

# Building a Demand Forecast | Process Builder

## INTRODUCTION

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- This Hands-on Exercise is a part of **Building A Demand Forecast Skill**.
- The Steps for accessing the Aera Decision Cloud and creating a workspace are common across all the exercises.
- If you are doing this exercise as part of the end-to-end development of a **Demand Forecasting Skill**, you will need to continue using your **Demand Forecast Skill\_Username** Workspace.
- In this hands-on, we will create a process and a UI screen. The process will be called from the Inbox and should display the KPIs and Charts on the UI screen based on the recommendation chosen.
- The data in the screenshots are illustrative, and values in the screenshots are not to be used to execute the hands-on. You are requested to input the data provided in the instructions.

## KEY TAKEAWAY

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- Design a workflow to orchestrate interaction between different nodes
- Define the variables to be used across the nodes
- Design a UI Screen with respective components to display recommendations, KPIs, and Charts.
- Create options to Accept, Reject & Modify the Recommendation
- Configure the process in the Action Item you created in the previous Inbox Hands-on exercise

## EXPECTED RESULTS

Demand_Recommendation_John		267 Pending	3 Complete	Select		
Material Description	Recommendation	Planner Forecast	Aera Forecast	Recommendation Respo...	Action Taken	Owner Id
Milk Chocolate Bar - 4.4oz	Update the demand plan for	7432	23000	Accepted	Accepted	John khatua
Dark Chocolate 95% Cocoa	Update the demand plan for	17870	23827	Rejected	Rejected	John khatua
Dark Chocolate Truffles Bag	Update the demand plan for	190000	200000	Overridden	Modify	John khatua

2024/12/21 09:42:48

Update the demand plan for product:: Dark Chocolate 78% Cocoa Bar - 4.4oz at Location :: East Coast DC 01. Click View Details for more information

[Reject](#) [Modify](#) [Accept](#)

**Tab 1** Tab 2 Tab 3

Aera Forecast <b>3541</b>	Planner Forecast <b>19652</b>	Revenue Impact <b>2421617.71</b>
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**Forecast Summary**

**Monthly Qty Chart**



Month	SUM Aera Forecast Qty	SUM Planner Forecast Qty	SUM Confirmed Qty
Jan 2023	4,000,010	3,428,580	2,857,150
Feb 2023	3,428,580	2,857,150	2,285,720
Mar 2023	2,857,150	2,285,720	1,714,390
Apr 2023	2,285,720	1,714,390	1,142,860
May 2023	1,714,390	1,142,860	971,430
Jun 2023	1,142,860	971,430	0
Jul 2023	971,430	0	0
Aug 2023	0	0	0
Sep 2023	0	0	0
Oct 2023	0	0	0

We intend to create a process that will display the details of a demand Recommendation and its KPIs when the View Details option is called from the Inbox.

First, the process needs to identify the recommendation that the user is trying to view. The process then collects relevant data about this recommendation from the Decision data layer and displays it on the UI. To do this, we will create an Interface Node, which will get data from the Decision data layer into the process and save it as an Array variable.

From this data, we will retrieve important KPIs that we want to display and assign them to local variables.

Next, we create a UI Page using the UI Node. We will be creating the complete Page layout, which includes the Recommendation Section, KPI Section, and Chart Section.

To enable the user to make decisions, we will handle Accept, Dismiss and Modify actions and showcase how we update the Recommendation status.

## SKILL BUILDING PROCESS



## TYPICAL ERRORS

1. Aera\_Forecast, Planner\_Forecast, and Revenue\_Impact are showing zero as output.
  - a. Make Sure ActionSplitID has been assigned as an Input parameter in the Get Recomm\_Details Interface.
2. Error while validating the scripts.
  - a. Make sure the variables have been defined.
  - b. Ensure the spelling of the variables if you have copy-pasted their names.
  - c. Some variables must be defined locally, within the interface, and not at the main process level.

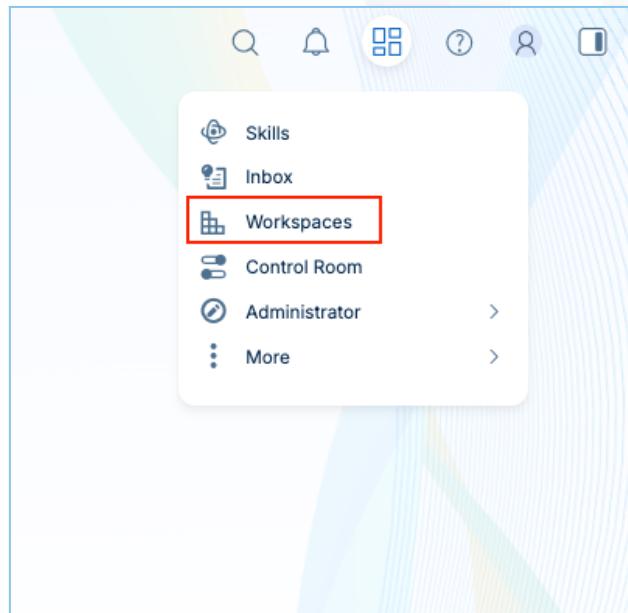
## TIPS AND TRICKS

1. Avoid copy-pasting variable names while creating them.
2. Make sure you generate the output variables for the **Get Recomm\_Details** Interface.
3. Ensure correct placement of sections, labels, and buttons on the UI screen.
4. Make sure you select the **monthly quantity chart** sheet and not the whole sheet in the discovery chart.
5. Ensure **Pending** and **Complete** sub-categories have the **Full Size** option checked.

## TASKS AND STEPS

### Getting started with Process Builder

1. Click the **Aera Menu** icon on the Aera Decision Cloud and then click the **Workspaces**.



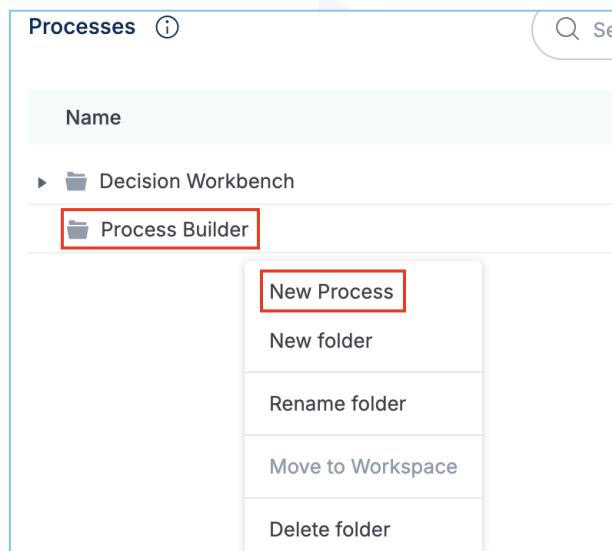
2. From the Workspaces page, go to the Workspace **Demand Forecast Skill\_<Username>** that you created previously.

### Setting the Process Builder

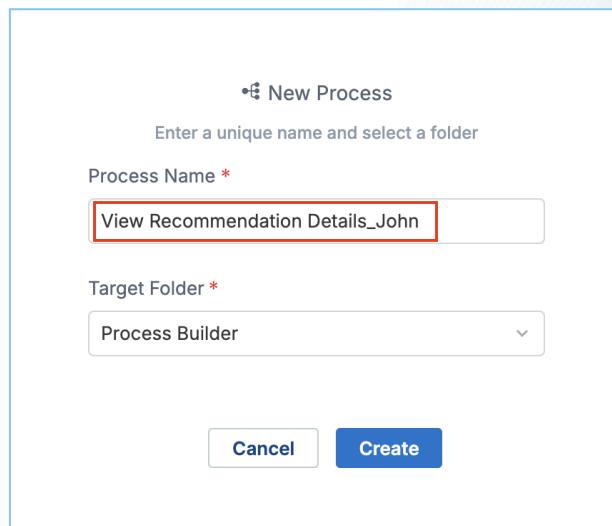
1. From the **Workspace Home**, go to **Processes** and create a new folder named **Process Builder**.

The screenshot shows the 'Workspace Home' page for 'Demand Forecast Skill\_John'. The left sidebar has sections for 'Content', 'Configurations', 'Skill Setup', and 'Information'. Under 'Content', there are 'Recents' (1), 'Favorites' (0), and 'All' (4). The 'Automation' section is expanded, showing 'Processes' (1) and 'UI Screens' (0). The main area shows a table of 'Processes'. One row, 'Process Builder', is highlighted with a red box. The table columns are 'Name', 'Attributes', 'Created On', and 'Last Updated'. The 'Process Builder' row shows 'Decision Workbench' under 'Name', and 'Nov 26, 2024 at 15:08' and 'Nov 27, 2024 at 07:17' under 'Created On' and 'Last Updated' respectively. There are 'New Folder' and 'New Object' buttons at the top right of the table.

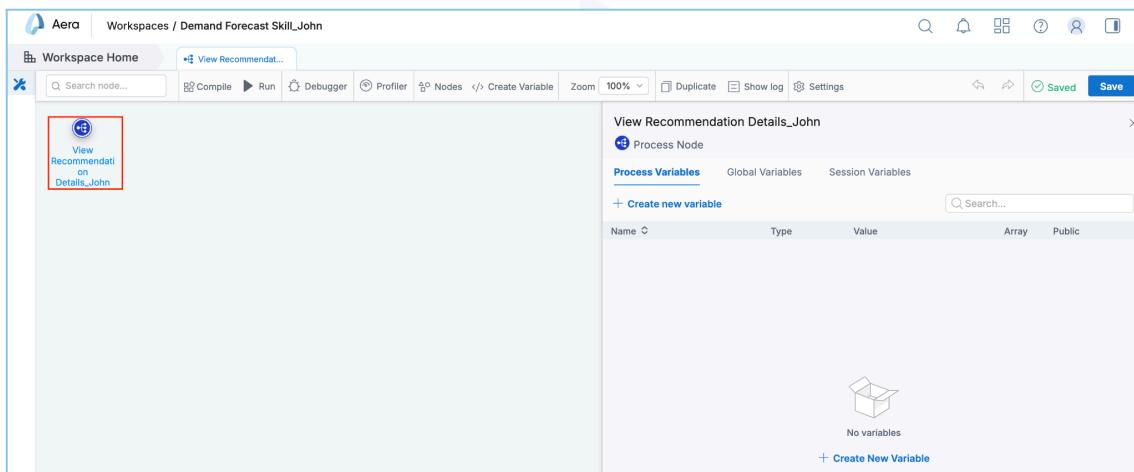
2. Right-click the **Process Builder** folder to create a New Process.



3. In the New Process Dialog box, enter the name **View Recommendation Details\_<Username>** and click **Create**. You will be directed to a new Process Builder tab.



4. You are now on the Process Builder tab. You can see the **View Recommendation Details\_<Username>** node on the screen. Click the **Node**. The **Process Node** window is displayed on the left. Here, you can create the variables.



The screenshot shows the Aera Process Builder interface. In the center, a modal window titled "View Recommendation Details\_John" is open. At the top left of this modal, there is a button labeled "View Recommendation Details\_John". This button is highlighted with a red box. The modal contains sections for "Process Node", "Process Variables", "Global Variables", and "Session Variables". It also includes a search bar and a table for managing variables. Below the table, it says "No variables" and has a "+ Create New Variable" button.

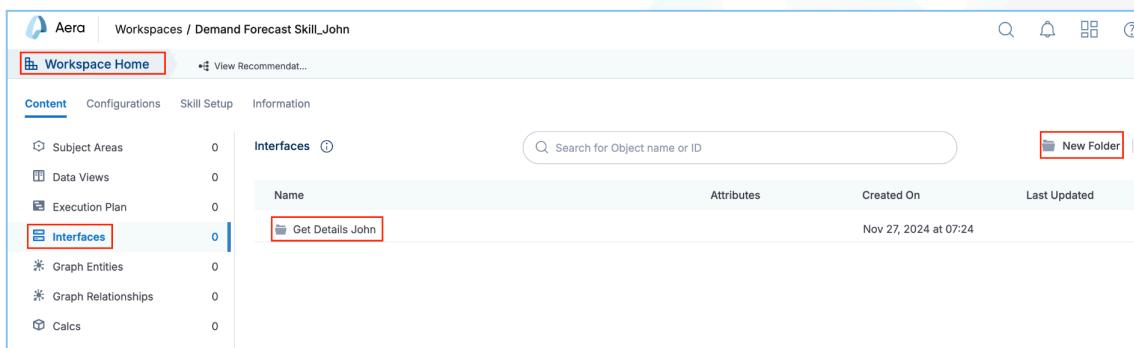
**Nodes:** are individual functional entities that perform specific behavior based on the inputs and logic we provide. We can drag and drop nodes directly into our process. Process Builder can utilize 19 different nodes to create Processes. All these Nodes play a vital role in process building and are situated in the Toolbox. Each Node has and works upon a set of variables and logic.

This process follows from left to right, top to bottom, and is also known as Depth First Execution (DEF).

**Variables** are very important for processes as they carry data between the nodes when the process runs. You can create different types of variables from the Property Panel of the main Process Node. Additionally, we can create a user-type Variable in the Menu.

By returning to this panel, we will create the variables as and when required while building the process.

5. Go to Workspace Home and click on **Interfaces**.
6. Create a new folder by the name **Get Details <Username>**.



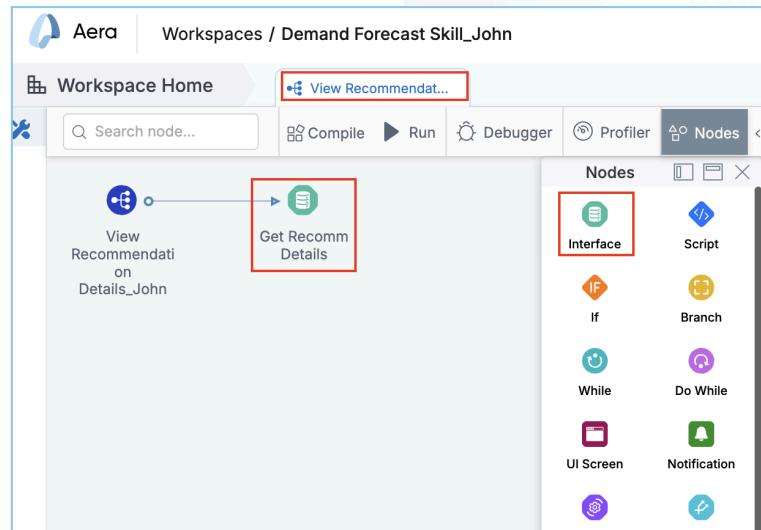
The screenshot shows the Aera workspace interface under the "Content" tab. On the left, there is a sidebar with sections: Subject Areas (0), Data Views (0), Execution Plan (0), Interfaces (0), Graph Entities (0), Graph Relationships (0), and Calcs (0). The "Interfaces" section is highlighted with a red box. To the right, a list of interfaces is displayed with a single item: "Get Details John", which is also highlighted with a red box. The list includes columns for Name, Attributes, Created On, and Last Updated. The "Created On" column shows "Nov 27, 2024 at 07:24". At the top right of the interface, there is a "New Folder" button, which is also highlighted with a red box.

## Design Process Workflow

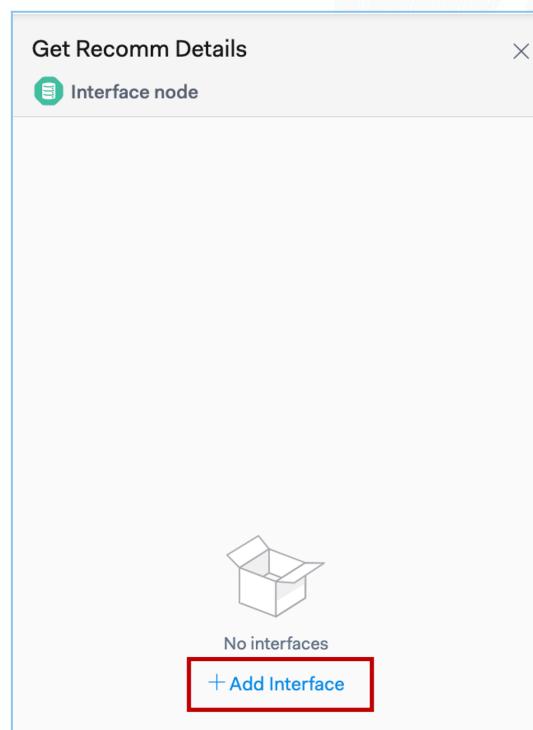
### Adding an Interface Node

1. Now, Go to the Process Builder tab. Here, you will create an Interface Node to get the recommendation details from the Inbox.

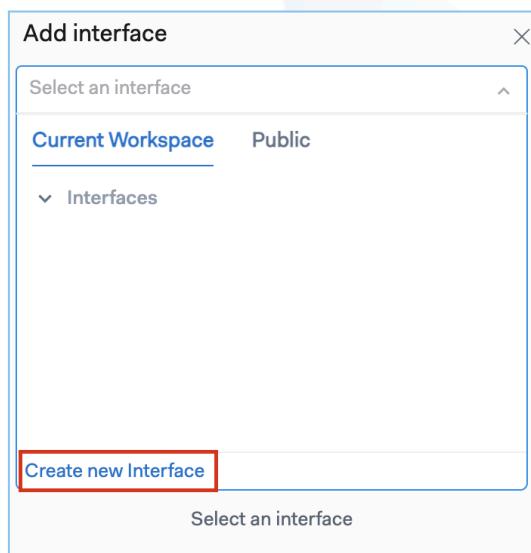
- From the Nodes window, Drag the **Interface Node** over the **Process** node and rename the Node as **Get Recomm Details**.



