Oracle Fusion Payables Invoice Approval Process: Business Use Cases

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Overview

This document covers the most common business use cases of invoice approval in a Payables Department. Each business use case provides how to configure the invoice approval rules, using various participants, invoice attributes, and list builders such as:

- Single Approver
- Approval Group
- Supervisor Hierarchy
- Job level Hierarchy
- Position Hierarchy

The information presented in this document is intended to help various users (Payables business users, Approval workflow administrators and Consultants) who are involved in the configuration of invoice approval policy to meet the various business use cases of invoice approvals in a Payables Department.

Note: 1) Refer to the Appendix section for navigation details for configuring invoice approval rules and approval groups.

2) Refer to the Oracle Fusion Payables Approvals Overview document (Doc ID 2050018.1) to configure basic invoice approval rules within business process management.

Disclaimer: This use case document is not an exhaustive list and does not cover every business use case that may arise from various industries.

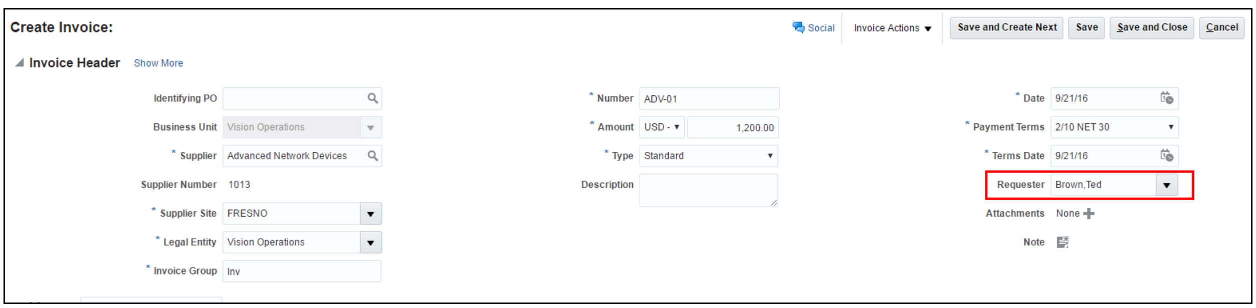
Business Use Cases

Use Case1: Configure an approval rule to route a notification to a requestor.

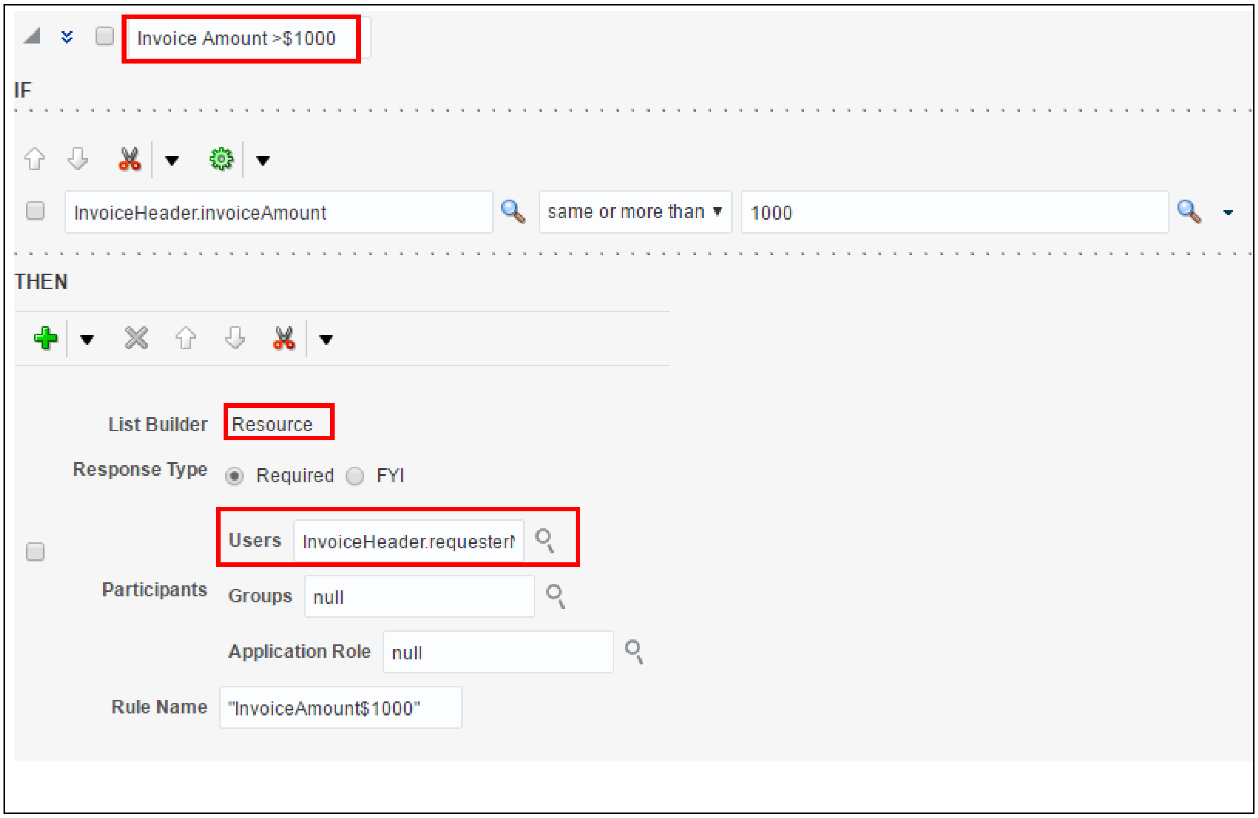
This business case requires an invoice to be routed for approval to a buyer who actually requested the goods or service. The buyer's name is captured in the Requestor field on the invoice UI.

Solution: To achieve this requirement, configure an approval rule using the resource list builder and in user field enter **InvoiceHeader.requesterName**.

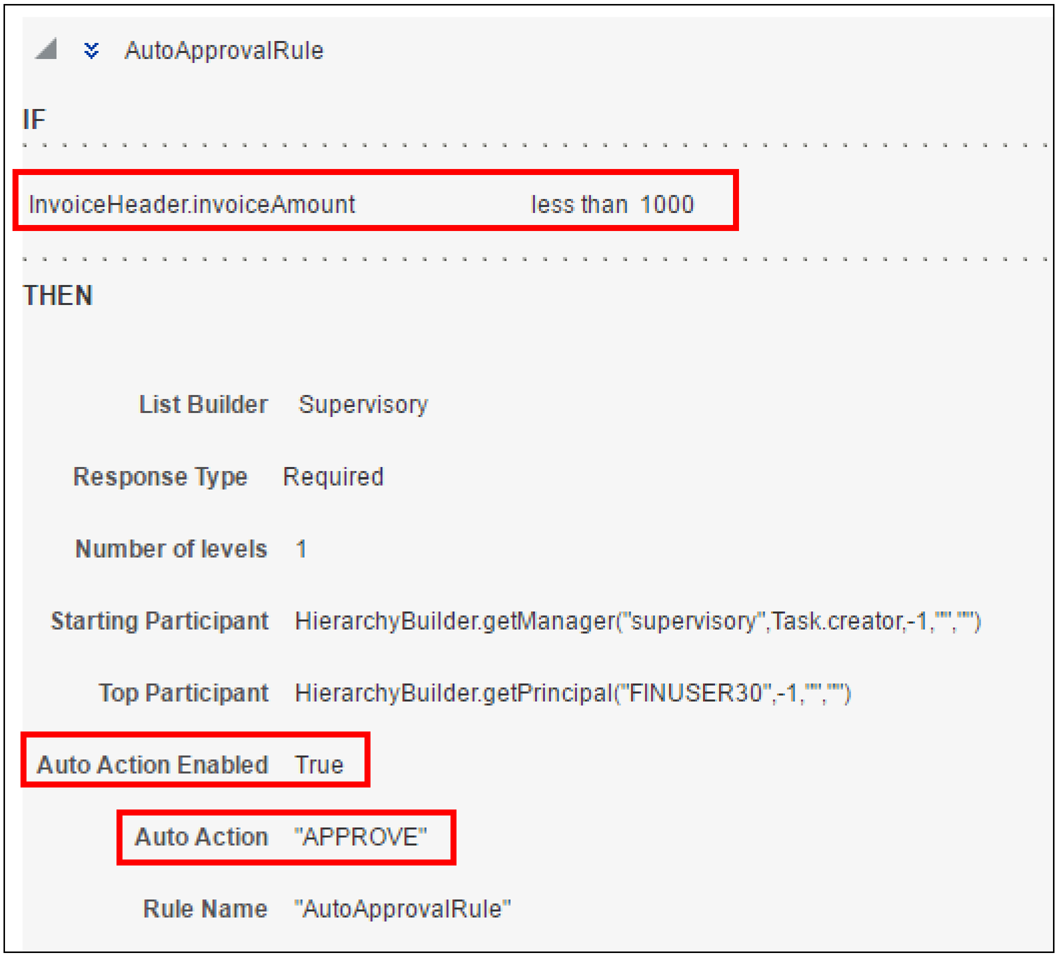
Create an invoice and enter the buyer name in the invoice Requestor field, then initiate the approval process for the invoice.



Create an approval rule using the List Builder Resource to route an invoice to a specific requester (Single Approver) entered on the invoice if the invoice amount is more than 1000. Resource is used when an invoice needs to be routed to a single approver for an approval.



If the invoice amount is less than 1000 dollars then the invoice needs to be auto approved.


AutoApprovalRule
IF
InvoiceHeader.invoiceAmount less than 1000
THEN
List Builder Supervisory
Response Type Required
Number of levels 1
Starting Participant HierarchyBuilder.getManager("supervisory",Task.creator,-1,"","")
Top Participant HierarchyBuilder.getPrincipal("FINUSER30",-1,"","")
Auto Action Enabled True
Auto Action "APPROVE"
Rule Name "AutoApprovalRule"

Use case2: Configure an approval rule to route a notification to a group of approvers.

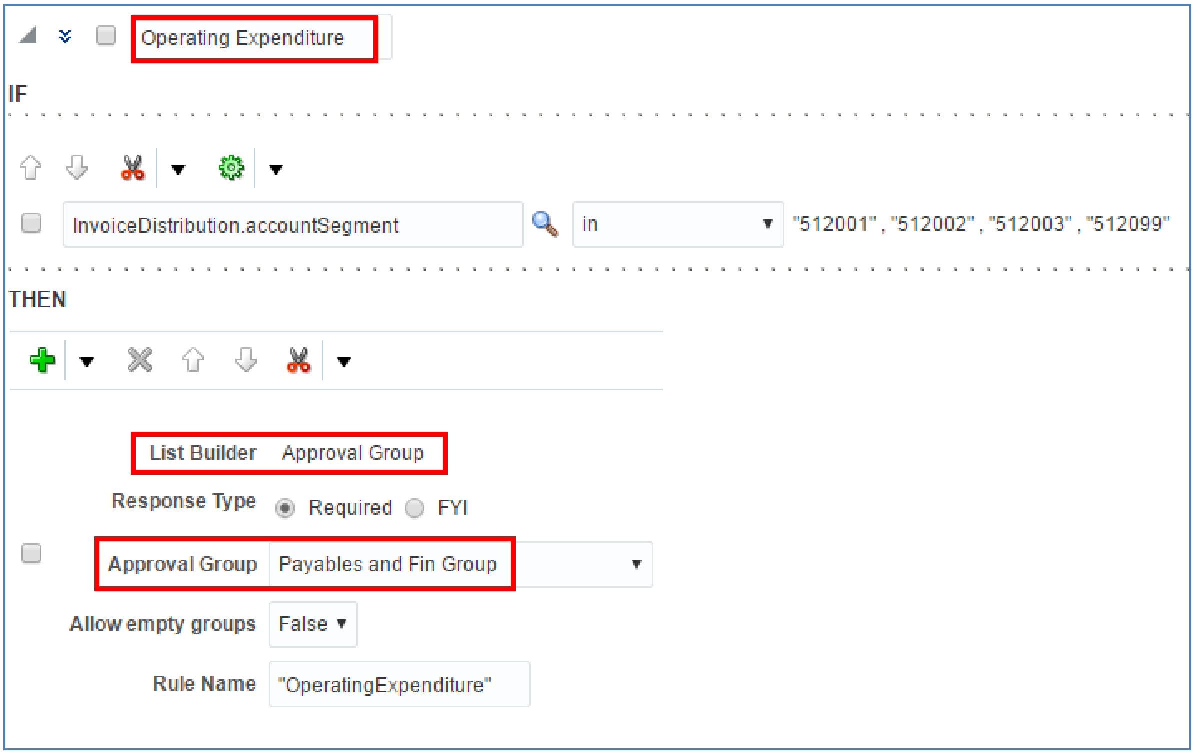
The business requirement is that all invoices related to the operating expenditures incurred needs to be reviewed by two approvers. The invoice first needs to be reviewed and approved by the Payables Department head and then needs to be approved by the Finance Manager. The nature of the expenditure is based on the natural account entered on the invoice.

Example: An invoice is received for the expenditure incurred related to a marketing event:

1) If the account code combination entered on the invoice contains the natural accounts ranges from **512001** to **512099** then invoice requires the approval from the Payables Department head and the Finance Manager.
2) If the account code combination entered on the invoice does not contain the natural accounts ranges from **512001** to **512099** then invoice requires the approval from the Payables Department head.

