page has been created which you will customize later. You can define different case details UIs for different workers based on their roles.

Next, we will add properties to the case type.

3. Click on the **Properties** tab.
4. Click on **Add Property** → **Existing** → **Select All**.
5. Click on **OK**.



6. Click on **OK All**.



7. Click on **Save**. ✓

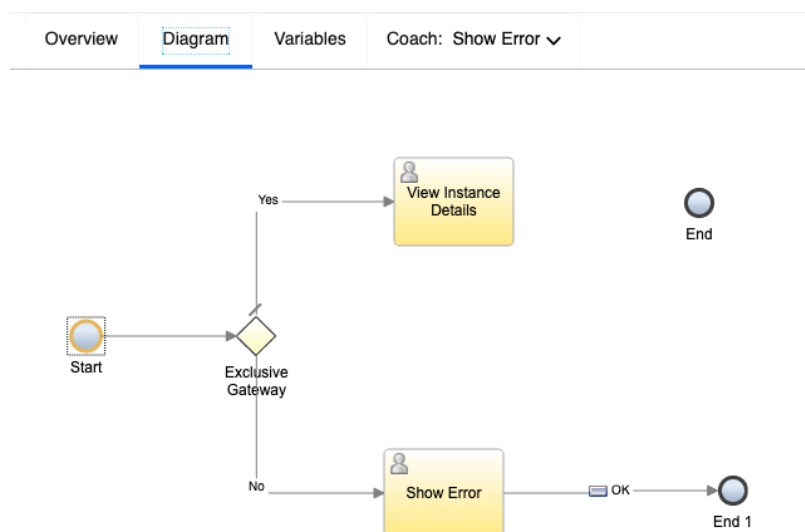
3.2.2 Update the custom UI for the Case Details view

Each case type has a case details view. This view allows users to see the details of a case like the summary, properties, activities, comments, documents, etc. You can define this view as a [Client-side human service](#) which offers enhanced flexibility in terms of UI design. In this exercise, we will update the existing view to support the new property we added in the previous exercise.

1. Click on the **Views** tab.
2. Click on **Custom Case Details** to modify its design.

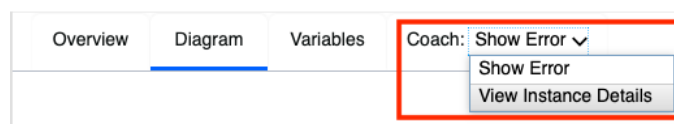
Name ^	Type	Description ^
Custom Case Details	Case Details	Custom client-side human service to show the case details

This opens a new window in IBM Process Designer which contains the following diagram.



This editor is that of a human service. This human service consists of two [coaches](#) – **View Instance Details** & **Show Error**. Coaches contain the UI of an activity, and each human service can contain multiple coaches. As we are customizing the UI for the case details, we will now edit the **View Instance Details** coach.

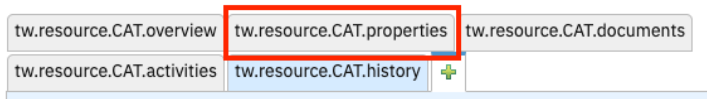
3. Select **Coach** → **View Instance Details** at the top.



This shows the editor for the coach where you can create the UI to be shown when a user looks at the details of a case. A default UI already exists using out-of-the-box views (e.g., case comments, documents, activities, etc.) that can be customized. UI elements are provided as **Views** in this designer and views can either be a part of the solution or a part of a **Toolkit** that can contain common views across solutions. For example, the header view with the **Focus Corp** logo is a part of a toolkit that contains artifacts common to Focus Corp's UI design.

The views available to this solution are shown in the palette on the right-hand side. Optionally, spend some time looking at the different views available.

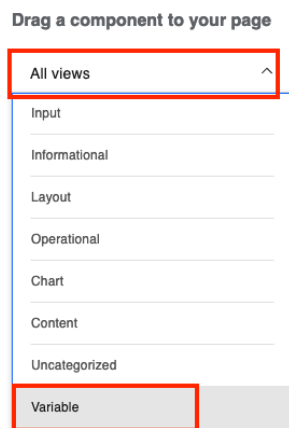
- Click on the **tw.resource.CAT.properties** tab in the editor.



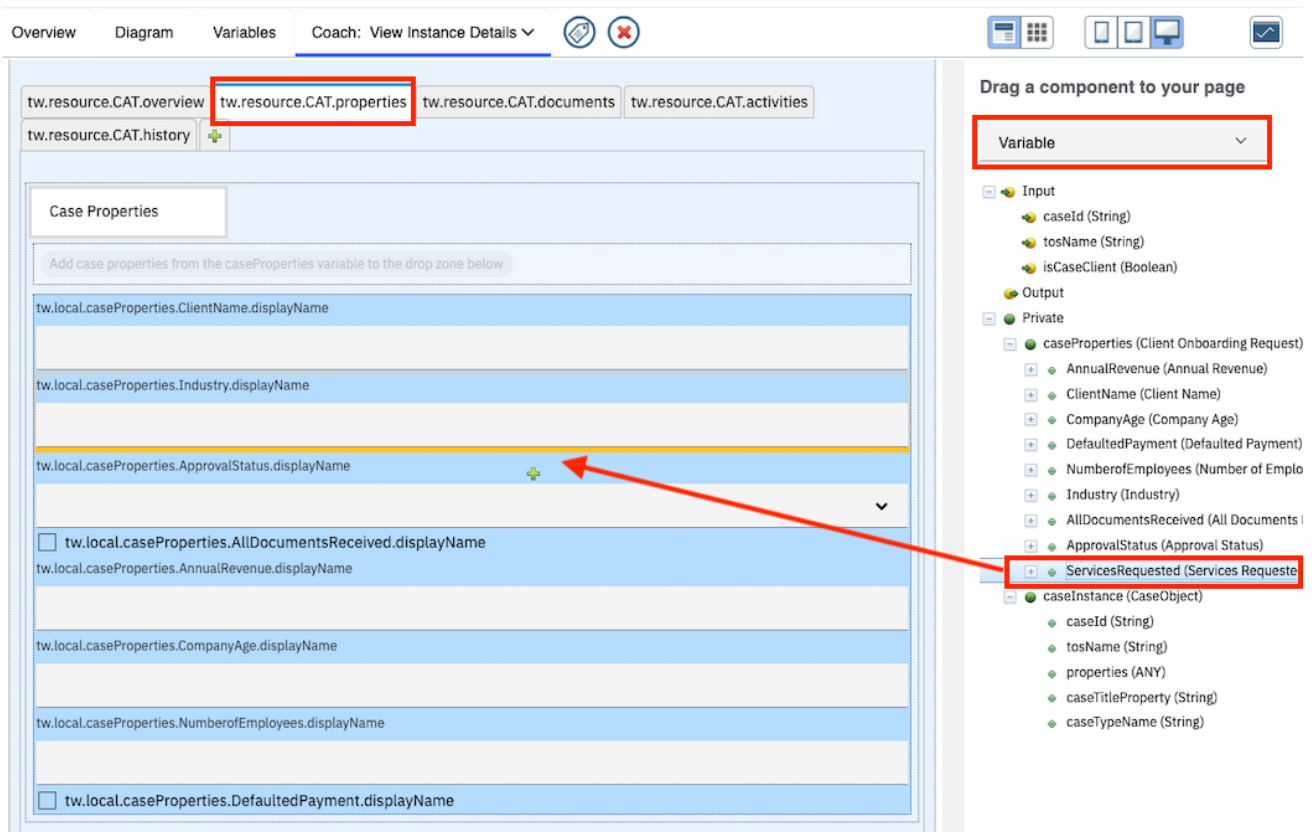
The **tw.resource.CAT.properties** label means that when the UI is generated, the actual label will be retrieved from a resource file **CAT** based on the user's locale. Resource files provide a way to create a UI for different languages.