- Close the **Nodes** window and click on the **Get Recomm Details** Node.
- On the **Interface Node** property panel displayed on the right, click on **Add Interface** to create a new Interface.



5. A new window opens, asking you to add an interface. Click the dropdown and then click the **Create New Interface** option.



6. In the **Create New Interface** window, give the Interface Name as **GetRecommData\_<Username>**
7. Make sure the Interface Type is **Database**, and choose the Folder that you created earlier in the interface panel: **Get Details <Username>**.
8. Click **Create**.

The screenshot shows a modal window titled "Create new interface". It contains three input fields: "Interface name" with the value "GetRecommData\_John", "Interface type" set to "Database", and "Folder" set to "Get Details John". At the bottom right are two buttons: "Cancel" and a blue "Create" button, which is highlighted with a red box.

9. A new tab, **GetRecommData\_<Username>**, opens up along with the Interface properties window on the left.

## Configure the Interface Node

1. Go to the **Details** tab in this window, and from the connection dropdown, choose the **CWB** connection.

Interface Properties

Properties	Parameters	Details
Interface name	GetRecommData_John	
Connection	AeraTraining69BD - CWB	
<input type="checkbox"/> Dynamic Connection ⓘ		
Type	Database	

Choose the connection ending with - **CWB**

2. Click **Save**.
3. Next, click the **Parameters** tab and add an Input Parameter **Action\_Message\_ID** for the type String.

Interface Properties

Properties	Parameters	Details								
<b>Input parameters</b> <input style="border: 2px solid red; padding: 2px; margin-bottom: 5px;" type="button" value="+ Add parameters"/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Metadata</th> <th>Array</th> </tr> </thead> <tbody> <tr> <td>Action_Message_I</td> <td>String</td> <td>Only for usertype <input type="checkbox"/></td> <td><input type="checkbox"/> <input type="checkbox"/></td> </tr> </tbody> </table>			Name	Type	Metadata	Array	Action_Message_I	String	Only for usertype <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Name	Type	Metadata	Array							
Action_Message_I	String	Only for usertype <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>							

All the Recommendations reside in the ActionMessage Table in MySQL Database and can be uniquely identified by a recommendation ID called ActionMessageID. This parameter will be used by the Interface Node to query the ActionMessageTable. The value of this parameter will be parsed at the run time when the user selects a particular recommendation to view the details.

4. On the left side of the interface Properties, copy and paste the below query to fetch the recommendation details for a particular **Action\_Message\_ID**.

```
select * from actionmessage_<Username>_Demand_Recomm
where ACTION_MESSAGE_ID = ?;
```

Replace the Action Item name highlighted in Red with the Action Item you created in Inbox Hands-on exercise

5. Execute the query and click **Save**.



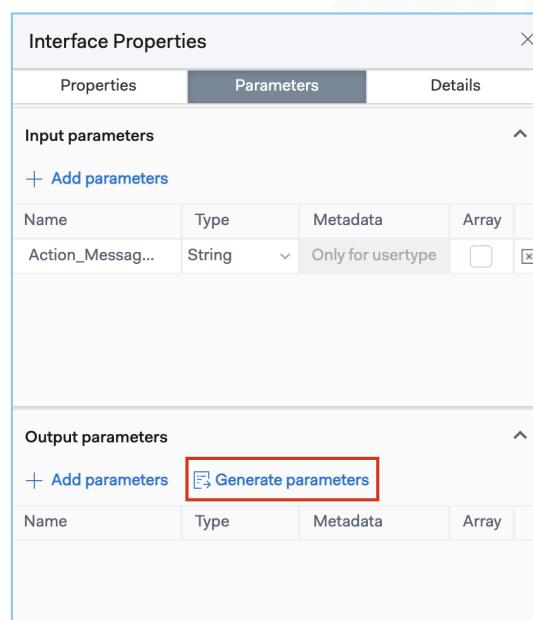
The screenshot shows the Aera Process Builder interface. On the left, there is a code editor window containing the following SQL query:

```
1 select * from actionmessage_john_demand_recomm
2 where ACTION_MESSAGE_ID = ?;
```

On the right, there is an "Interface Properties" panel with the "Parameters" tab selected. It shows an input parameter named "Action\_Messa..." of type String. Below the input parameters, there is an "Output parameters" section with a "Generate parameters" button.

All the parameters passed in the query must be defined as ? (Question Mark)  
During Run time the ? gets replaced by the Input Parameter.  
The next step is to generate output Parameters. We generate a UserType parameter by selecting a predefined schema. This UserType parameter is a Data structure consisting of multiple attributes and will hold the details fetched from the Inbox for a particular ActionMessageID

6. Go to the Output Parameters in the Interface properties and click **Generate Parameters**.



The screenshot shows the "Interface Properties" panel with the "Parameters" tab selected. The "Output parameters" section contains a "Generate parameters" button, which is highlighted with a red box.

7. Click on **Schemas** and then click **Generate**.  
8. The output parameters are generated as an Array and saved in  
**GetRecommData\_Username\_ResultSetMetaData** file.

Interface Properties

Name	Type	Metadata	Array
Action_Messa...	String	Only for usertype	<input type="checkbox"/> <input checked="" type="checkbox"/>

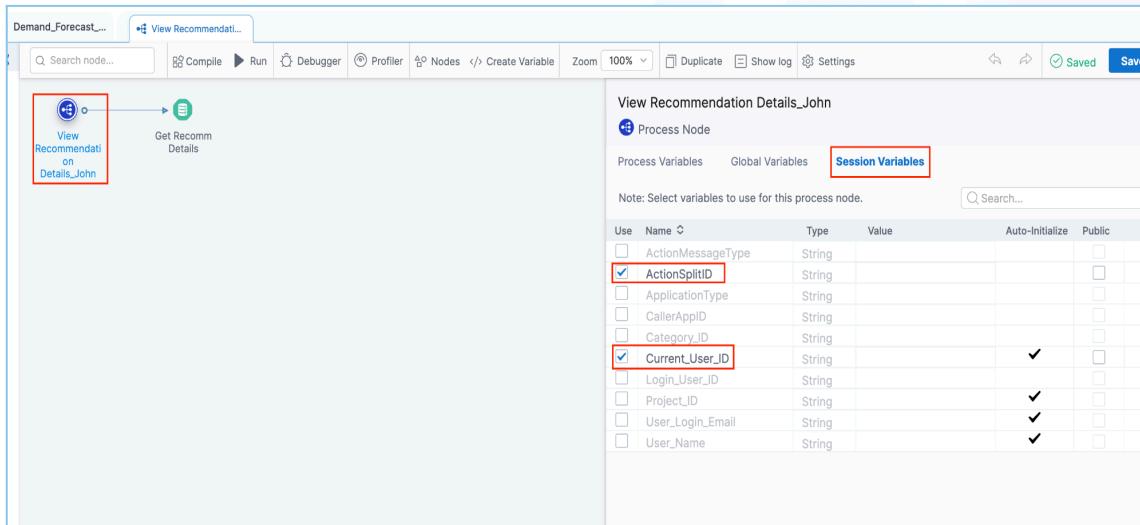
  

Name	Type	Metadata	Array
ResultSet	UserType	GetRecommD...	<input checked="" type="checkbox"/> <input type="checkbox"/>

9. Click **Save**. Your reusable interface is created.
10. Close the Interface Tab and come back to the main **Process** Tab.
11. Close any property **windows** open on the right.

## Passing Interface Parameters

1. Click on the **View Recommendation Details\_<Username>**, and from the properties window, go to the **Session Variables** tab.
2. Select **ActionSplitID** and **Current\_User\_ID**



The screenshot shows the Aera Process Builder interface. On the left, a process flow diagram for 'Demand\_Forecast...' is visible, featuring a 'View Recommendation Details' node (highlighted with a red box) connected to a 'Get Recomm Details' node. On the right, the properties window for the 'View Recommendation Details\_John' node is open, specifically the 'Session Variables' tab. This tab lists variables with their types and current values:

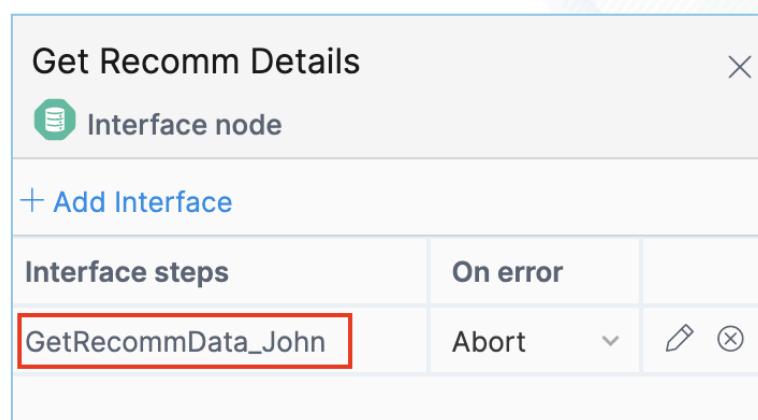
Use	Name	Type	Value	Auto-Initialize	Public
<input type="checkbox"/>	ActionMessageType	String		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ActionSplitID	String		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ApplicationType	String		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	CallerAppID	String		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Category_ID	String		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Current_User_ID	String		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Login_User_ID	String		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ProjectID	String		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	User_Login_Email	String		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	User_Name	String		<input checked="" type="checkbox"/>	<input type="checkbox"/>

3. Click **Save**.
4. We are passing the value for **Action\_Message\_ID** through the variable **ActionSplitID**.

Session variables are session-specific variables and retrieve information from the ongoing session when auto-initialized.

Every time you want to get recommendation details into a process, you must have a variable called ActionSplitID. The cognitive workbench will automatically pass the recommendation ID to the process as a parameter, and it will always look for a variable of this name. This is a built-in system capability.

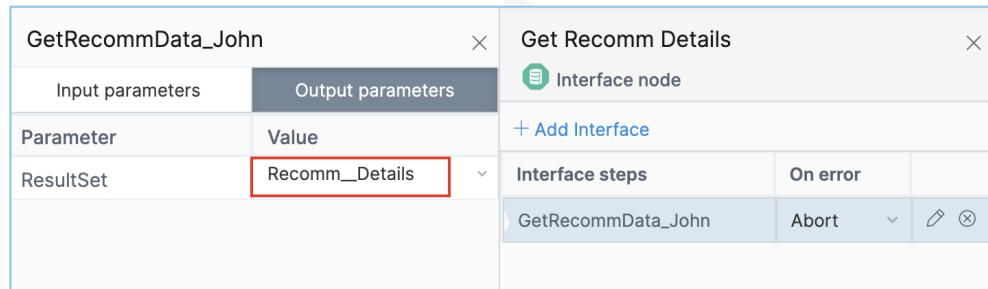
5. **Save** the process
6. Click the interface node **Get Recomm details**. The interface node window opens in the right panel.
7. Click on the interface **GetRecommData\_Username**.



8. A new window opens. On the Input parameters tab, you will see the Input parameter you created earlier **Action\_Message\_ID**. Select the value **ActionSplitID**.

Parameter	Value
Action_Message_ID	ActionSplitID

9. Next, Go to the Output Parameters tab and click **Select Variable**.
10. Next, click the **Generate Variable** option and give a variable name **Recomm\_Details** when prompted.

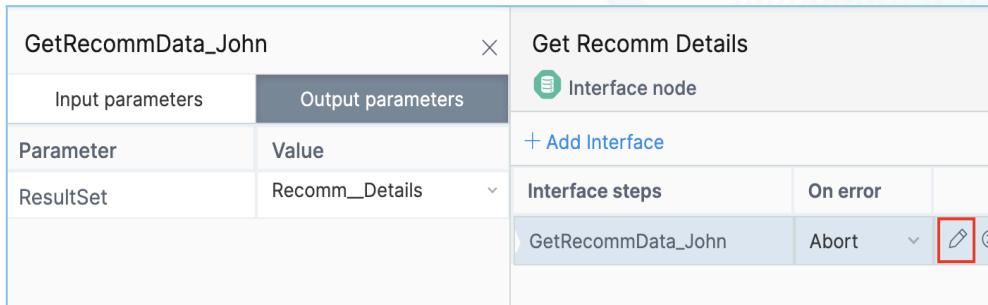


GetRecommData_John		Get Recomm Details	
Input parameters		Output parameters	
Parameter	Value		
ResultSet	Recomm_Details		

Interface steps		On error
GetRecommData_John	Abort	

11. **Save** your Process.

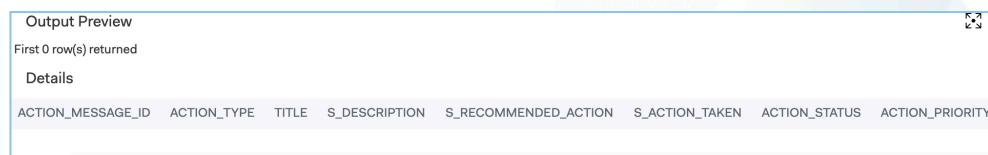
12. Rerun the query provided earlier by clicking the edit icon beside the interface.



GetRecommData_John		Get Recomm Details	
Input parameters		Output parameters	
Parameter	Value		
ResultSet	Recomm_Details		

Interface steps		On error
GetRecommData_John	Abort	

13. In the output window, we will see the following row:



Output Preview							
First 0 row(s) returned							
Details							
ACTION_MESSAGE_ID	ACTION_TYPE	TITLE	S_DESCRIPTION	S_RECOMMENDED_ACTION	S_ACTION_TAKEN	ACTION_STATUS	ACTION_PRIORITY

14. When you **Run** the process internally, it will run your query with the passed variable and store the results in the Output Variable.

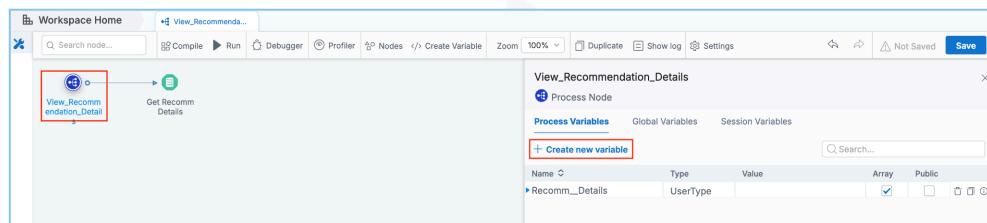
15. Click **Save**

#### Best Practises

- Interfaces used in the process must follow the following naming convention  
ex: Interface name: Create MySQL Temp Table <purpose of the process>
- Use capitalisation at the beginning of Node names, i.e., Test Process, Tabs Component, etc.
- All interface and custom script nodes should contain only one step. If they include more than one step, they all need to be related.

## Set KPI Headers and Recommendation Text Variables

1. Click on the **View Recommendation Details\_<Username>** Node. You will see the option to **Create new variable** in the left pane.



2. Create the following variables:

Name: **Aera\_Forecast**

Type: Double

Purpose: Aera Forecast Value

Name: **Planner\_Forecast**

Type: Double

Purpose: Planner's Forecast Value

Name: **Revenue\_Impact**

Type: Double

Purpose: Total Revenue Impact

Name: **Recomm\_Detail**

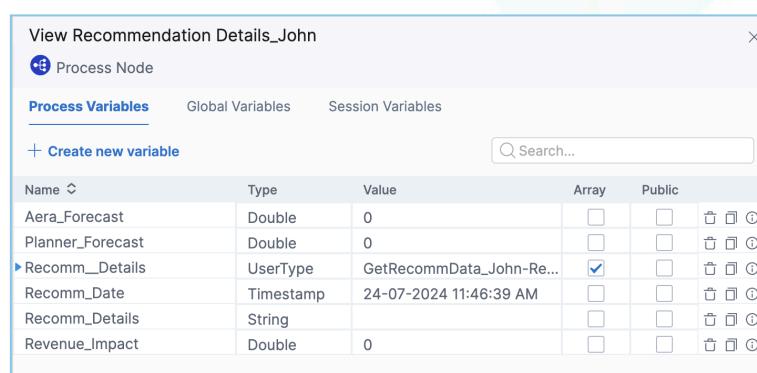
Type: String

Purpose: To hold the Recommendation Summary Text

Name: **Recomm\_Date**

Type: Timestamp

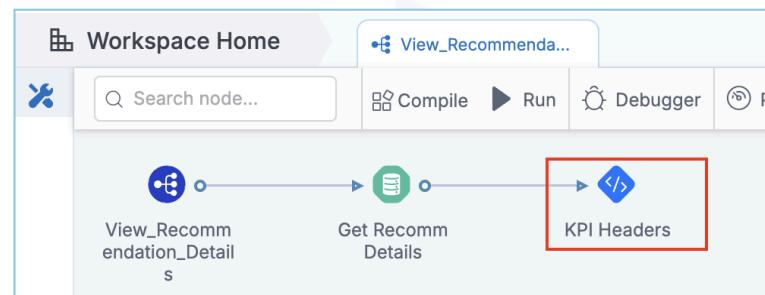
Purpose: To hold the Recommendation Header Text



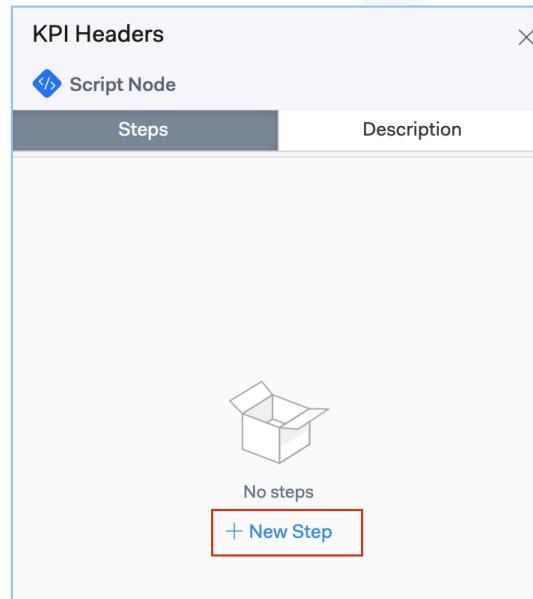
Name	Type	Value	Array	Public
Aera_Forecast	Double	0	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Planner_Forecast	Double	0	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Recomm_Details	UserType	GetRecommData_John-Re...	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Recomm_Date	Timestamp	24-07-2024 11:46:39 AM	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Recomm_Details	String		<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Revenue_Impact	Double	0	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Since the Recomm\_Details UserType Variable holds the complete details of the recommendation, we are initialising the variables with the corresponding columns from the ActionMessage Table.

