



SAP: ALL IN

SuccessFactors Onboarding Workflow

Exercise Document

July 2021

1 Activate Workflow Management Service 3

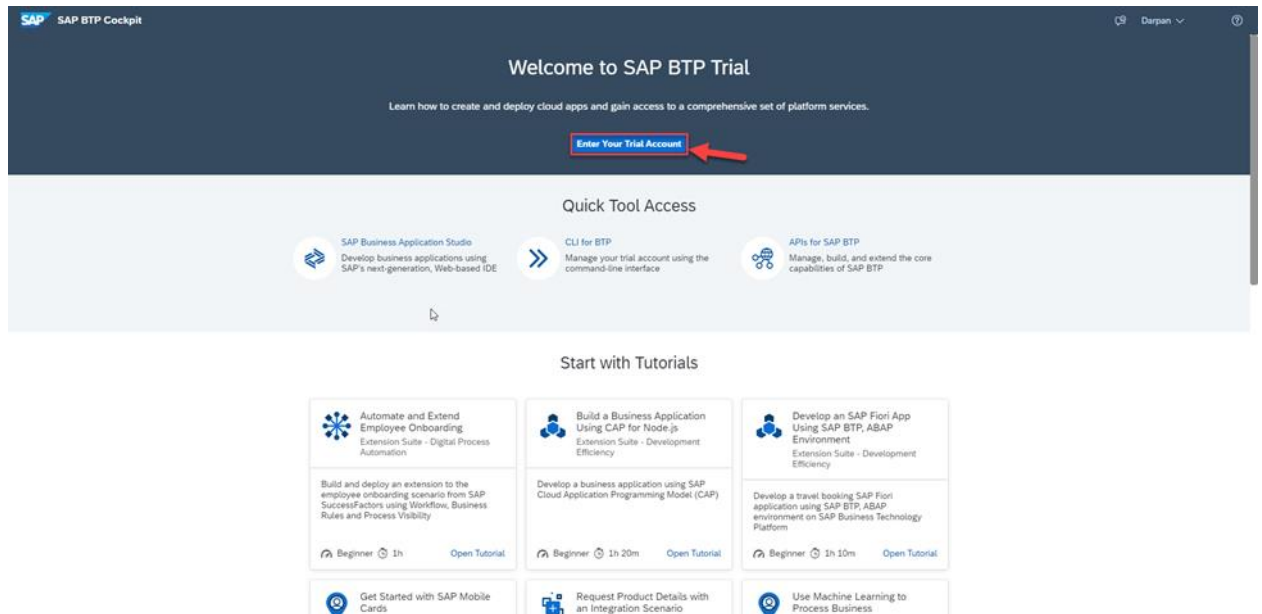
2 Setup Success Factors Scenario 7

3 Add a Workflow and Business Rule **Error! Bookmark not defined.**

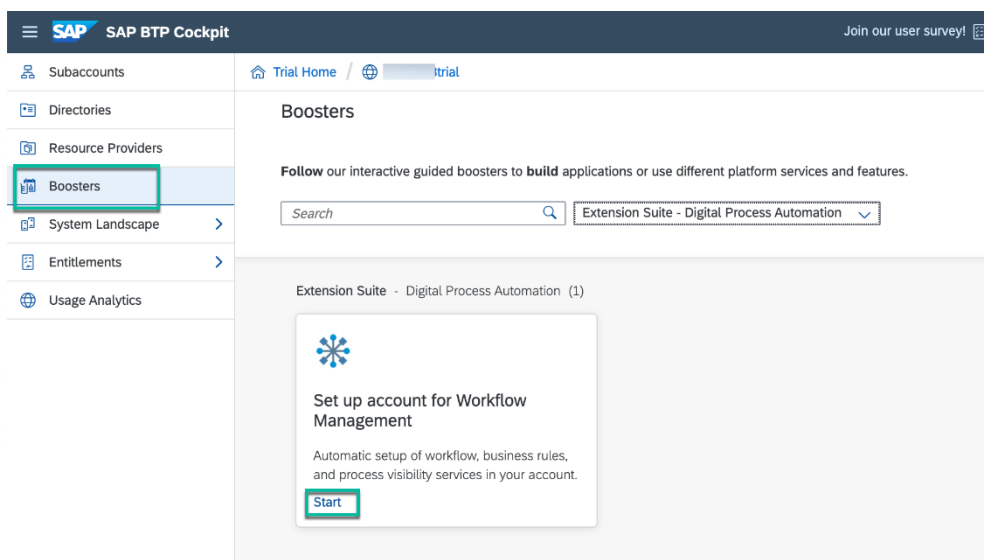
1 Activate Workflow Management Service

Prerequisites: As a prerequisite to this exercise you must have a Business Technology Platform trial account already.

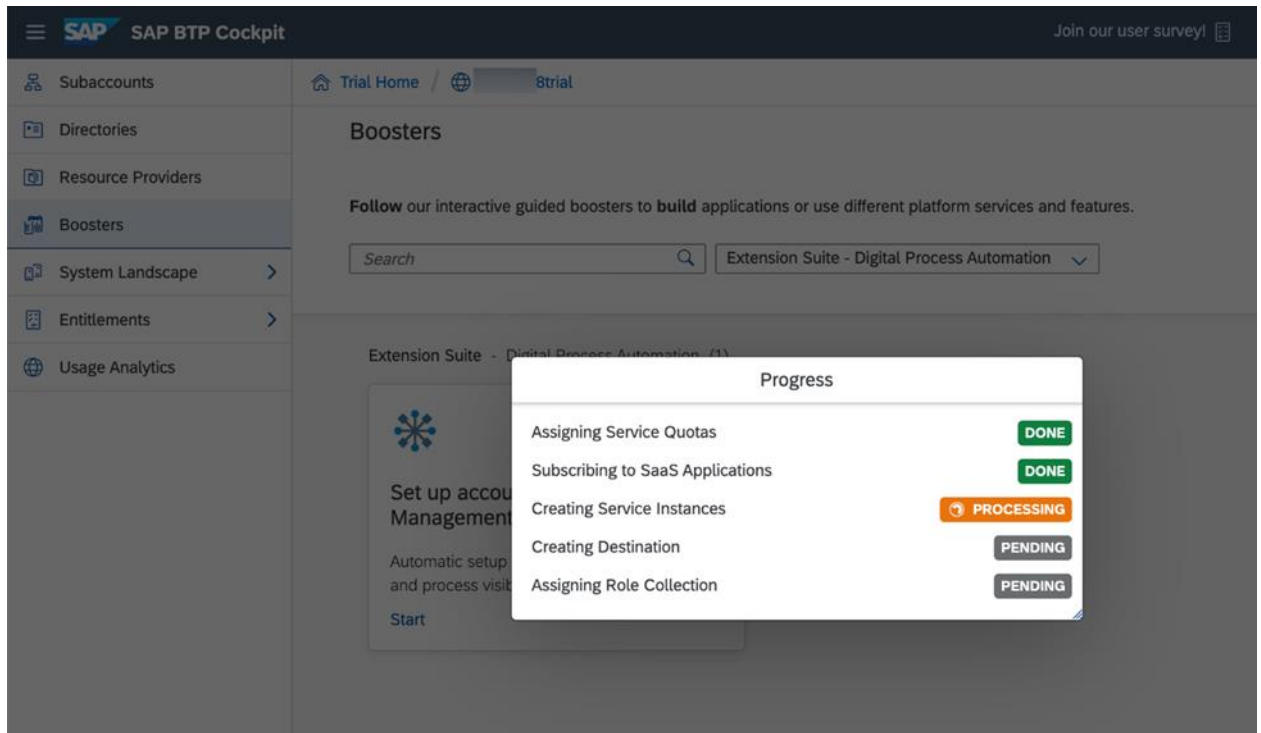
1. First, head over to the trial site by using this [link](#). Then go ahead and click Enter your Trial Account:



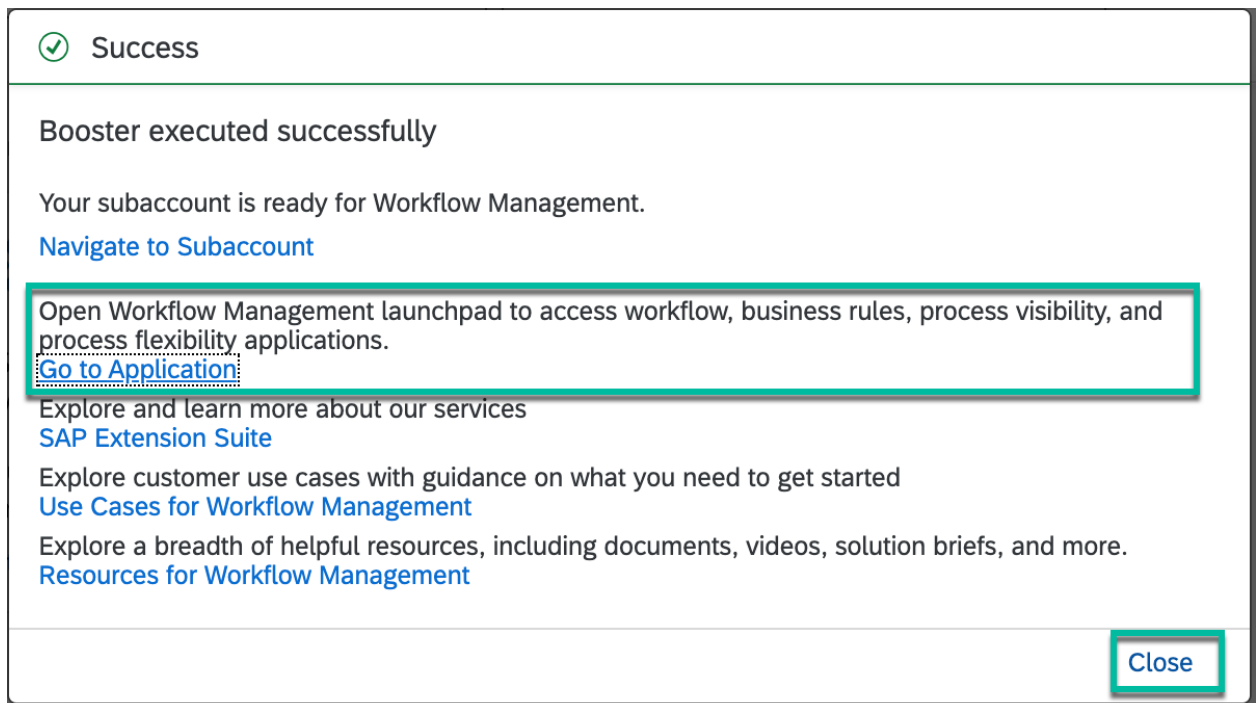
2. Once logged in, stay in the global account screen, and go to the boosters tab on the left. Search for Workflow Management and hit the start button. This booster will be used to automatically set up the workflow, business rules, process visibility and process flexibility capabilities in your account.



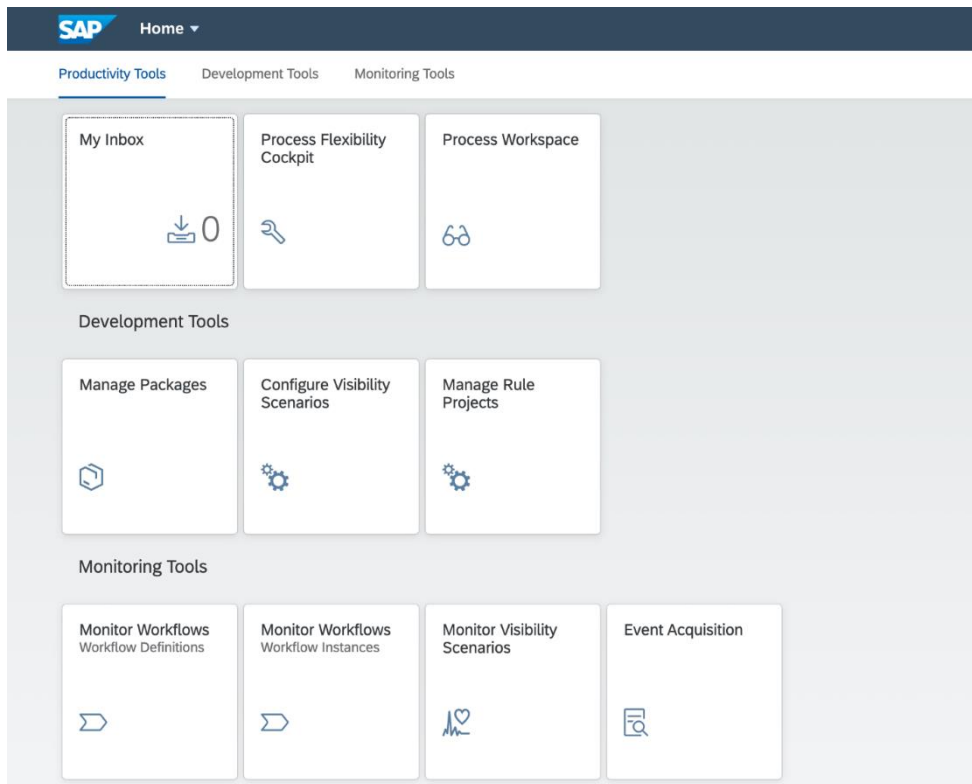
- The booster will be started with pre-configured steps and take approximately 4-5 minutes to complete.



- Wait until you see the success popup window once the booster completes successfully. Click on Go to Application to load up Workflow Management.