Some of the case properties are added as UI fields in this tab. We need to add the **Services Requested** property to it.

- In the right-hand side palette, switch the dropdown selection from **All Views** to **Variables**.



- Drag and drop the **Services Requested** property (from Private → caseProperties) to the UI below the **Industry** field (see the yellow line that appears).



Dropping a property onto the UI automatically creates the right fields for the property. For example, dropping a Boolean would create a checkbox like you see for the **All Documents Received** property. Properties with a choice list create a dropdown field with only the items under the choice list as selectable values.

7. Click on the **Finish Editing** button in the top-right corner.

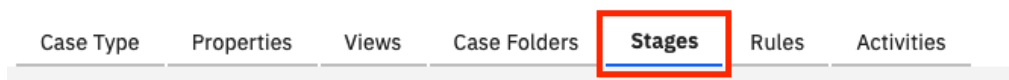


8. Close the Process Designer window to show the Case Builder again.

3.2.3 Add stages to the case type

You can define [stages](#) to represent the lifecycle of a case. The first stage starts automatically when the case is started. We will add a stage for this case – **Scoreboarding**.

1. Back in the Case Builder, click on the **Stages** tab.



2. Click on **Add Stage +**.
3. In the **Name** field, enter **Scoreboarding**.

A screenshot of the 'Add Stage' dialog box. It has two rows of input fields. The first row is for 'Name' and 'Description'. The 'Name' field contains 'Scoreboarding' and the 'Description' field contains 'Perform risk assessment'. Both fields are highlighted with a red rectangular box. To the right of these fields are 'Cancel' and 'OK' buttons, with the 'OK' button also highlighted by a red box. The second row contains fields for 'Unique Identifier' (with 'Scoreboarding' entered) and 'Duration' (with a unit selector set to 'hours').

When the **Document Review** stage completes, the **Scoreboarding** stage will begin automatically. In the next exercise, you will define an activity that starts automatically when the **Scoreboarding** stage begins. You can define multiple activities that start in parallel when a stage begins.

4. Click on **Save**. ✓

4 Exercise: Implement activities in the Client Onboarding Request Case Type

4.1 Introduction

In this exercise, you will learn how to implement [activities](#) in a case type. You will do that by completing the implementation of the **Scoreboarding** activity that is required for the Client Onboarding Request.

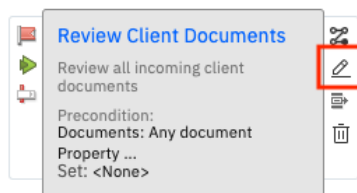
4.2 Exercise Instructions

4.2.1 Edit activities in the Case Builder

1. Click on the **Activities** tab in the **Client Onboarding Request** Case Type.

This tab lists all the activities available in the Case Type. You can add new activities to the current solution or also re-use Workflows defined in other solutions. By default, the activities are split into required and optional.

2. Hover over **Review Client Documents** and click on the **Edit** icon.



Observe that the activity is set to start automatically and is not marked as required.

3. Click on the **Preconditions** tab.

The precondition is set to **A document is filed in the case** which means that the activity is automatically triggered when a new document is added to the case folder. You can also specify which documents should trigger a specific activity.

Observe that the **Activity is repeatable** checkbox is checked. This ensures that a new instance of the activity is started each time a client document is filed to the case.

Additional pre-conditions are defined at the bottom. For the activity to trigger, the **All Documents Received** must be false. This ensures that the activity is not started after all client documents are received even if a new document is accidentally filed to the case.

General **Preconditions** Activity Properties Design Comment

What preconditions must be met for this activity to start?

A document is filed in the case

☒ Activity is repeatable

☒ Any document class

Document Classes:

Client Document

Identification

The above precondition and the following conditions:

Match: All

Delete All Conditions Add Condition +

Property	Operator	Value
All Documents Rece	is equal	False

4. Click on **Cancel** to close the activity editor.
- Next, we will edit the **Scoreboarding** activity.
5. Hover over the **Scoreboarding** activity and click on the **Edit** icon.
6. Click on the **Preconditions** tab.
7. Select **A stage has started** as the precondition.
8. In the **Select a stage** field, select **Scoreboarding**.

General **Preconditions** Activity Properties Design Comment

What preconditions must be met for this activity to start?

A stage has started ▼

☐ Activity is repeatable

Select a stage:

Scoreboarding ▼

Note: You can create multiple optional/required activities that start in parallel when a certain stage has started. This is one of the benefits of using the case features as it allows you to create unstructured activities and define their lifecycles using stages.