Solution:

1. Create an approval group with the Payables Department head and the Finance Manager.
2. Create a rule using Serial type participant in parallel mode with account segment in (**512001**, **512002**, **512003**, to **512099**).You then route the invoice to the approval group which consists of the Payables Department head and the Finance Manager.
   Note: In the approval rule screen shot, only four accounts were entered for illustration purpose.


Operating Expenditure
IF
InvoiceDistribution.accountSegment
in
"512001" , "512002" , "512003" , "512099"
THEN
List Builder
Approval Group
Response Type
Required
FYI
Approval Group
Payables and Fin Group
Allow empty groups
False
Rule Name
"OperatingExpenditure"

Use Case3: Configure an approval rule to route a notification using a supervisory hierarchy.

The business requirement is that an invoice needs to be approved by managers based on the amount limits set for each approver.

Example:

An invoice amount of more than $10,000 dollars needs the approval of two groups. The first group is made up of the Manager, Senior Manager, and Finance Manager. The invoice can be approved by the next group of approvers. That approval group consists of the CFO, COO, and CEO. If the invoice amount is less than $10,000 dollars it only needs to be approved by the Manager, Senior Manager, and Finance Manager depending on the invoice amount.

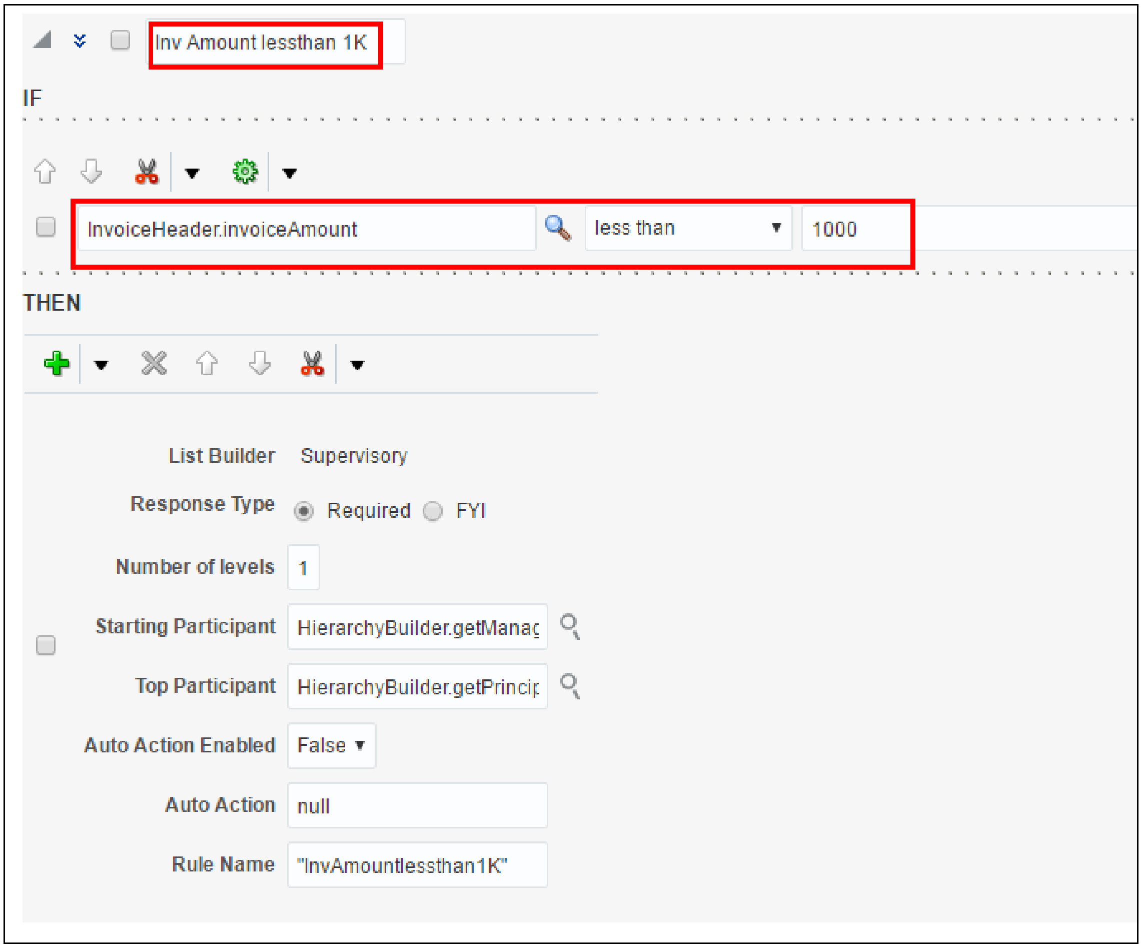
Employee Role	**Supervisory Hierarchy Level**	**Approval limit**
Manager	1	<1,000
Senior Manager	2	1,001 – 10,000
Finance Manager	3	>10,001
CFO,COO,CEO (Any one can approve)	4	>10,001

The first three approvals are done by the managers of the invoice requestor using supervisory hierarchy.

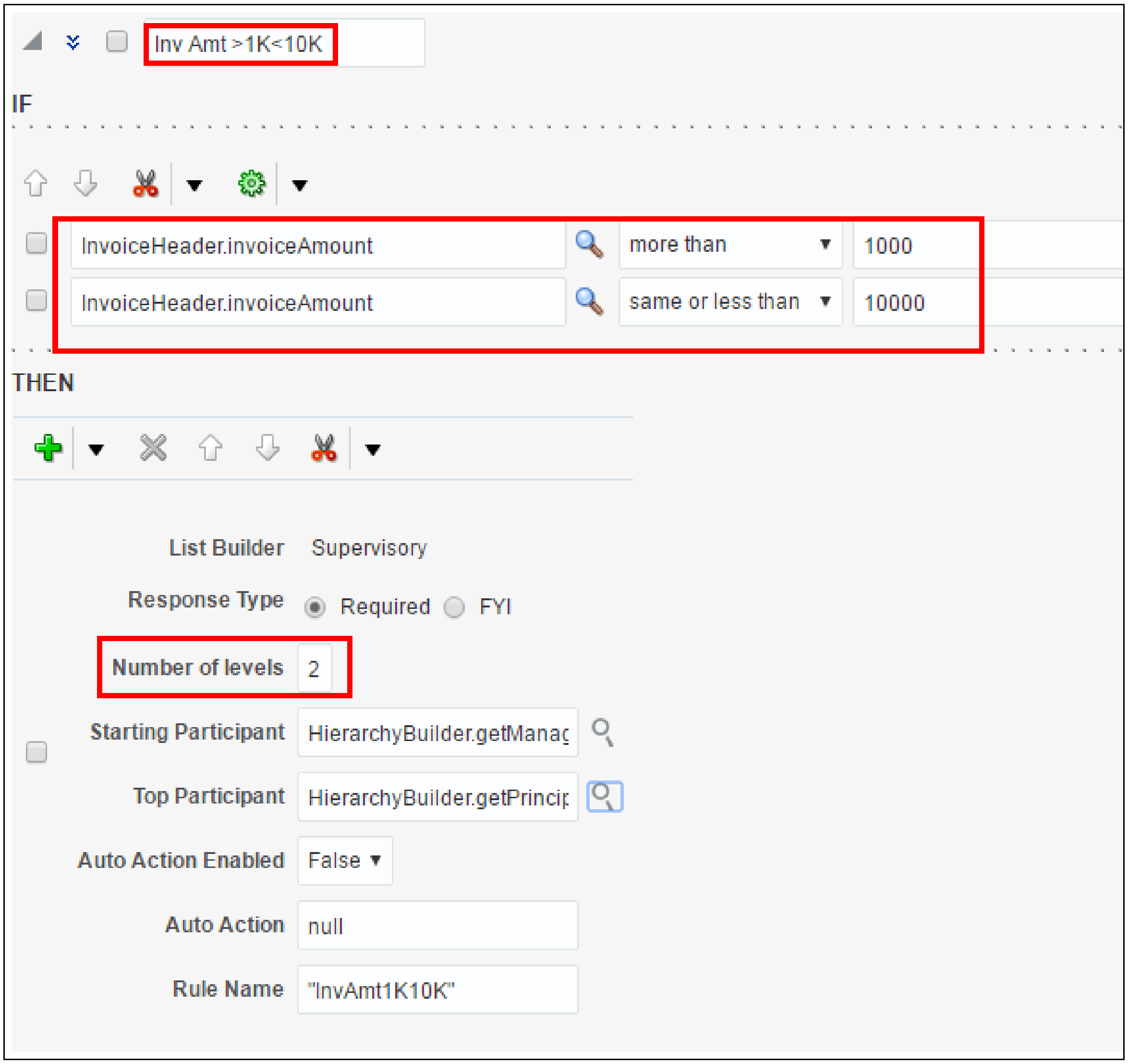
Final approval has to be done by any one of the approver out of 3 approvers from approval group.

Solution: This requirement can be achieved by using two participants (First one is **Serial type participant in parallel mode** to complete first three levels of approvals and next is to use **Parallel type participant in parallel mode**)

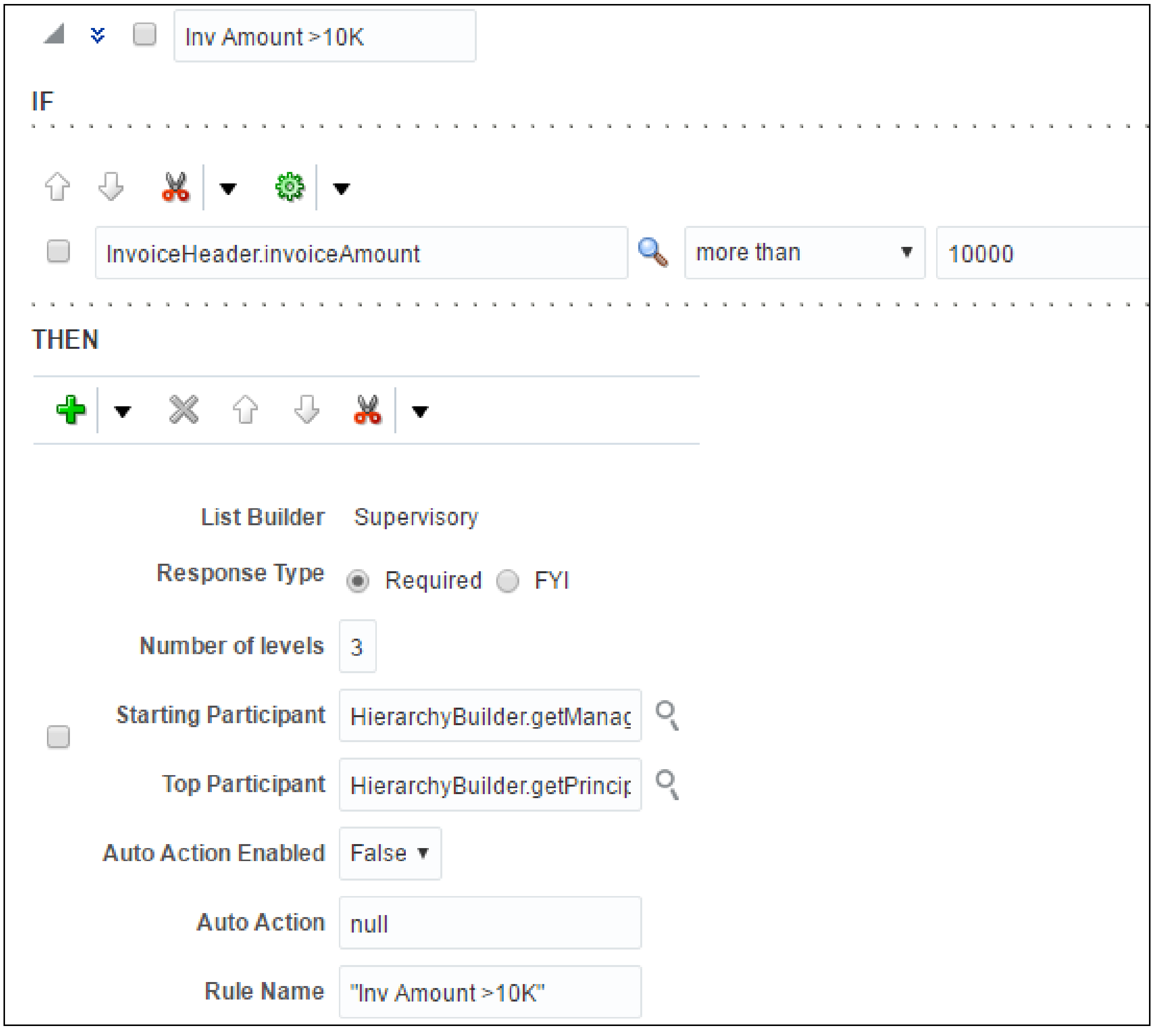
1. Configure the approval rule for the invoice amount less than 1000 using serial type participant in parallel mode with supervisory hierarchy.