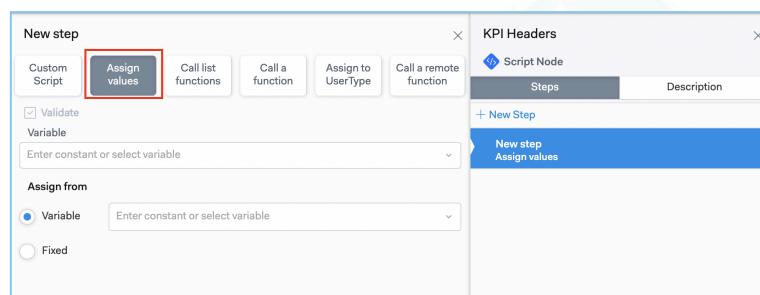
3. **Save** the Process
4. Close the **Process\_Node** properties panel.
5. Use **Nodes** to drag a **Script** Node over the Interface Node and rename as **KPI Headers**.



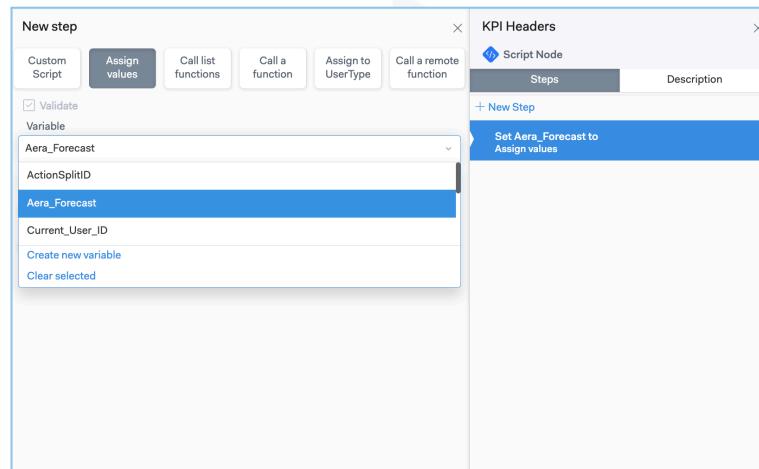
6. Click the Script Node **KPI Headers** and click **+New Step** in the window on the right.



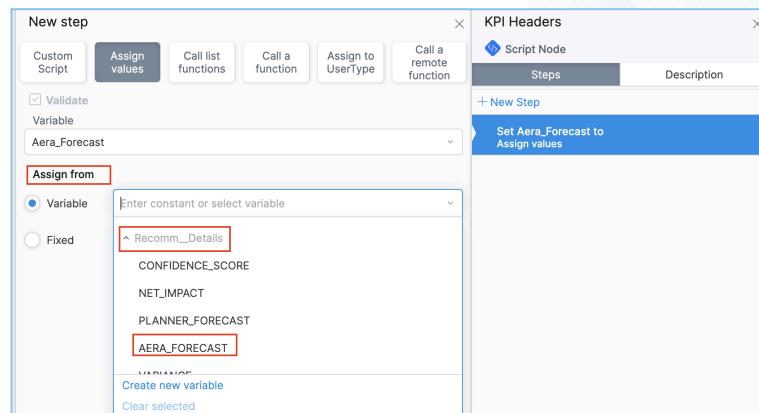
7. Click on the **Assign values** tab.



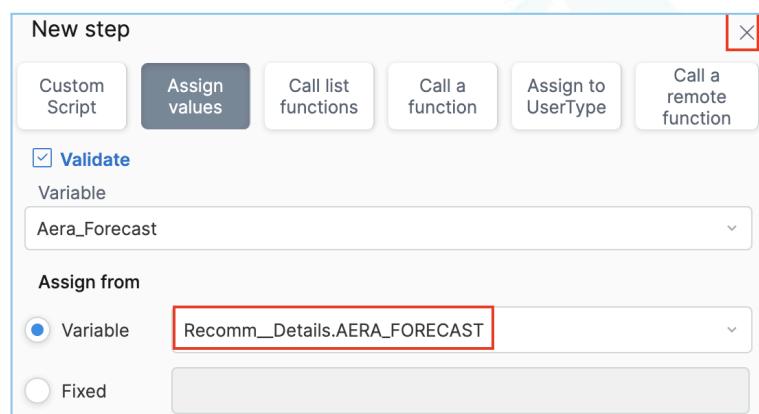
8. Select the variable **Aera\_Forecast** from the drop-down.



9. In the **Assign from** section, Expand the variable **Recomm\_Details** and select **AERA\_FORECAST** as shown.



10. Close the New Step window.



11. Again, click on **New Step** and assign value to **Planner\_Forecast**.

New step

Custom Script	<b>Assign values</b>	Call list functions	Call a function	Assign to UserType	Call a remote function
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Validate

Variable  
Planner\_Forecast

Assign from

Variable      Recomm\_Details.PLANNER\_FORECAST

Fixed

KPI Headers

Steps	Description
+ New Step	Set Aera_Forecast to Recomm_Details.AER...
	Assign values
	Set Planner_Forecast to Recomm_Details.PL...
	Assign values

12. Similarly, add New Steps and assign values to **Revenue\_Impact**, **Recomm\_Details**, and **Recomm\_Date**.

New step

Custom Script	<b>Assign values</b>	Call list functions	Call a function	Assign to UserType	Call a remote function
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Validate

Variable  
Revenue\_Impact

Assign from

Variable      Recomm\_Details.PROJECTED\_REVENUE\_IMPACT

Fixed

KPI Headers

Steps	Description
+ New Step	Set Aera_Forecast to Recomm_Details.AERA...
	Assign values
	Set Planner_Forecast to Recomm_Details.PL...
	Assign values
	Set Revenue_Impact to Recomm_Details.PRO...
	Assign values

Assign values

Custom Script	<b>Assign values</b>	Call list functions	Call a function	Assign to UserType	Call a remote function
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Validate

Variable  
Recomm\_Details

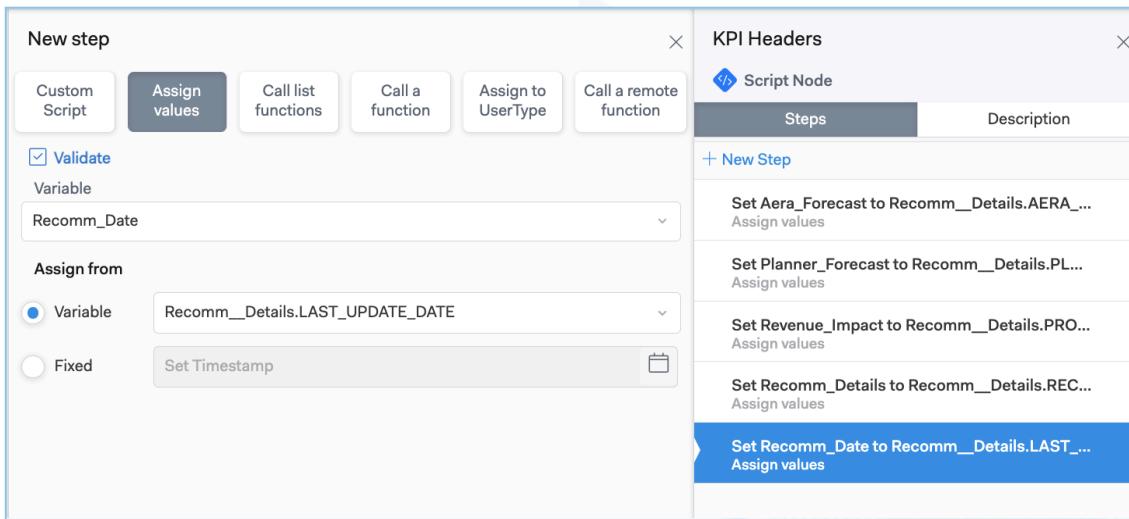
Assign from

Variable      Recomm\_Details.RECOMMENDATION

Fixed

KPI Headers

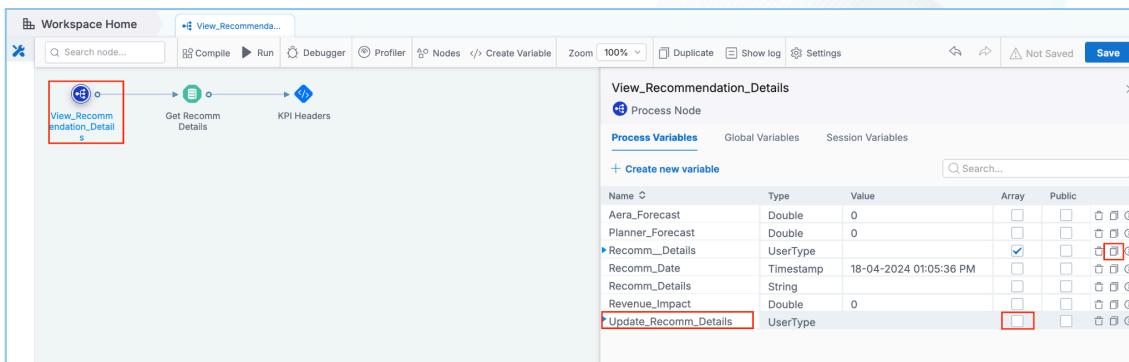
Steps	Description
+ New Step	Set Aera_Forecast to Recomm_Details.AERA...
	Assign values
	Set Planner_Forecast to Recomm_Details.PL...
	Assign values
	Set Revenue_Impact to Recomm_Details.PRO...
	Assign values
	Set Recomm_Details to Recomm_Details.REC...
	Assign values



The screenshot shows the Aera Process Builder interface. On the left, a 'New step' dialog is open with the 'Assign values' tab selected. It has a 'Validate' checkbox checked and a 'Variable' dropdown set to 'Recomm\_Date'. Below it, 'Assign from' options include 'Variable' (selected) with 'Recomm\_Details.LAST\_UPDATE\_DATE' and 'Fixed' with 'Set Timestamp'. On the right, a 'KPI Headers' panel lists several steps, with the last one, 'Set Recomm\_Date to Recomm\_Details.LAST\_DATE', highlighted in blue.

13. Click **Save**

14. Click on the **View Recommendation Details\_<Username>** Node from the Process Variables tab, Duplicate the variable, **Recomm\_Details**.



The screenshot shows the 'Process Variables' tab in the Aera Process Builder. It displays a list of variables with their names, types, values, and checkboxes for 'Array' and 'Public'. A variable named 'Update\_Recomm\_Details' is highlighted with a red box, and its 'Array' checkbox is unchecked.

Name	Type	Value	Array	Public
Aera_Forecast	Double	0	<input type="checkbox"/>	<input type="checkbox"/>
Planner_Forecast	Double	0	<input type="checkbox"/>	<input type="checkbox"/>
Recomm_Details	UserType		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recomm_Date	Timestamp	18-04-2024 01:05:36 PM	<input type="checkbox"/>	<input type="checkbox"/>
Recomm_Details	String		<input type="checkbox"/>	<input type="checkbox"/>
Revenue_Impact	Double	0	<input type="checkbox"/>	<input type="checkbox"/>
Update_Recomm_Details	UserType		<input type="checkbox"/>	<input type="checkbox"/>

15. Name this duplicate variable as **Update\_Recomm\_Details** and make sure the **Array** checkbox is **unchecked**.

16. Save the process.

#### Best Practises

- Variables should have explicit names and be unique, alphanumeric, without spaces, and lowercase.
- Do not use the 'custom script' in the script node to assign simple variables/values, use the 'assign value' option instead.
- Use 'custom script' in the script node only for writing complex or advanced data transformation scripts.

## Creating the UI using UI Builder

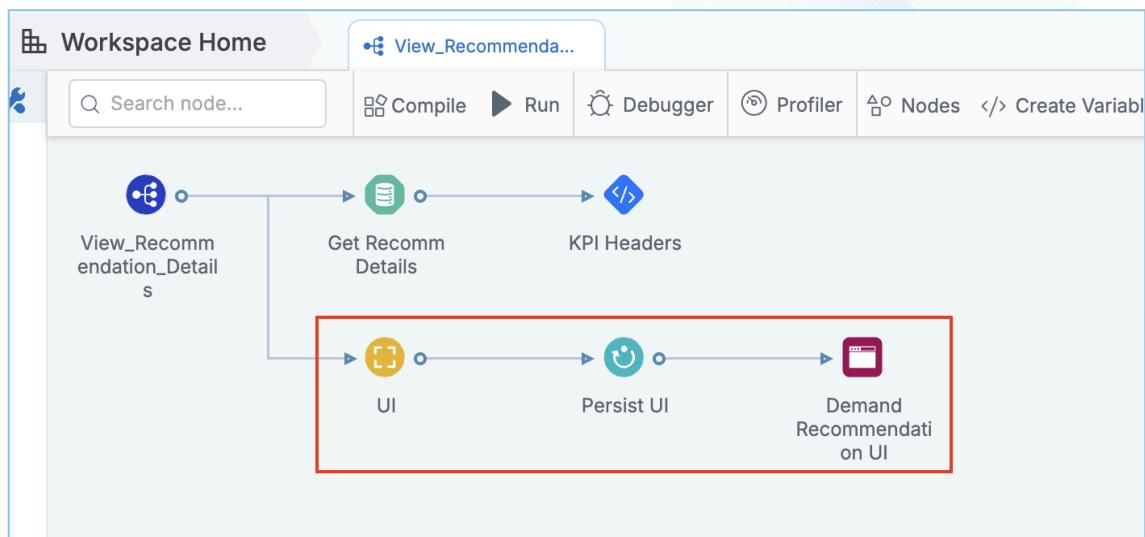
### Adding the UI Node

1. Drag a **Branch Node** over the **View Recommendation Details\_<Username>** node and name it **UI**.  
This would be a separate branch to distinguish the UI part.
2. Drag a **While Node** on this UI Branch Node and name it **Persist UI**.

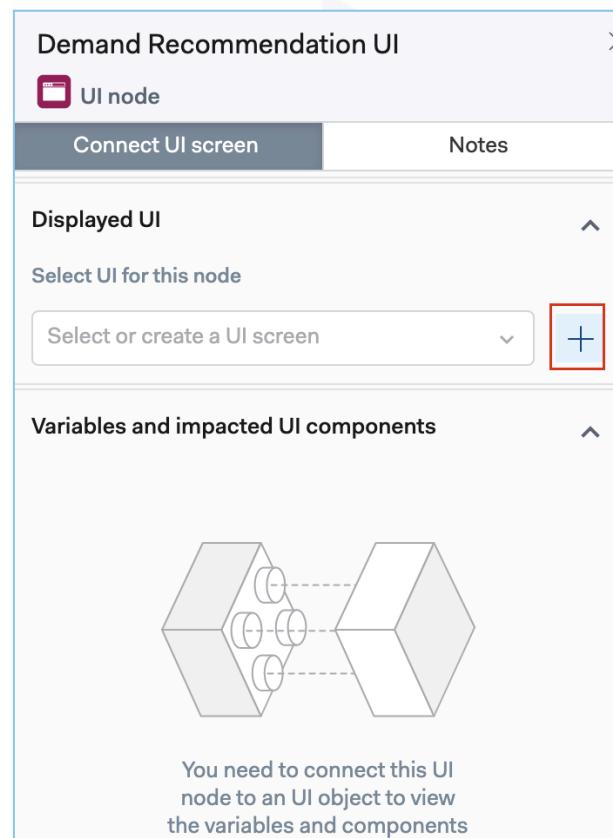
**Note:** We always need a Forever While Node before the UI Node to keep the screen active at all times. If it is not added, the process will be completed, leaving no option for the user to act on the screen.

All the Nodes configured after the While node will be triggered for every interaction we perform on the UI.