9. Click on **OK**.
10. Click on **Save**. ☑ This concludes the editing of the Case portion of the solution at which point you can deploy it.
11. Click on the **Deploy** button in the upper-right corner.



12. In the confirmation dialog, click on **Deploy**.

Confirmation

You have the following items locked, and the items are unavailable for deployment:

Type	Name
Solution	Properties, case types, document classes, business objects, choice lists, solution description, solution icon, case folders, case summary view, case search view, case stages
Solution	Roles and in-baskets

☒ Commit my changes and make them available for deployment

Cancel

Deploy

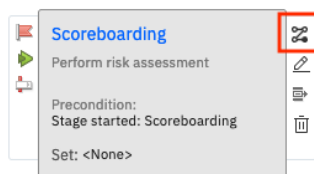
Once the solution is deployed and reloaded, you should see the status update in the upper-right corner with two green checkmarks.



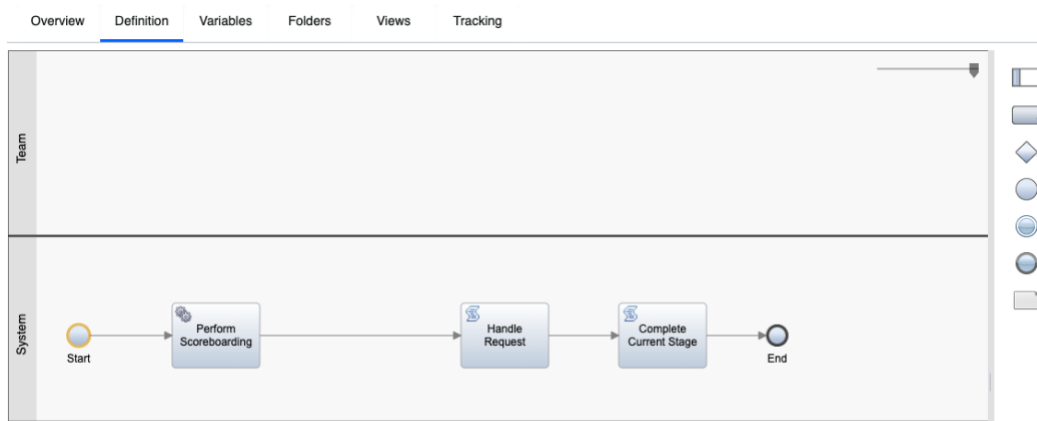
4.2.2 Implement activities in the Process Designer

Next, we will implement parts of the **Scoreboarding** activity. The scoreboarding activity calls an intelligent decision service to perform risk assessment. If the confidence of the AI model behind the decision service is low, a human service is started where the account manager can manually review the client onboarding request.

1. Back in the Case Builder, go to the activities tab in the **Client Onboarding Request** case type.
2. Hover over the **Scoreboarding** activity and click on the **Open IBM Process Designer** icon.



This opens a new window with the implementation of the activity in the Process Designer. The Process contains two lanes – **System** and **Team**. System lanes contain service calls / anything that is done by the Workflow system. Team lanes contain user tasks that need to be performed by a team. You can add/remove lanes depending on the requirements of a Workflow.



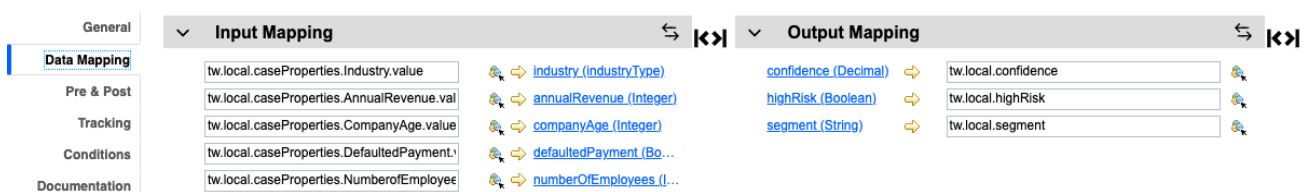
At the top of the implementation, you will see various tabs like **Overview**, **Definition**, **Variables**, etc. You can optionally explore these tabs. For example, the **Variables** tab contains all variables that can be used in the implementation (e.g., case properties).

3. In the Scoreboarding Process, the first task to be executed is **Perform Scoreboarding**. Click on the **Perform Scoreboarding** task.

Here, you can see that the **type** selected is **System Task** and the **implementation** is the **Perform Scoreboarding** service from the **Client Onboarding Toolkit**. This service calls a Decision that expects details from the Client Onboarding application as the input and provides the scoreboard (risk level, confidence, etc.) as the output.

4. Click on the **Data Mapping** tab.

Here, you can see that the different inputs and outputs defined for the service and how they map to the case properties.



We need to now update the implementation by adding a user task that will be started when the confidence of the **Perform Scoreboarding** task is below 75%. This user task will require that the Account Managers manually review the client onboarding request.

5. Click on the empty space in the **Team** lane.
6. In the properties pane at the bottom, update the **name** and **default lane team** to **Account Manager**.