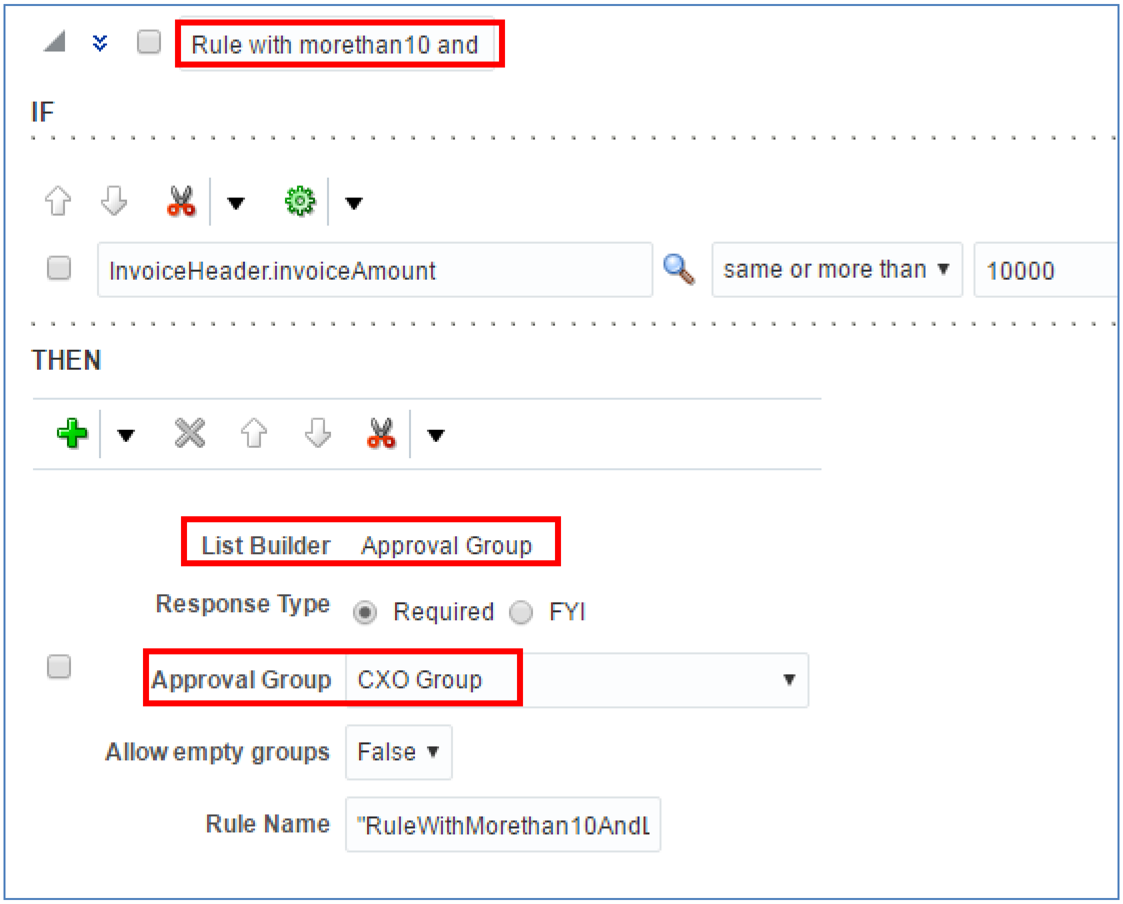
2. Configure the approval rule for the invoice amount more than 1,000 and less than 10,000 using serial type participant in parallel mode with supervisory hierarchy.



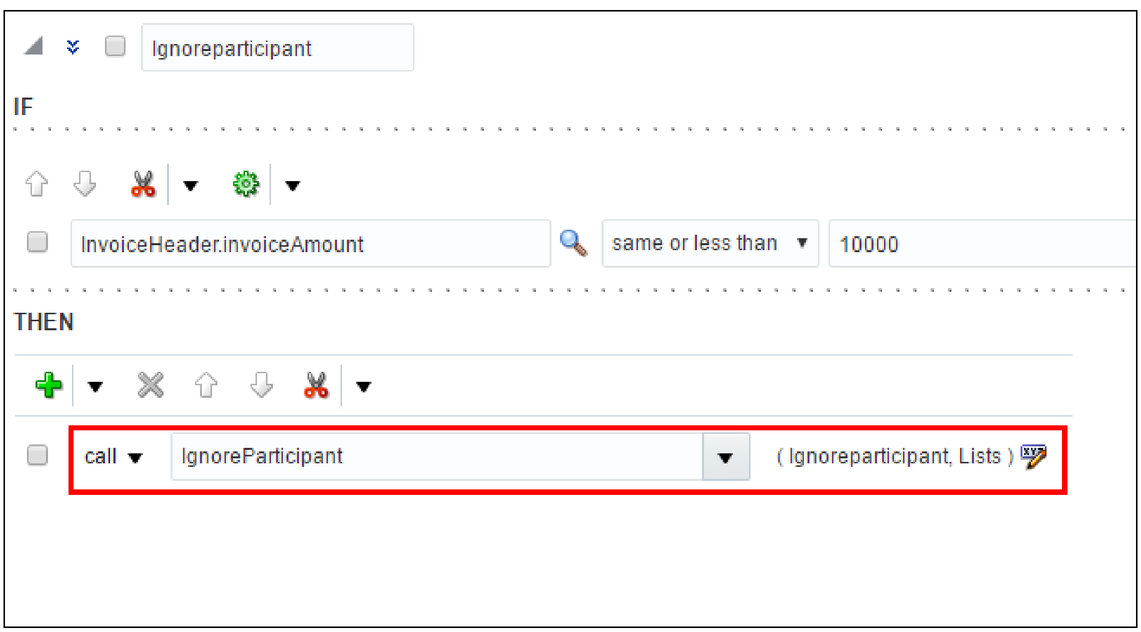
3. Configure the approval rule for the invoice amount more than 10,000 using serial type participant in parallel mode with supervisory hierarchy.



4. Configure the approval rule for the invoice amount more than 10,000 using parallel type participant one in sequential mode with the approval group.



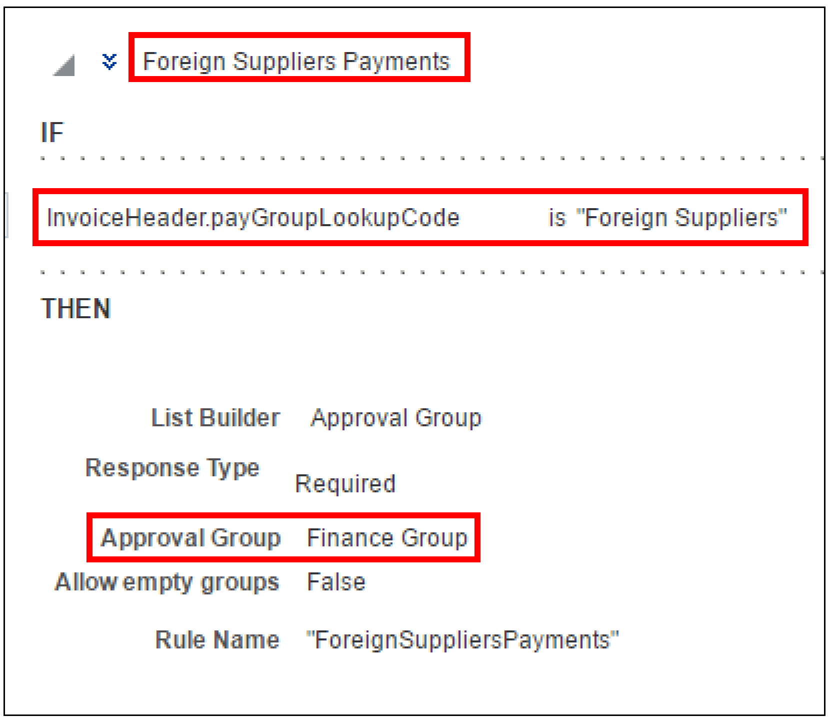
5. Configure the approval rule to ignore the participant ID the invoice amount less than 10,000 using the parallel type participant one in sequential mode.



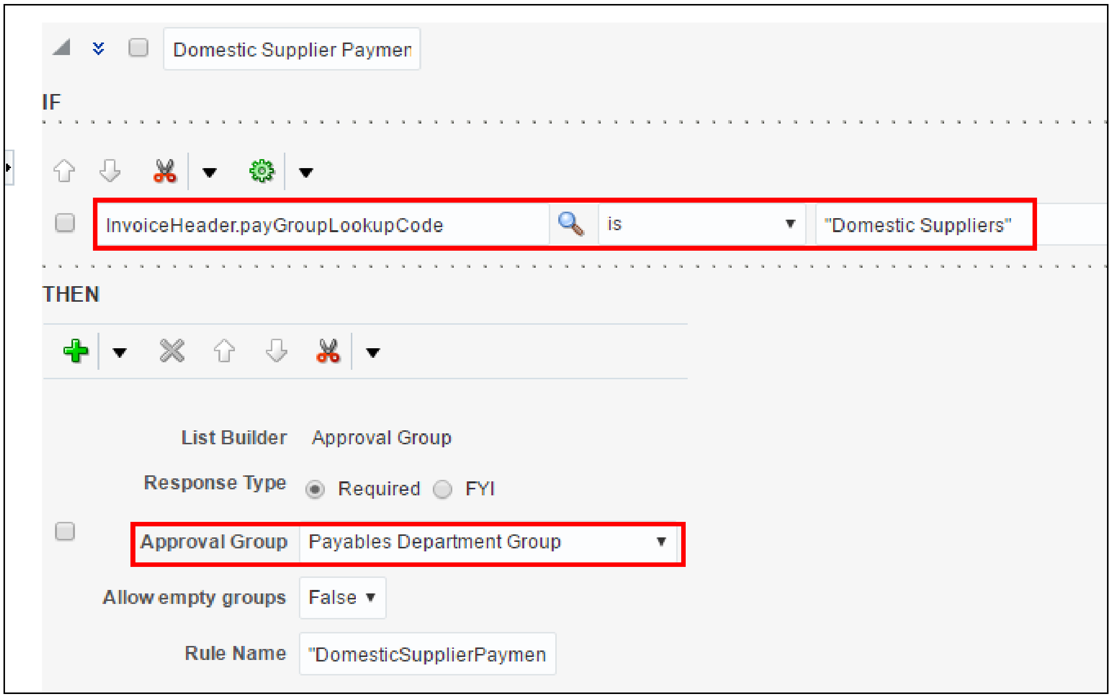
Use Case4: Configure an approval rule to route notification to a group of approvers simultaneously and the first approver wins.

The business requirement is to send an invoice for approval process to a group of approvers; the group consists of the Finance Manger and the Finance Director. Invoices related to **Foreign Suppliers**, that are captured through the pay group assignment at the invoice header level can be approved any one of the approvers. Invoices related to Domestic Suppliers, will be approved by the Payables Department group.

Solution: To achieve this requirement, first define an approval group and configure an approval rule using **Single type participant in parallel mode** participant with the list builder **Approval Group** and assign the approval group to the rule.



Configure an approval rule using **Single type participant in parallel mode** participant with the list builder **Approval Group** and assign the approval group **Payables department** to the rule.


Domestic Supplier Paymen
IF
InvoiceHeader.payGroupLookupCode
is
"Domestic Suppliers"
THEN
List Builder
Approval Group
Response Type
Required
FYI
Approval Group
Payables Department Group
Allow empty groups
False
Rule Name
"DomesticSupplierPaymen

Use Case5: Configure an approval rule to route a notification using job level hierarchy.

The business requirement is to initiate an approval process for invoices based on the employee's job role and the amount limit set for a specific job role. If an invoice is created by the project lead and the invoice amount is in between $1-$5000, then the invoice has to be approved by their manager.

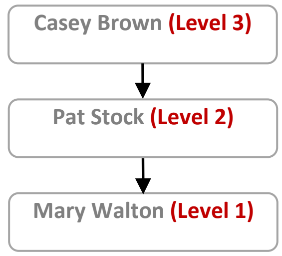
Solution: This requirement can be achieved by configuring the approval rule using job level hierarchy and trigger approvals based on the invoice amount limit set to each job level.

The table below shows approval limit for each job level hierarchy:

Employee Role	Job Level	Approval limit
Manager	1	$5000
Senior Manager	2	$10000
Director	3	$20000
Senior Director	4	$30000
Vice President	5	$50000
SVP	6	$100000
EVP	7	$150000
CEO	8	$500000

Job level routings are based on the supervisory hierarchy defined in Oracle Fusion Human Capital Management. The approval list is generated based on the starting position specified in a rule and continuing until an approver with a sufficient job level is found. The supervisory hierarchy needs to be defined along with the corresponding job levels.

An example of the Job Level approval structure for Acme Corp:



- Mary Walton, Administration Assistant (Job Level 1), reports to
- Pat Stock, Manager (Job Level 2), reports to
- Casey Brown, Director (Job Level 3)

Note: For complete details on setting up supervisory hierarchy and job levels, refer to the Oracle Fusion Human Capital Management guides or online help.

Steps

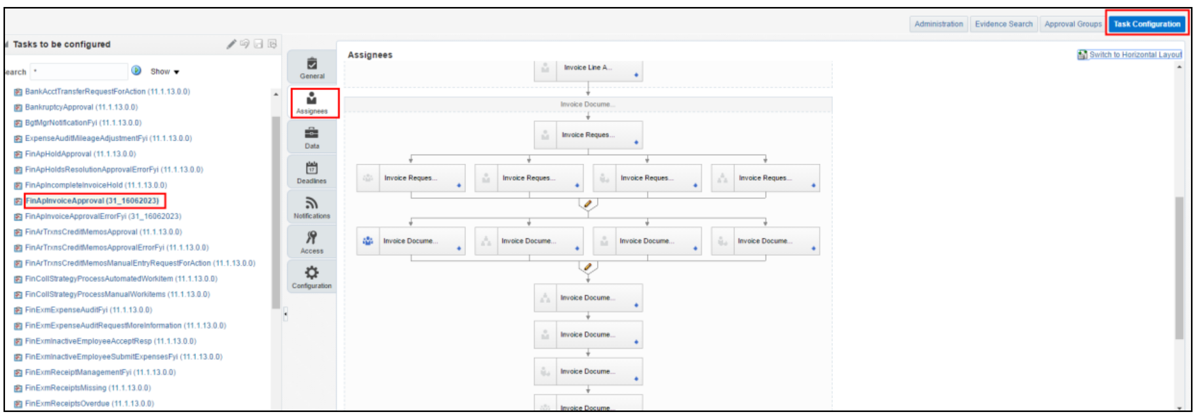
1. Define the various job levels in HCM:

    - Navigate to Navigator -> Workforce Management -> Work Force Structures.
    - Click on Manage Jobs to create various job levels.