3. Now drag the **UI Screen** Node over the **While Node** and name it **Demand Recommendation UI**.

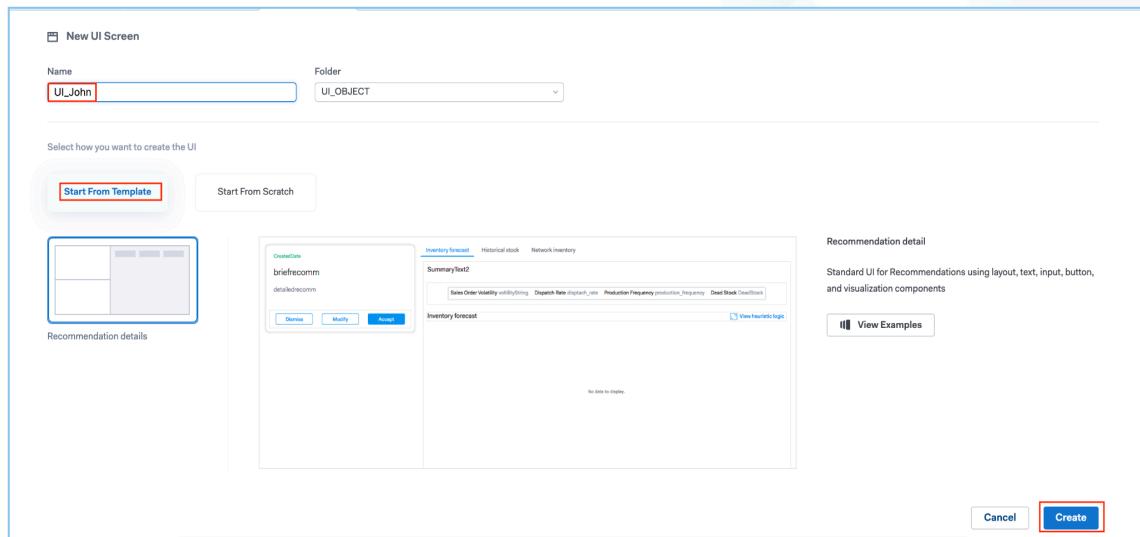


4. Click **Save**
5. Click the **UI Node** to open the Node Property Panel.
6. Users can select any already created UI or can create a new UI by clicking **+**.
7. Since we are creating a new UI screen, **click +**.

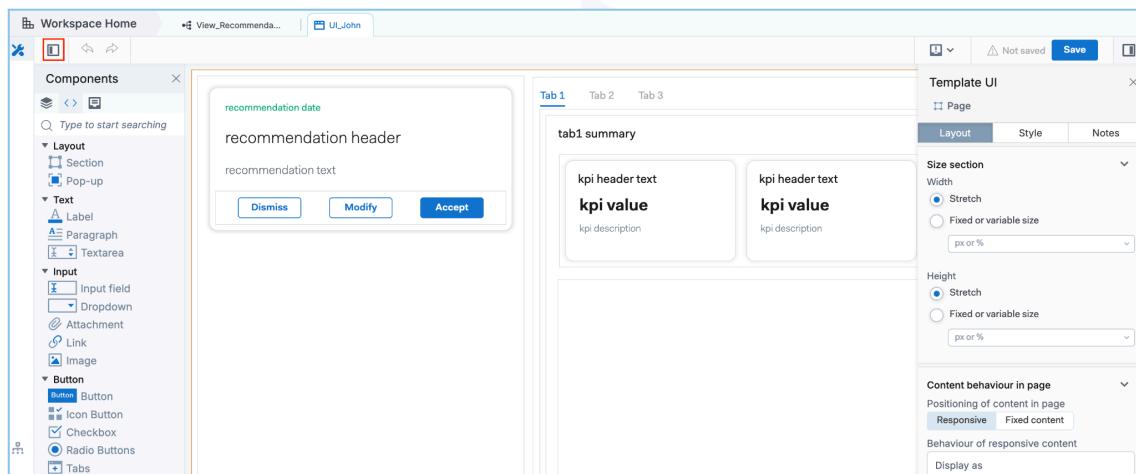


## Configuring the UI Screen Layout

1. A new UI Screen appears in the section “How you want to create UI” Start from Template.
2. Give the name **UI\_<Username>**, Select the folder **UI\_OBJECT**, and click **Create**.

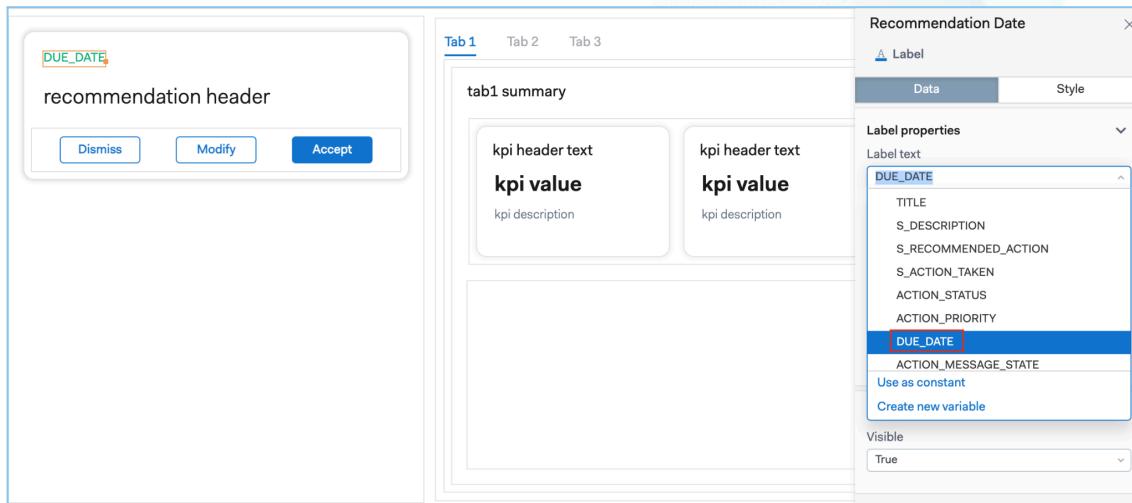


3. The **UI\_Username** console now opens up in a new tab. You can now drag different UI components to build a UI Page and click **Save**.

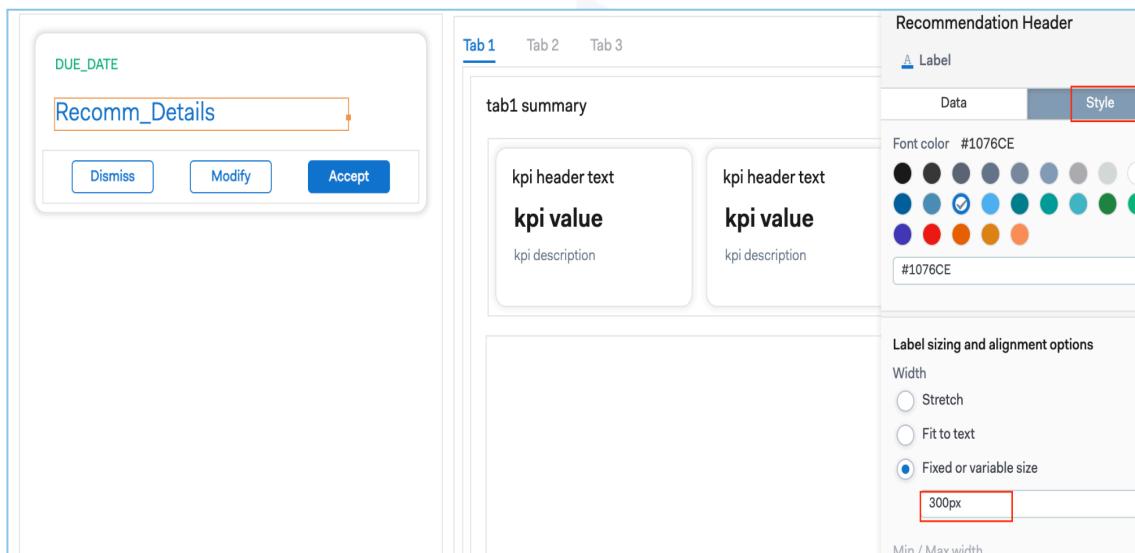


## Add UI Screen Elements

1. Click on the **Recommendation Card** section and delete the **recommendation\_text** label.
2. Click the first label **recommendation date**, and set the Label text to **DUE\_DATE** from the **Recomm\_Details** drop-down.



3. Similarly, select the **Label text** of the **Recommendation Header** label to **Recomm\_Details**.
4. Adjust the color and size of the Labels as required.
5. From the Style tab, set the **Fixed or Variable** size to 300px for **Recomm\_Details**



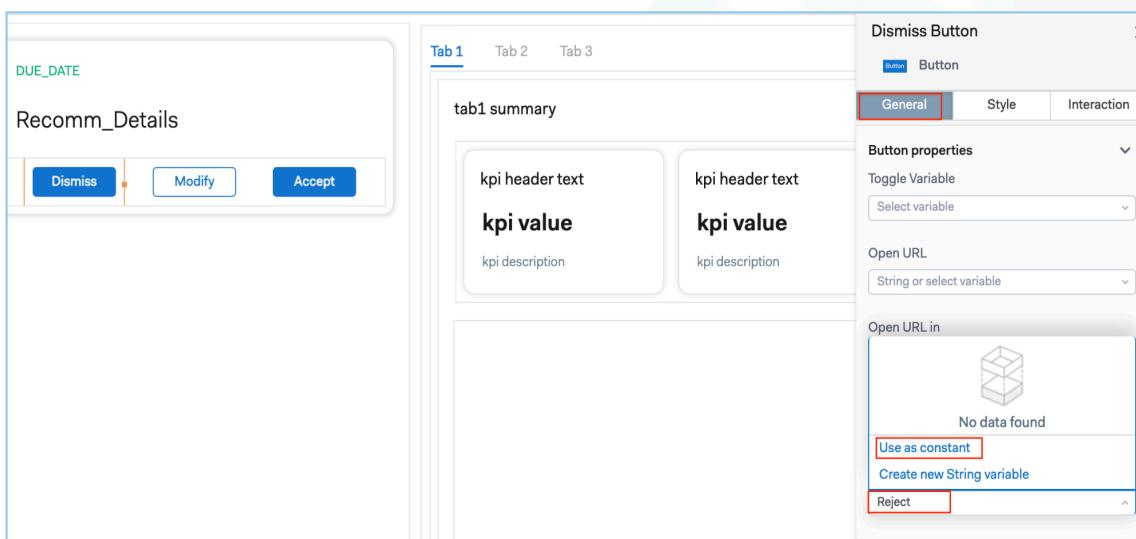
6. Click **Save**.

#### Best Practices

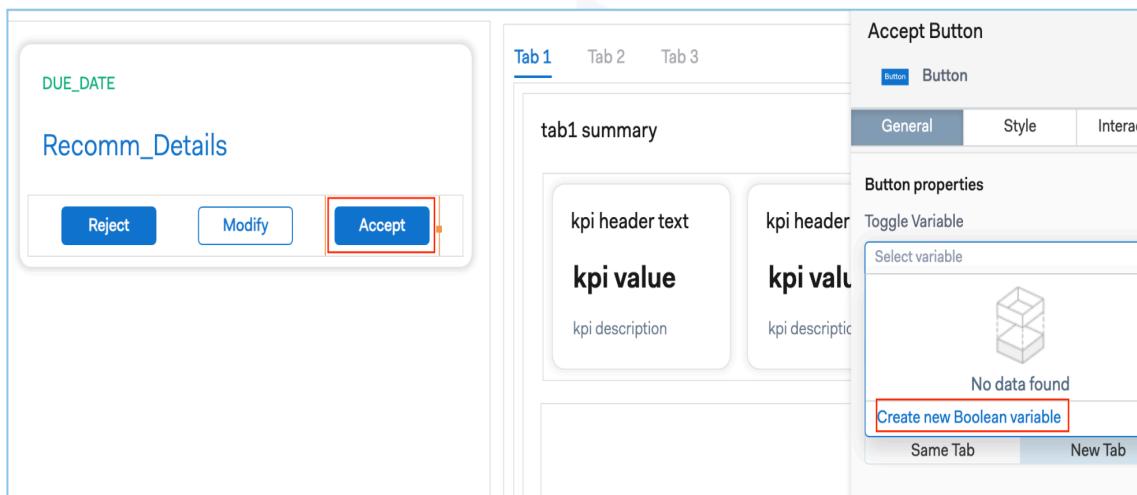
- Identify and outline the sections you will need to create the layout from your mock-up. It is best to do this before you start developing.
- Name your UI sections & Components to reflect their position or purpose in the UI.
- If you don't want a scrollbar on a section, use the "fit to content" size for that section.
- Name variables to reflect their purpose in both the UI & the Process.

#### Configure Buttons

1. Click the **Dismiss** button and rename it to **Reject** using the **Text On Button** Property. Choose the **use as a constant** option while updating the button.
2. From the **Style** tab, select Button style to **Solid**.

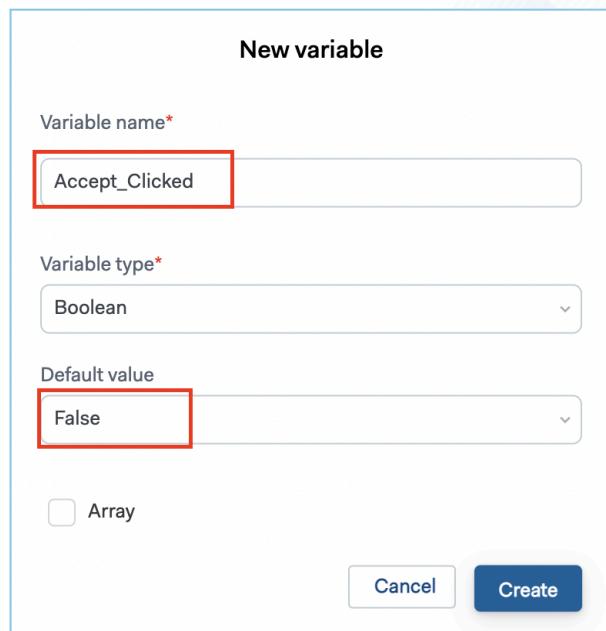


3. **Save** the process.
4. Click on the **Accept** Button, and click on Toggle Variable to **create a new Boolean Variable**.



The screenshot shows a UI component titled "Recomm\_Details" with three buttons: "Reject", "Modify", and "Accept". The "Accept" button is highlighted with a red border. To the right, the "Accept Button" properties panel is open, showing "General", "Style", and "Interaction" tabs. Under "Interaction", a "Toggle Variable" section is selected, and a "Create new Boolean variable" button is highlighted with a red border.

- Provide the name **Accept\_Clicked**, set the default value to **False**, and click **Create**.

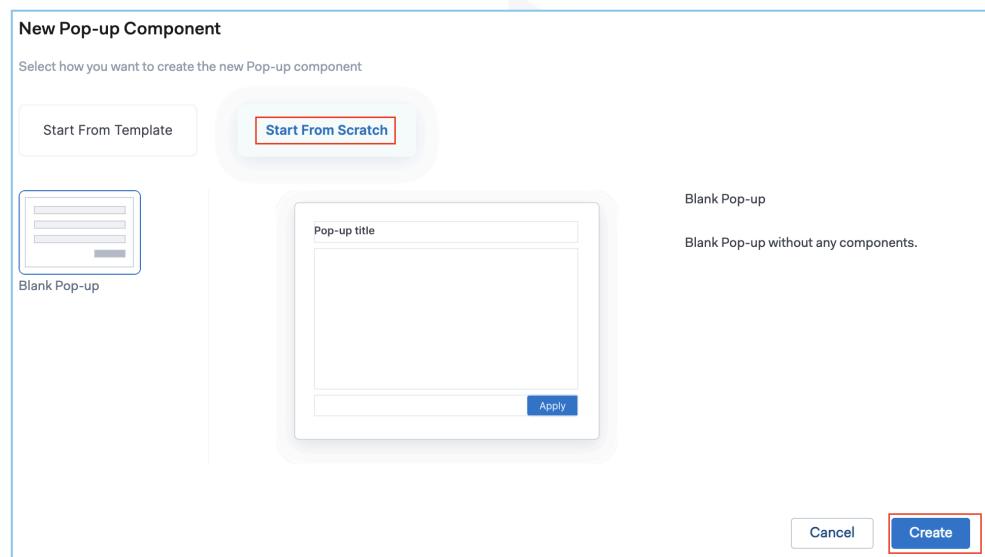


The dialog is titled "New variable". It has fields for "Variable name\*" (containing "Accept\_Clicked"), "Variable type\*" (set to "Boolean"), "Default value" (set to "False"), and an "Array" checkbox (unchecked). At the bottom are "Cancel" and "Create" buttons.

- Similarly, create a toggle variable **Reject\_Clicked** by selecting the Reject Button and do the same for the Modify button by creating a toggle variable **Modify\_Clicked** and setting the default value to **False**.

#### Add pop-up for Modify button

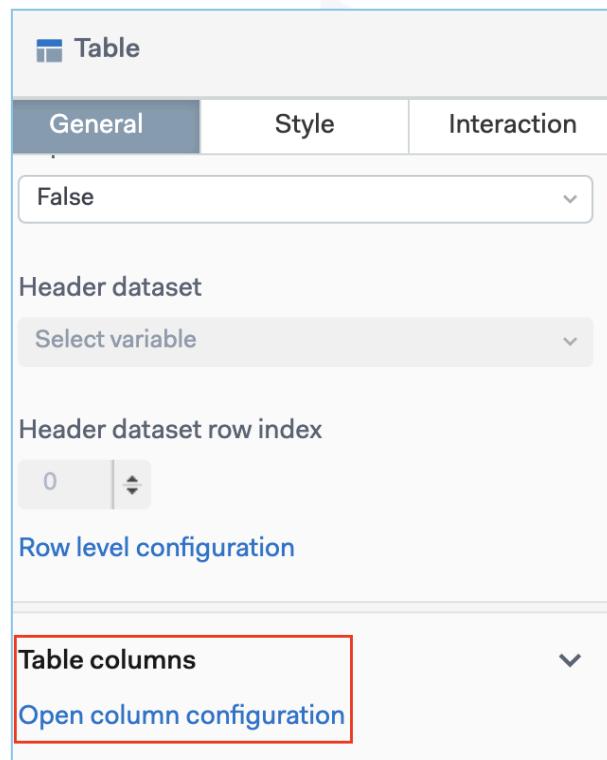
- Drag the Pop-Up component to the UI screen and create a pop-up using the **Start From Scratch** option.