General

Common

Name: Account Manager

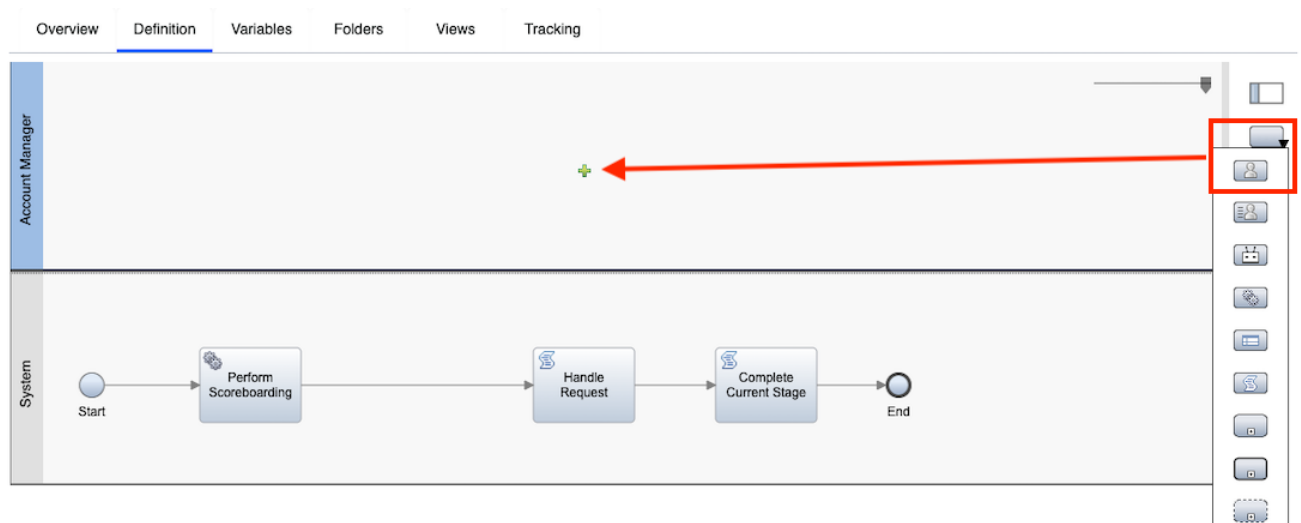
Color: [Color Selection]

Behavior

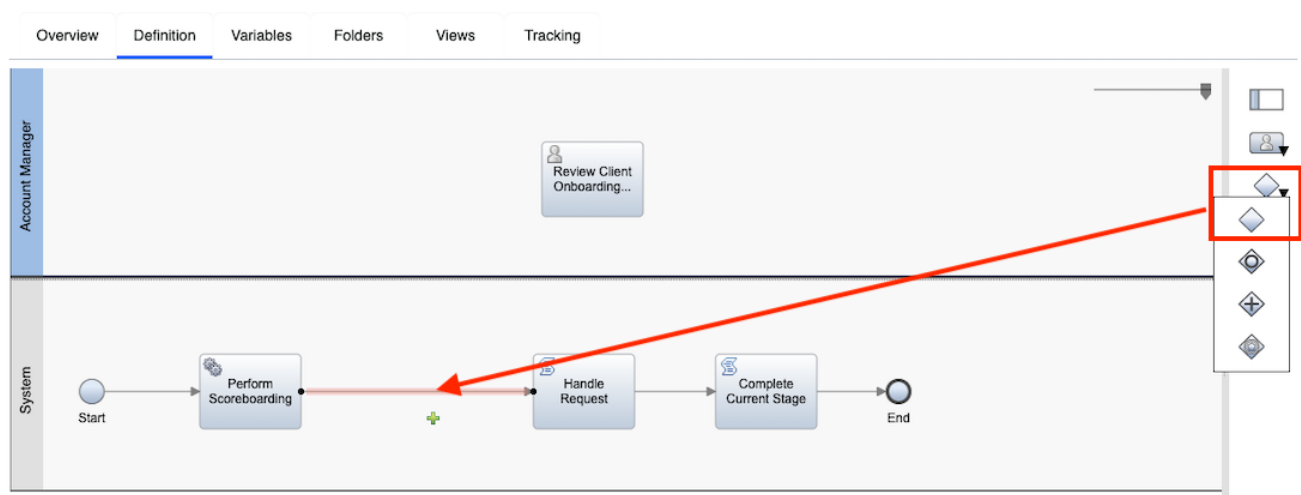
Default lane team: Account Manager [Select...] [New...]

Is system lane: ☐

7. From the palette on the right-hand side, click on the **drop-down arrow** for the 2nd activity, select the **User Task** activity and drop it to the **Account Manager** lane



8. In the properties pane at the bottom, change the **name** of the activity to **Review Client Onboarding Request**.
9. Next, select the **drop-down arrow** for the 3rd activity in the palette on the right-hand side, and drop the **Exclusive Gateway** on the line connecting the **Perform Scoreboarding** and **Handle Request** tasks.

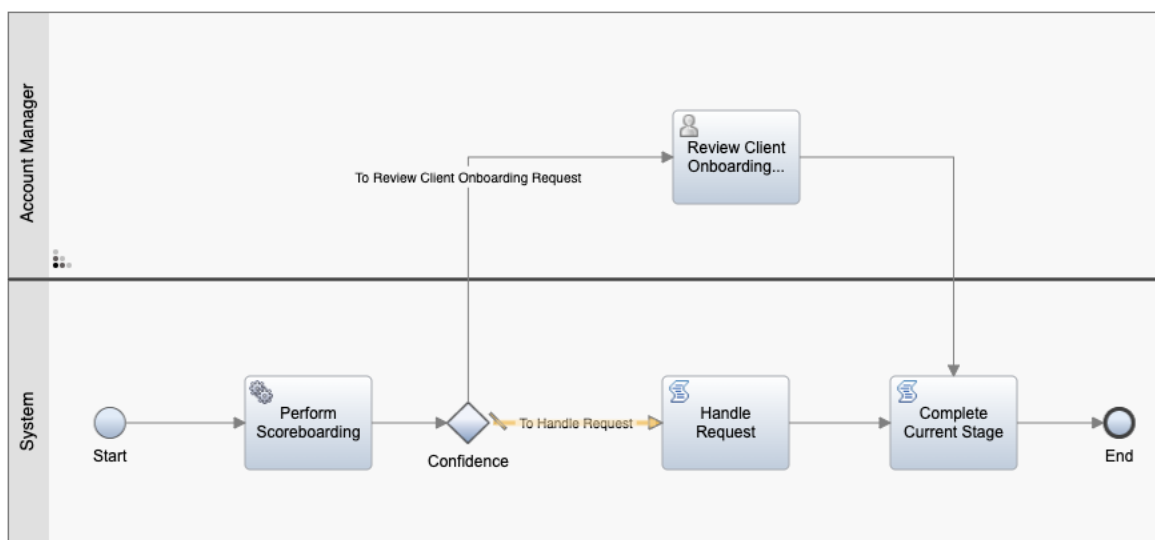


10. Rename the gateway to **Confidence** (in the name field in the properties pane).

11. Click on the line connecting **Confidence** and **Handle Request**.
12. In the properties pane at the bottom, click on the **Documentation** tab and update the **name** to **To Handle Request**.
13. Hover over the **Confidence** gateway. This shows lines that you can connect to other tasks in the implementation. Connect the top of the gateway to the **Review Client Onboarding Request** user task.