5. You should see a screen like below:



This automatic setup will do the following:

- Add Business Rules, Workflow, Process Visibility and Workflow Management entitlements in your account.
- Enable Workflow Management subscription.
- Create service instance for each of Business Rules, Workflow, Process Visibility and Workflow Management services.
- Create destinations with name BUSINESS_RULES, BUSINESSRULES_APIHUB and WM_CF_SPACE_PROVIDER. These destinations will be used while integrating business rules with workflow, importing business rules project from API Hub and importing live process content from process hub respectively.
- Add all the needed Workflow Management roles collections to your user.

2 Define Destination for Successfactors

In the subaccount go to the destinations menu option and then click on add New Destination

The screenshot shows the SAP BTP Cockpit interface. On the left, the 'Destinations' menu item is highlighted with a red rectangle. On the right, the 'Subaccount: trial - Destinations' page is displayed, showing a list of existing destinations. A red arrow points to the 'New Destination' button.

Type	Name	Basic Properties
HTTP	bpmprocessvisibility	Authentication ProxyType URL
HTTP	bpmrulesruntime	Authentication ProxyType URL
HTTP	bpmworkflowmanagement	Authentication ProxyType URL
HTTP	bpmworkflowruntime	Authentication ProxyType URL

Add the new destination as shown below

The screenshot shows the 'Destination Configuration' form. The form fields are as follows:

Field	Value
Name *	SFSF_Demo_2
Type	HTTP
Description	Test Connection to SFSF
URL *	https://apisalesdemo2.successfactors.eu:443
Proxy Type	Internet
Authentication	BasicAuthentication
User *	sfadmin@SFPART034714
Password	*****

Additional Properties: ☒ Use default JDK truststore

Buttons: Edit, Clone, Export, Delete, Check Connection

Use the following system credentials for your scenario:

Company Link (For SF Access only): <https://salesdemo.successfactors.eu/login?company=SFPART060627>

Company API URL(Destination set up): <https://apisalesdemo2.successfactors.eu:443>

Company Destination User Name (for SF access drop the @SFPART): sfadmin@SFPART060627

Company Password: partBos@DC2

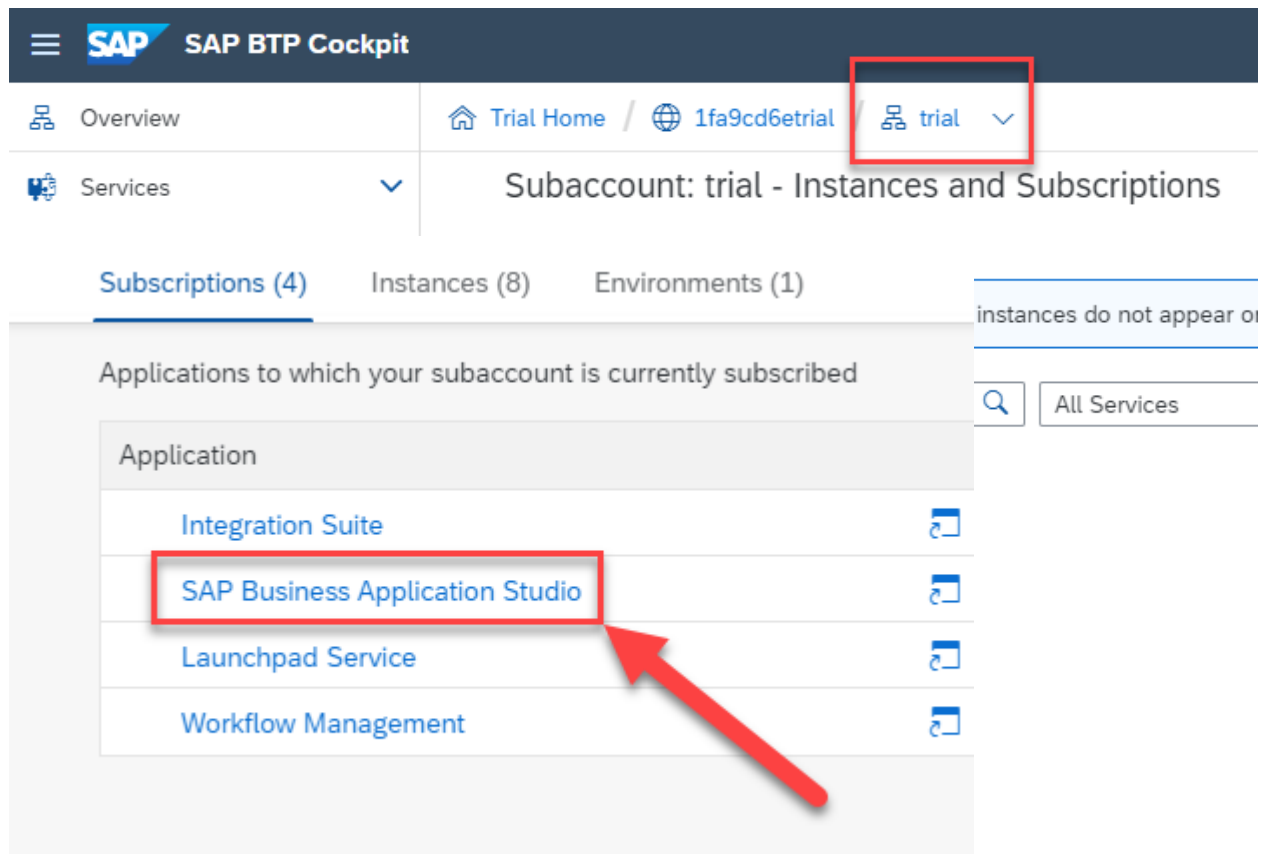
Save and close

3 Setup Onboarding Integration Scenario

In the following section we will work on creating a space in Business Application Studio and deploying our Workflow for the Success Factors Exercise. Next, we will import our business rules project into the business rules application. Lastly, we will work on creating a destination for Success Factors in your BTP subaccount.

Prerequisites: As a prerequisite to this exercise you must have provisioned and setup your Business Technology Platform Integration Tenant. In addition, you must have Business Application Studio provisioned.

1. First, head over to your trial account and then into your trial subaccount. Then head to Instances and Subscriptions find Business Application Studio and click it as shown below:



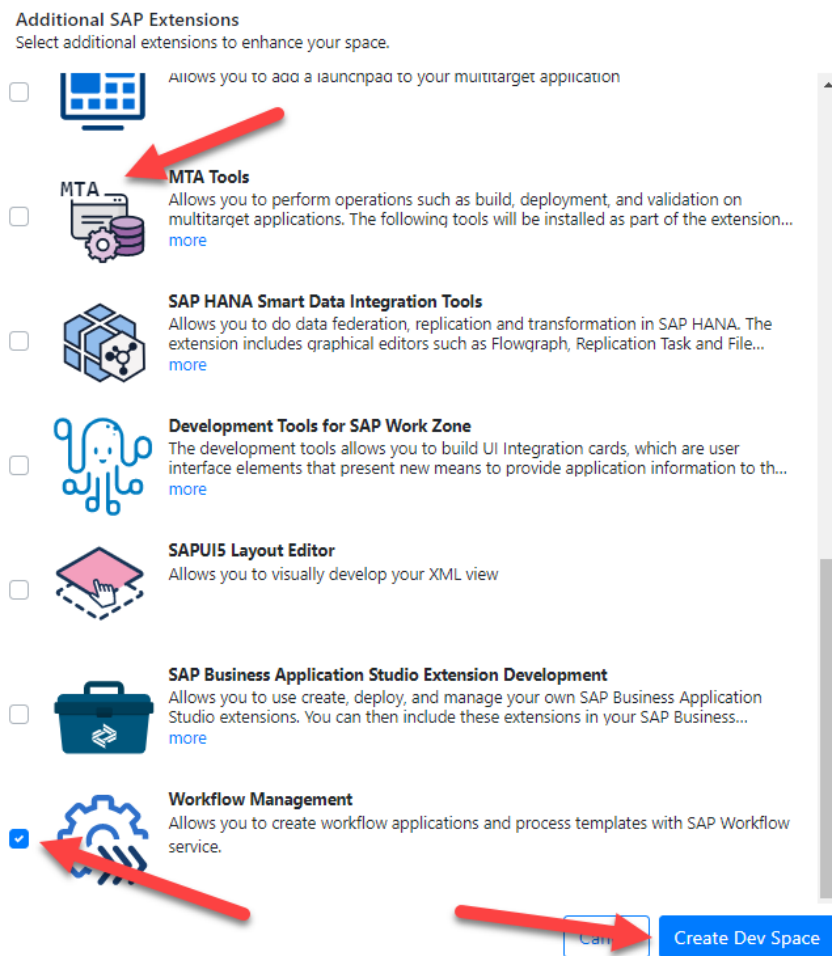
2. On the Business Application Studio Screen click Create Dev Space so we can import our project into this new space we create:



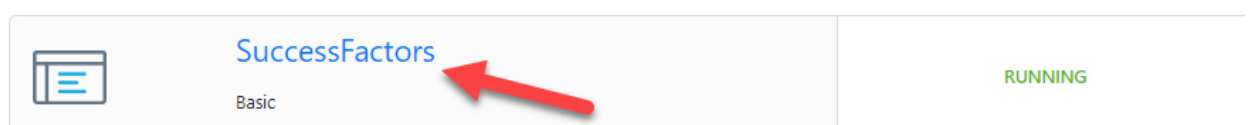
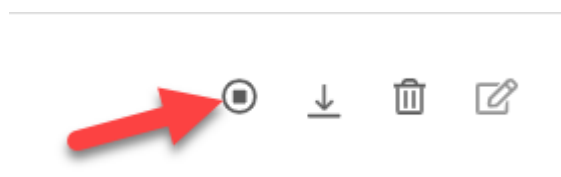
3. Next Select Basic for the type of application we want to create and give a name to your Dev Space like below:

A screenshot of the "Create a New Dev Space" dialog in SAP Business Application Studio. The dialog has a dark header with the SAP logo and the text "SAP Business Application Studio". Below the header, the title "Create a New Dev Space" is displayed. There is a text input field containing "SMB" with a green checkmark to its right, highlighted by a red arrow. Below this, the question "What kind of application do you want to create?" is shown. Five radio button options are listed: "SAP Fiori", "Full Stack Cloud Application", "SAP HANA Native Application", "SAP Mobile Application", and "Basic". The "Basic" option is selected, indicated by a blue dot, and is highlighted by a red arrow.

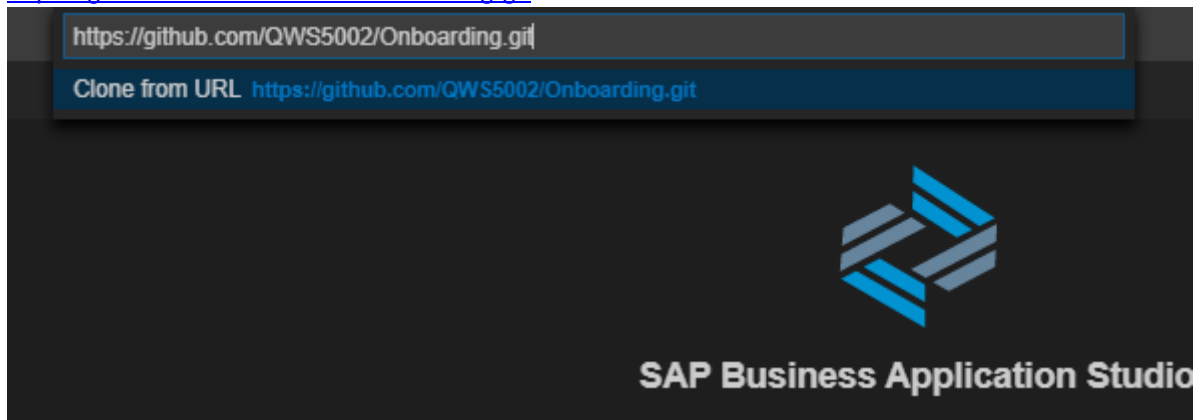
4. Next on the right add the SAP Extension Workflow Management and MTA tools, then hit Create Dev Space:



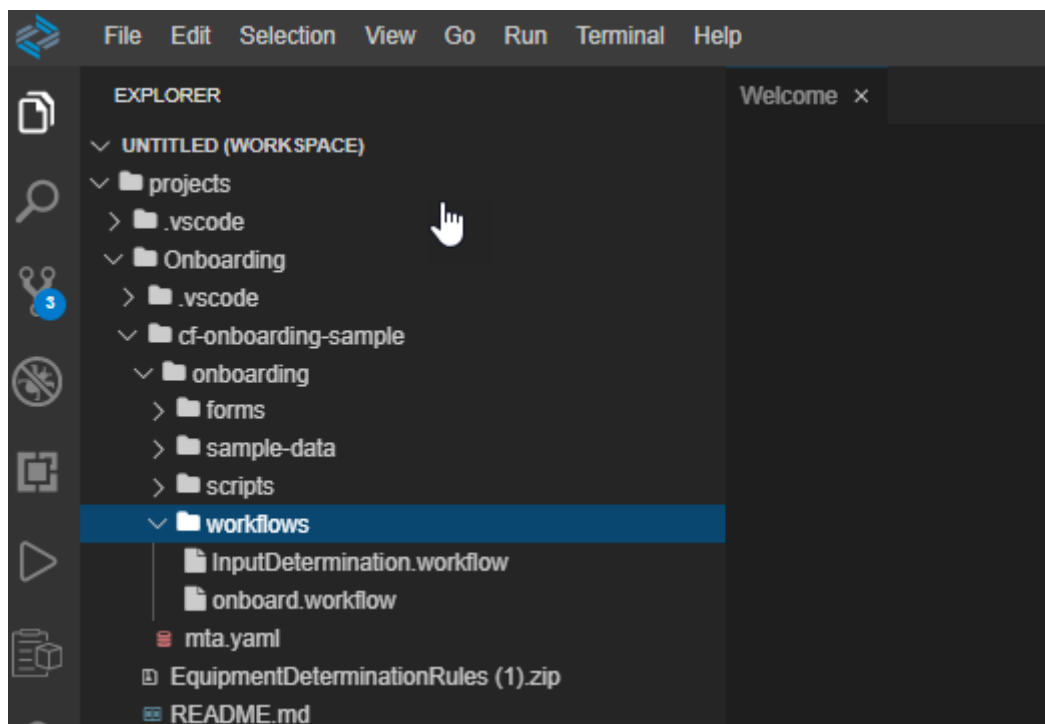
5. Now that your Dev Space has been created, go ahead and start it. Then once started, click on the Name of your Dev Space like below:



6. Once Business Application Studio loads up you should see the welcome page like below. Click Clone from Git and provide the following repository URL:
<https://github.com/QWS5002/Onboarding.git>



7. Now you should see the full Success Factors git hub project in your BAS Dev Space on the left like below:



8. Now hit ctrl + s to save the project. Go to Terminal up top hit new terminal. On the new terminal window type out: `cf login` and hit enter. You will now input your Cloud Foundry Parameters. Specify the same org and space that Workflow Management was deployed to. Once this connection is created, we will be able to deploy our Workflow to Workflow Management directly from BAS.

```
Problems ~/projects Task: Deploy MTA Archive ~/projects x ~/projects

user: projects $ cf login
API endpoint: [redacted]

Email: [redacted]
Password: [redacted]

Authenticating...
OK

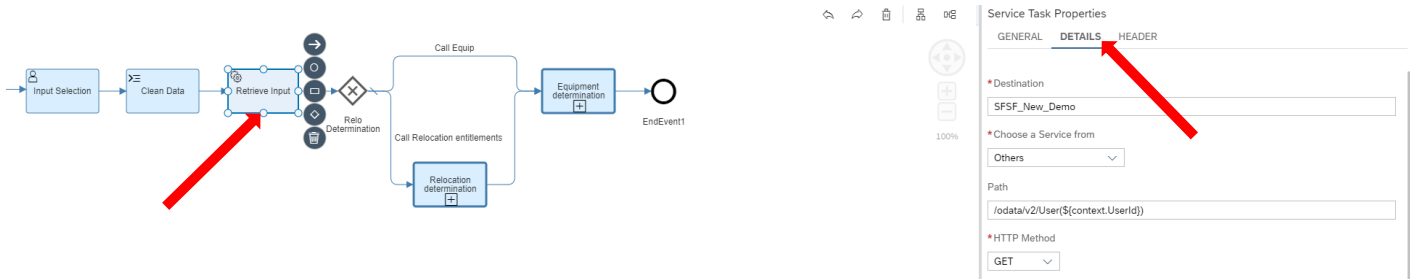
Select an org:
[redacted]

Org (enter to skip): 1
Targeted org : [redacted]

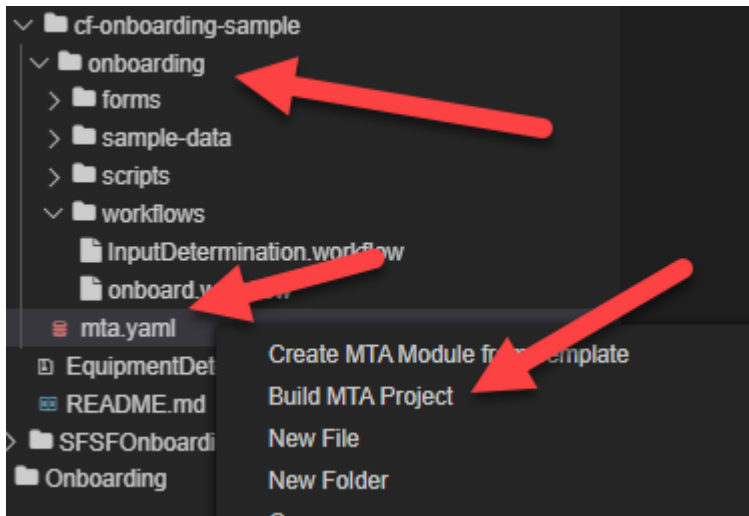
Targeted space dev.

API endpoint: [redacted]
API version: [redacted]
user: [redacted]
org: [redacted]
space: [redacted]
user: projects $
```

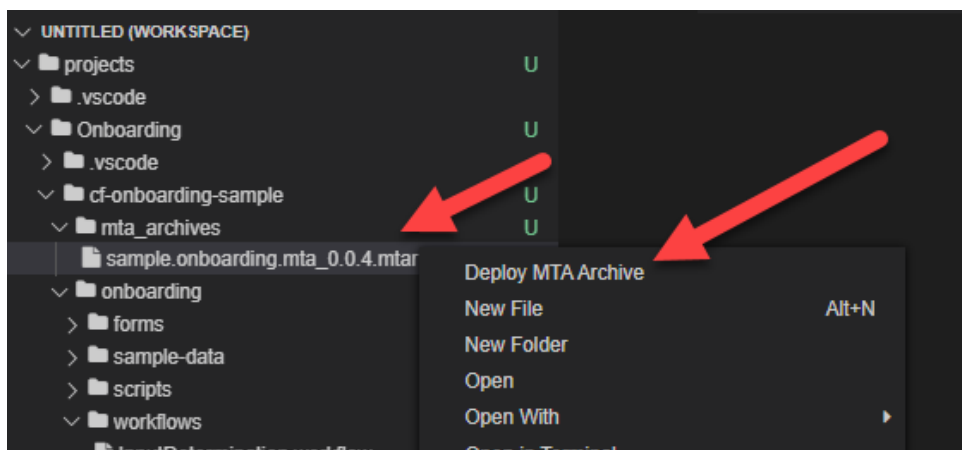
9. Once successfully logged in update the destination in the input determination workflow to the destination you set up in previous section. Click on the workflow object then click on details in the right hand side and enter your defined destination to SF here



10. Next go the panel iew on the left and on the then right click mta.yml in Onboarding. Click build mta.yml:

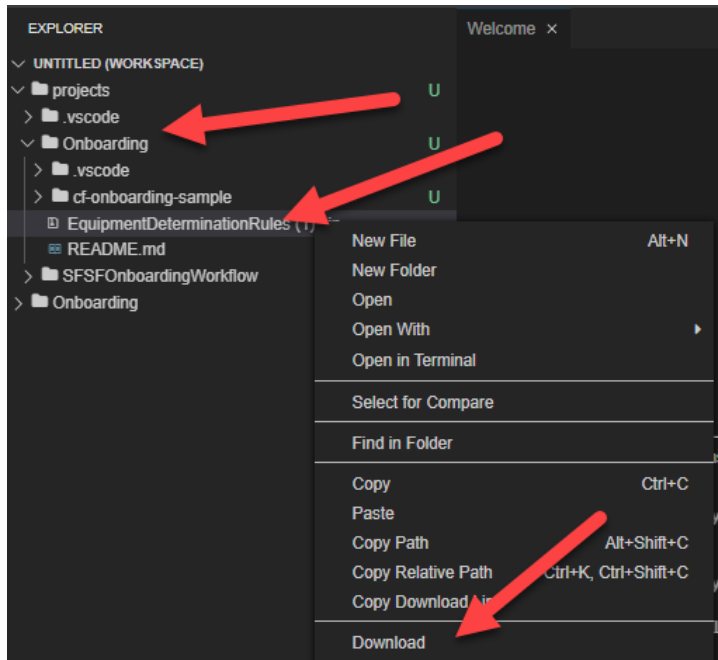


11. The folder mta_archives should be visible now in the project directory and you should see a .mtar file in the folder. Right click it and hit deploy mta archive. This will deploy the workflow to Workflow management. You should get a successful message in your terminal.

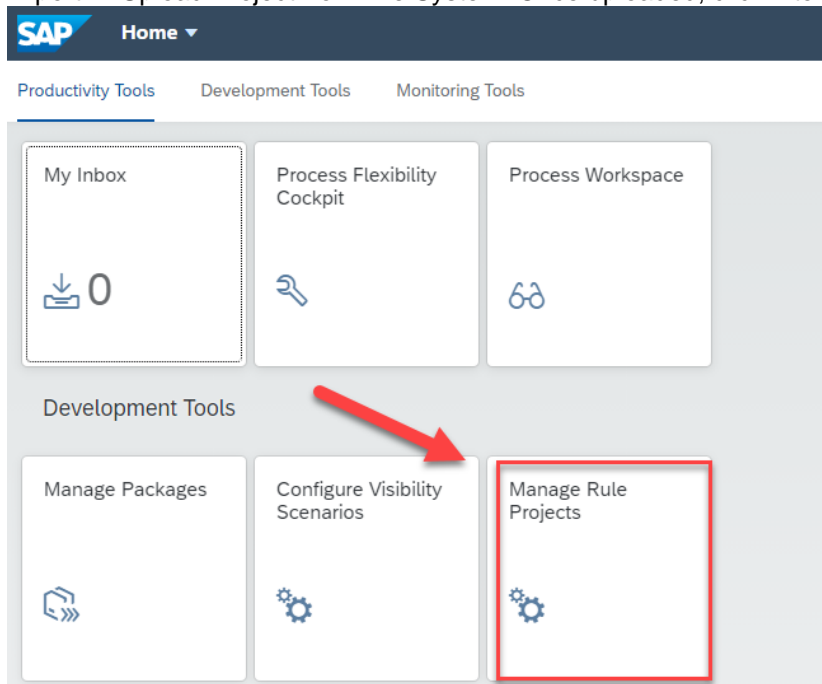


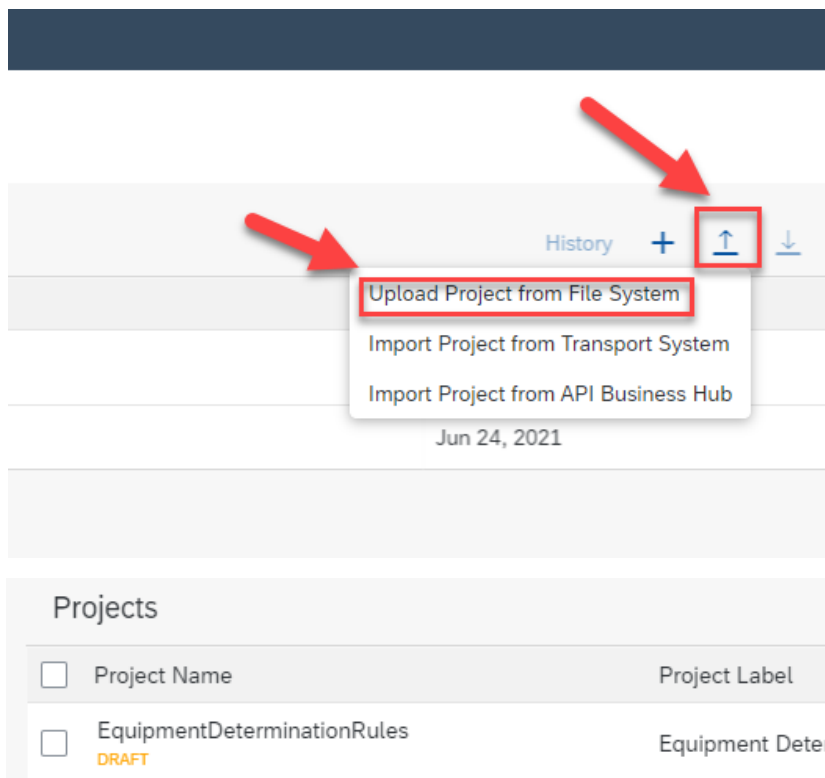
```
Operation ID: 6d1c7fb8-d384-11eb-bf51-eeee0a8db9f1
Operation ID: 6d1c7fb8-d384-11eb-bf51-eeee0a8db9f1
Deploying in org "1fa9cd6etrial" and space "dev"
Detected MTA schema version: "3"
No deployed MTA detected - this is initial deployment
Detected new MTA version: "0.0.8"
Service key "approvals-wm_workflow-credentials" for service "wm_workflow" already exists
Uploading content module "approvals" in target service "wm_workflow"...
Deploying content module "approvals" in target service "wm_workflow"...
Skipping deletion of services, because the command line option "--delete-services" is not specified.
Process finished:
Use "cf dml -i 6d1c7fb8-d384-11eb-bf51-eeee0a8db9f1" to download the logs of the process.
```

12. Next, we will work on implementing our business rules project. You can download this project by going back out to BAS and into Explorer view. Go to Onboarding -> EquipmentDeterminationRules (1).zip. Right click on the zip file and download it locally to your laptop.