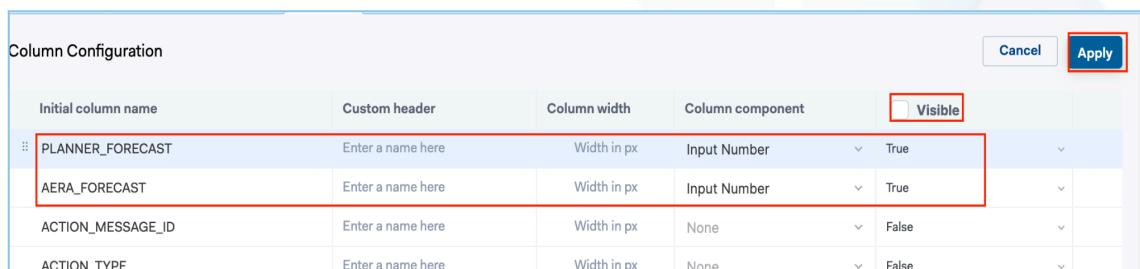
2. Rename the pop-up name to **Modify pop-up**, then change the label text and set it as **Update Forecast** with **Use as constant** option.

3. Now, drag the table component into the modify pop-up.
4. Within the Table properties, set the Dataset to '**Recomm\_Details**'.

5. Navigate to the **Table columns**, access the **open column configuration**, unselect the **visibility** option, and ensure that the Aera forecast and Planner forecast are set to True.

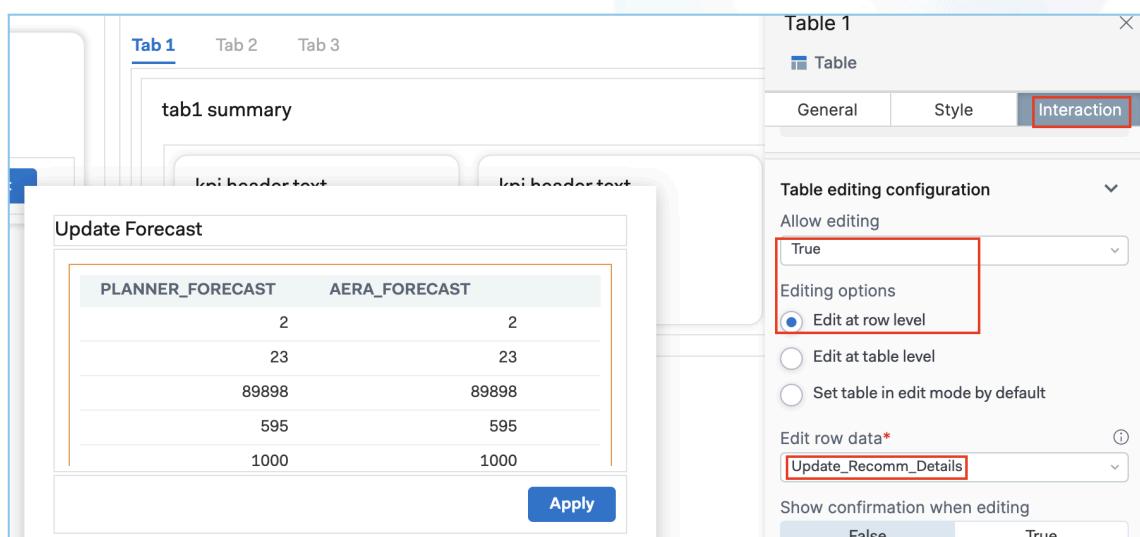


6. Within the **column component**, specify the value for the Aera forecast and Planner forecast column as an Input Number, then apply it.



Initial column name	Custom header	Column width	Column component	Visible
PLANNER_FORECAST	Enter a name here	Width in px	Input Number	True
AERA_FORECAST	Enter a name here	Width in px	Input Number	True
ACTION_MESSAGE_ID	Enter a name here	Width in px	None	False
ACTION_TYPE	Enter a name here	Width in px	None	False

7. Go to the **Interaction** tab in the **table editing configuration**, allow editing to be **true** and select the variable as **Update\_Recomm\_Details** in the **edit row data**.



Tab 1

Tab 2

Tab 3

tab1 summary

Inhibit header text

Inhibit header text

Update Forecast

PLANNER_FORECAST	AERA_FORECAST
2	2
23	23
89898	89898
595	595
1000	1000

**Apply**

Table 1

Table

General
Style
Interaction

Table editing configuration

Allow editing

True

Editing options

Edit at row level
  Edit at table level
  Set table in edit mode by default

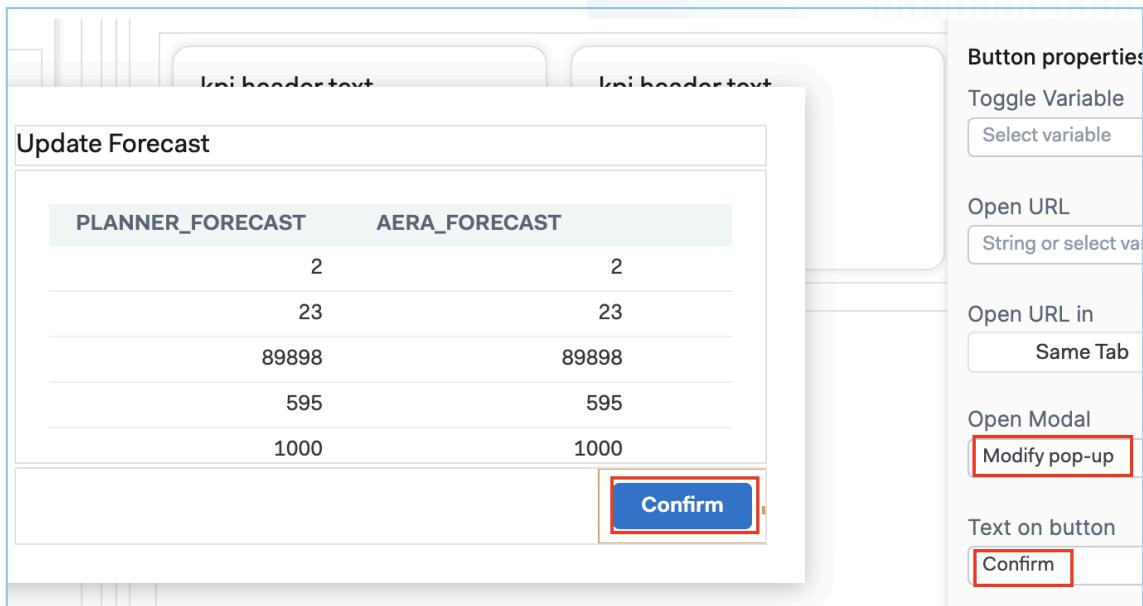
Edit row data\*

Update\_Recomm\_Details

Show confirmation when editing

False
  True

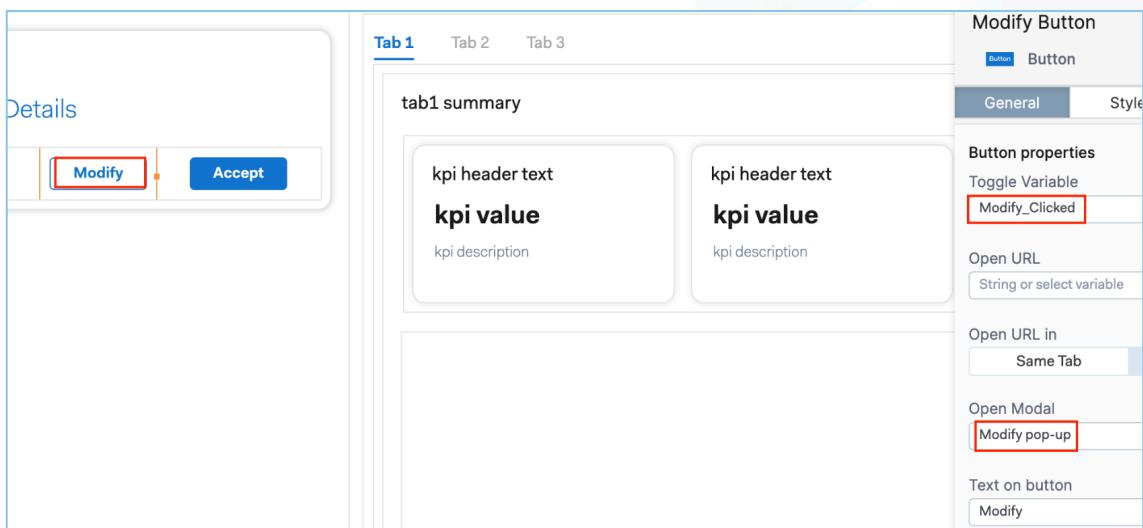
8. Click on **Apply** button, update the **text on button** to **Confirm** and select the **Modify pop-up** in the **Open Modal** feature.



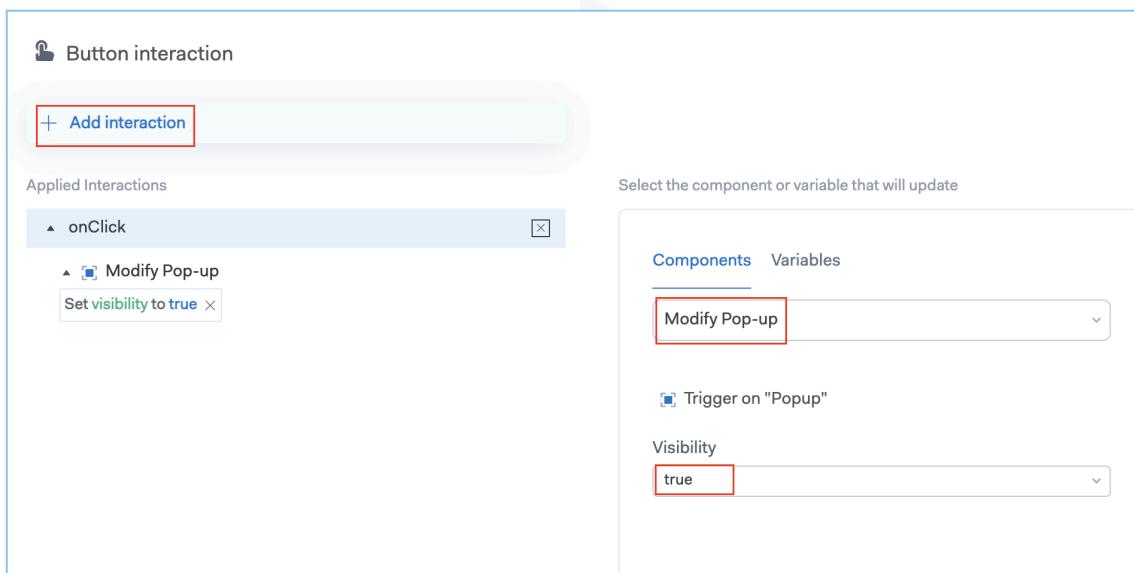
9. Lastly, set the visibility of the Modify pop-up to **false** and save the process.

### Add Interaction on the Modify button

1. Click on the **Modify** button. Then, navigate to the General tab and select Modify pop-up from the **Open modal** feature dropdown menu.



2. Go to the **Interaction** tab, add a new Interaction, select the **Modify pop-up** from Components drop-down and set the visibility to **True**.



**Button interaction**

+ Add interaction

Applied Interactions

onClick

Modify Pop-up

Set visibility to true

Select the component or variable that will update

Components Variables

Modify Pop-up

Trigger on "Popup"

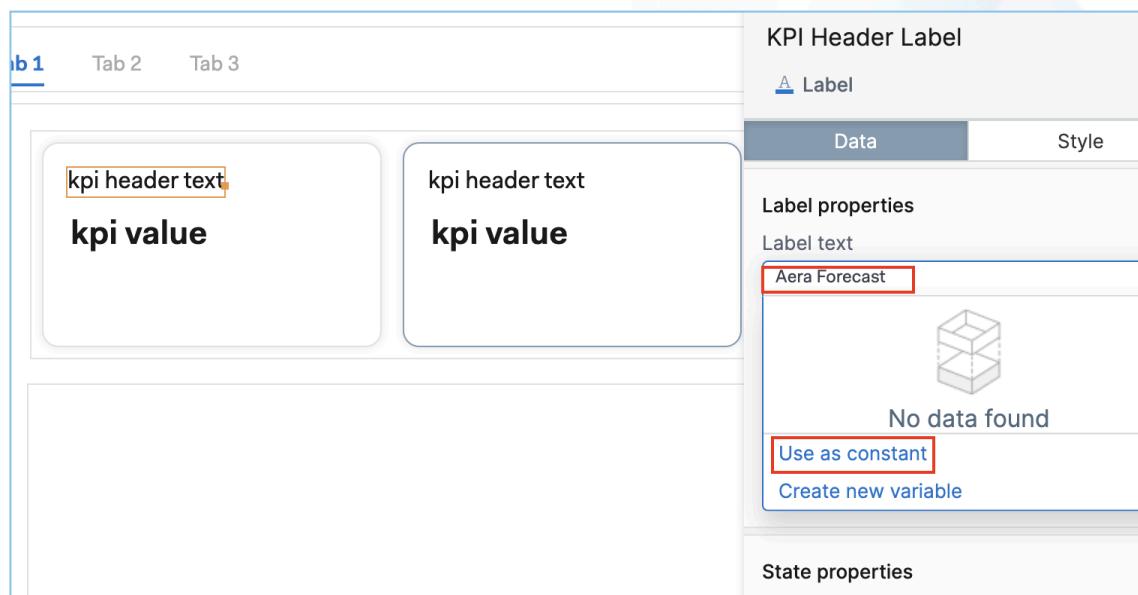
Visibility

true

3. Apply the interaction and save the process.

## Reconfiguring a Tab component

1. In the Right Section, delete the **tab1 summary** label and all **KPI description** labels.
2. Click on the first **KPI header text** label and provide the Label text as **Aera Forecast**.



Tab 1 Tab 2 Tab 3

kpi header text

kpi value

kpi header text

kpi value

KPI Header Label

Label

Data	Style
------	-------

Label properties

Label text

Aera Forecast

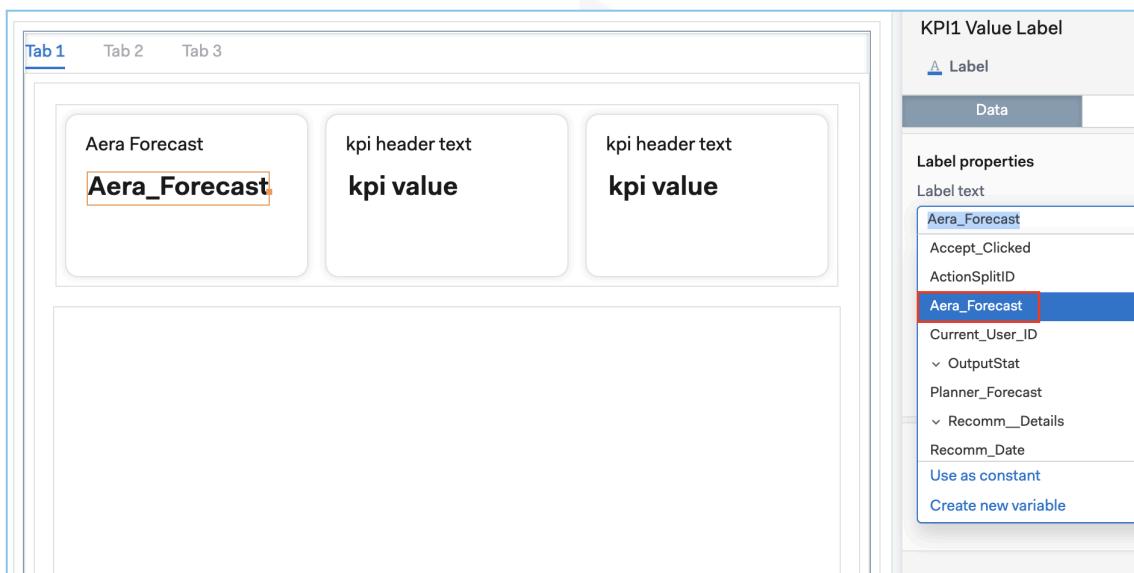
No data found

Use as constant

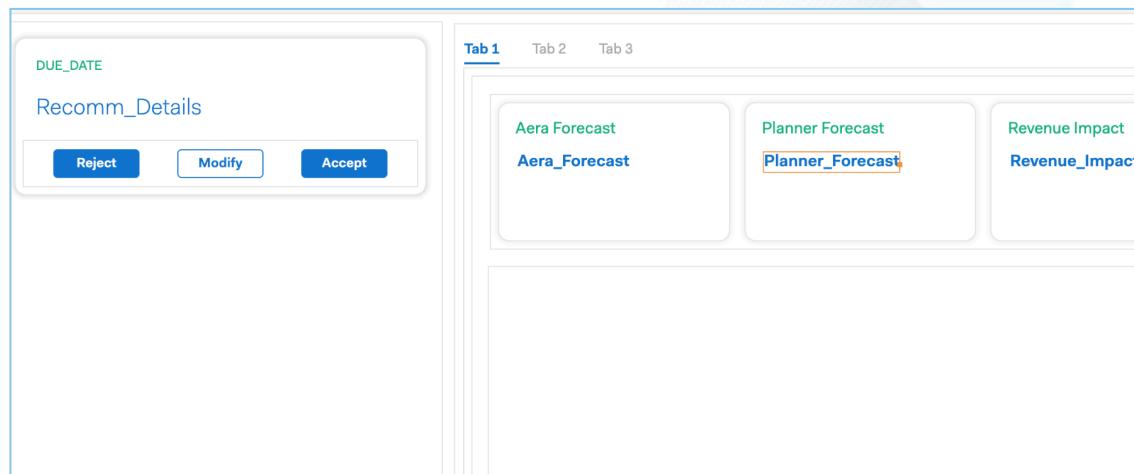
Create new variable

State properties

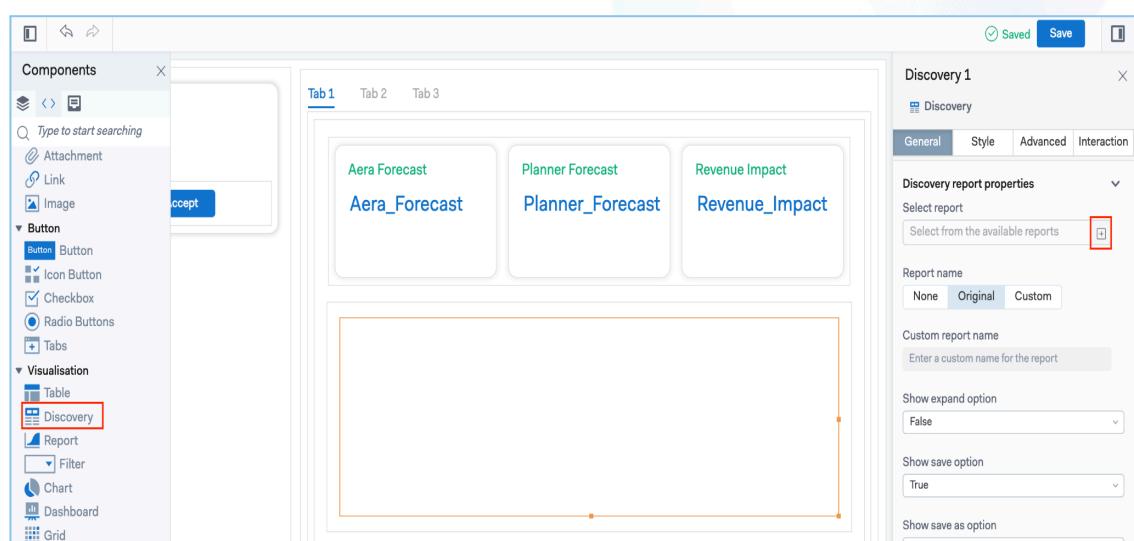
3. Click on the second label, and from the Label text drop-down, select the variable **Aera\_Forecast** that was created earlier.