14. Similarly, connect the **Review Client Onboarding Request Task** to **Complete Current Stage**. Your diagram should now look as follows:



15. Click on the **Confidence** gateway.
16. In the properties pane on the bottom, in the **General** tab, under the **Decisions** section, in the **Default flow** field, select the **To Review Client Onboarding Request** option.
17. In the **To Handle Request** field, select the **confidence** variable using the variable picker icon.
18. In the **operation** field, select the **>=** operator.
19. In the **value** field, enter **75**.

▼ **Decisions**

To Handle Request:
🔍
>=
+

🔍 ⬇ ⬆ ⬇

Default flow:
▼

What this means is that after the decision service is invoked, if the confidence is greater than or equal to 75%, the scoreboarding stage will be automatically handled without human intervention and the client onboarding request will be approved or denied based on the risk level.

Next, we will add the UI for the **Review Client Onboarding Request** human service.

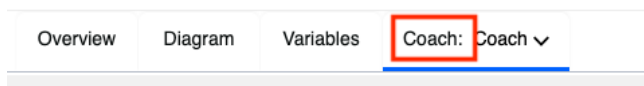
20. Click on the **Review Client Onboarding Request** user task.

21. In the properties pane, in the **General** tab, under the **Implementation** section, click on **New**.
22. In the new Client-side human service wizard, click on **Next**.
23. In the variable selector, **uncheck activityProperties**.
24. Also **uncheck** the **output** for **all local variables**.

Variables		
<input checked="" type="checkbox"/> caseProperties (Client Onboarding Request)	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> activityProperties (Scoreboarding)	<input type="checkbox"/>	
▼ Local	Input	Output
<input checked="" type="checkbox"/> confidence (Decimal)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> highRisk (Boolean)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> segment (String)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

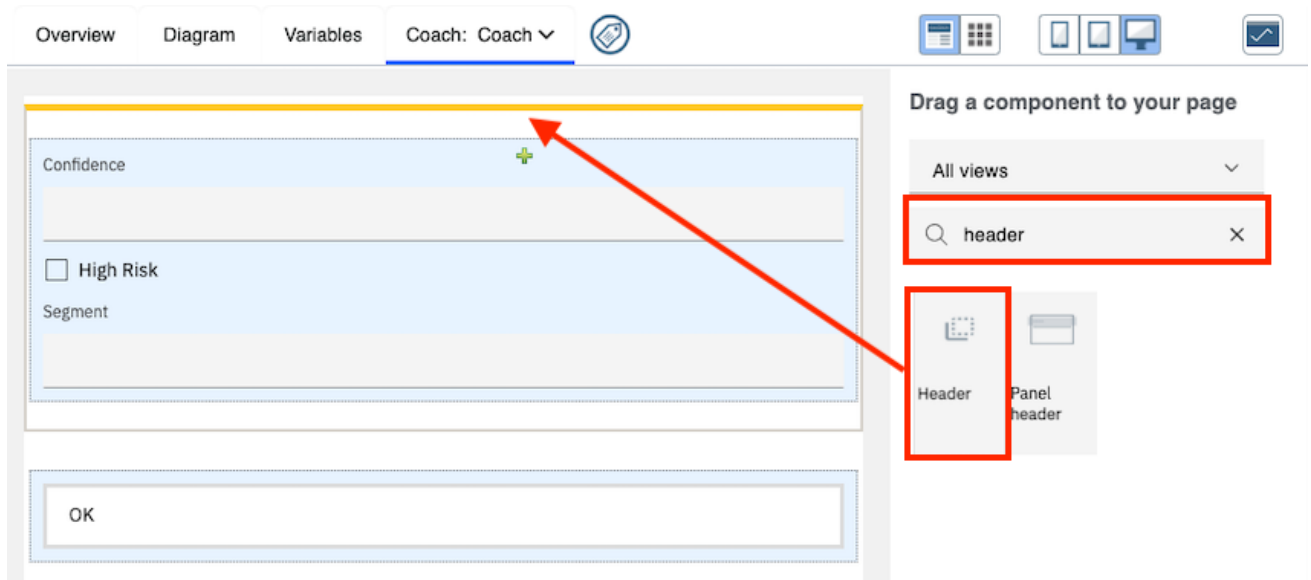
We require the local variables to be inputs to the human service as the UI will display their values. Output variables are only required if the values are updated and need to be fed back to the process.

25. Click on **Finish**. This opens the Client-Side Human Service editor.
26. Click on **Coach**.



A default UI with the local variables is already created. We will now customize it.

27. In the right-hand side palette, search for the **Header** view and drag and drop it to the top of the UI.



This adds the header view to the page. This view comes from a custom toolkit included in its implementation. Views like these can be created and included in toolkits for re-use across solutions.