13. Now, let's upload the business rules project. Business Rules was activated when we activated the Workflow Service in the first step of this document. To upload a project, head over to WorkFlow Management Application -> Manage Rule Projects -> hit the upward facing arrow to import -> Upload Project from File System. Once uploaded, click into the project to see contents:






14. After the project loads, you want to hit copy to draft on the top right:



15. Now we must activate the different artifacts used in this Rules Project. First head over to data objects, which are just structures that will be used as inputs and outputs for rules in this project. To activate click into each object individually and hit edit, then activate on the top right:

[Manage Projects /](#)

 Equipment Determination Rules

Details	Data Objects ▾	Rule Services	Rulesets	Rules ▾
<input type="checkbox"/> Name	Label	Description		
<input type="checkbox"/> EquipmentList	Equipment List	List of equipment to be provisioned for new hire		
<input type="checkbox"/> EquipmentApproval	Equipment Approval	Captures if approval is required for the equipment list selected for new hire		
<input type="checkbox"/> Equipment	Equipment Details	Details of the equipment		
<input type="checkbox"/> Employee	Employee	Details of the employee		



Edit

Validate



Save


Cancel

Validate

Activate

16. Make sure all objects are activated then head over to rules tab:

Manage Projects /


 Equipment Determination Rules

Details Data Objects Rule Services Rulesets Rules

<input type="checkbox"/>	Name	Label	Description	Status
<input type="checkbox"/>	EquipmentList	Equipment List	List of equipment to be provisioned for new hire	Active
<input type="checkbox"/>	EquipmentApproval	Equipment Approval	Captures if approval is required for the equipment list selected for new hire	Active
<input type="checkbox"/>	Equipment	Equipment Details	Details of the equipment	Active
<input type="checkbox"/>	Employee	Employee	Details of the employee	Active

17. You should see some local rules in this section. We will need to activate all rules the same way as we did the data objects. Click into each Rule one by one, hit edit, then hit activate:

Manage Projects /


 Equipment Determination Rules

Details Data Objects Rule Services Rulesets Rules

<input type="checkbox"/>	Name	Label	Description
<input type="checkbox"/>	DetermineReloRules	Determine Relocation Rules	Rules to determine relocation entitlements for the new hire based on the country of the new hire.
<input type="checkbox"/>	DetermineEquipmentRules	Determine Equipment Rules	Rules to determine equipment for the new hire based on the country and job title of the new hire.

18. Make sure both show active, then head over to the rule services tab:

Manage Projects /

 Equipment Determination Rules

Details Data Objects Rule Services Rulesets Rules

<input type="checkbox"/>	Name	Label	Description	Status
<input type="checkbox"/>	DetermineReloRules	Determine Relocation Rules	Rules to determine relocation entitlements for the new hire based on the country of the new hire.	Active
<input type="checkbox"/>	DetermineEquipmentRules	Determine Equipment Rules	Rules to determine equipment for the new hire based on the country and job title of the new hire.	Active

19. A rule service will expose a Ruleset that contains rules so that you can call it from an external application. In our case, it will be WorkFlow that will call these rules services. Activate these the same way we activated the data objects and rules. Click into them, hit edit, then activate. Make sure both are active, then deploy each one individually. Once deployed click into the Rulesets tab:

Manage Projects / Release

Equipment Determination Rules

Details Data Objects Rule Services **Rulesets** Rules

Rule Services

<input type="checkbox"/> Name	Label	Description	Status	Created On	
<input type="checkbox"/> RelocationApprovalRuleservice	Relocation Approval Rule service	Rule service to determine if the approval is needed for the relocation or not	Active	Jul 19, 2021	<input type="button" value="Deploy"/>
<input type="checkbox"/> EquipmentApprovalRuleservice	Equipment Approval Ruleservice	Rule service to determine if the approval is needed for the equipment or not	Active	Jul 19, 2021	<input type="button" value="Deploy"/>

20. You should now see two rule sets here. A rule set is just a collection of rules. Rule sets can then be exposed through the Rule Services. We have two rule sets, each containing one of the rules from our project. Activate these the same way we activated the data objects, rules, and rule services. Click into them, hit edit, then activate. Make sure both are active.

Manage Projects /

Equipment Determination Rules

DRAFT Version: 0.0.0 Version Description: Updated final Relo and Equip
Revision: 1 Expression Language: 2.0

Details Data Objects Rule Services **Rulesets** Rules

Rulesets

<input type="checkbox"/> Name	Label	Description	Status
<input type="checkbox"/> ReloApprovalRuleset	Relocation Approval Rule set	Ruleset that contain rules which determines if the approval is needed for the list of chosen equipment or not.	Active
<input type="checkbox"/> EquipmentApprovalRuleset	Equipment Approval Ruleset	Ruleset that contain rules which determines if the approval is needed for the list of chosen equipment or not.	Active

21. Next, we want to release the entire project now so it can be consumed by the Workflow Service. On the top right corner hit release version. Fill out the version info as X.X.X and the revision as X. Then input a comment. Lastly hit release. See below for example input.

Manage Projects /

Equipment Determination Rules

DRAFT

Version: 0.0.0
Revision: 1

Version Description: Updated final Relo and Equip
Expression Language: 2.0

Release VersionEditValidate

Details

Data Objects

Rule Services

Rulesets

Rules

Release Version: EquipmentDeterminationRules

*Version:

1.0.0

*Revision:

1

*Description:

Initial Release

240 characters remaining

Release

Cancel

4 Add a Workflow and Business Rules

1. In this section we are going to extend our Business Rules project by adding two new data objects, two rule services, two rule sets, and two new rules. These new objects will be used in our new Relocation Workflow that will be created in this section. Then we will be creating a new WorkFlow that will handle the Relocation process for New Hires. The relocation workflow is only invoked if a new hire in the SuccessFactors system is from India. If the new hire is from India, they will go through the relocation workflow, then the new hire onboarding workflow which we implemented in the previous section. If the new hire is from the U.S., then they will skip the relocation workflow and go directly to the new hire onboarding workflow.

First, let's create our new objects in Business Rules. Go to your business rules project, and let's create two new data objects. Hit the + icon on right side of the page. Fill out the parameters as shown in the two tables below. You will need to create two new data objects. Make sure to activate each by hitting the activate button once you have created them.

Name	RelocationList
Label	Relocation List
Description	List of travel and items approved for new hire
Type	Table
Reference Data Object	Equipment

Manage Projects / Equipment Determination Rules

Release Version Edit

DRAFT Version: 0.0.0 Revision: 1 Version Description: Updated final Relo and Equip Expression Language: 2.0

Details Data Objects Rule Services Rulesets Rules

Local Data Objects

Name	Label	Description	Status	Created On	Type
TotalEquipmentAmount	Total Equipment Amount	Total amount of all equipment that need to be provisioned for the new hire	Active	Jul 19, 2021	Structure
RelocationList	Relocation List	List of travel and items approved for new hire	Active	Jul 19, 2021	Table

Import +

Manage Projects / Equipment Determination Rules / Relocation List

Save Cancel Validate Activate

Details Attributes Parameters Annotations

*Name: RelocationList

Label: Relocation List

*Description: List of travel and items approved for new hire

Extensible: NO

Status: Inactive

Created On: Jul 19, 2021

*Type: Table

*Reference Data Object: Equipment

System for Value Help: [i]

Name	RelocationApproval
Label	Relocation Approval
Description	Captures if approval is required for there relocation list selected for new hire
Type	Structure
To add Attributes	Hit + Icon
Name	Approvalneeded
Label	Approval needed
Description	Is approval needed for travel and relocation order
Business Data Type	String

Manage Projects / Equipment Determination Rules /

Save Cancel Validate Activate

Relocation Approval

Details Attributes Associations Annotations

*Name: RelocationApproval
 Label: Relocation Approval
 *Description: Captures if approval is required for there relocation list selected for new hire
 Extensible: ☐ NO

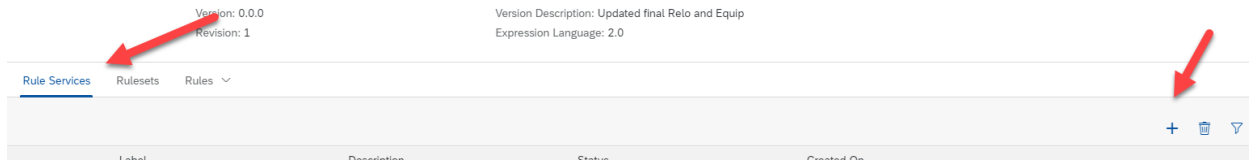
Status: Inactive
 Created On: Jul 19, 2021

*Type: Structure
 *Reference Data Object:
 System for Value Help: None

Attributes

<input type="checkbox"/> Name	<input type="checkbox"/> Label	<input type="checkbox"/> Description	<input type="checkbox"/> Business Data Type	
<input type="checkbox"/> Approvalneeded	Approval needed	Is approval needed for travel and relocation order	String	>

- Now that we have our two new data objects created. Let's create the rule services. Head over to the tab and hit the plus icon on the right.



- Now create the first rule service. See below for parameters.

Name: DetermineRelocationRuleservice

Label: Determine Relocation Rule service

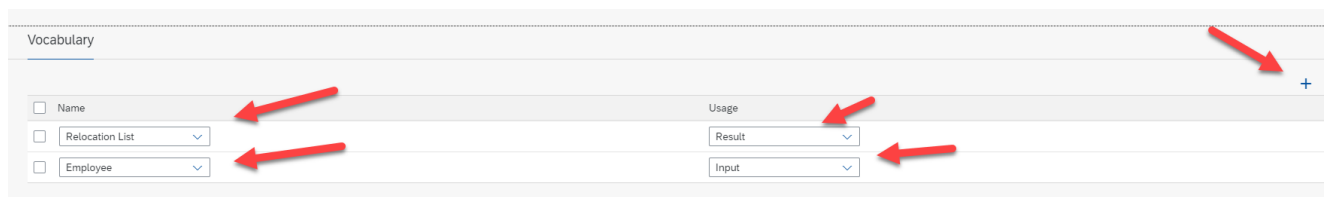
Description: Rule service to determine default relocation for the new hire

*Name: DetermineRelocationRuleservice

Label: Determine Relocation Rule service

*Description: Rule service to determine default relocation for the new hire

- Now in the Vocabulary section hit the add button and select Relocation List and set it as the result. Add another Vocabulary by hitting the add button and select Employee and set it as the input. Then hit the activate button.



Save Cancel Validate Activate



- Next, let's add the second rule service. Back in the rule service tab hit the +icon. Use the below parameters to create the second rule service:

Name: RelocationApprovalRuleservice

Label: Relcoation Approval Rule service

Description: Rule service to determine if the approval is needed for the relocation or not

[Manage Projects](#) / [Equipment Determination Rules](#) /

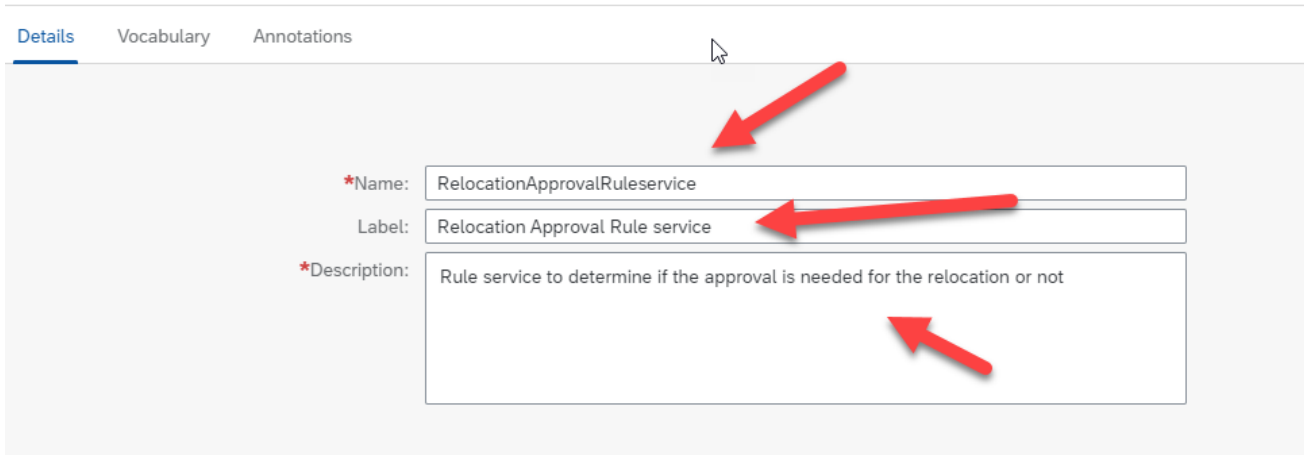
Relocation Approval Rule service

Details Vocabulary Annotations

*Name: RelocationApprovalRuleservice

Label: Relcoation Approval Rule service

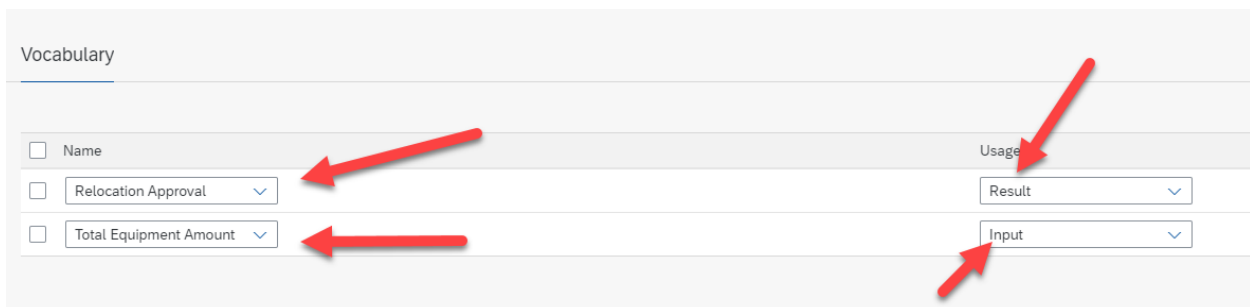
*Description: Rule service to determine if the approval is needed for the relocation or not



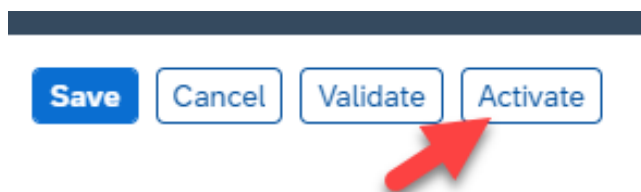
- Next go to the Vocabulary section and add Relocation Approval as the result. Then add total equipment amount as the input. Last hit the activate button.