4. Similarly, reconfigure the remaining two label sections and configure the Name/Variables.
5. Use the **Display as, Style properties** and **Shadow** settings to resemble the image shown below:



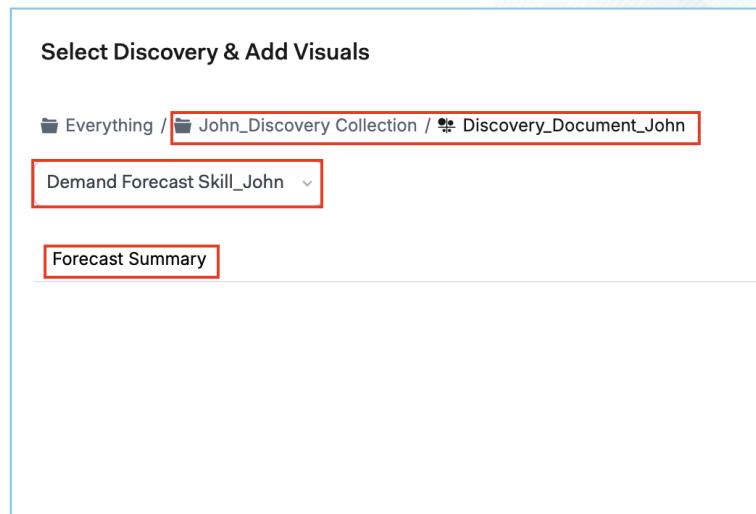
6. Click **Save**.
7. Next, delete the **Chart** component, drag and drop the **Discovery** component and select the Discovery Report you created earlier.



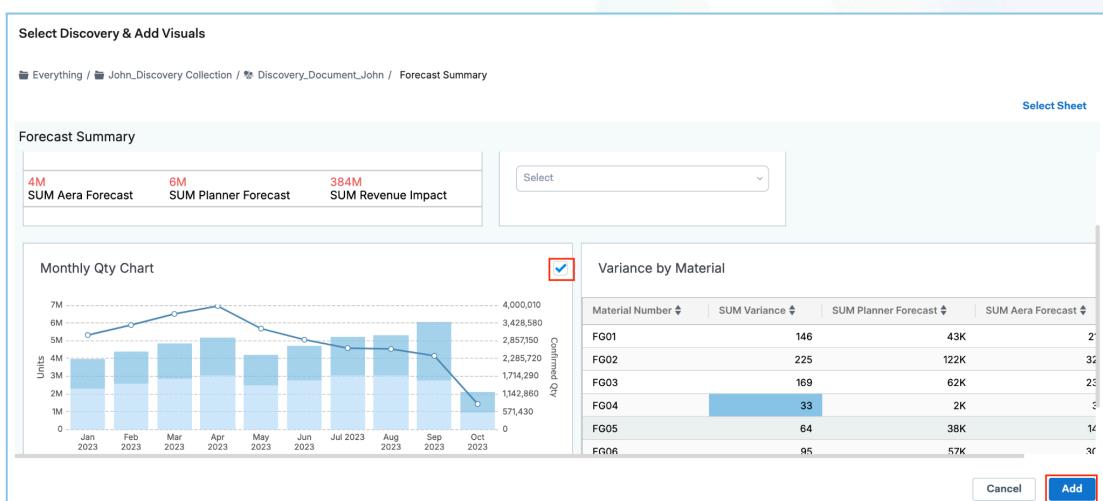
8. Select the **Discovery** and click **Next**.



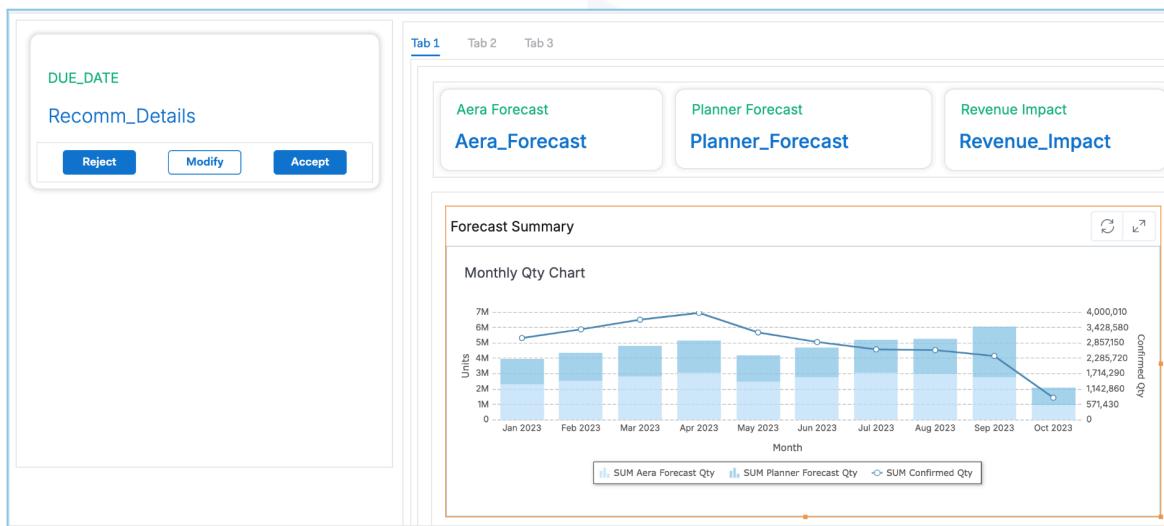
9. Within your workspace, navigate to the **Discovery\_Document\_<Username>** and select **Forecast Summary**.



10. Select the **checkbox** for the widgets you want to add to your UI Screen and click **Add**.



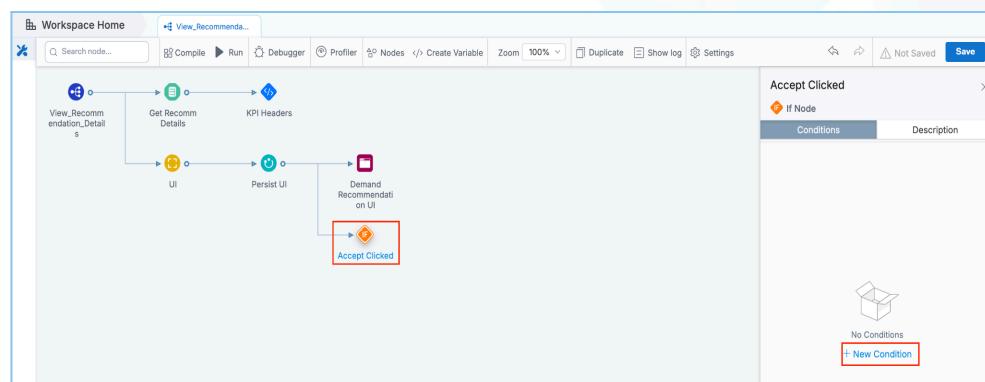
11. The UI Screen is now ready. Click **Save** and close the UI Screen.



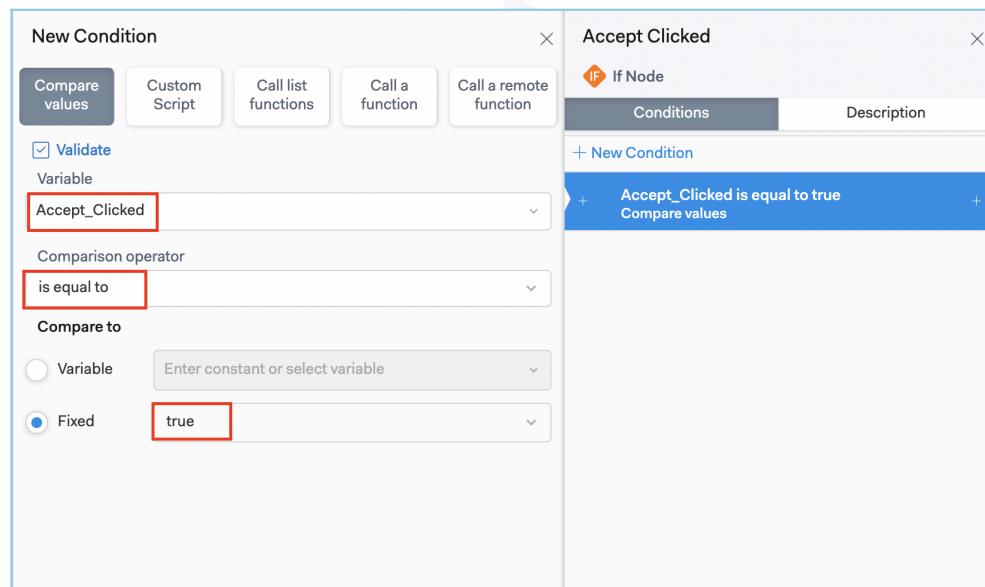
## Handling User Actions

### Accept Recommendation

1. We will now manage the **Accept/Reject** Button actions.
2. Drag an **If Node** over the **While Node**(Persist UI) to check if the **Accept** Button is clicked.
3. Name the Node as **Accept Clicked**
4. Click the **If Node**, and the Accept Clicked panel will open on the right side.
5. Click **+New Condition**.

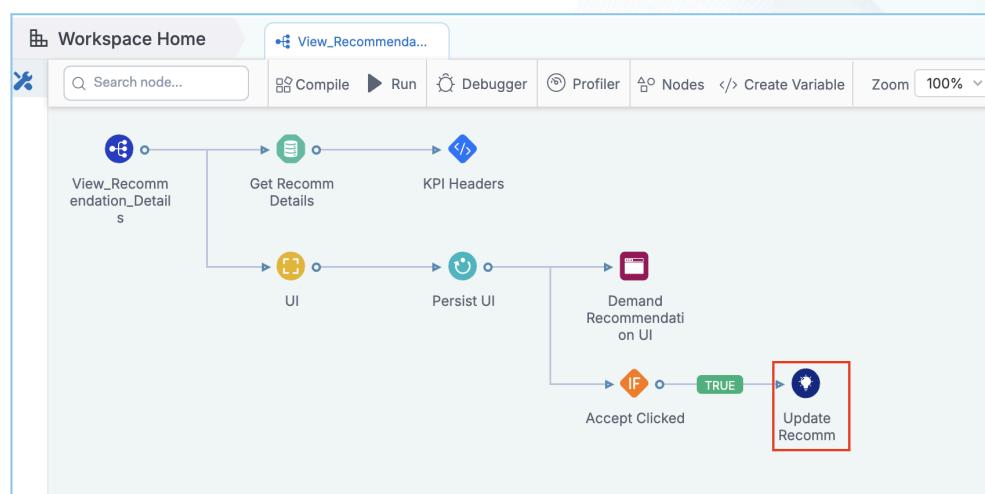


6. In the **Compare values** tab, select the variable **Accept\_Clicked**, select comparison operator **is equal to** and select **Compare to Fixed** as **True**.

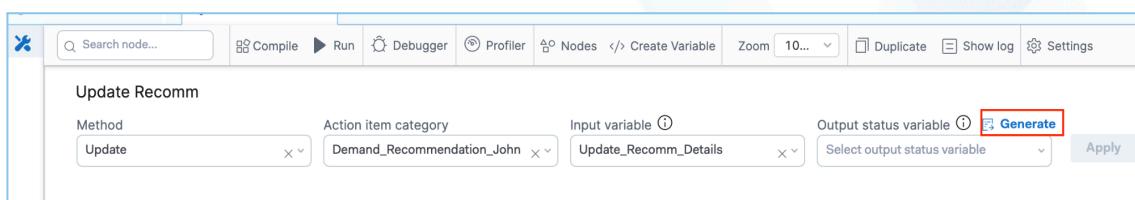


The screenshot shows two panels side-by-side. On the left, the 'New Condition' panel is open, showing a 'Compare values' section with a checked 'Validate' checkbox. A variable 'Accept\_Clicked' is selected, and the comparison operator 'is equal to' is chosen. Under 'Compare to', the 'Fixed' option is selected with the value 'true'. On the right, the 'Accept Clicked' configuration for an 'If Node' is shown, listing a condition: 'Accept\_Clicked is equal to true' under 'Compare values'.

7. Click **Save** and close the panel.
8. Drag an **Action Item** Node over the **If** Node and name it **Update Recomm.**



9. Click on the **Action Item** Node, and on the **Update Recomm** page, select **Method** as **Update**, **Action Item Category** as **Demand Recommendation <Username>**, **Input Variable** as **Update\_Recomm\_Details** and Click on **Generate**.



The screenshot shows the 'Update Recomm' configuration dialog. It includes fields for 'Method' (set to 'Update'), 'Action item category' (set to 'Demand\_Recommendation\_John'), 'Input variable' (set to 'Update\_Recomm\_Details'), and 'Output status variable' (with a 'Generate' button highlighted with a red box). There is also a 'Select output status variable' dropdown and an 'Apply' button.

10. Provide the output Variable name as **OutputStat** and Click **Add**.

**Generate Variable**

Cancel
Add

11. Click **Apply**

12. Update ONLY the following System columns

- a. **Action Taken = ACCEPTED**
- b. **Status = COMPLETE**

System Columns				Custom Columns	Specify Condition <span style="border: 1px solid red; padding: 2px;">+</span>	Selected columns	Search columns	
<input type="checkbox"/> Title	Variable	Expression	Condition	Type Title. Use @ for variable				
<input type="checkbox"/> Description	Variable	Expression	Condition	Type Description. Use @ for variable				
<input type="checkbox"/> Recommended Action	Variable	Mnemonic	Condition	ACCEPTED				
<input checked="" type="checkbox"/> Action Taken	Variable	Mnemonic	Condition	ACCEPTED				
<input checked="" type="checkbox"/> Status	Variable	Mnemonic	Condition	COMPLETE				

13. Next, Click on **Specify Condition**, provide the condition as shown below and click **Confirm**.

**Select Where Condition**

ID

Equals

ActionSplitID

+

Reset
Cancel
Confirm

14. Click the left bottom **Save** to save the Action Item configuration and then click the top right **Save** to save the Process.