28. In the properties pane at the bottom, click on **Configuration**.

29. Change **Client Rep Visibility** to **None**.

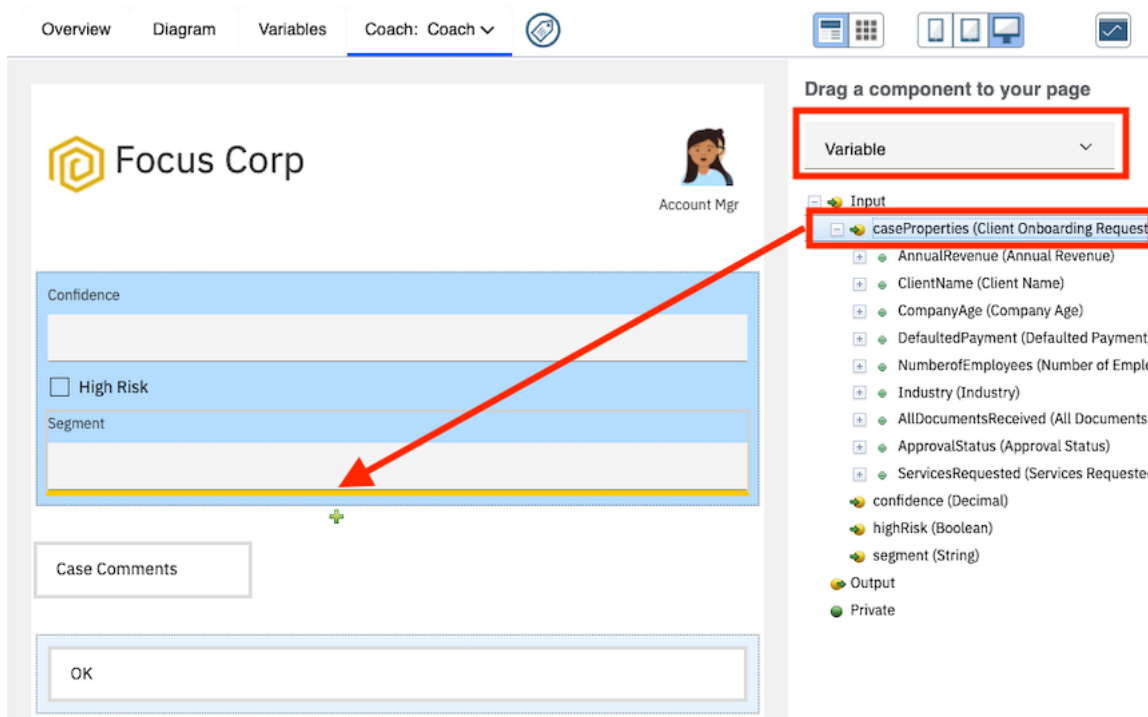
Here, you can see that views can provide custom configuration to modify its behavior based on the implementation.

30. In the right-hand side palette, do a search for **comments** and add the **Case Comments** view above the **OK** button.

This out-of-the-box view allows users to add comments to the case that can be used to collaborate between case workers and is useful when a case is being audited.

31. In the right-hand side palette, select the **Variable** option.

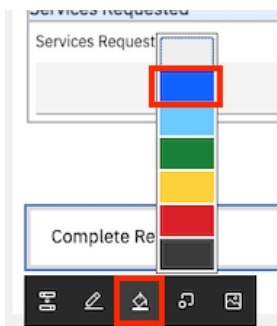
32. Drag and drop the **caseProperties** variable below the **segment** field in the editor.



33. Optionally, re-arrange the field order by dragging and dropping them in the order you want.


34. Click on the **OK** button at the bottom of the UI and in the **General** tab, rename it to **Complete Review**.

35. Hover over the button and click on the **Select color** icon and change the button's color to **dark blue**.



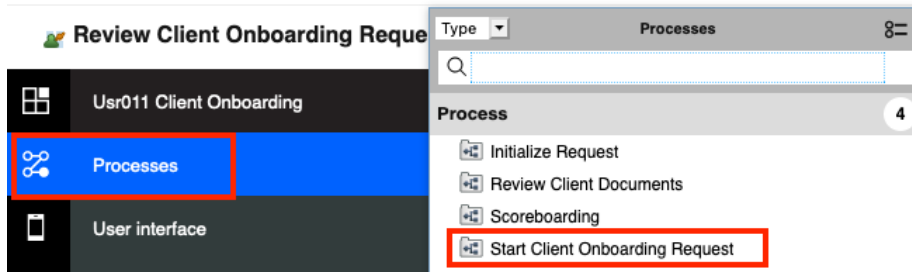
Your button should look like the screenshot below:



36. Click the **Finish editing** button in the top-right corner .

This completes the implementation of the solution. We will now test the implementation to make sure that it works as intended.

37. In the library pane on the left, select **Processes** → **Start Client Onboarding Request**.

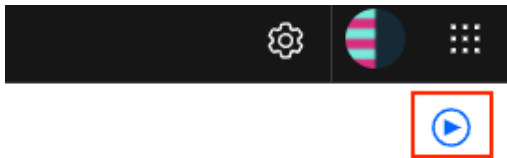


38. Click on the **Start Case** script task.

39. In the properties pane at the bottom, select the **Script** tab and observe the script.

The script provides default values to the case properties from lines 9-24 and on line 27, it uses the [createCase JavaScript API](#) to start the case. The default values can be replaced with variables. In the Client Onboarding end-to-end implementation, a similar script is used with variables instead of default values. This Process is then exposed as an Automation Service which allows the Case to be started by the App built in the Application Designer.

40. Click on the **Run** button in the top-right corner to start a new case.



We will now update the default values in the script to run another instance of the case so that we can observe the difference between a high confidence vs a low confidence case.

41. Modify **annual revenue** in line 12 to from **45000000** to **50000000**.

42. Modify **company age** in line 13 to from **14** to **8**.

43. Modify **defaulted payment** in line 14 from **true** to **false**.

44. Modify **number of employees** in line 15 from **75** to **1200**.

45. Modify **industry** in line 18 from **Healthcare** to **Finance**.

46. Modify **services requested** in line 20 from **Mental Health Care** to **Corporate Credit Card**.

47. Click on the **Run** button in the top-right corner again.

As a part of an optional exercise at the end of this lab, you can see how the **Review Client Documents** activity is automatically started when a document is filed to the case. Complete the following 2 steps to start an instance with missing documents.

48. Finally, modify **all documents received** in line 24 from **true** to **false**.

49. Click on the **Run** button in the top-right corner again.

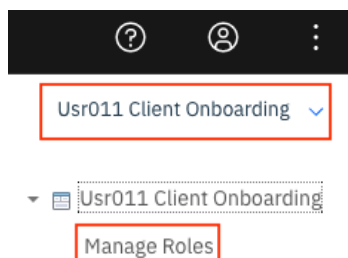
4.2.3 View cases in the Case Client

We have now created three instances of the case type in the system. We will now use the Case Client to see them. This is a client used by case workers to complete their work for each case. In newer releases, the case workers can also use Workplace to access their work (as seen in the end-to-end lab). Workplace allows knowledge workers to see tasks from both Case and Process (BPM) capabilities in a single unified place.