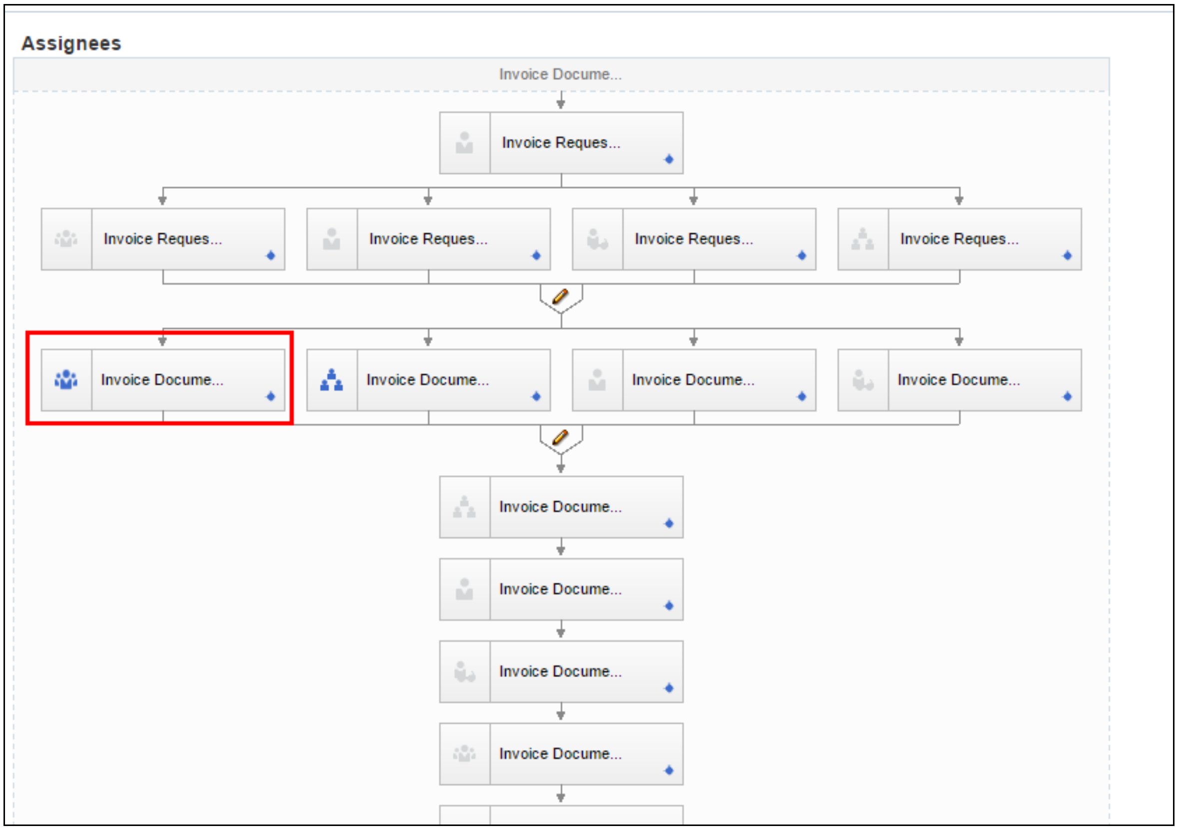
2. Assign job levels to the users in the HCM:

    - Navigate to Navigator -> Personal Management -> Search for the employee.
    - Click on Manage Employment
    - Click on Edit -> Update the Job for a user or employee.

3. Login into BPM or Navigate to BPM Approval Rules through FSM Task.

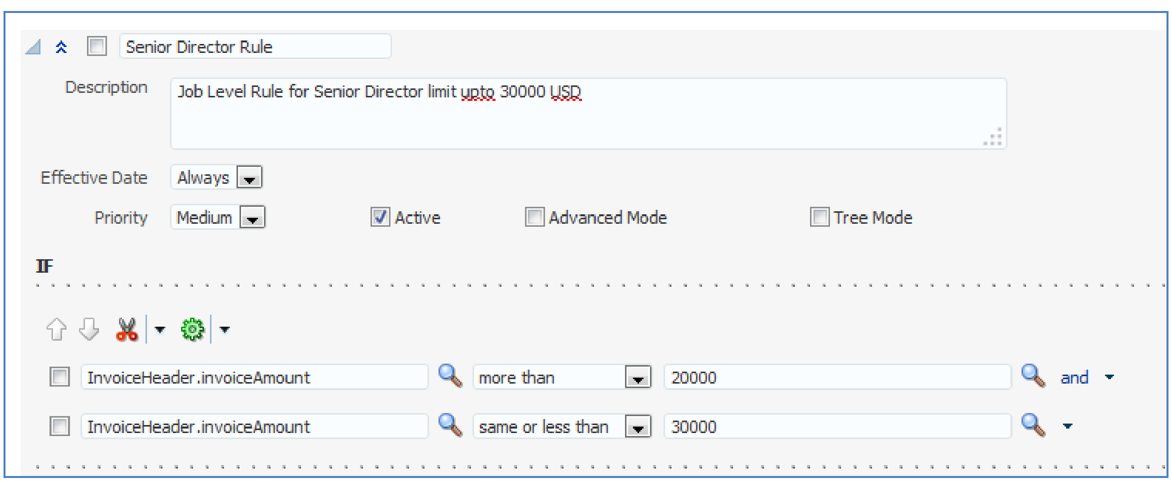


4. Navigate to the Invoice approvals task **FinApInvoiceApproval**.
5. Click on Rules Tab.
6. Click on Edit Icon.
7. Click on 'InvoiceDocumentApprovers' Participant.

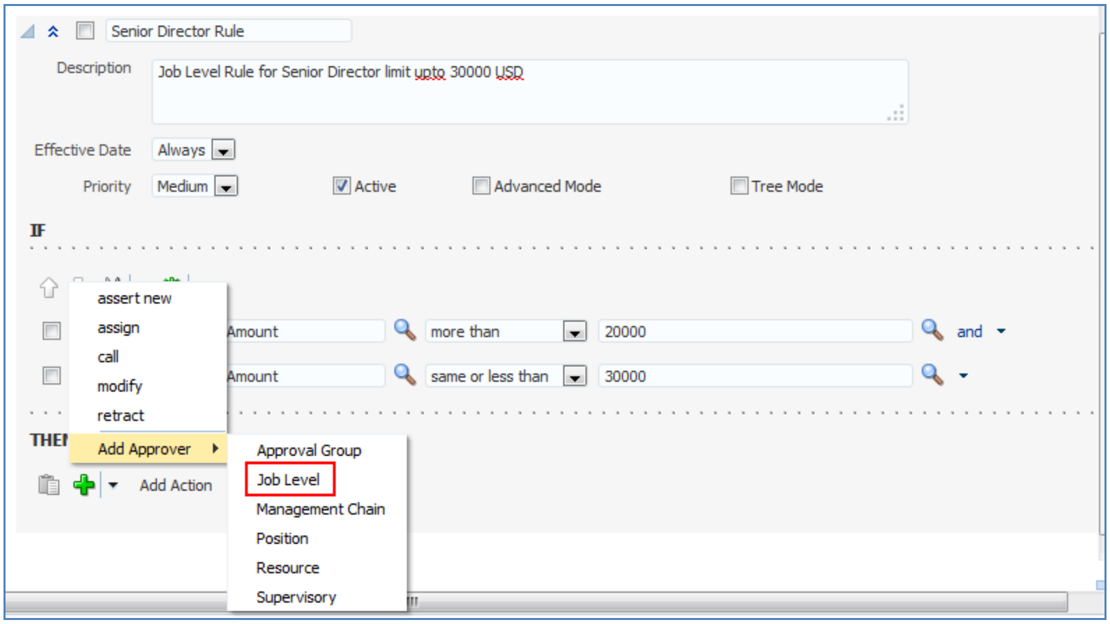


8. Click on '+' icon for adding new rule.
9. Steps for creating the rule for senior director level whose approval limit is upto 30000 USD.

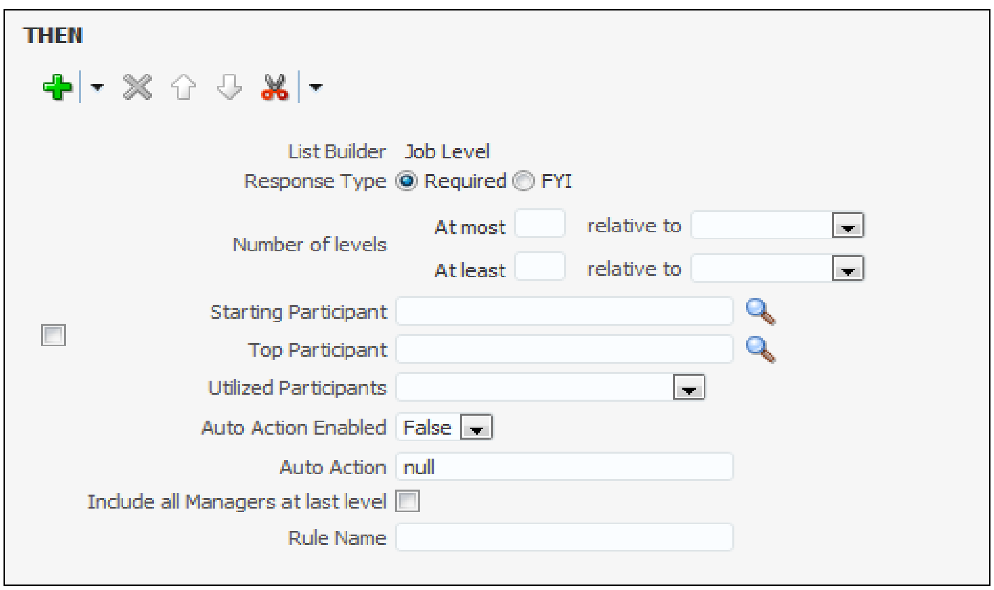
    - Enter the Rule Name and Description as required.
    - Define condition as:
        i. **InvoiceHeader.invoiceAmount** more than 20000 **and**
        ii. **InvoiceHeader.invoiceAmount** same or less than 30000



10. Define Job Level Action by navigating to Add Action -> Add Approver -> Job Level.



11. The Number of levels required to perform the approval action should be specified along with other details.

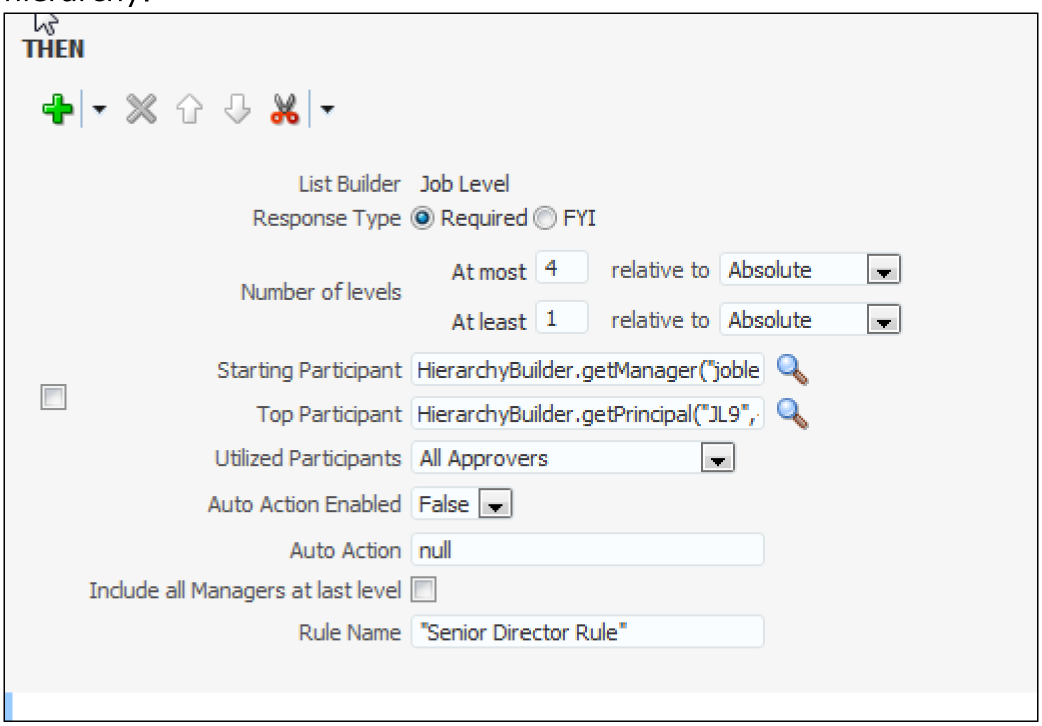


A lower bound and an upper bound for job levels should be specified. These levels can be relative to the starting point, the task requester, or an absolute job level.

12. For a senior director level approval at least a Job Level 4 is required and at most a Job Level 4(approval rule is modeled using absolute levels).