Vocabulary

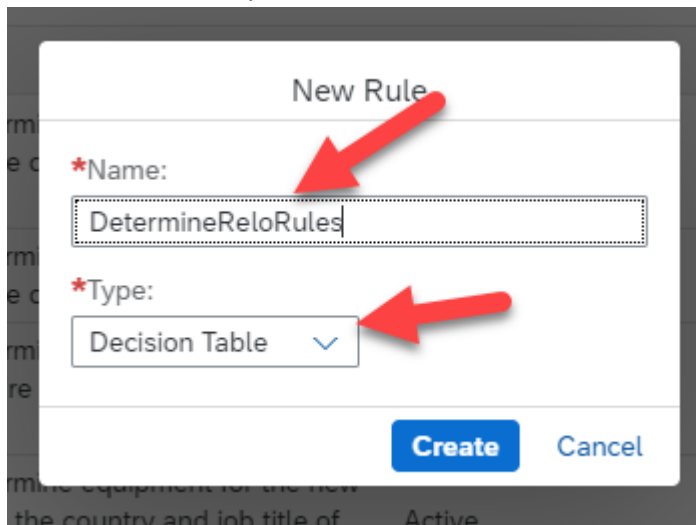
Name	Usage
<input type="checkbox"/> Relocation Approval	<input type="text" value="Result"/>
<input type="checkbox"/> Total Equipment Amount	<input type="text" value="Input"/>



Save Cancel Validate Activate



7. Now that we have the two rule services created, head over to the rules tab. Hit the plus icon to create a new rule. Input the name as DetermineReloRules and select decision table:

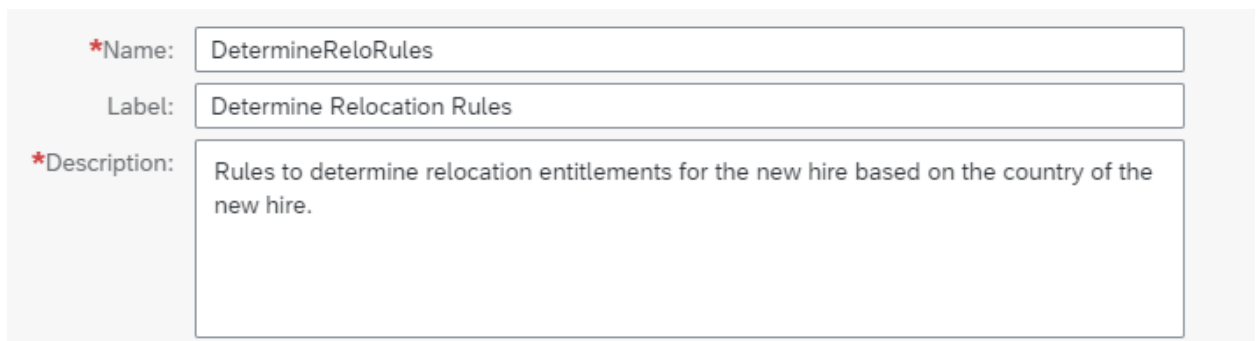


8. On the next screen, fill out the parameters like below:

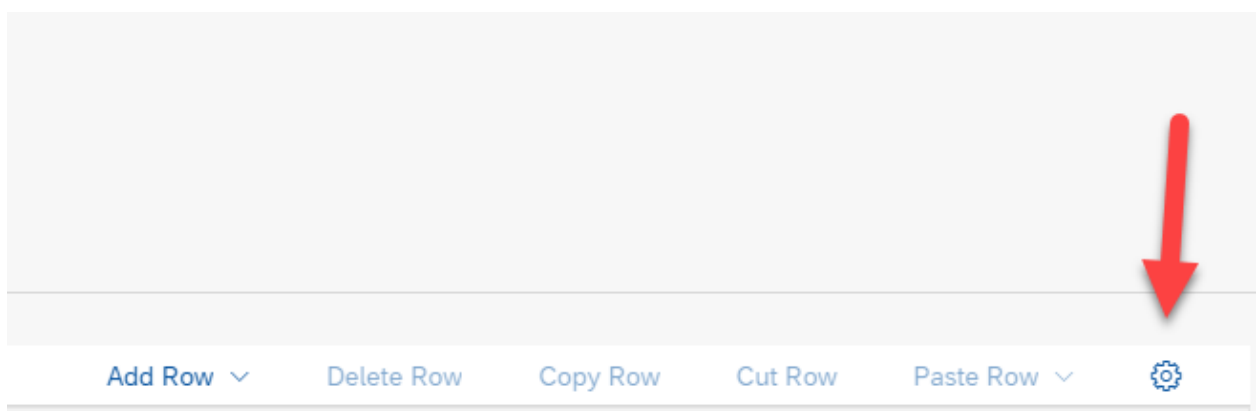
Name: DetermineReloRules

Label: Determine Relocation Rules

Description: Rules to determine relocation entitlements for the new hire based on the country of the new hire.



9. Next hit the gear on the bottom right:



10. On the Pop-up set the Hit Policy to All Match. Next set the below conditions:

Employee.countryOfCompany
Employee.company
Employee.jobDepartment

Decision Table Settings

Hit Policy:

Conditions:

Condition Expressions	Label	Fixed Operator		
Employee.countryOfCompany			<input type="text" value="⊗"/>	<input type="text" value="⊕"/>
Employee.company			<input type="text" value="⊗"/>	<input type="text" value="⊕"/>
Employee.jobDepartment			<input type="text" value="⊗"/>	<input type="text" value="⊕"/>

11. Next, set the Result to Relocation List and the attributes should autopopulate like below. Then hit apply:

Decision Table Settings

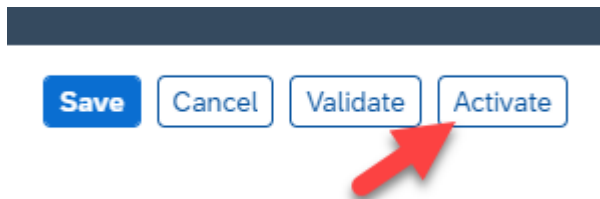
Result:

Result Attributes	Access	Default Value
ProductDesc	<input type="text" value="Editable"/>	<input type="text" value="Use Ctrl+Space to get suggestions."/>
ProductID	<input type="text" value="Editable"/>	<input type="text" value="Use Ctrl+Space to get suggestions."/>
Price	<input type="text" value="Editable"/>	<input type="text" value="Use Ctrl+Space to get suggestions."/>
Currency	<input type="text" value="Editable"/>	<input type="text" value="Use Ctrl+Space to get suggestions."/>
EquipmentType	<input type="text" value="Editable"/>	<input type="text" value="Use Ctrl+Space to get suggestions."/>

12. Next, we need to fill out the decision table. The table will take the input and try to match it against one of the rows in the decision table. In our scenario all of the columns in the row must match with the input. If there is a match we set the Result Object and its attributes. Please fill out the decision table like below. Click Add Row to start filling it out:

Decision Table								
Decision Table								
If			Then					
<input checked="" type="checkbox"/>	Employee.countryOfCompany	Employee.company	Employee.jobDepartment	ProductDesc	ProductID	Price	Currency	EquipmentType
<input checked="" type="checkbox"/>	= 'IND'	= 'ACE_IND'	MATCHES '*'	'Bus Ticket'	'RTS-2220'	0	'INR'	'Travel'
<input checked="" type="checkbox"/>	= 'IND'	= 'ACE_IND'	MATCHES '*'	'Plane Ticket'	'RTS-2210'	0	'INR'	'Travel'
<input checked="" type="checkbox"/>	= 'IND'	= 'ACE_IND'	MATCHES '*'	'Train Ticket'	'RTS-2200'	0	'INR'	'Travel'
<input checked="" type="checkbox"/>	= 'IND'	= 'ACE_IND'	CONTAINS 'Operations'	'Living Allowance 3 months'	'RTS-2050'	300000	'INR'	'Housing'
<input checked="" type="checkbox"/>	= 'IND'	= 'ACE_IND'	NOTCONTAINS 'Operations'	'Living Allowance 3 months'	'RTS-2010'	120000	'INR'	'Housing'

13. Next hit Activate to activate the rule. Then start creating another rule. Fill out the name as RelocationApprovalRules and type as Text Rule:



New Rule

***Name:**

***Type:**

14. Next, fill out the following parameters on the next page for the rule:

Name: RelocationApprovalRules

Label: Relocation Approval Rules

Description: Rules to determine if the approval is needed for the chosen relocation items or not

A screenshot of a form for configuring a rule. It has three main input fields:
1. ***Name:** A text box containing 'RelocationApprovalRules'. A red arrow points to this field.
2. **Label:** A text box containing 'Relocation Approval Rules'. A red arrow points to this field.
3. ***Description:** A larger text box containing 'Rules to determine if the approval is needed for the chosen relocation items or not'. A red arrow points to this field.

15. Next, hit the gear icon on the right. Fill out the parameters as shown in the picture below. Set the result as Relocation Approval. Set the attribute as Editable and set the default value as 'true'.

A screenshot of the 'Text Rule Settings' dialog box. It contains several sections:
- **Result:** A dropdown menu set to 'Relocation Approval'. A red arrow points to this dropdown.
- **Instructions:** Two informational boxes with 'i' icons. The first says 'Selecting Access as Hidden will set the value of the result attribute in the 'Else' and 'Then' section to the default value.' The second says 'Selecting Access as Editable will set the values of the new result attributes to the default value.'
- **Result Attributes:** A table with one row:

Result Attributes	Access	Default Value
Approval needed	Editable	'true'

 A red arrow points to the 'Approval needed' attribute.
- **Access:** A dropdown menu set to 'Editable'. A red arrow points to this dropdown.
- **Default Value:** A text box containing the string 'true'. A red arrow points to this text box.
- **Buttons:** 'Apply' and 'Cancel' buttons are at the bottom right.

16. Next, expand the Text Rule by hitting the arrow. Paste this into the If statement input box:
Total Equipment Amount.Total Amount > 100
 Next set the Then statement to Approval needed: 'true'

Text Rule

Text Rule

✓ If

Total Equipment Amount.Total Amount > 100

Then

Approval needed: 'true'

17. Next, scroll down and hit the else drop down and set Approval needed to 'false':

✓ Else

Approval needed: 'false'

18. Next we need to update the Equipment list to include IND for onboarding.

Open the equipmemnt determination rule, click on edit and in the table insert row and add the following items into the table

Decision Table

if	Employee.country/OCCompany	Employee.company	Employee.jobDepartment	Then	ProductDesc	Currency	EquipmentType	ProductID
= IND		MATCHES '*'	MATCHES '*'	350	'HDMI 2.0 Cable'	'INR'	'Cables and Accessories'	'IT-1122'
= IND		MATCHES '*'	MATCHES '*'	10000	'Jabra Evolve 40 Headset'	'INR'	'Audio and Video'	'IT-1088'
= IND		MATCHES '*'	MATCHES '*'	160000	'HP Pavilion Pro'	'INR'	'Notebook'	'IT-1450'

Once completed activate the equipment business rules

19. Lastly hit the activate button, then head over to the rulesets tab to create our two new rulesets. Hit the plus icon and fill out the below parameters for the first new ruleset:

Name: DetermineReloRuleset

Label: Determine Relocation Ruleset

Description: Ruleset that contain rules needed to determine the Relocation entitlements required for a new hire

Policy: Aggregation

Rule Service: Determine Relocation Rule service

Priority: 50.00

The screenshot shows the 'Details' tab of a ruleset configuration interface. It contains several input fields and status indicators. On the left, there are four fields: '*Name:' with the value 'DetermineReloRuleset', 'Label:' with 'Determine Relocation Ruleset', '*Description:' with a multi-line text area containing 'Ruleset that contain rules needed to determine the Relocation entitlements required for a new hire', and '*Policy:' with a dropdown menu set to 'Aggregation'. On the right, there are four status/property fields: 'Status: Inactive', 'Created On: Jul 19, 2021', 'Rule Service: Determine Relocation Rule serv...' with a dropdown arrow, and '*Priority: 50.00'.

20. Next, scroll down and click Add Rule. Hit the dropdown and select Determine Relocation Rules:

The screenshot shows the 'Rules' tab of the same interface. At the top right, there is a blue 'Add Rule' button with a red arrow pointing to it. Below this is a table with three columns: 'Name', 'Description', and 'Origin'. The table has one row with a checkbox in the first column, a dropdown menu in the 'Name' column (showing 'Determine Relocation ...'), a text description in the 'Description' column ('Rules to determine relocation entitlements for the new hire based on the country of the new hire.'), and the word 'Local' in the 'Origin' column. A red arrow points to the dropdown menu in the 'Name' column.

21. Hit Activate, and create the final ruleset. Fill out the following parameters:

Name: ReloApprovalRuleset

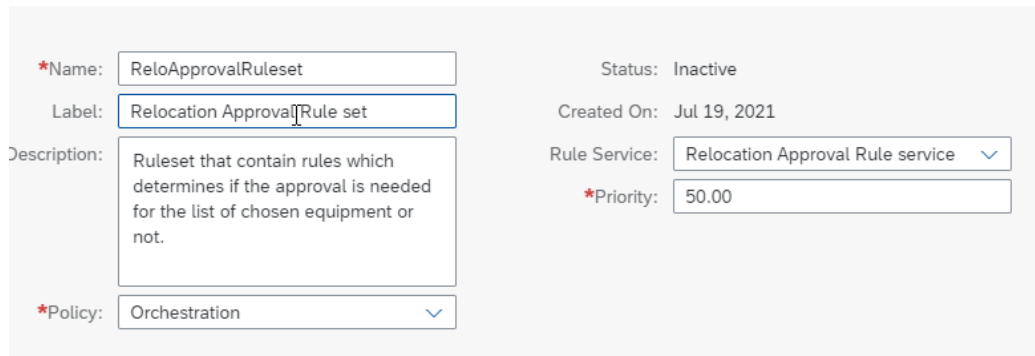
Label: Relocation Approval Rule set

Description: Ruleset that contain rules which determines if the approval is needed for the list of chosen equipment or not.