**Update Recomm**

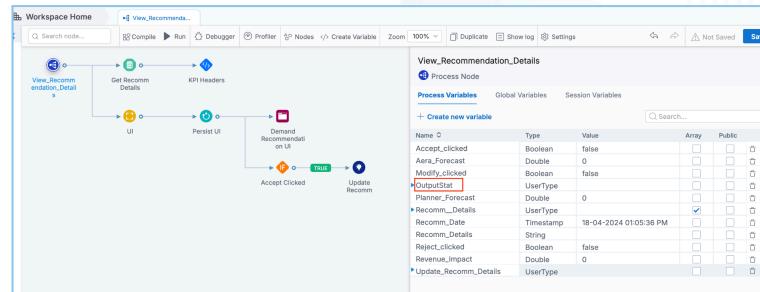
Method
Update
Action item category
Demand\_Recommend\_John
Input variable Update\_Recomm\_Details
Output status variable OutputStat
Generate
Apply

System Columns				Custom Columns	Edit Condition <span style="border: 1px solid #ccc; padding: 2px;">+</span>	Selected columns	Search columns	
<input type="checkbox"/> Title	Variable	Expression	Condition	Type Title. Use @ for variable				
<input type="checkbox"/> Description	Variable	Expression	Condition	Type Description. Use @ for variable				
<input type="checkbox"/> Recommended Action	Variable	Mnemonic	Condition	Select mnemonic				
<input checked="" type="checkbox"/> Action Taken	Variable	Mnemonic	Condition	ACCEPTED				
<input checked="" type="checkbox"/> Status	Variable	Mnemonic	Condition	COMPLETE				
<input type="checkbox"/> Priority	Variable	Mnemonic	Condition	Select mnemonic				
<input type="checkbox"/> Due Date	Variable	Expression	Condition	Type Due Date. Use @ for variable				
<input type="checkbox"/> Message State	Variable	Expression	Condition	Select variable column				
<input type="checkbox"/> Re-compute Confidence Score								

Cancel
Save

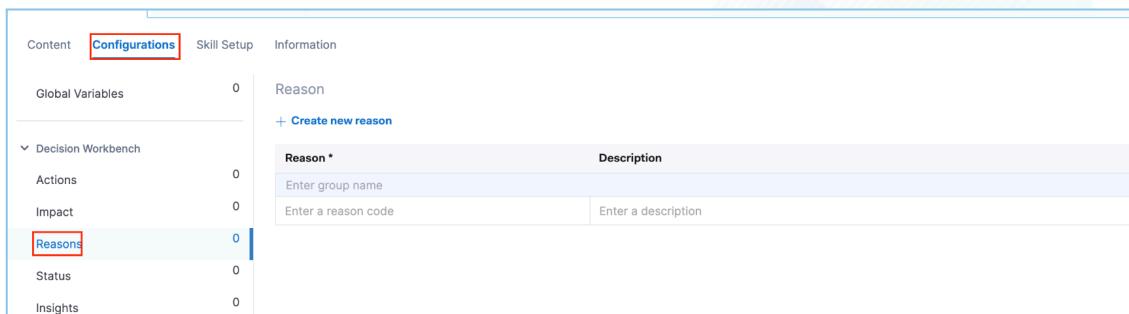
15. Close the Update Recomm page.

16. Click on the **View Recommendation Details\_<Username>** Node, and make sure the **OutputStat** variable is generated.

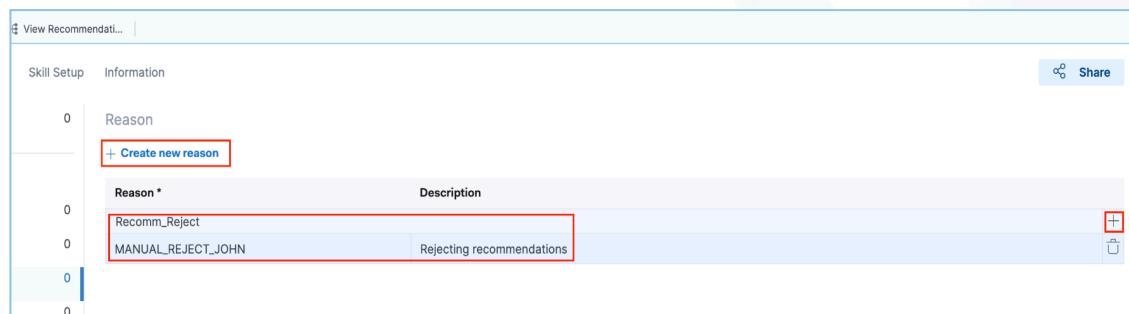


## Reject Recommendation

1. From the **Content**, go to **Configurations** and Click on **Reasons**.

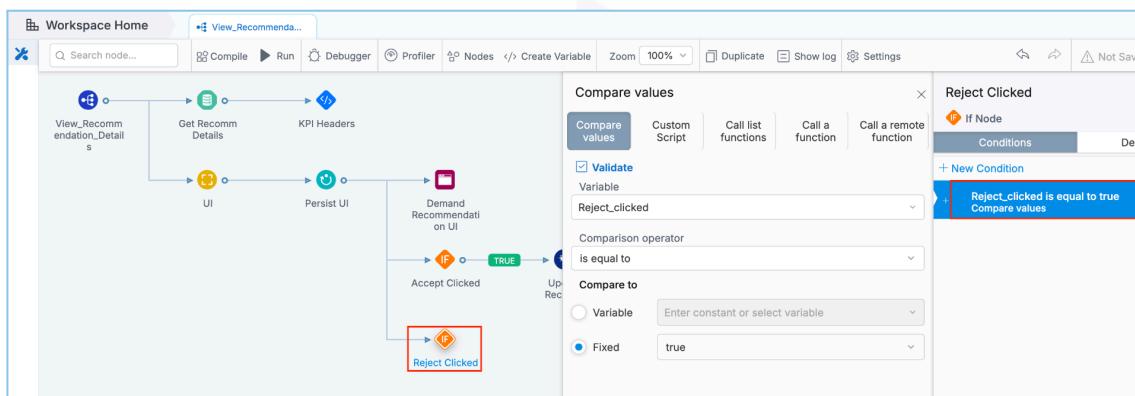


2. Click on **Create New Reason** and provide the Group name as **Recomm\_Reject**.  
3. Click on the + icon and provide the **reason code** as **MANUAL\_REJECT\_<USERNAME>** and a description as shown below.

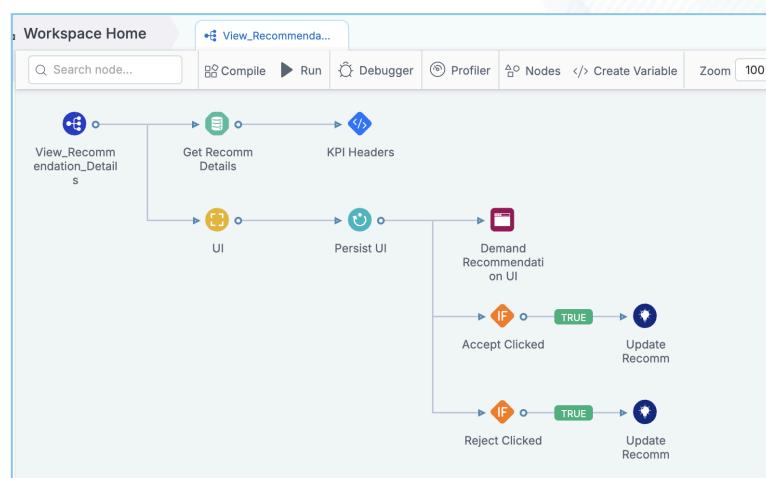


Reason *	Description
Recomm_Reject	Rejecting recommendations
MANUAL_REJECT_JOHN	

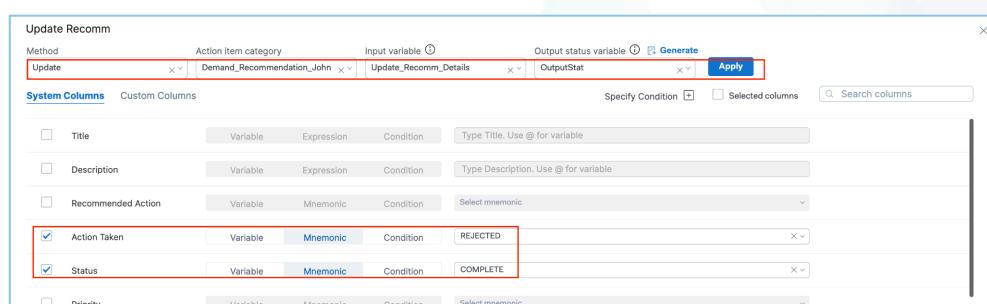
4. Now go to the process tab and drag an **If** Node over the **Persist UI** Node.  
5. Name this node as **Reject Clicked**. Click on this node and add a condition as done before.



6. Close the **Reject Clicked** panel and **Save** the process.
7. Drag an **Action Item** node over the **If Node**, and name this node as **Update Recomm.**



8. Click on this Update Recomm Node, select **Method** as **Update**, **Action Item Category** as **Demand Recommendation <Username>**, **Input Variable** as **Update\_Recomm\_Details** and **Output Status variable** as **OutputStat**.
9. Click **Apply**



System Column	Type	Mnemonic	Condition
Action Taken	Variable	REJECTED	REJECTED
Status	Variable	COMPLETE	COMPLETE

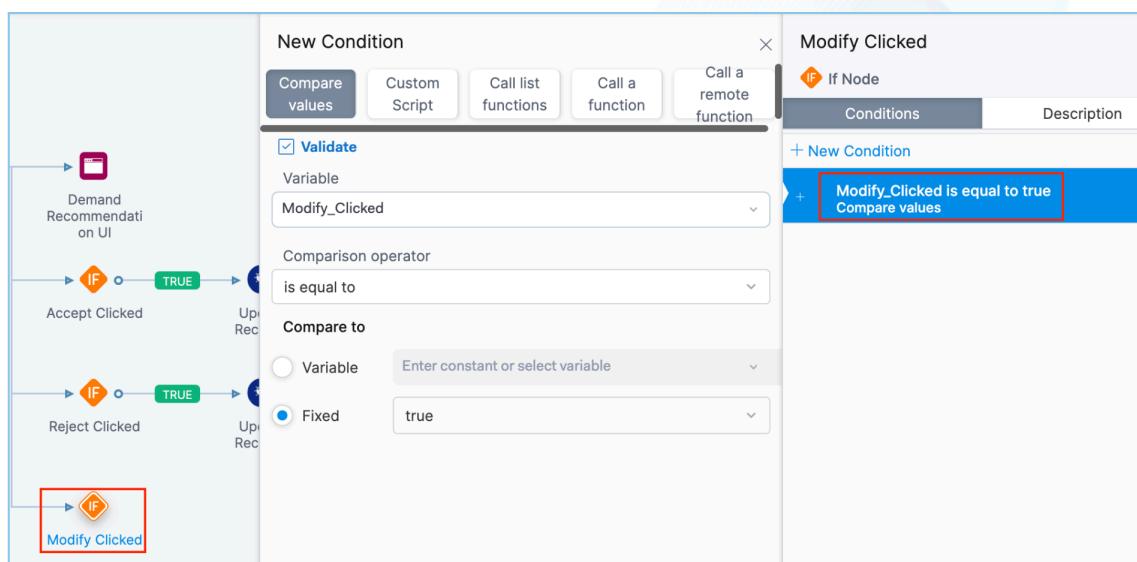
10. Update ONLY the following System columns.
  - a. **Action Taken = REJECTED**
  - b. **Status = COMPLETE**
  - c. **Reason code = MANUAL\_REJECT\_<Username>**

System Columns		Custom Columns			
	Recommended Action	Variable	Mnemonic	Condition	Select mnemonic
<input checked="" type="checkbox"/>	Action Taken	Variable	Mnemonic	Condition	REJECTED
<input checked="" type="checkbox"/>	Status	Variable	Mnemonic	Condition	COMPLETE
<input type="checkbox"/>	Priority	Variable	Mnemonic	Condition	Select mnemonic
<input type="checkbox"/>	Due Date	Variable	Expression	Condition	Type Due Date. Use @ for variable
<input type="checkbox"/>	Message State	Variable	Expression	Condition	Select variable column
<input type="checkbox"/>	Owner Id	Variable	User	Condition	Select user
<input checked="" type="checkbox"/>	Reason Code	Variable	Mnemonic	Condition	MANUAL_REJECT,JOHN

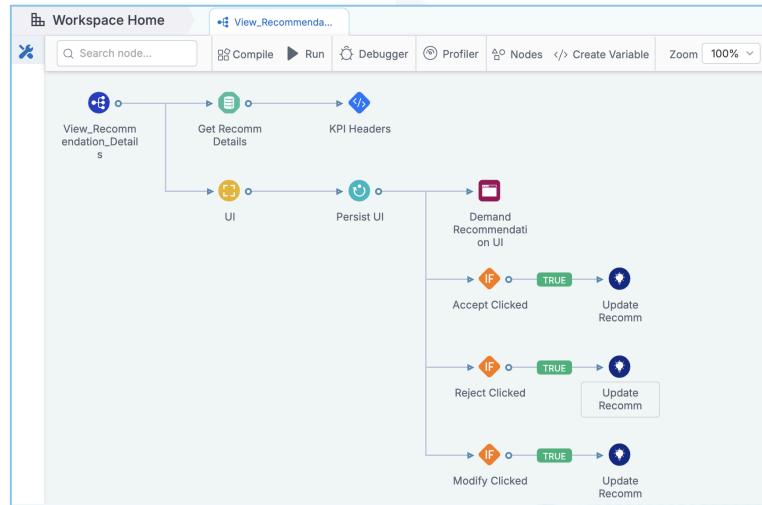
11. Click on **Specify Condition** and provide the same condition as done earlier.
12. **Save** the Action Item configuration and then the process as done before.

## Modify Recommendation

13. Now go to the process tab and drag an **If Node** over the **Persist UI Node**.
14. Name this node as **Modify Clicked**. Click on this node and add a condition as done before.



15. Close the **Modify Clicked** panel and **Save** the process.
16. Drag an **Action Item** node over the **If Node**, name this node as **Update Recomm.**

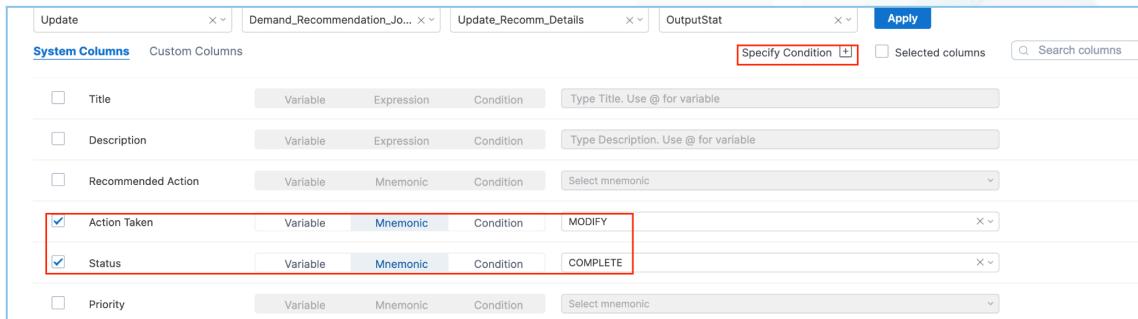


17. Click on this Update Recomm Node, select **Method** as **Update**, **Action Item Category** as **Demand Recommendation <Username>**, **Input Variable** as **Update\_Recomm\_Details** and **Output Status variable** as **OutputStat**.

18. Click **Apply**

19. Update the following System columns

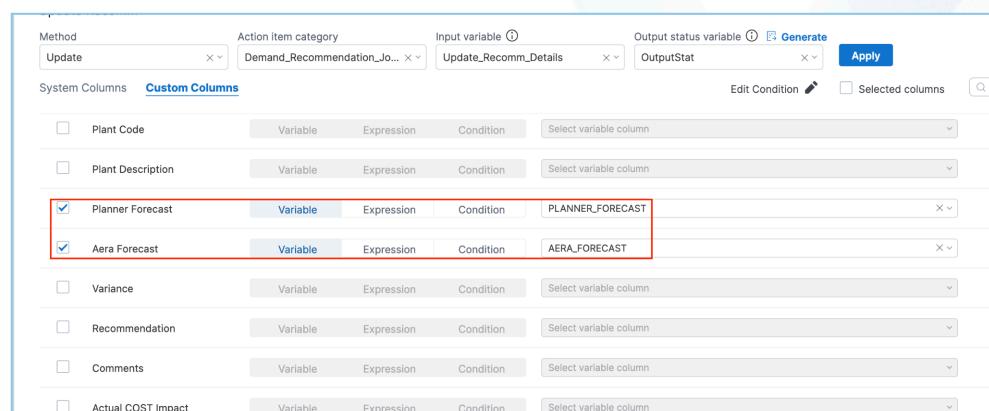
- Action Taken = MODIFY**
- Status = COMPLETE**



Column	Type	Mnemonic	Condition	Value
Action Taken	Variable	Mnemonic	Condition	MODIFY
Status	Variable	Mnemonic	Condition	COMPLETE
Priority	Variable	Mnemonic	Condition	Select mnemonic

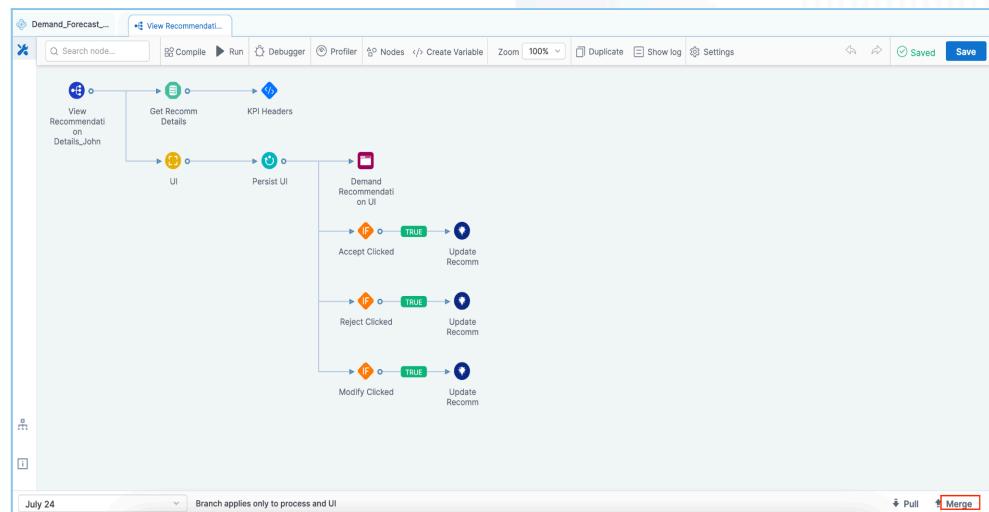
20. Update the following Custom columns.