- Enter At least level as 4.
- Enter At most level as 4.
- Add starting participant as:**HierarchyBuilder.getManager("joblevel",InvoiceHeader.requesterName,-1,"","").**
  Note: Considering approval of an invoice starts from the manager of invoice requester. Assuming the invoice entry clerk manually enters the requester during invoice creation
- Add the Top Participant as HierarchyBuilder.getPrincipal("<Top Job Level Name>",-1,"","").
- Enter Utilized Participants as **All Approvers.**
- Auto Action Enabled False.
- Auto Action null.

Note: In our internal instance we have 'JL9' as the Top in the hierarchy.



NOTE: Similar to the above rule you need to create rules for other job levels in your organization.

Use Case6: Configure an approval rule to send notifications using a position hierarchy.

The business requirement is to use two different position hierarchies; one hierarchy for requisition and PO approvals, and another hierarchy for Invoice approvals. Requisition and PO approval follows a cost center hierarchy and invoice approval follows a budget hierarchy.

This requirement can be achieved using the separate position hierarchy defined for budget purposes.

The following steps explain how to configure positions, a position hierarchy, and an approval rule using the position hierarchy.

Steps:

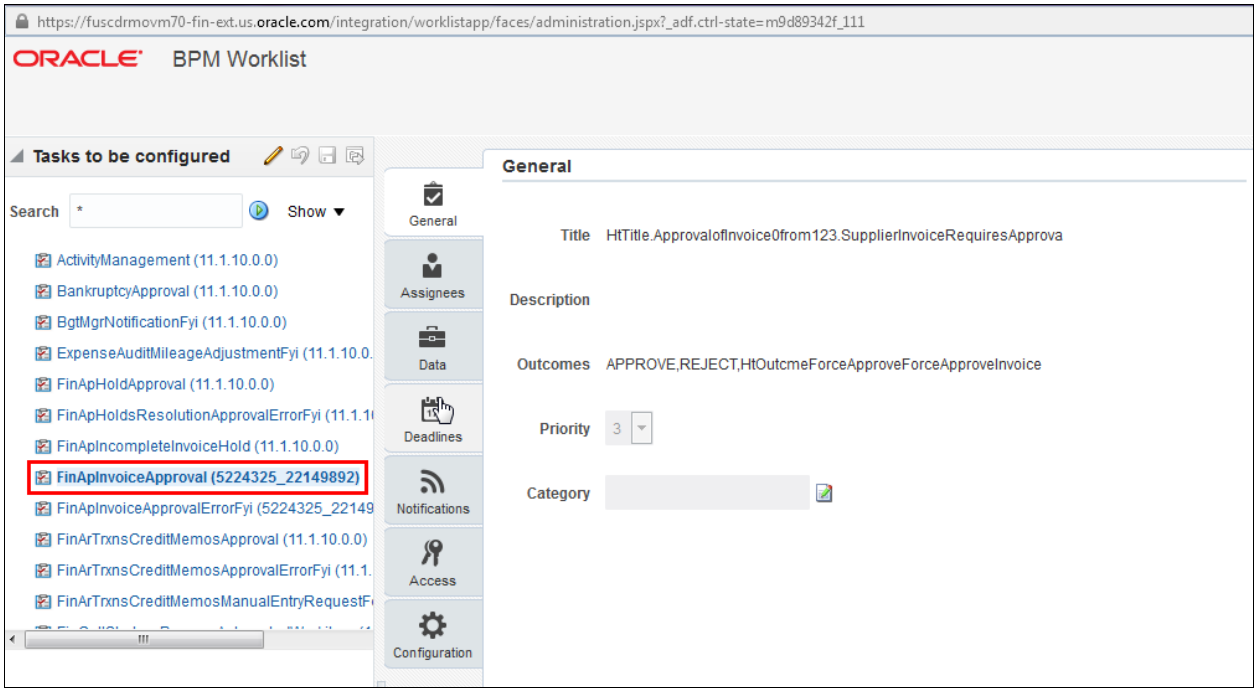
- Define various positions in HCM:
  - Navigate to Navigator -> Workforce Management -> Work Force Structures
  - Click on Manage Positions to create various positions.
- Assign position the users in HCM:
  - Navigate to Navigator -> Personal Management -> Search for the employee.
  - Click on Manage Employment
  - Click on Edit -> Update the Position for a user/employee.
- Create position hierarchy:
  - Navigate to Navigator -> Workforce Management -> Work Force Structures.
  - Click on Manage Positions Trees to create various positions.

Note: Refer to the HCM documentation for detailed steps on how to define positions, assign positions to the employees, and define position hierarchy.

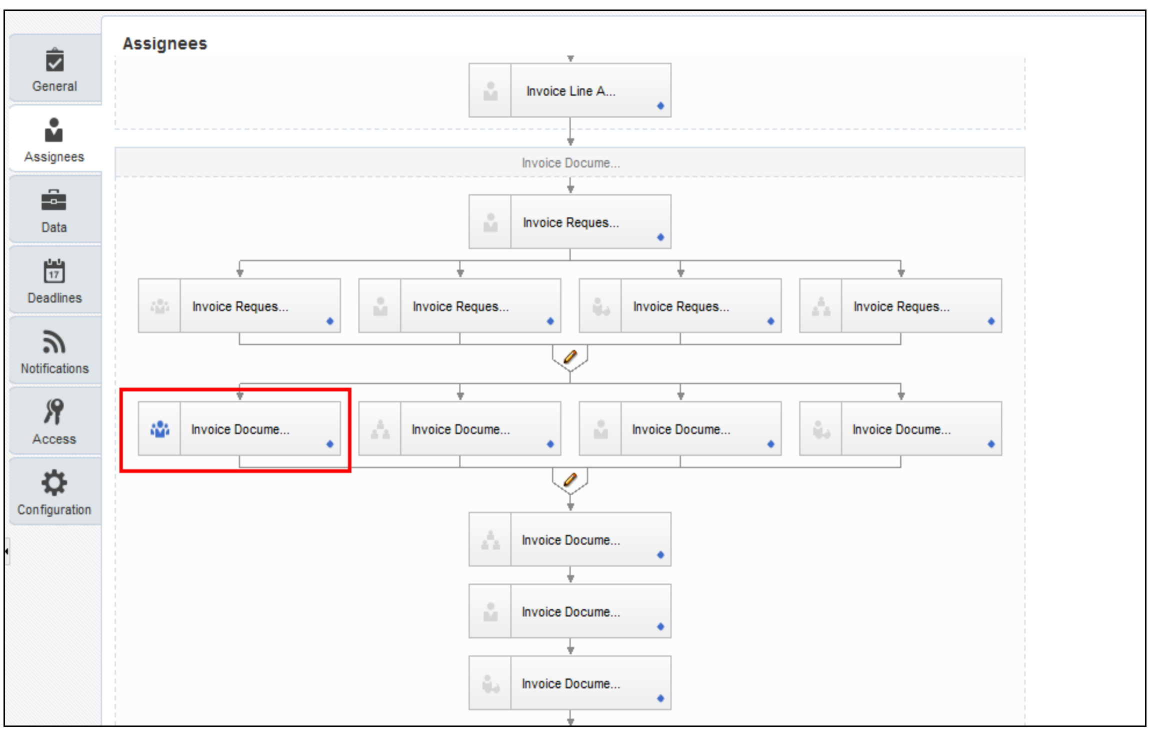
1. Login into BPM or Navigate to BPM Approval Rules through FSM Task.

2. Click on -> Task Configuration link to get to the AP invoice approval task.

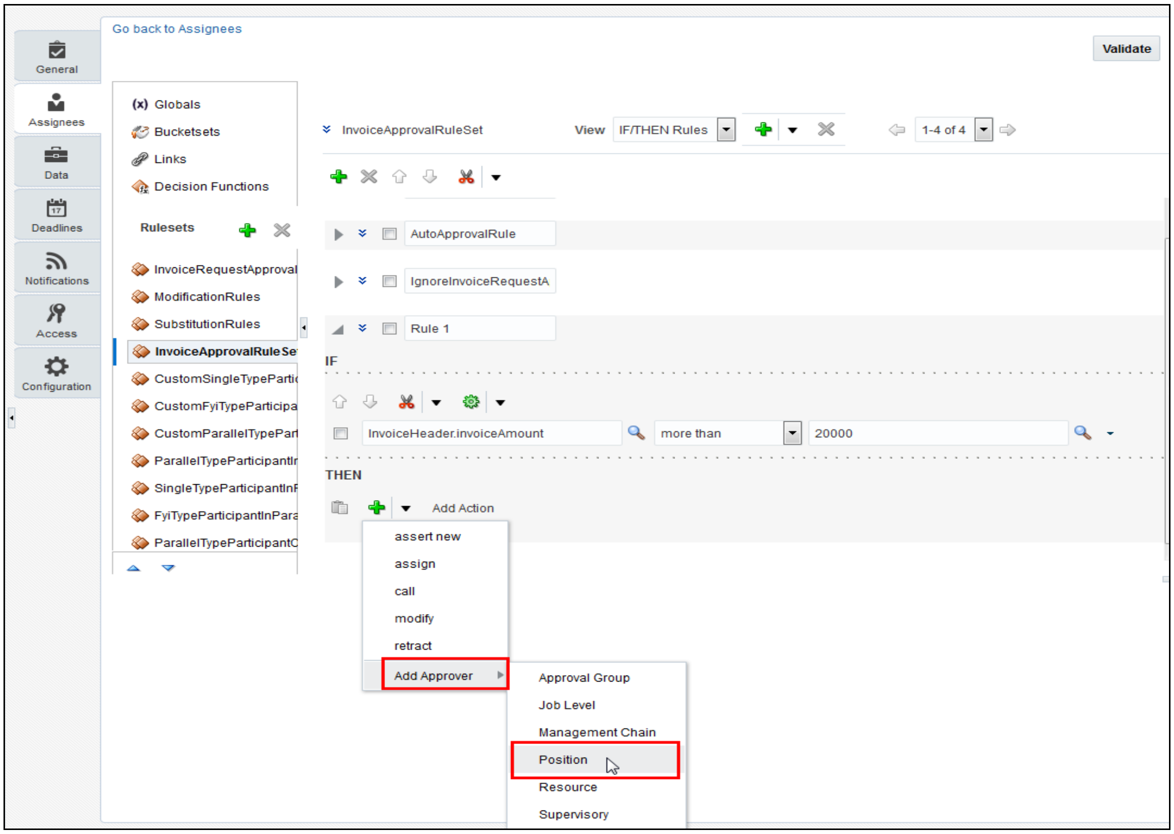
3. Click on **FinAPInvoiceApproval** task to configure invoice approval rules.



4. Click on -> **Invoice Document Approvers**. Configure participants approval by using sequential participant in parallel mode.

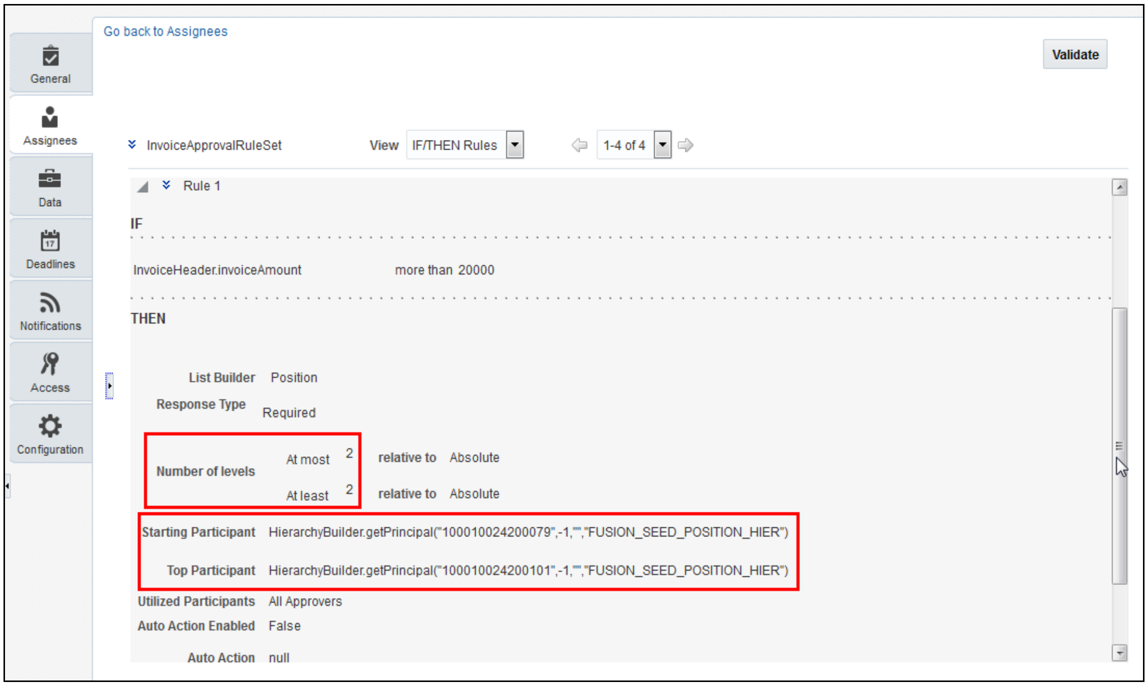


5. Configure a rule using the list builder called **Position** to route the notification to the approver using position hierarchy.



6. Enter the position ID and position hierarchy name to send the approval notification to the first approver and last approver using starting and top participants. In this case, first approval notification will be sent to the position ID: **100010024200079** and then it follows the position hierarchy of **Fusion_Seed_Position_Hier** for up to 2 levels.