Policy: Orchestration

Rule Service: Relocation Approval Rule service

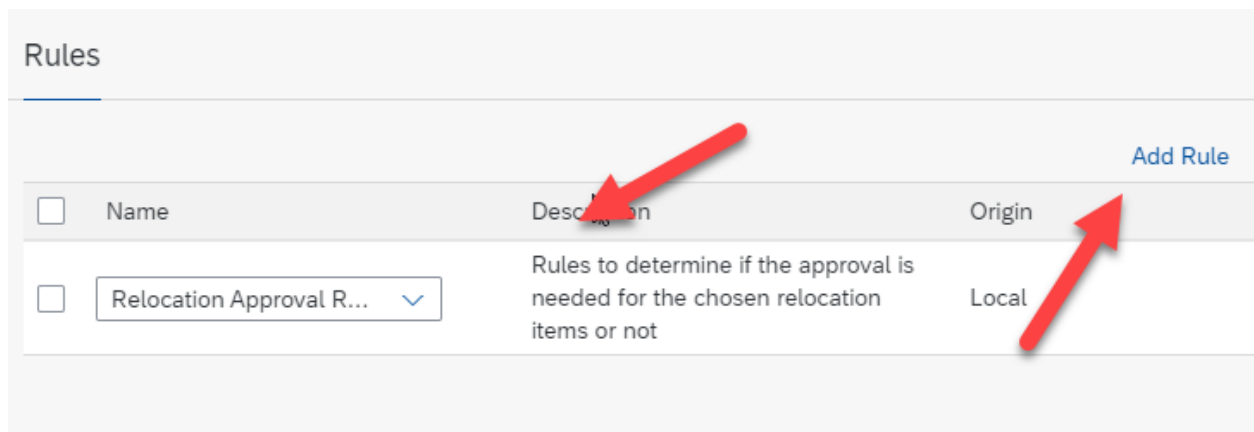
Priority: 50.00



The screenshot shows a configuration form for a ruleset. On the left, there are fields for Name, Label, Description, and Policy. On the right, there are fields for Status, Created On, Rule Service, and Priority.

*Name:	ReloApprovalRuleset	Status:	Inactive
Label:	Relocation Approval Rule set	Created On:	Jul 19, 2021
Description:	Ruleset that contain rules which determines if the approval is needed for the list of chosen equipment or not.	Rule Service:	Relocation Approval Rule service
*Policy:	Orchestration	*Priority:	50.00

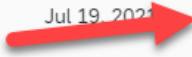

22. Next scroll down add the rule Relocation Approval Rule. Then hit activate:



The screenshot shows a table titled 'Rules'. The table has columns for Name, Description, and Origin. There is a red arrow pointing to the 'Add Rule' button in the top right corner. Another red arrow points to the 'Relocation Approval Rule' entry in the table.

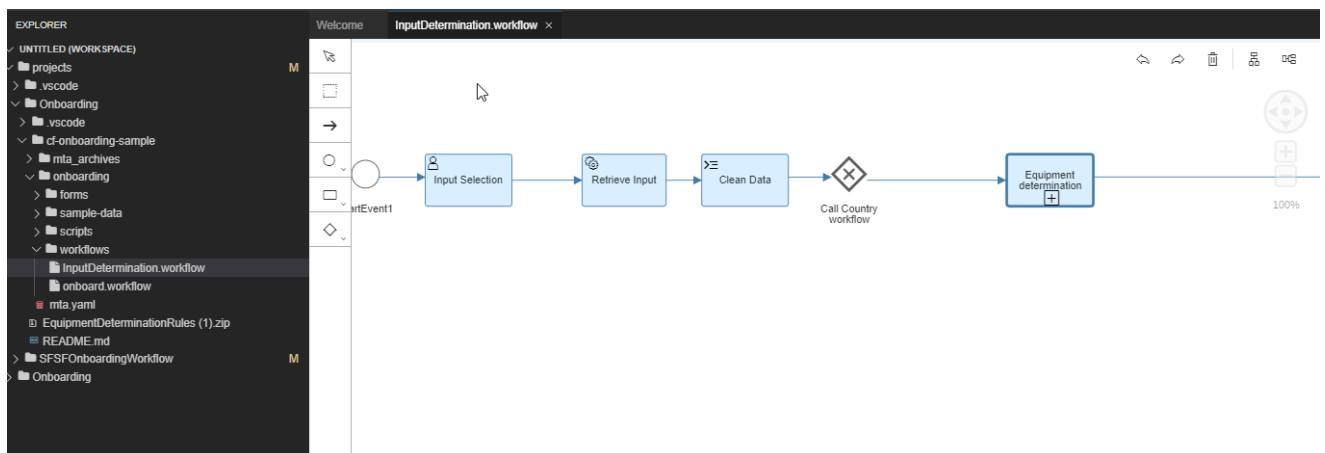
	Name	Description	Origin
<input type="checkbox"/>	Relocation Approval R... <input type="button" value="v"/>	Rules to determine if the approval is needed for the chosen relocation items or not	Local

23. Next, go to the rule services tab and hit Deploy for the DetermineRelocationRuleservice and RelocationApprovalRuleservice:

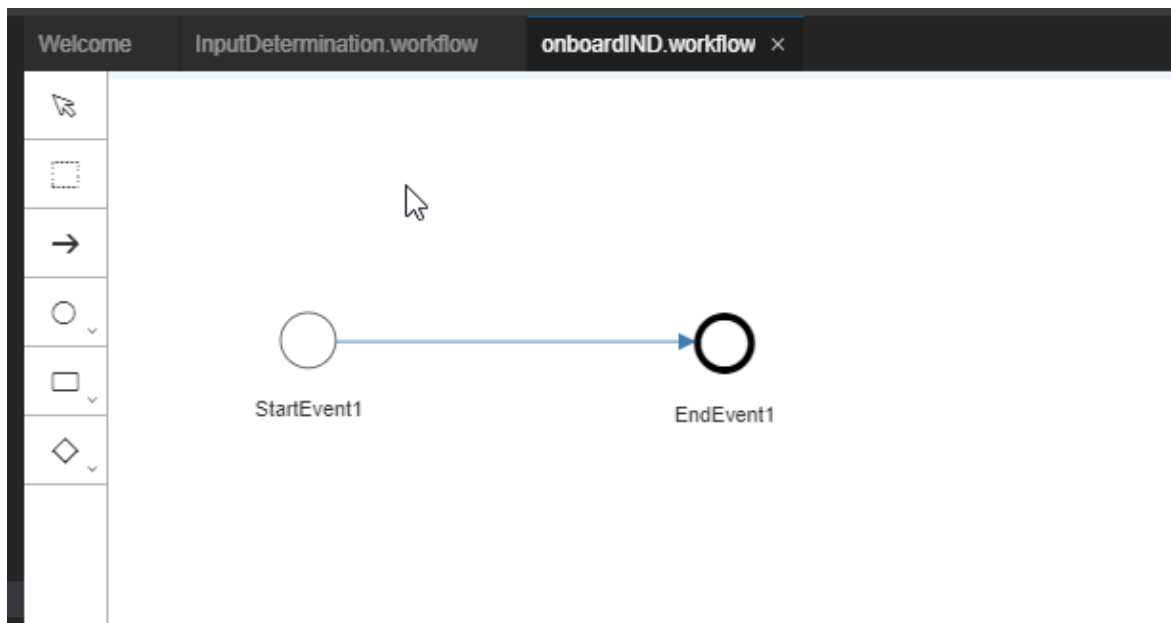
Rule Services						+ 🗑️ 🔍 ⚙️	
<input type="checkbox"/>	Name	Label	Description	Status	Created On		
<input type="checkbox"/>	RelocationApprovalRuleservice	Relocation Approval Rule service	Rule service to determine if the approval is needed for the relocation or not	Active	Jul 19, 2021		<button>Deploy</button> >
<input type="checkbox"/>	EquipmentApprovalRuleservice	Equipment Approval Ruleservice	Rule service to determine if the approval is needed for the equipment or not	Active	Jul 19, 2021		<button>Deploy</button> >
<input type="checkbox"/>	DetermineRelocationRuleservice	Determine Relocation Rule service	Rule service to determine default relocation for the new hire	Active	Jul 19, 2021		<button>Deploy</button> >
<input type="checkbox"/>	DetermineEquipmentRuleservice	Determine Equipment Ruleservice	Rule service to determine equipment for the new hire	Active	Jul 19, 2021		<button>Deploy</button> >

24. Lastly, hit the Release Version, so now you can deploy your rule. Now we can begin creating our new India Onboarding Workflow.

25. Next, open up BAS and go into your space where you have pulled in the Workflow project earlier in this exercise.

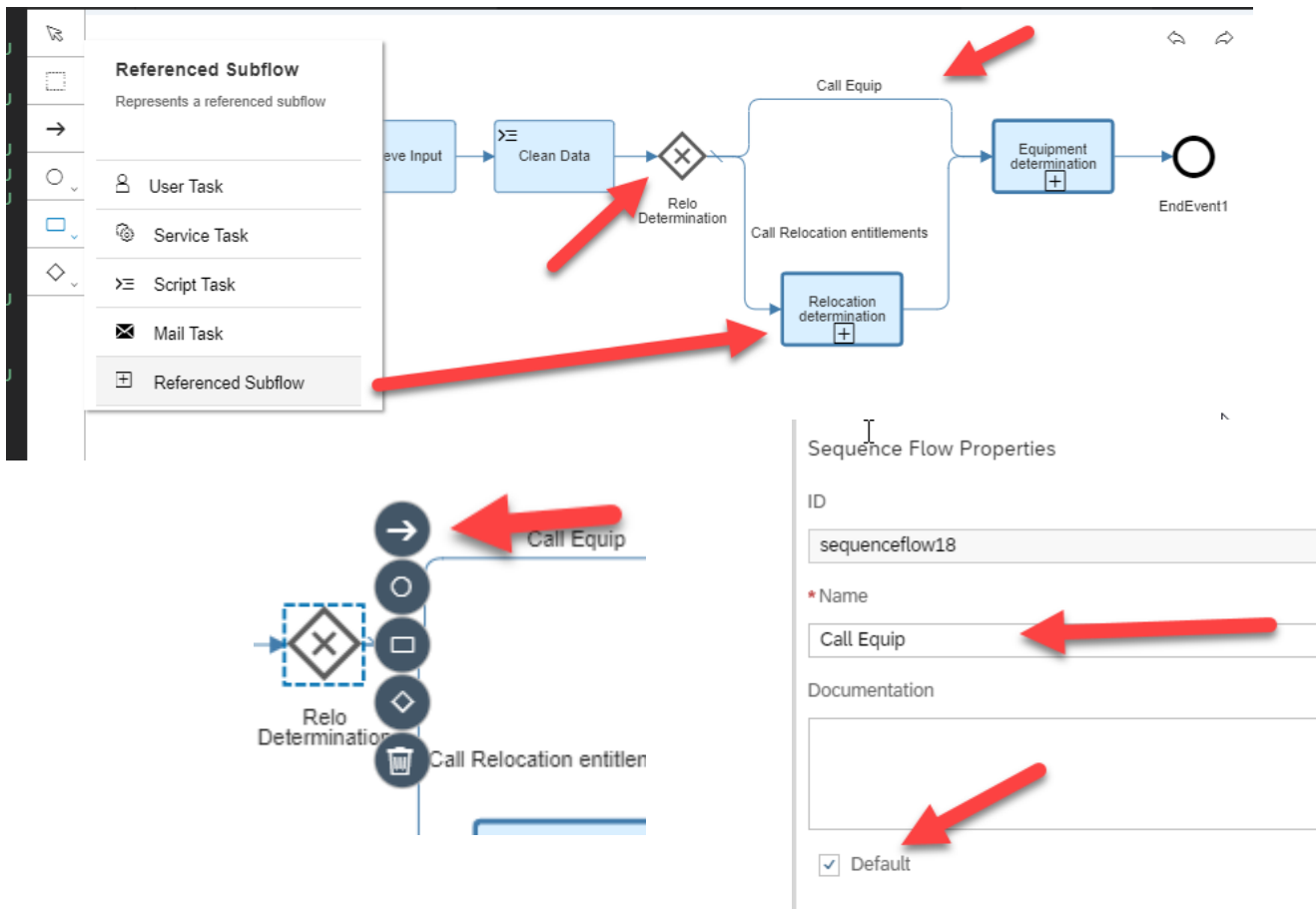


26. First, we want to add a new Workflow to our project. Go to View -> Find command and type Workflow. Select Create New Workflow, then hit enter two times until you get to Name your Workflow Prompt. Enter the name onboardIND.workflow. You should then see a StartEvent1 and EndEvent1 on your Workflow editor screen.



27. Now we have our new Relocation Workflow created. We need to call it from our initial workflow, which is the InputDetermination.workflow. Find it in the explorer on the left, and click into it. Rename the exclusive gateway to Relo Determination. Grab Referenced Subflow task and put it in between the Relo Determination Exclusive

28. Gateway and Entitlement Determination Referenced Subflow task. Lastly draw a line from the Relo Determination Exclusive Gateway to the Entitlement Determination Referenced Subflow task. Name this line Call Equip and set it as your default path.
- 29.