1. In your browser, go to the **Case Client** URL.

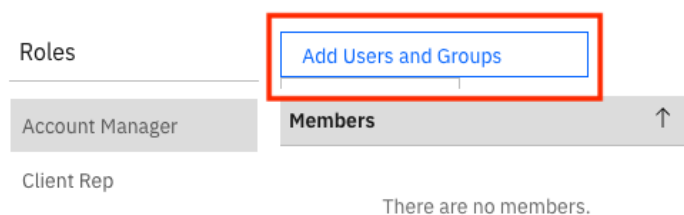
Note: It may take a few seconds for the entire page to load.

2. In the upper-right corner, click on **UsrNNN Client Onboarding** → **Manage Roles** for your Workflow automation project.



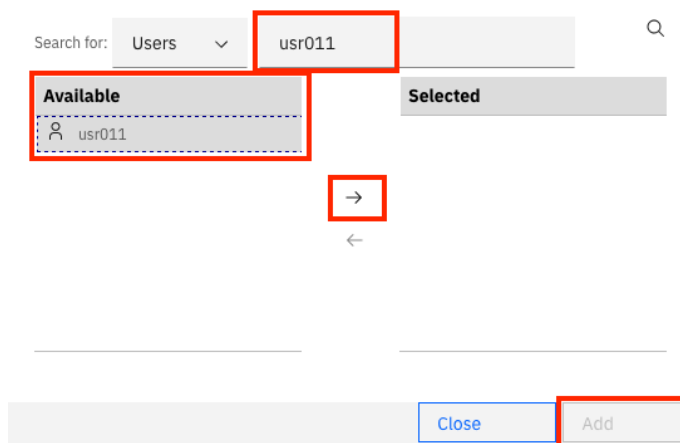
This brings up another window to manage the role memberships.

3. Click on **Add Users and Groups**.



4. In the search field, enter **usrNNN** where usrNNN is your username.
5. Click on the username and then the → button.
6. Click on **Add**.

Add Users and Groups



You should now see the user added as a member to the role.

Roles

[Add Users and Groups](#)

Account Manager

Client Rep

Members

usr011

- Click on the **Client Rep** role.
- Add the **usrNNN** user to this role just like you did before.
- Click on **Save** in the bottom-right corner.
- In the top-corner, select the **Account Manager** role if not already selected.

?

usr011 Client Onboarding | Account Manager

In the **Cases** tab, click on **Search** to search for cases.

Cases Work

U016 Client Onboarding | Account Manager

[Add Case](#)

Search:

Added On

12/8/2021

[Search](#)

Advanced Search

Title	Added On	Case State	Modified By	Modified On	Case Stage
U016C_ClientOnboardingRequest_000000100001	12/8/2021, 5:35 PM	Working	cp4badmin	12/8/2021, 5:35 PM	Scoreboarding
U016C_ClientOnboardingRequest_000000100002	12/8/2021, 5:36 PM	Complete	cp4badmin	12/8/2021, 5:36 PM	Completed
U016C_ClientOnboardingRequest_000000100003	12/8/2021, 5:36 PM	Working	cp4badmin	12/8/2021, 5:36 PM	Document Review

- The first case is at the **Scoreboarding** stage. This means that the confidence was low and that the case needs to be worked on manually.
 - The second case is **Completed** as the confidence was high and no manual intervention is required.
 - The third case is at the **Document Review** stage. This means that the case has documents that are missing and/or need to be reviewed.
- Click on the **title** of the **Completed** case to open it.

The case details page here shows the UI we customized earlier in this lab. The overview page should show the completed stages and the comments added automatically.

Overview Properties Documents Activities History

Stages

Document Review Scoreboarding

Summary

Created by cp4badmin

Created on Jun 4, 2021, 4:01 AM

Last modified by cp4badmin

Last modified on Jun 4, 2021, 4:01 AM

Status Completed

Comments

[Add comment](#)

cp4badmin

All client documents have been received

Jun 4, 2021, 4:01 AM

12. Click on the **Properties** tab. This tab should contain the **Services Requested** property added earlier.

Industry

Finance

Services Requested

Corporate Credit Card

The **Approval Status** should have **Approved** selected.

Approval Status

Approved

13. Click on the **Activities** tab.

The **Initialize Request & Scoreboarding** activities should be marked **Completed** and the optional **Review Client Documents** activity is in **Waiting** state as a manual review of documents was not required.

Overview

Properties

Documents

Activities

History

All

Name	Status	Type
Initialize Request	✓ Completed on Jun 4, 2021, 4:01 AM	Required
Scoreboarding	✓ Completed on Jun 4, 2021, 4:01 AM	Required
Review Client Documents	⌚ Waiting...	Optional

Per page:

5

Showing 1 to 3 of 3 entries

1

of 1 page

14. Click on the **Close** button in the top-right corner.
15. Back in the search results, click on the title of the case that is still at the **Scoreboarding** stage.

In the **Overview** tab, you will see again that the case is in the **Scoreboarding** stage.

16. Click on the **Activities** tab.

Here, you will see that the **Scoreboarding** activity has started but not yet completed.


17. Click on the **Close** button in the top-right corner.

18. Click on the **Work** tab in the top-left corner.

Cases Work

Add Case

This loads the task list for the **Account Manager**. It should contain a new task **Review Client Onboarding Request**.

Account Manager (1)		My Work
Filter	No filters applied	Reset
Step Name	Time Created	Subject
 Step: Review Client Onboarding Request	12/8/2021, 5:35 PM	Scoreboarding:1105

19. Click on the task to open it and claim it.

In the task, you will see the customized UI you created earlier in the lab. It shows that the **confidence** is **68** which is below the threshold of **75** which is why the case must be manually reviewed by an account manager. It also shows you the Case Comments you added to the UI. You can optionally add a comment to the case.

20. Change the value of the **Approval Status** field to **Rejected**.

21. Click on the **Complete Review** button.

22. Click on the **Cases** tab and do a search again to update the Case status.

You will now see that there is one stage in the Document Review stage and the other two are complete. With this you have completed the lab. The next exercise is optional and shows you how filing a document to the Case starts a case activity.

4.2.4 Optional exercise: Filing documents to a case

1. Click on the title of the case in the Document Review stage to open it.

2. In the Case Details UI, click on the **Overview** tab.

You can see here that the case is in the **Document Review** stage and the **Scoreboarding** stage has not yet started.