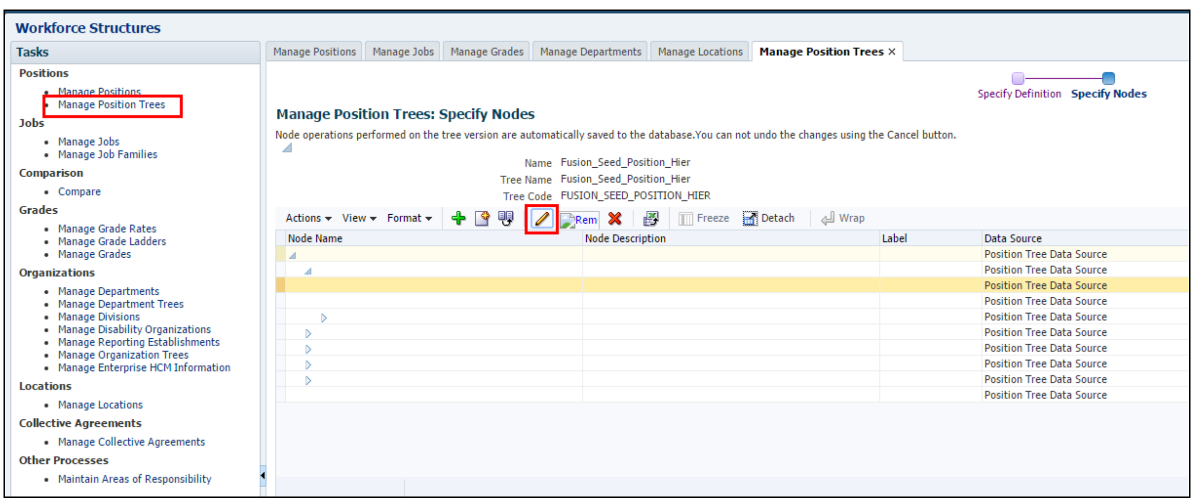
   Position ID (sub-header) in the next point (Point7), steps are included on how to get the Position ID.

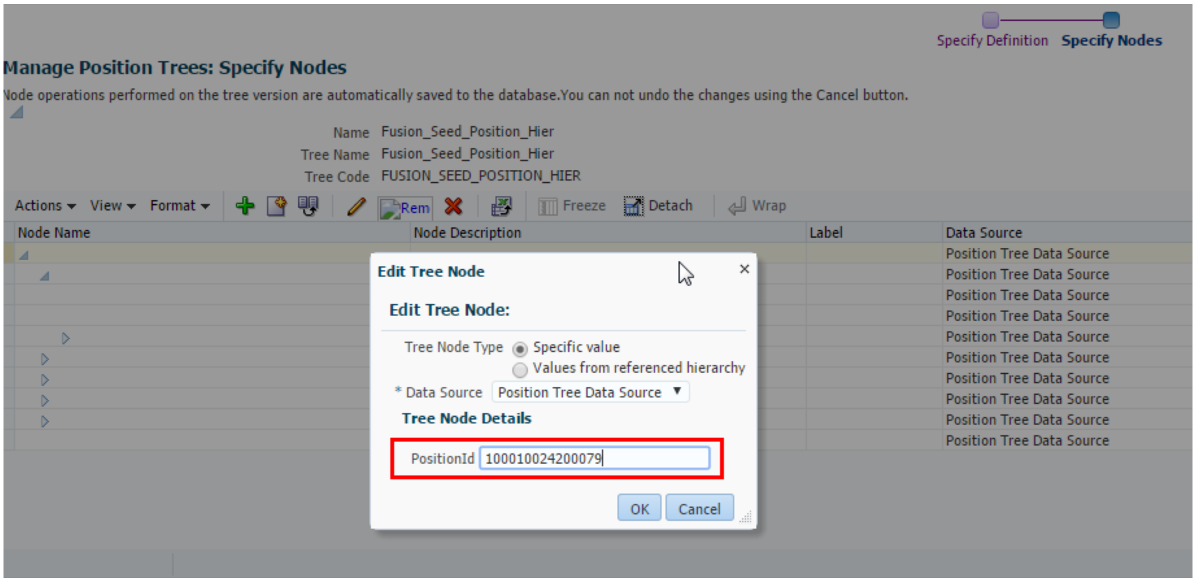


7. Obtain the Position ID for a position.

   The Position ID of a position is required to configure the approval rule using position list builder. The Position ID for a position can be found by using the method below:

   1. Click -> on the Manage Position Trees and select the position hierarchy. Select the position and click on Edit icon to see the Position ID of a particular position.



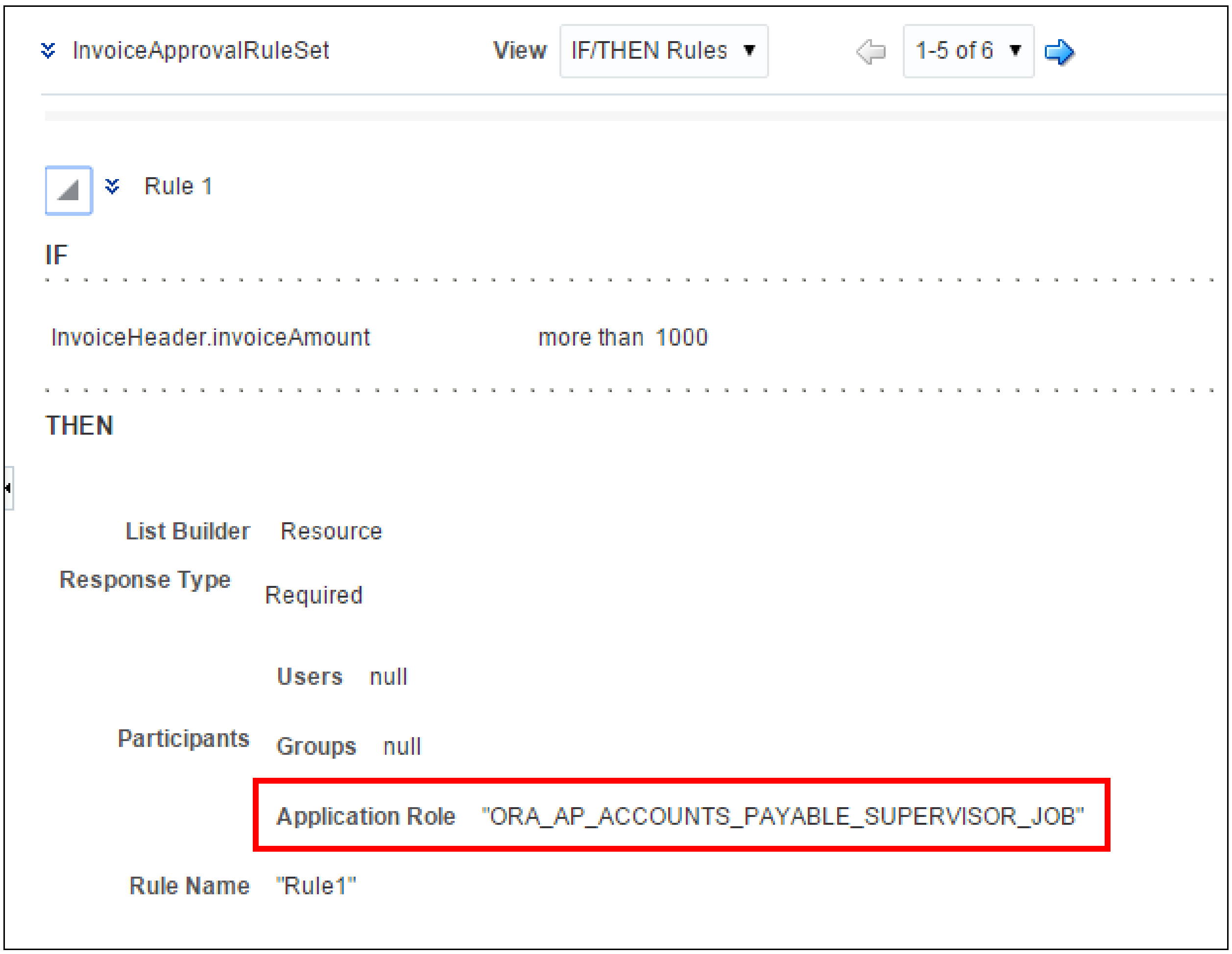


Note: Refer to the HCM documentation for detailed steps on how to get the Position ID for a particular position.

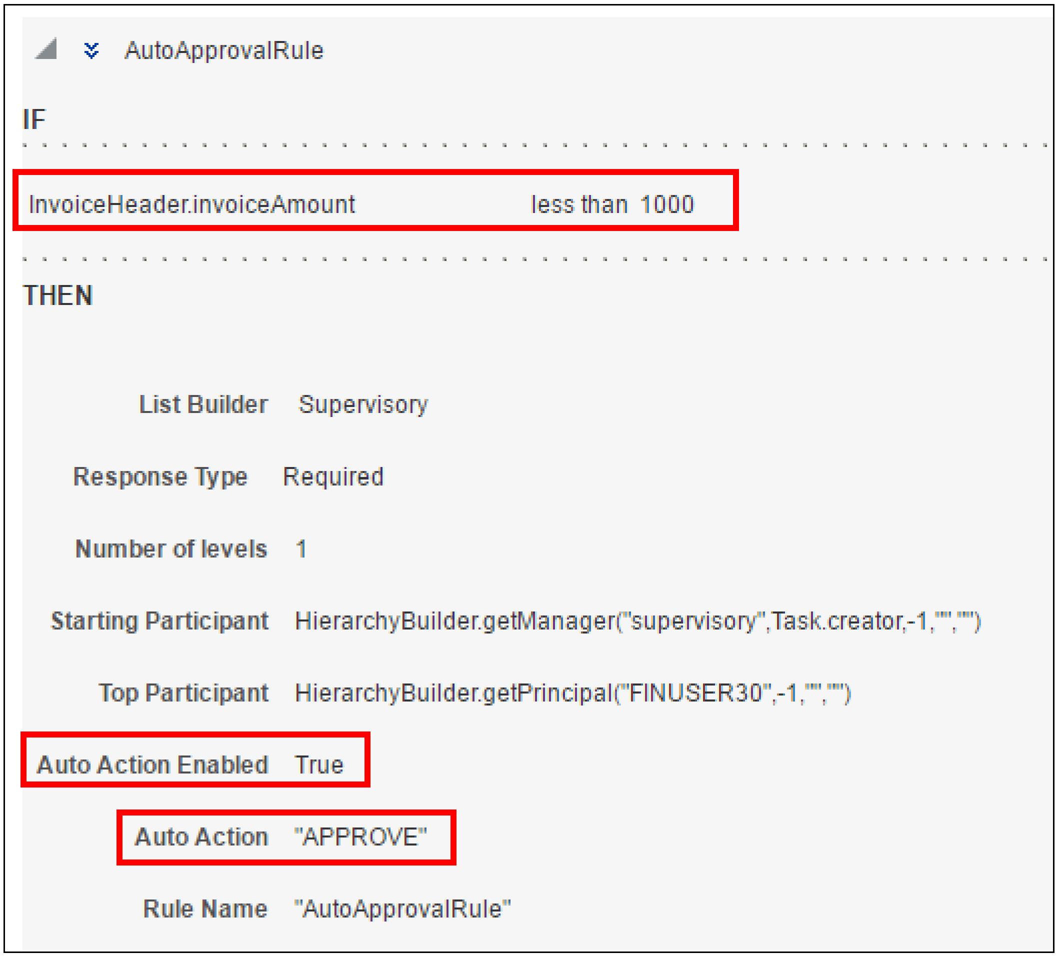
Use Case7: Configure an approval rule to notify all users who are using the same application role.

The business requirement is to route an approval notification to a particular application role (AP Supervisor). Regardless of the number of users who have access to that role, they all get the approval notification and the first responder is the approver.

Solution: To achieve this requirement, configure an approval rule with the application role called **ORA_AP_ACCOUNTS_PAYABLES_SUPERVISOR_JOB.** When an application role is used, the rule always works as “Single participant”.



If invoice amount is less than 1000 dollars then invoice needs to be auto approved.