30. Now, rename the line connecting Relo Determination to Relocation determination to Call Relocation entitlements. Set the condition to: `${context.response.country=="ACE_IND"}`

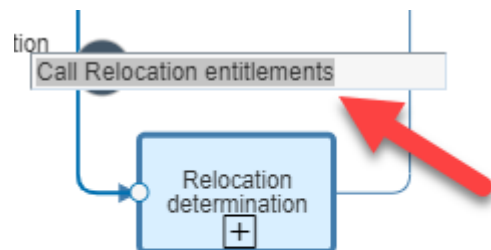
* Name

Call Relocation entitlements

Documentation

* Condition

`${context.response.country=="ACE_IND"}`



31. Now click the Relocation Determination task, and fill out the Details and Mapping tabs like below:

Referenced Subflow Properties

GENERAL DETAILS MAPPING

Referenced Subflow

By workflow file

No file selected Select

* By workflow definition id

onboardind

Inheritance Configuration

☒ Propagate Principal

* Flow Element

StartEvent1 Select

Mapping

Source:

`${context.response.countryCode}`

`${context.response.CInfo}`

`${context.response.country}`

Target:

`${context.response.countryCode}`

`${context.CInfo}`

`${context.response.country}`

Referenced Subflow Properties

GENERAL DETAILS MAPPING

Input Mapping

Add Delete

<input type="checkbox"/> Source Context Path	Target Context Path
<input type="checkbox"/> <code>\${context.response.country...}</code>	<code>\${context.response.countr...</code>
<input type="checkbox"/> <code>\${context.response.CInfo}</code>	<code>\${context.CInfo}</code>
<input type="checkbox"/> <code>\${context.response.country}</code>	<code>\${context.response.country}</code>

Output Mapping

Add Delete

32. Now go back to your onboardIND.workflow. Add a PrepareReloPayload script task. For this next part you will need your Rule Service ID for the rule you created earlier called DetermineRelocationRuleservice. To find this ID you must go back to the Business Rules application and into your Equipment Determination Rules project. Go to Rule Services and hit the gear on the right.

The top part of the image shows a workflow editor. On the left is a 'Script Task' menu with options: User Task, Service Task, Script Task (highlighted), Mail Task, and Referenced Subflow. In the center, a 'StartEvent1' circle is connected to a 'PrepareReloPayload' script task box. A red arrow points from the 'Script Task' menu to the task box. The bottom part of the image shows the 'Rule Services' table in the Business Rules application. The table has columns: Name, Label, Description, Status, Created On, and a 'Deploy' button. The 'DetermineRelocationRuleservice' row is highlighted with a red arrow. A gear icon in the top right corner of the table is also highlighted with a red arrow.

Name	Label	Description	Status	Created On	Deploy
RelocationApprovalRuleservice	Relocation Approval Rule service	Rule service to determine if the approval is needed for the relocation or not	Active	Jul 19, 2021	Deploy
EquipmentApprovalRuleservice	Equipment Approval Ruleservice	Rule service to determine if the approval is needed for the equipment or not	Active	Jul 19, 2021	Deploy
DetermineRelocationRuleservice	Determine Relocation Rule service	Rule service to determine default relocation for the new hire	Active	Jul 19, 2021	Deploy
DetermineEquipmentRuleservice	Determine Equipment Ruleservice	Rule service to determine equipment for the new hire	Active	Jul 19, 2021	Deploy

33. Now check the ID box. Hit okay and you should now be able to see your RuleService ID for DetermineRelocationRuleservice.

The top part of the image shows a dialog box with a list of checkboxes. The 'ID' checkbox is checked and highlighted with a red arrow. The bottom part of the image shows the 'Rule Services' table with an additional 'ID' column. The 'DetermineRelocationRuleservice' row is highlighted with a red arrow pointing to its ID.

Name	Label	Description	Status	Created On	ID
RelocationApprovalRuleservice	Relocation Approval Rule service	Rule service to determine if the approval is needed for the relocation or not	Active	Jul 19, 2021	
EquipmentApprovalRuleservice	Equipment Approval Ruleservice	Rule service to determine if the approval is needed for the equipment or not	Active	Jul 19, 2021	
DetermineRelocationRuleservice	Determine Relocation Rule service	Rule service to determine default relocation for the new hire	Active	Jul 19, 2021	
DetermineEquipmentRuleservice	Determine Equipment Ruleservice	Rule service to determine equipment for the new hire	Active	Jul 19, 2021	

34. Now copy the ID and place it in the parameter <RuleServiceID> in the below code. Take this code and add it as a script for the PrepareReloPayload task. Save it as PrepareReloPayload.

```
var empData = $.context.CInfo.d;
```

```
/***** Prepare Input Payload to Execute Rules *****/
```

```
var employeeRelo = {};
```

```
employeeRelo.countryOfCompany = $.context.response.countryCode;
```

```
employeeRelo.company = $.context.response.country;
```

```
employeeRelo.jobDepartment = empData.department;
```

```
var VocabularyReloEmp = [{
```

```
  "Employee": employeeRelo
```

```
  }];
```

```
var rulesPayloadRelo = {
```

```
  "RuleServiceId": "<RuleServiceID",
```

```
  //"RuleServiceVersion": "000000000000000000",
```

```
  "Vocabulary": VocabularyReloEmp
```

```
};
```

```
$.context.rulesPayloadRelo = rulesPayloadRelo;
```

35. Next add a Relo Determination task and Fill out the parameters for the details tab like below:

Service Task
Represents a service task

- User Task
- Service Task**
- Script Task
- Mail Task
- Referenced Subflow

prepareReloPayload → Relo Determination

Service Task Properties

GENERAL **DETAILS** HEADER

* Destination
BUSINESS_RULES

* Choose a Service from
Others

Path
/rest/v2/workingset-rule-services

* HTTP Method
POST

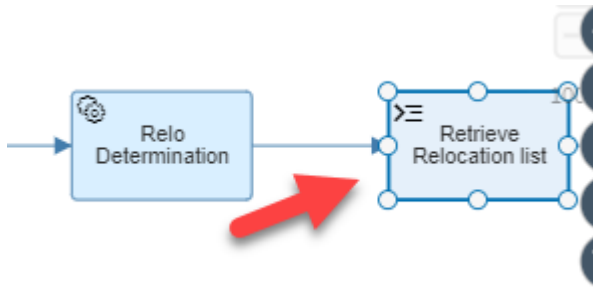
Path to XSRF Token

Request Variable
\${context.rulesPayloadRelo}

Response Variable
\${context.equipment.ReloInfo}

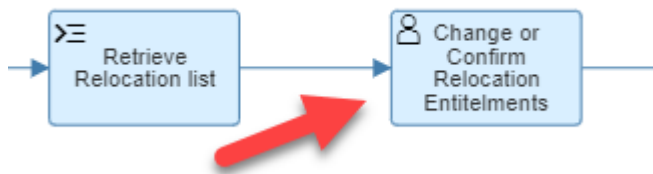
☐ Principal Propagation

36. Next add a Retrieve Relocation list Script task after created in the previous step. Use the below code and name the script file Relocation List.js.



```
var RelosInfo = $.context.equipment.ReloInfo.Result[0].RelocationList;
var empData = $.context.CInfo.d;
var RelocationInfo = [];
var reloequip = {};
if (RelosInfo.length > 0) {
  for (var i = 0; i < RelosInfo.length; i++) {
    reloequip = RelosInfo[i];
    reloequip.ProdDesc = reloequip.ProductDesc;
    reloequip.Status = "Book";
    reloequip.RequestedLoc = empData.location;
    RelocationInfo.push(reloequip);
  }
}else {
  reloequip = RelosInfo;
  reloequip.ProdDesc = reloequip.ProductDesc;
  reloequip.Status = "Book";
  reloequip.RequestedLoc = empData.location;
  RelocationInfo.push(reloequip);
}
$.context.equipment.RelocationInfo = RelocationInfo;
```

37. Next add a Change or Confirm Relocation Entitlements user task.



38. Fill out the following parameters for the above user task.

Subject: *Confirm or Change relocation entitlements for* `${context.CInfo.d.firstName}`
`${context.CInfo.d.lastName}`

User Task Properties

GENERAL DETAILS USER INTERFACE ATTRIBUTES

ID

usertask1

* Name

Change or Confirm Relocation Entitlements

User Task Properties

GENERAL **DETAILS** USER INTERFACE ATTRIBUTES

* Priority

Medium

Display Texts

* Subject

Confirm or Change relocation entitlements for `${context.CInfo.d.results[0].fName}` `${context.CInfo.d.results[0].lName}`

Description

Review and update relocation entitlements

Recipients

Users

`${info.startedBy}`

39. The User Interface for this user task will be a form. Go to the User Interface tab in the User task and create a new form. Call the form ConfirmOrChangeRelo.form. Fill out the following parameter for the form. For the Relocation Entitlements Section set Entitlements as a collection:

ConfirmOrChangeRelo

ID: ConfirmOrChangeRelo Revision: 1.0 Type: Task Form

FIELDS DECISIONS

Add Field Add Section Add Subsection Add Collection Cut Copy Paste

Label/Title	Type	Context Path
▼ Personal Information	Section	
First Name	String	\$(context.CInfo.d.firstName)
Last Name	String	\$(context.CInfo.d.lastName)
▼ Unit Information	Section	
Location	String	\$(context.CInfo.d.location)
Division	String	\$(context.CInfo.d.division)
Department	String	\$(context.CInfo.d.department)
▼ Relocation Entitlements	Section	

ConfirmOrChangeRelo

FIELDS DECISIONS

Label/Title	Type	Context Path
> Personal Information	Section	
> Unit Information	Section	
▼ Relocation Entitlements	Section	
▼ Entitlements	Collection	\$(context.equipment.RelocationInfo)
Product ID	String	\$(item.ProductID)
Product Description	String	\$(item.ProdDesc)
Type	String	\$(item.EquipmentType)
Price	Float	\$(item.Price)
Status	String	\$(item.Status)
Currency	String	\$(item.Currency)

ConfirmOrChangeRelo

ID: ConfirmOrChangeRelo Revision: 1.0 Type: Task Form

FIELDS DECISIONS

Add Cut Copy Paste

Text	ID	Type
Confirm	approve	Positive

40. Now go back to the onboardIND.workflow and add another script task called Approval Determination. Call the script ReloApprovalDetermination. Replace the <RuleserviceID> parameter in the below script with the Rule Service ID for RelocationApprovalRuleservice. Then add the code to the script file and save it.

```
var reloInfo = $.context.equipment.RelocationInfo;

var relototal = 0;

var relototalInfo = [];

var relototequip = {};

if (reloInfo.length > 0) {

    for (var i = 0; i < reloInfo.length; i++) {

        relototequip = reloInfo[i];

        relototal = relototal + relototequip.Price;

        relototalInfo.push(relototequip);

    }

}else {

    relototequip = reloInfo;

    relototal = relototal + relototequip.Price;

    relototalInfo.push(relototequip);

}

$.context.equipment.Relototal = relototal;

var Vocabularyrelo = [{

    "TotalEquipmentAmount": {

        "TotalAmount": relototal

    }

}];

var rulesPayloadrelototal = {

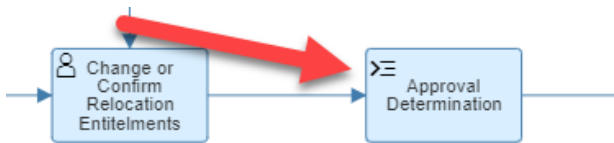
    "RuleServiceId": "<RuleServiceID>",

    //"RuleServiceVersion": "000002000007000000",

    "Vocabulary": Vocabularyrelo

};

$.context.rulesPayloadrelototal = rulesPayloadrelototal;
```

41. Next, add a service task called Determine if Relo is approved. Fill out the General and Details tab like below:

Service Task Properties

GENERAL DETAILS HEAD

ID

servicetask2

* Name

Determine if Relo is approved

Documentation

Service Task Properties

GENERAL **DETAILS** HEADER

* Destination

BUSINESS_RULES

* Choose a Service from

Others

Path

/rest/v2/workingset-rule-services

* HTTP Method

POST

Path to XSRF Token

Request Variable

\${context.rulesPayloadreloTotal}

Response Variable

\${context.response.reloApprove}

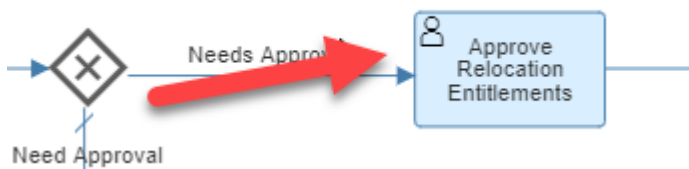
☐ Principal Propagation



42. Next add and Exclusive Gateway called Need Approval:



43. Next add an Approve Relocation Entitlements task. Fill out the General, and Details tabs using the below information:



User Task Properties

GENERAL

DETAILS

USER INTERFACE

A

ID

usertask2

* Name

Approve Relocation Entitlements

User Task Properties

GENERAL

DETAILS

USER INTERFACE

ATTRIBUTES

* Priority

Medium

Display Texts

* Subject

Approve relocation entitlements for \${context.CInfo.d.results[0].fName} \${context.CInfo.d.results[0].lName}

Description

Review and approve Relocation Entitlements

Recipients

Users

\${info.startedBy}

44. Now fill out the user interface tab. Create a new form and call the form ApproveRelo. Setup the form like below:

ApproveRelo

ID: ApproveRelo Revision: 1.0 Type: Task Form

FIELDS DECISIONS

Add Field Add Section Add Subsection Add Collection Cut Copy Paste

Label/Title	Type	Context Path
▼ Personal Information	Section	
First Name	String	\$(context.CInfo.d.firstName)
Last Name	String	\$(context.CInfo.d.lastName)
▼ Unit Info	Section	
Location	String	\$(context.CInfo.d.location)
Division	String	\$(context.CInfo.d.division)
Department	String	\$(context.CInfo.d.department)