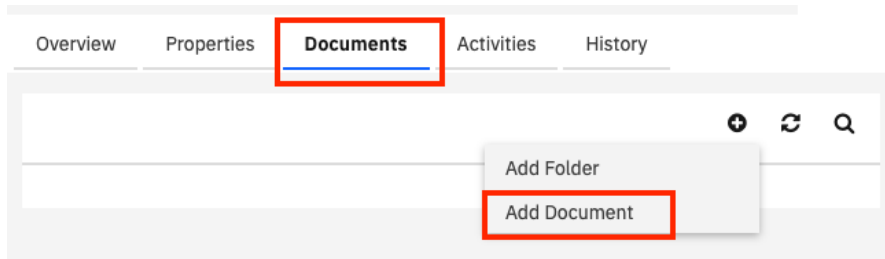
3. Click on the **Activities** tab.

You will see the **Initialize Request** task was **Completed** and the other two tasks are **Waiting**.

Overview	Properties	Documents	Activities	History
Name			Status	Type
Scoreboarding			⌚ Waiting...	Required
Initialize Request			✓ Completed on Jun 4, 2021, 3:14 AM	Required
Review Client Documents			⌚ Waiting...	Optional
Per page: 5	Showing 1 to 3 of 3 entries		1 of 1 page	◀ ▶

This means that the case is waiting for client documents to be uploaded to the case folder. Typically, this can happen in several ways. In the Client Onboarding end-to-end scenario, we upload a document to the Content capability using the Capture capability and using event subscriptions in Content to automatically file the document to the right case. For this lab, we will add a document to the case folder manually.

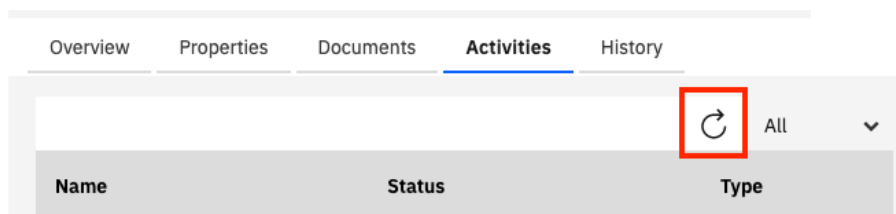
- Click on the **Documents** tab.
- Click on the **+** button to add a document and select **Add Document**.



- In the **Add File** dialog, select **Client Document** as the **Document Type**.
- Click on **Select** and pick the **Legacy Consulting - Banking Information.pdf** file downloaded as a part of the lab setup instructions.
- Click on **Upload**.

A screenshot of an 'Add File' dialog box. At the top, it says 'Add File' with a close button 'x'. Below this, there is a 'Select...' button with a file icon, which is highlighted with a red box. To its right, the file 'Legacy Consulting - Banking Information.pdf' is listed. Below this, there is a 'Document Type' dropdown menu, which is also highlighted with a red box and shows 'Client Document'. Further down, there are input fields for 'Document Title', 'Client Name', 'Reference ID', and 'Name'. The 'Name' field contains the text 'Legacy Consulting - Banking Information.pdf'. At the bottom left, there is a checkbox labeled 'Keep dialog open'. At the bottom right, there is an 'Upload' button with a cloud icon, which is highlighted with a red box.

- Click on the **Activities** tab.
- Click on the **Refresh** icon.

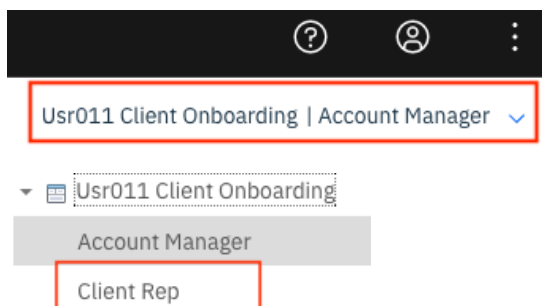


You will notice that the **Review Client Documents** activity has now started as its precondition was that a client document be filed to the case.

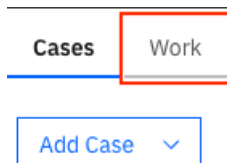
Name	Status	Type
Scoreboarding	⌚ Waiting...	Required
Review Client Documents	▲ Started on Jun 4, 2021, 3:26 AM	Required
Initialize Request	✓ Completed on Jun 4, 2021, 3:14 AM	Required
Per page: 5	Showing 1 to 3 of 3 entries	1 of 1 page

Next, we will assume the role of a Client Rep to review the document added.

- Click on the **UsrNNN Client Onboarding | Account Manager** dropdown in the upper-right corner and select the **Client Rep** role.



- Once the role is switched, click on the **Work** tab.



- The **Client Rep** task list should now have a new task – **Step: Review Client Documents**.

Step Name	Time Created	Subject
Step: Review Client Documents	6/4/2021, 3:26 AM	Review Client Documents:408

- Click on the task name to open it.

The task is assigned to the **Client Rep** role so all users under that role have access to it. When you click on a task that is assigned to a role, the system asks if you want to claim (own) that task.

- Click on the **Claim** button.

The UI for the task should now open as follows:

Client Name

Legacy Consulting

☐ All Documents Received

Case Folder

+ ↺ 🔍

Legacy Consulting - Banking Information.pdf	usr001	2021/11/10 15:47
---	--------	------------------

Complete Review

16. Click on the dropdown next to the document name and click on **View** to view the document.

Case Folder

Legacy Consulting - Banking Information.pdf

- View
- Download
- Properties
- Check Out
- Check Out and Download
- Delete Document

This opens the document in a new tab.

17. Close the tab that contains the document.
18. Check the **All Documents Received** checkbox.
19. Click on **Complete Review** to complete the task.

Client Name

Legacy Consulting

☒ All Documents Received

Case Folder

+ ↺ 🔍

Legacy Consulting - Banking Information.pdf	usr001	2021/11/10 15:47
---	--------	------------------

Complete Review

20. Switch back to the **Cases** tab on top.
21. Click on **Search** to search for cases.
22. All cases should now be completed.

Congratulations on completing the Introduction to Business Automation Workflow lab!