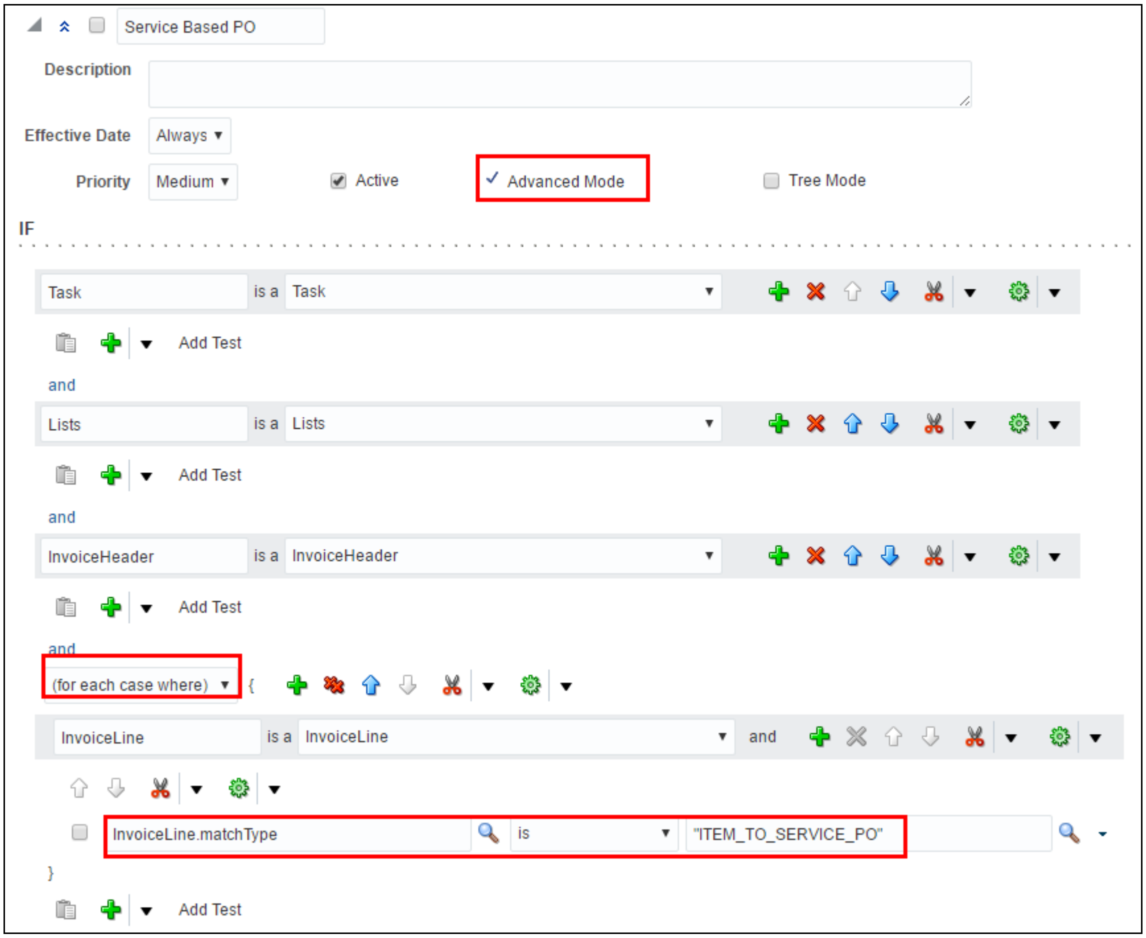


Use Case 8: Configure an approval rule to route the invoice to the requestor if the invoice is matched to a service based PO

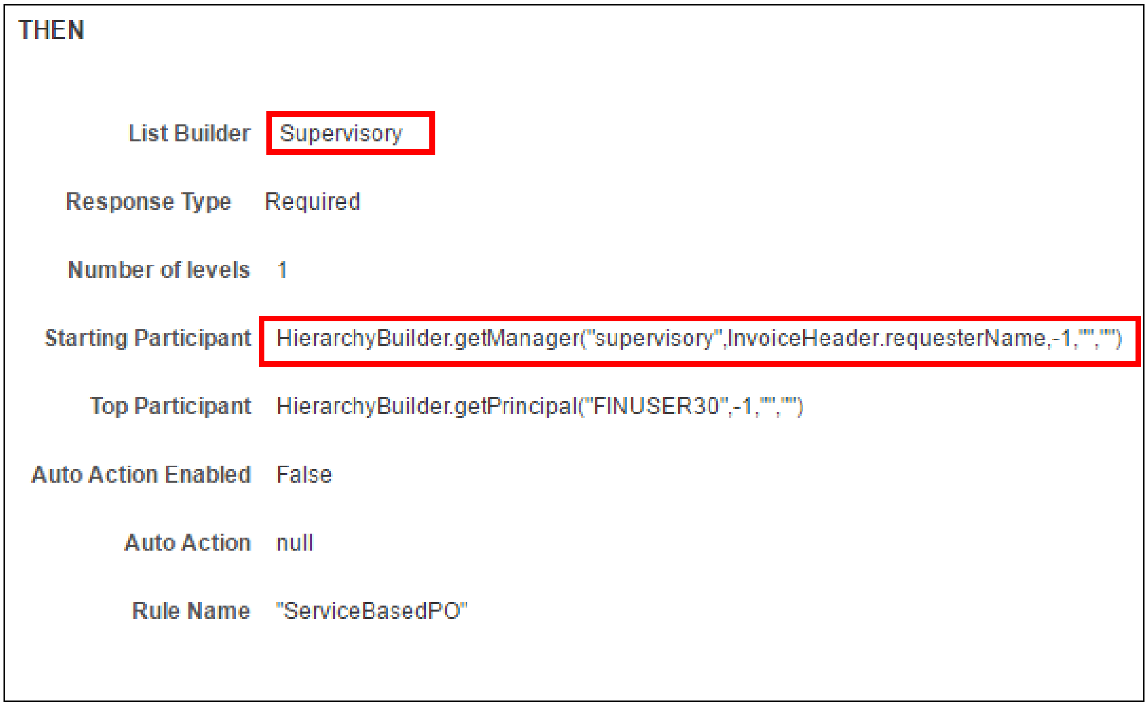
The business requirement is to route the invoice to the requestor if the invoice is matched to a service based PO and in all other cases, the invoice should be autoapproved.

Solution:

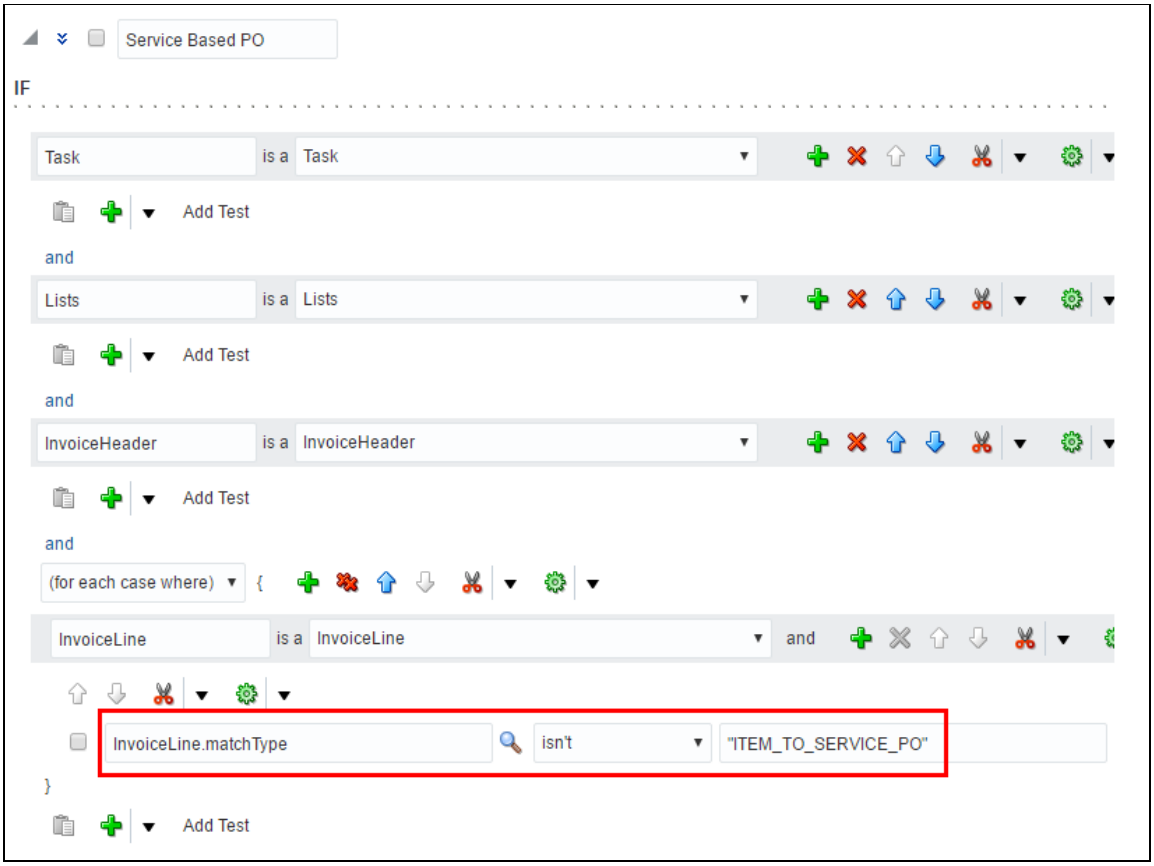
1. Configure an approval rule by enabling advanced mode options.
2. For the test,set the condition as: **InvoiceHeader/invoiceLine1.matchType** is **ITEM_TO_SERVICE_PO**.



1) In ***THEN*** Section, Select List Builder as **Supervisory** and select Get User and provide **InvoiceHeader.requesterName** to route the invoice to the requester.



2) In the case of auto approval, configure another rule using the condition as **InvoiceHeader/invoiceLine1.matchType** isn’t **ITEM_TO_SERVICE_PO**.



3) In ***THEN*** Section, Set Auto Action Enabled to True and Auto Action to **APPROVE**.

THEN

List Builder	Supervisory
Response Type	Required
Number of levels	1
Starting Participant	HierarchyBuilder.getPrincipal(InvoiceHeader.requesterName,-1,"","")
Top Participant	HierarchyBuilder.getPrincipal("FINUSER30",-1,"","")
Auto Action Enabled	True
Auto Action	"APPROVE"
Rule Name	"ServiceBasedPO"

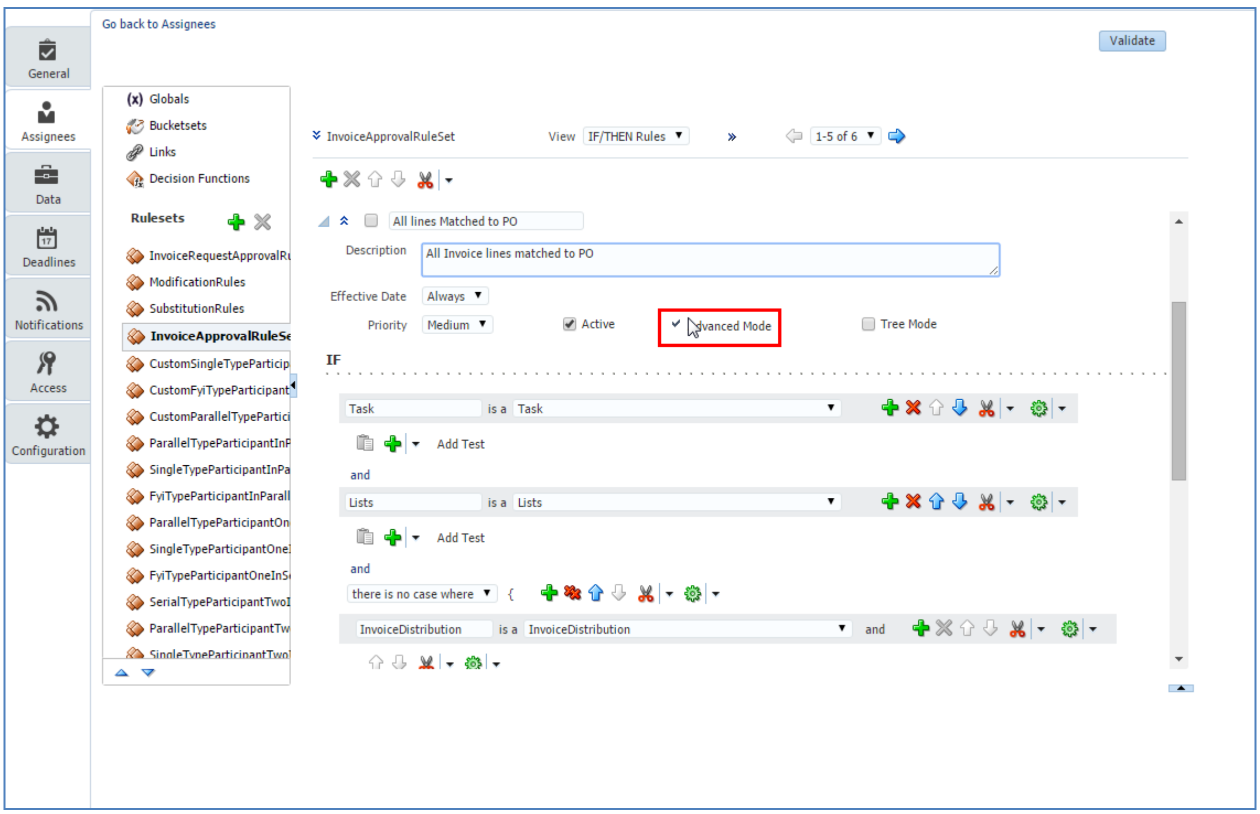
Use Case9: Configure approval rules using advanced options.