- Planner Forecast = PLANNER\_FORECAST**
- Aera Forecast = AERA\_FORECAST**



Column	Type	Mnemonic	Condition	Value
Plant Code	Variable	Expression	Condition	Select variable column
Plant Description	Variable	Expression	Condition	Select variable column
Planner Forecast	Variable	Expression	Condition	PLANNER_FORECAST
Aera Forecast	Variable	Expression	Condition	AERA_FORECAST
Variance	Variable	Expression	Condition	Select variable column
Recommendation	Variable	Expression	Condition	Select variable column
Comments	Variable	Expression	Condition	Select variable column
Actual COST Impact	Variable	Expression	Condition	Select variable column

21. Click on **Specify Condition** and provide the same condition as done earlier.
22. **Save** the Action Item configuration and click on Merge.



23. Select Process & UI and click on Merge Objects.

**Merge branch**

**Changed objects**

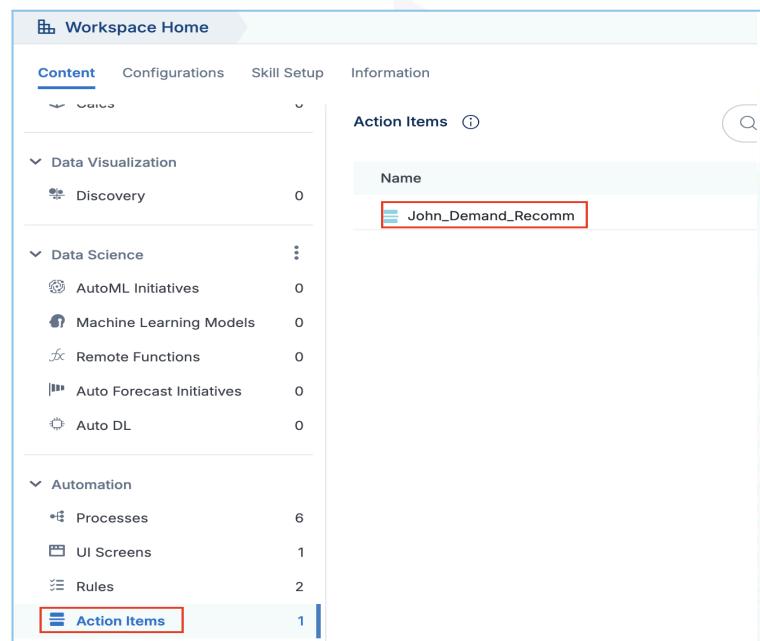
<input type="checkbox"/> Change	Object name	Type	Updated date	Info
<input checked="" type="checkbox"/>	Created View Recommendation...	Process	Jul 24, 2024 at 02:49	
<input checked="" type="checkbox"/>	Created View Details John	Folder	Jul 23, 2024 at 04:44	
<input checked="" type="checkbox"/>	Created UI_John	UI Screen	Jul 24, 2024 at 00:42	<i>(i)</i>
<input type="checkbox"/>	Created Populate recommenda...	Process	Jul 22, 2024 at 04:26	
<input type="checkbox"/>	Created Populate Recommend...	Folder		

Delete branch after merge Cancel Merge 3 objects

24. The process is now ready to be used.

## Adding The Process to Action Item

1. From **Workspace Home**, go to your **Action Item**.

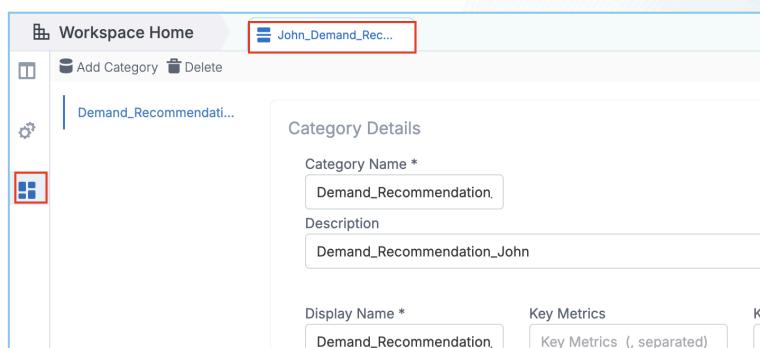


**Workspace Home**

**Action Items**

Name
John_Demand_Recomm

## 2. Open the Action Item and go to **Categories**.

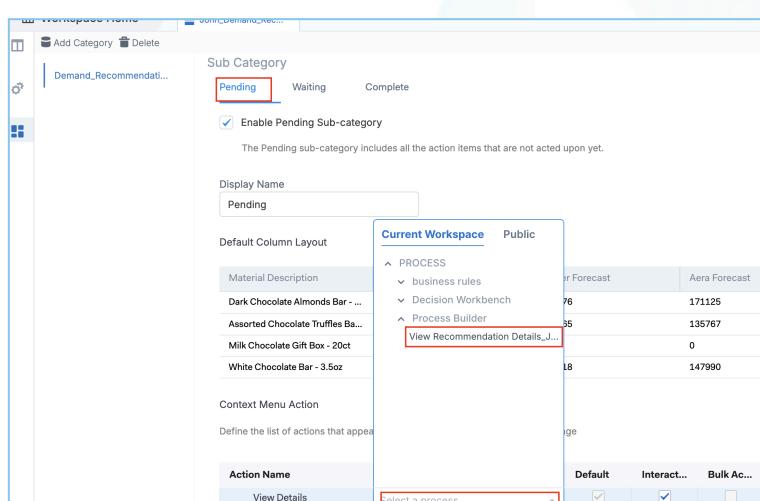


**Category Details**

Category Name \*  
Demand\_Recommendation

Description  
Demand\_Recommendation\_John

## 3. Scroll down to **Context Menu Action** and select the process you created above in both the **Pending** and **Complete** tab.



**Sub Category**

Pending   Waiting   Complete

Enable Pending Sub-category

The Pending sub-category includes all the action items that are not acted upon yet.

**Display Name**  
Pending

**Default Column Layout**

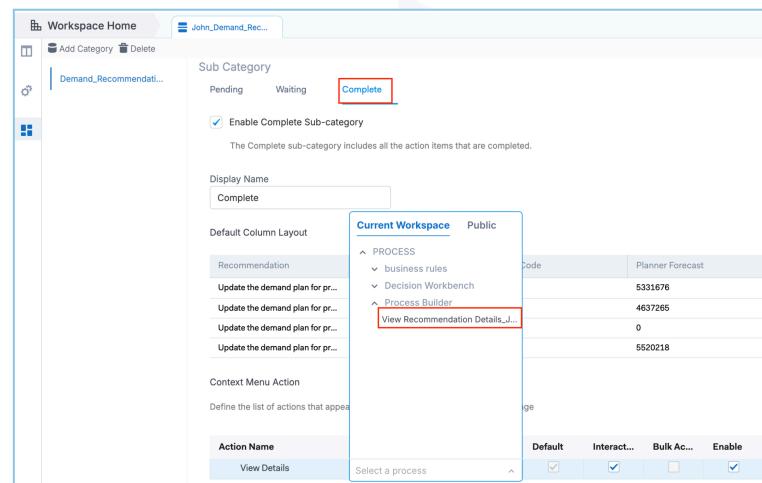
Material Description	Current Forecast	Aera Forecast
Dark Chocolate Almonds Bar - ...	76	171125
Assorted Chocolate Truffles Ba...	56	135767
Milk Chocolate Gift Box - 20ct	0	
White Chocolate Bar - 3.5oz	18	147990

**Context Menu Action**

Define the list of actions that appear in the context menu.

**Action Name**

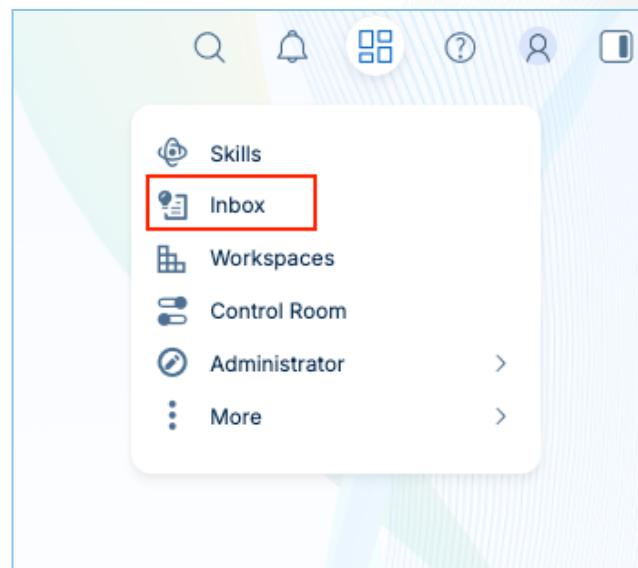
**Select a process**



4. Click **Save**

## View Recommendations to Accept/Reject/Modify

1. From the Aera Menu, go to Inbox.

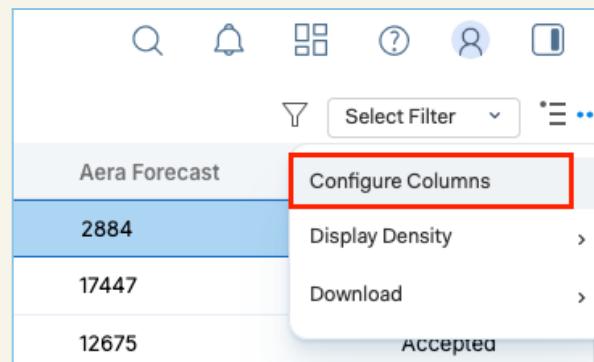


2. Navigate to your Action Item Category **Demand\_Recommendation\_<Username>**

Demand\_Recommendation\_John

Plant Code	Plant Description	Material Number	Material Description	Recommendation	Planner Forecast	Aera Forecast	Recommended Action
DC01	East Coast DC 01	FG10	Dark Chocolate Sea Salt Bar	Update the demand plan for	32577	2884	Accepted
DC01	East Coast DC 01		Audit Trail/Comments	Dark Chocolate Truffles Bag	Update the demand plan for	39326	17447
DC02	Mid-West DC 02		Filter By	Assorted Chocolate Truffles	Update the demand plan for	24378	12675
PL01	NYC Factory 01		Select All	Dark Chocolate Sea Salt Bar	Update the demand plan for	28213	13205
DC01	East Coast DC 01			Dark Chocolate 70% Cocoa I	Update the demand plan for	28144	13104
DC02	Mid-West DC 02	FG02		White Chocolate Bar - 4.4oz	Update the demand plan for	29385	45000
DC03	West Coast DC 03	FG02		White Chocolate Bar - 4.4oz	Update the demand plan for	6541	15000
DC03	West Coast DC 03	FG17		Milk Chocolate Truffles Bag -	Update the demand plan for	16017	19914
DC02	Mid-West DC 02	FG09		White Chocolate Bar - 3.5oz	Update the demand plan for	36769	2372
PL01	NYC Factory 01	FG06		Dark Chocolate Sea Salt Bar	Update the demand plan for	24681	19624
DC01	East Coast DC 01	FG04		Dark Chocolate 78% Cocoa I	Update the demand plan for	24802	18372
DC03	West Coast DC 03	FG11		Dark Chocolate 78% Cocoa I	Update the demand plan for	21304	7496
DC01	East Coast DC 01	FG08		Milk Chocolate Bar - 3.5oz	Update the demand plan for	12362	10143
DC03	West Coast DC 03	FG12		Dark Chocolate 95% Cocoa I	Update the demand plan for	8587	6361
DC03	West Coast DC 03	FG13		Dark Chocolate Sea Salt Bar	Update the demand plan for	22249	9184
PL02	Chicago Factory 02	FG09		White Chocolate Bar - 3.5oz	Update the demand plan for	24703	16533
PL02	Chicago Factory 02	FG01		Milk Chocolate Bar - 4.4oz	Update the demand plan for	26047	17993
DC02	Mid-West DC 02	FG20		Assorted Chocolate Truffles	Update the demand plan for	16424	19551
DC03	West Coast DC 03	FG08		Milk Chocolate Bar - 3.5oz	Update the demand plan for	51329	14180
DC03	West Coast DC 03	FG05		Dark Chocolate 95% Cocoa I	Update the demand plan for	48003	20000
DC03	West Coast DC 03	FG04		Dark Chocolate 78% Cocoa I	Update the demand plan for	41795	7001
DC01	East Coast DC 01	FG22		Dark Chocolate Gift Box - 20	Update the demand plan for	22018	10244
PL02	Chicago Factory 02	FG11		Dark Chocolate 78% Cocoa I	Update the demand plan for	14699	19598

From the top right corner, click on **Configure Columns** and select the columns you want to display on the Inbox.



Drag and drop the columns you want to display on the table

AVAILABLE FIELDS

- Action Message State
- Action Priority
- Action Status
- Action Taken
- Action Type
- Actual COST Impact
- Actual REVENUE Impact
- AGE
- Close Date
- Comments
- Confidence Level

SELECTED FIELDS

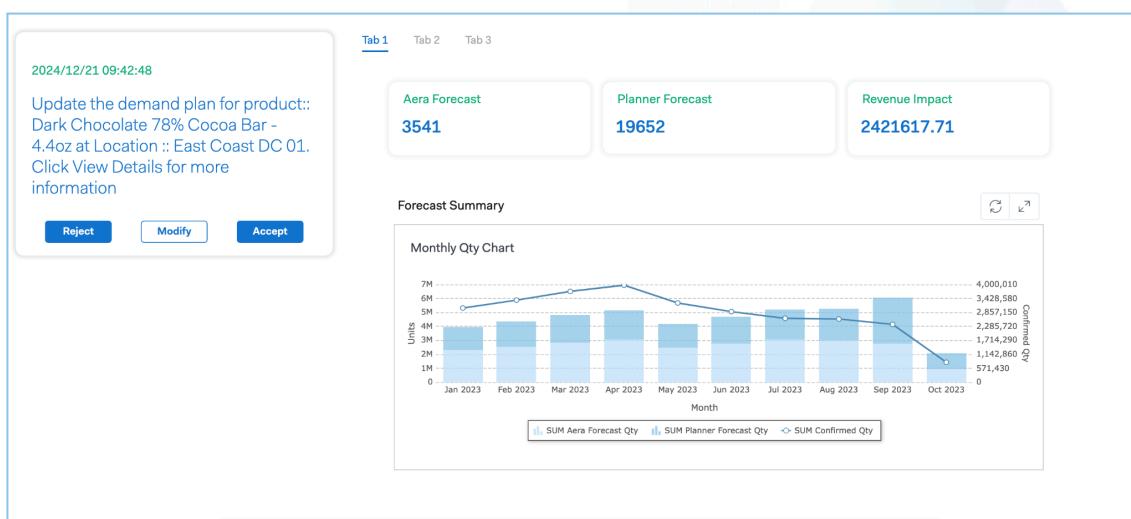
- Aera Forecast
- Material Description
- Material Number
- Planner Forecast
- Plant Description
- Variance
- Recommendation

[Reset to default](#)

[Apply Changes](#)



3. Right-click one of the Recommendations and Click **View Details**.



The Recommendations UI screen is displayed with the relevant details of the Recommendation selected. You can choose to accept, reject, or modify the recommendation.

4. Click **Accept** and then close the Recommendations page
5. You can see that one Recommendation has been Accepted and moved to the Complete tab.

Aera | Inbox

Demand_Recommendation_John		269 Pending	1 Complete			
Material Description	Action Taken	Recommendation Respo...	Aera Forecast	Planner Forecast	Owner Id	Variance
Dark Chocolate Sea Salt Bar	Accepted	Accepted	13373	42900	John Doe	68.83

6. Try Rejecting the next Recommendation, and you will see two recommendations in the complete tab.

Aera | Inbox

Demand_Recommendation_John		268 Pending	2 Complete			
Material Description	Action Taken	Recommendation Respo...	Aera Forecast	Planner Forecast	Owner Id	Variance
Dark Chocolate Sea Salt Bar	Accepted	Accepted	13373	42900	John Doe	68.83
Dark Chocolate Truffles Bag	Rejected	Rejected	13291	9968	John Doe	33.34

7. Now try Modifying the next recommendation, to modify Planner and Aera Forecast, you will see the recommendation in the complete tab with modified data.

Aera | Inbox

Demand_Recommendation_John		267 Pending	3 Complete			
Material Description	Action Taken	Recommendation Respo...	Aera Forecast	Planner Forecast	Owner Id	Variance
Dark Chocolate Sea Salt Bar	Accepted	Accepted	13373	42900	John Doe	68.83
Dark Chocolate Truffles Bag	Rejected	Rejected	13291	9968	John Doe	33.34
Assorted Chocolate Gift Box	Modify	Overridden	17504	24526	John Doe	29.05

8. This completes the Hands-on exercise on Process and UI Builder.

## SUMMARY

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In this hands-on exercise, you have:

- Created a process **View Recommendation Details\_<Username>** to orchestrate interaction with different nodes.
- Configured process and session variables.
- Designed a UI Screen to display recommendations, KPIs, and Charts.
- Created interactions to Accept, Reject & Modify the Recommendation.
- Configure the process in the Action Item **<Username>\_Demand\_Recomm** created in the previous Hands-on exercise (Inbox).