ApproveRelo

FIELDS DECISIONS

Label/Title	Type	Context Path
> Personal Information	Section	
> Unit Info	Section	
▼ Equipment Needed	Section	
▼ Equipment	Collection	\$(context.equipment.RelocationInfo)
Product ID	String	\$(item.ProductID)
Product Description	String	\$(item.ProdDesc)
Type	String	\$(item.EquipmentType)
Price	Float	\$(item.Price)
Status	String	\$(item.Status)
Currency	String	\$(item.Currency)

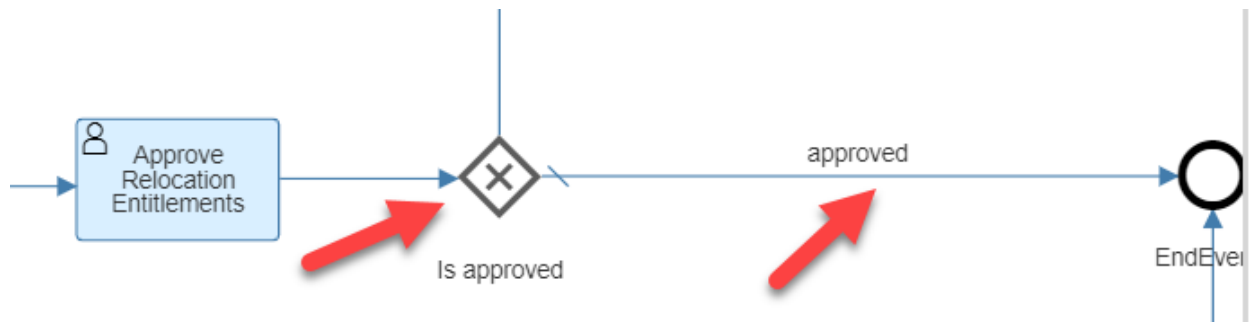
ApproveRelo

FIELDS DECISIONS

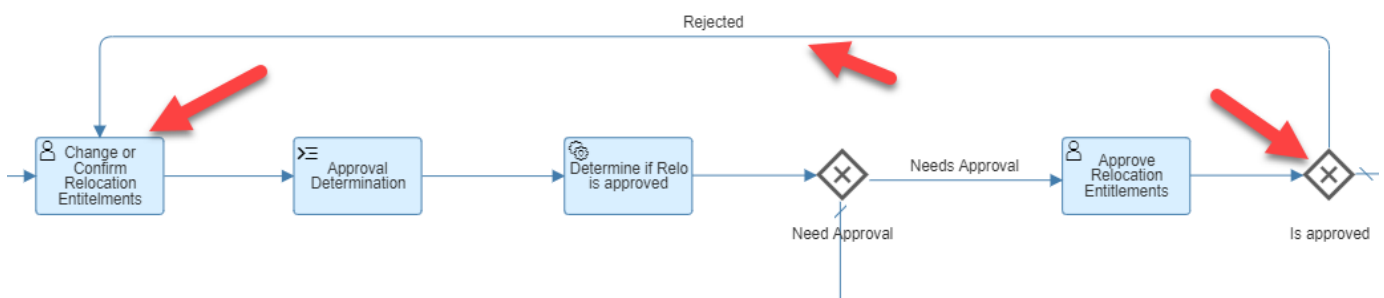
Add Cut Copy Paste

Text	ID	Type
Approve	approve	Positive
Reject	reject	Negative

45. Now add another Exclusive Gateway and call it Is approved. Then connect this Exclusive gateway to the EndEvent and call the line approved.

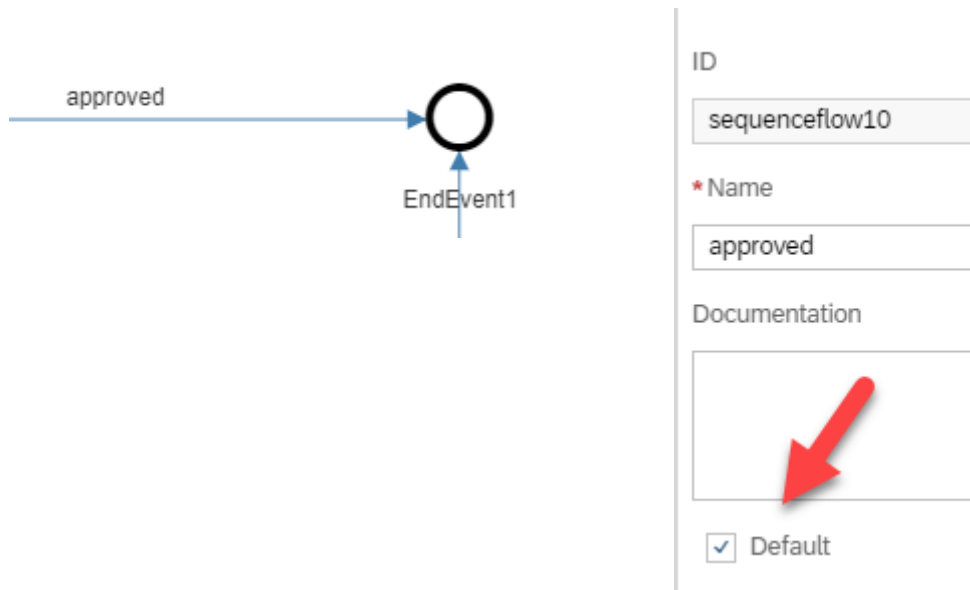


46. Next, connect the Is approved gateway to the Change or Confirm Relocation entitlements user task and call the line Rejected. Set the condition for the line like so:
`${usertasks.usertask2.last.decision=="reject"}`

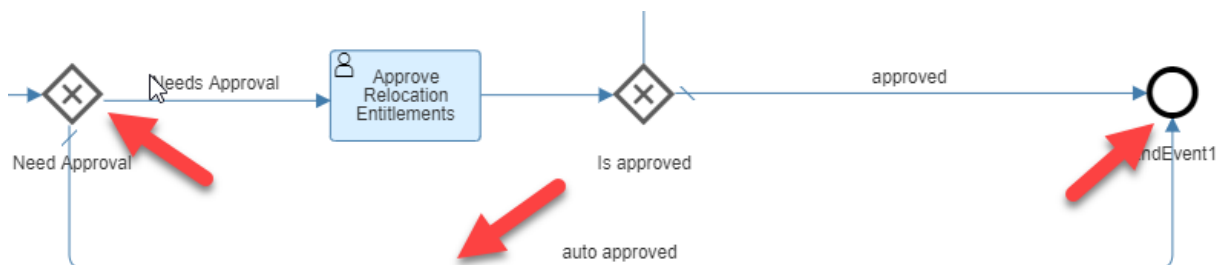


Sequence Flow Properties	
ID	sequenceflow13
* Name	Rejected
Documentation	
* Condition	<code>\${usertasks.usertask2.last.decision=="reject"}</code>
<input type="checkbox"/> Default	

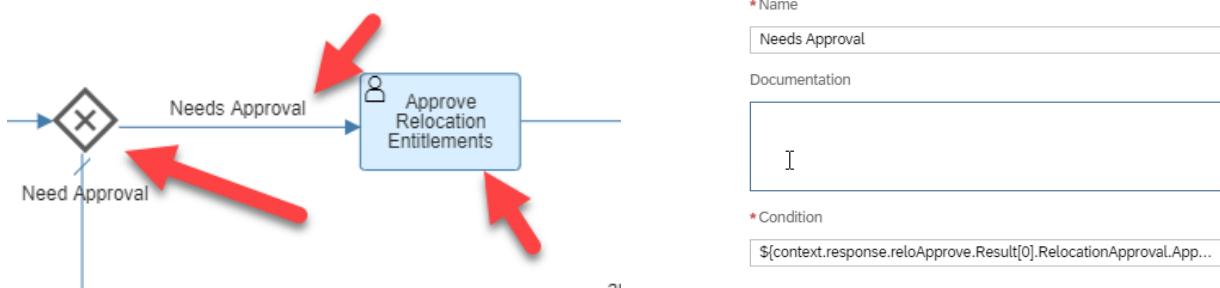
47. Next set the approved line that connects to the end event as the default path.



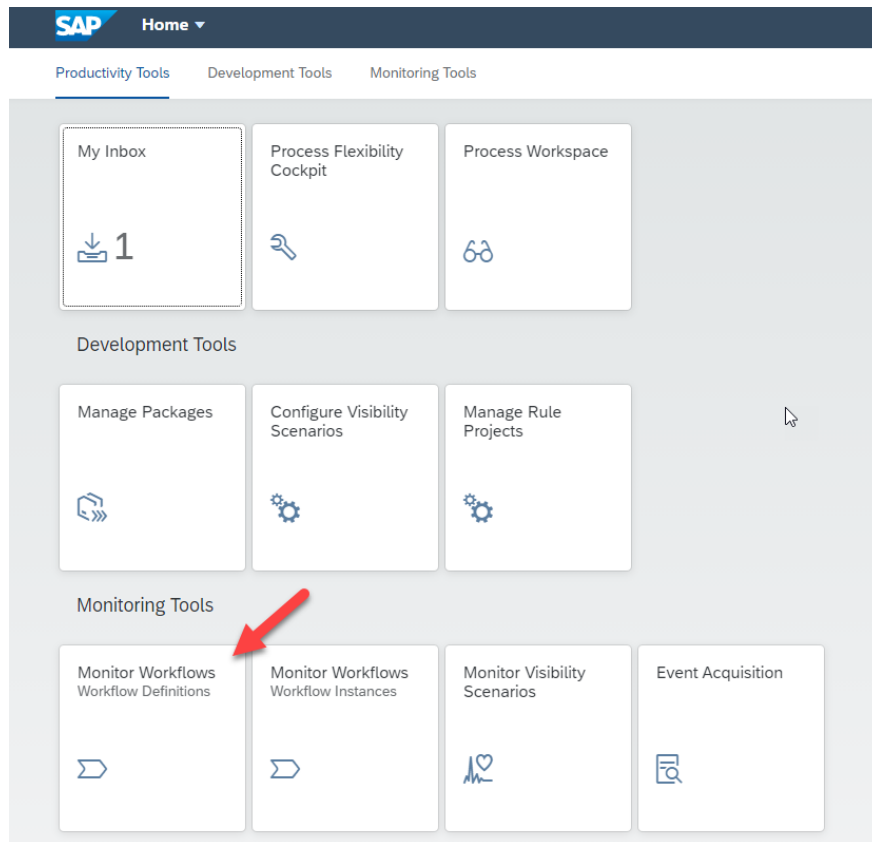
48. Next draw a line from the Need Approval Workflow to the EndEvent1 task, name it auto approved and set it as Default.



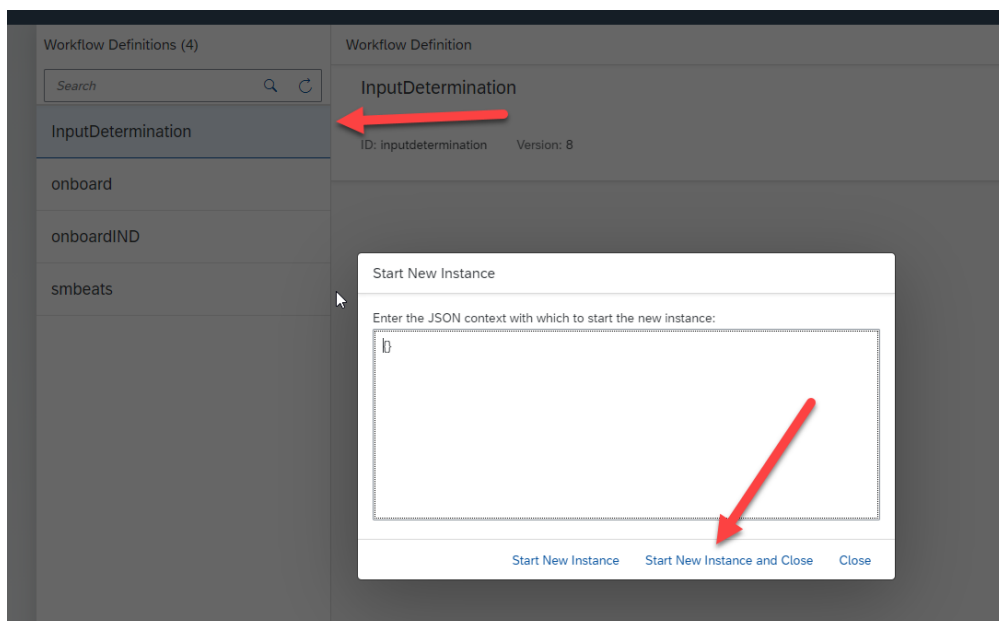
49. Name the line connecting Need Approval and Approve Relocation Entitlements tasks, Needs Approval. Set the condition as follows:
`${context.response.reloApprove.Result[0].RelocationApproval.Approvalneeded=='true'}`



50. Now deploy your workflow. Build the mta.yml file, then deploy the archive as performed earlier in this exercise. To test it out go to Workflow definitions in your Workflow Management application:



51. Now start the workflow InputDetermination. Click Start New Instance and Close without filling out the Context:



52. The workflow has now been started. It is now waiting for user input. You should have received something in your My Inbox App. If you open it up you can put in a Candidate ID and Select US or IND. If you select ACE_IND and use User ID 103095, you will go through the relocation workflow. If you use User ID JSIMPSON and ACE_USA, you will skip the relocation workflow and go straight to onboarding equipment determination. Once you decide which route to go hit Find New Hire to move the workflow forward. Try it Out!

Input Selection

Please Enter Candidate ID and select Company assignment

Created On: Jul 26, 2021

Priority

Created By: darpan.patel@sap.com

Medium

User ID

SF Candidate ID:

2881

Country:*

ACE_IND

Find New Hire

Show Log

Claim