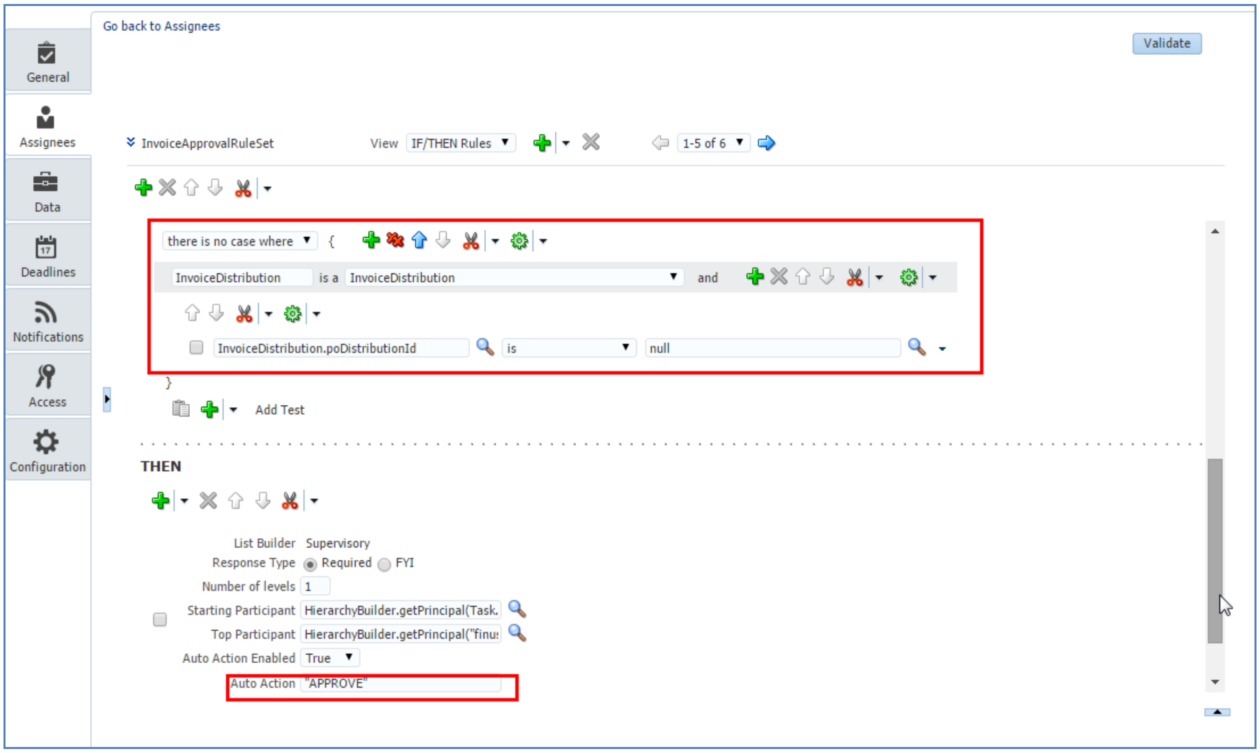
The business requirement is as follows:
1. If an invoice is matched to a PO then it should be autoapproved.
2. If an invoice is matched to a PO and the user added unmatched invoice lines then it should be routed to the approver.

Solution: To achieve this requirement, you need to configure approval rules using advanced options using PO header ID.

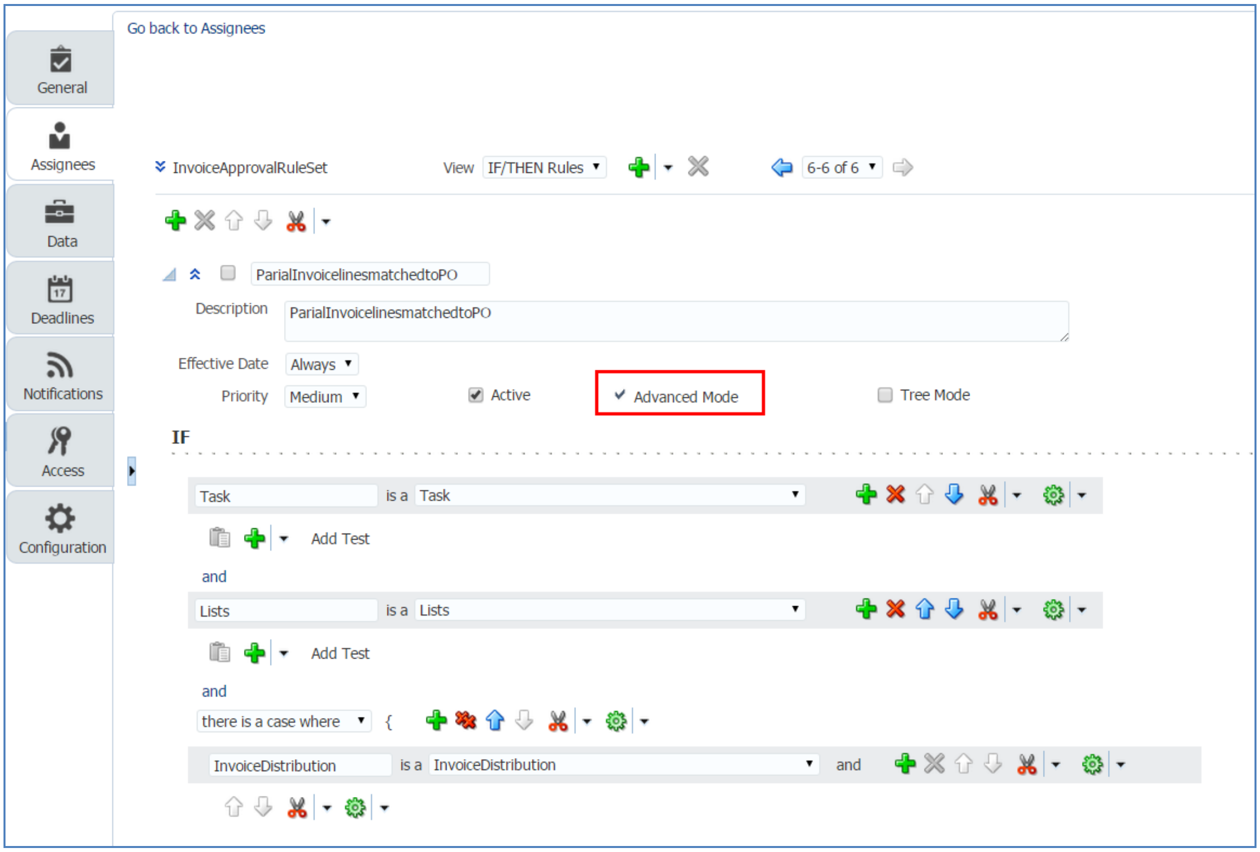
To achieve the above requirement, we need to configure two approval rules one is for all invoice lines matched to PO and another rule is for partial invoice lines matched to PO.

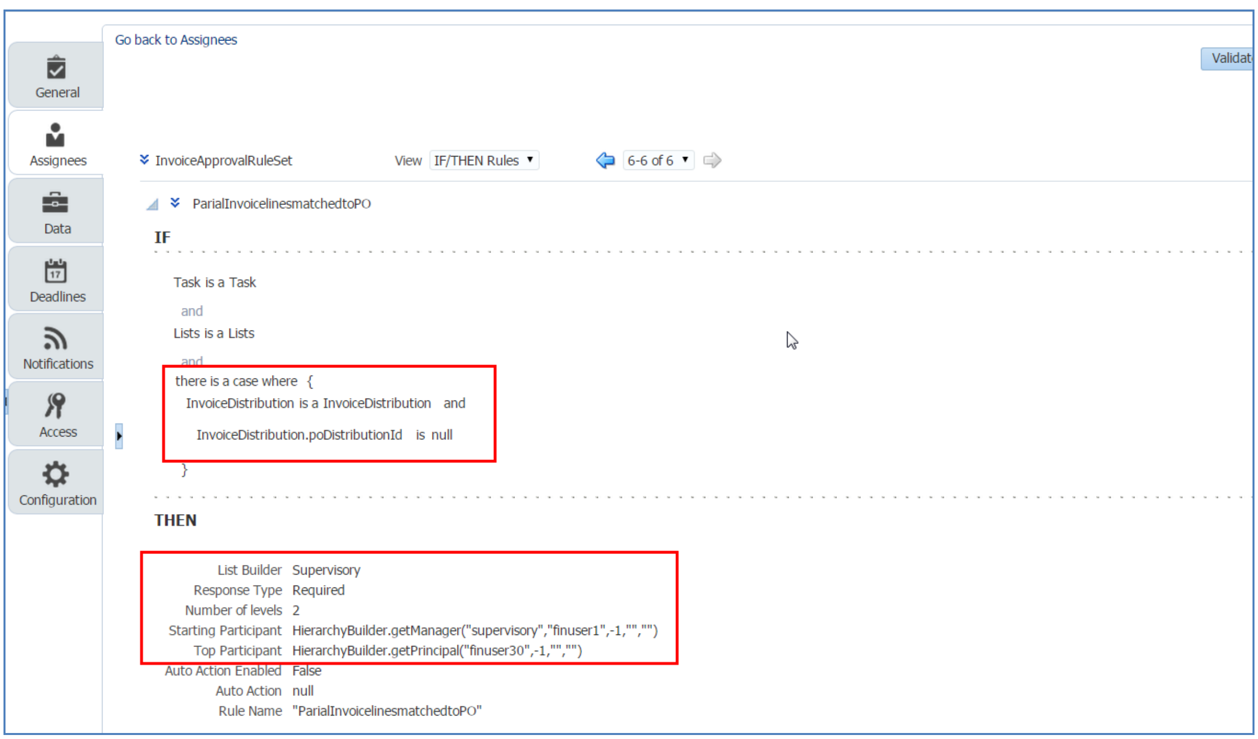
1) Rule1: To achieve the requirement for 1 and 2, configure one rule with advanced options as follows:





2) Rule2: Configure another approval rule with advanced options as follows to meet the requirement3:


Go back to Assignees
General
Assignees
Data
Deadlines
Notifications
Access
Configuration
InvoiceApprovalRuleSet
View IF/THEN Rules
6-6 of 6
ParialInvoicelinesmatchedtoPO
Description ParialInvoicelinesmatchedtoPO
Effective Date Always
Priority Medium
Active
Advanced Mode
Tree Mode
IF
Task is a Task
Add Test
and
Lists is a Lists
Add Test
and
there is a case where {
InvoiceDistribution is a InvoiceDistribution and


Go back to Assignees
Validat
General
Assignees
Data
Deadlines
Notifications
Access
Configuration
InvoiceApprovalRuleSet
View IF/THEN Rules
6-6 of 6
ParialInvoicelinesmatchedtoPO
IF
Task is a Task
and
Lists is a Lists
and
there is a case where {
InvoiceDistribution is a InvoiceDistribution and
InvoiceDistribution.poDistributionId is null
}
THEN
List Builder Supervisory
Response Type Required
Number of levels 2
Starting Participant HierarchyBuilder.getManager("supervisory","finuser1",-1,"","")
Top Participant HierarchyBuilder.getPrincipal("finuser30",-1,"","")
Auto Action Enabled False
Auto Action null
Rule Name "ParialInvoicelinesmatchedtoPO"

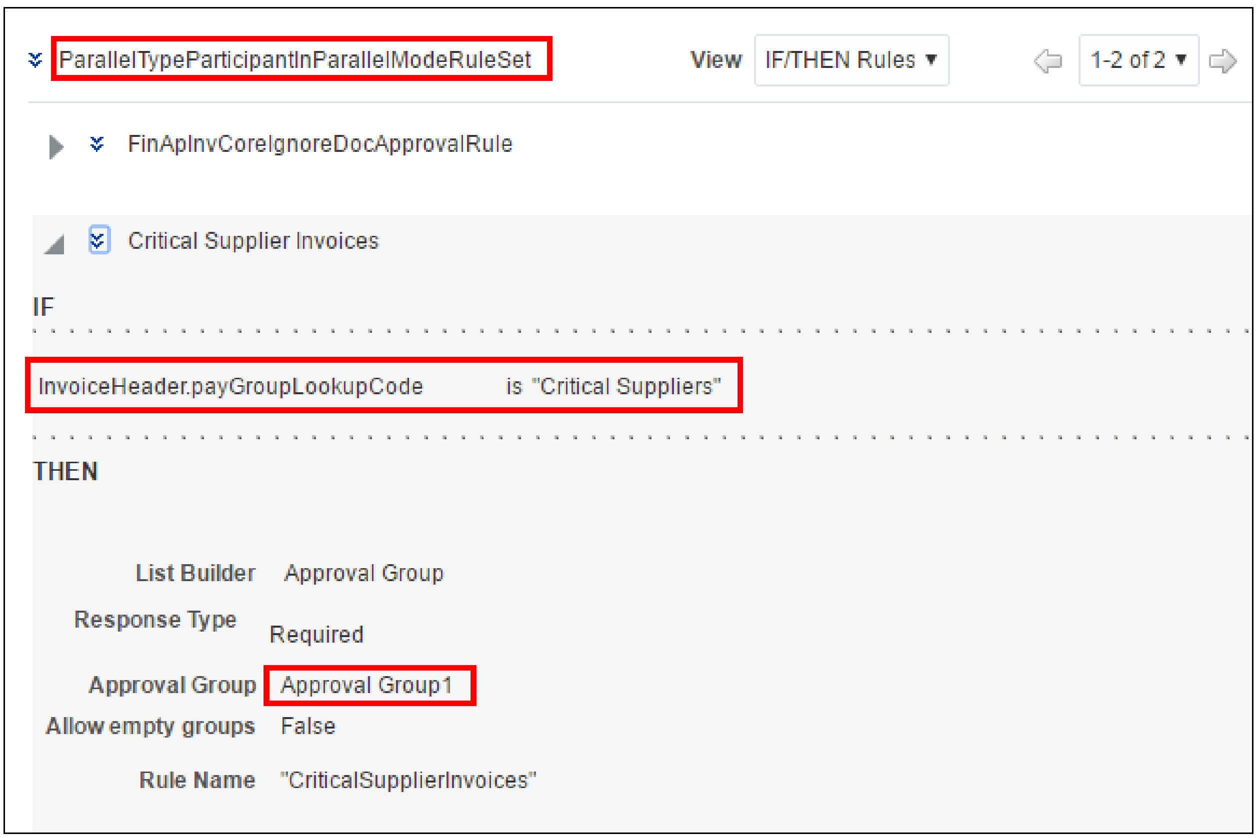
Note: Approval rules configured based on PO distribution ID are available on the invoice distributions.

To work these rules for Unmatched Invoices, the invoice needs to be validated first or the invoice distributions need to be generated explicitly by opening the invoice distributions UI and click on Ssave and Close, which generates the distributions.

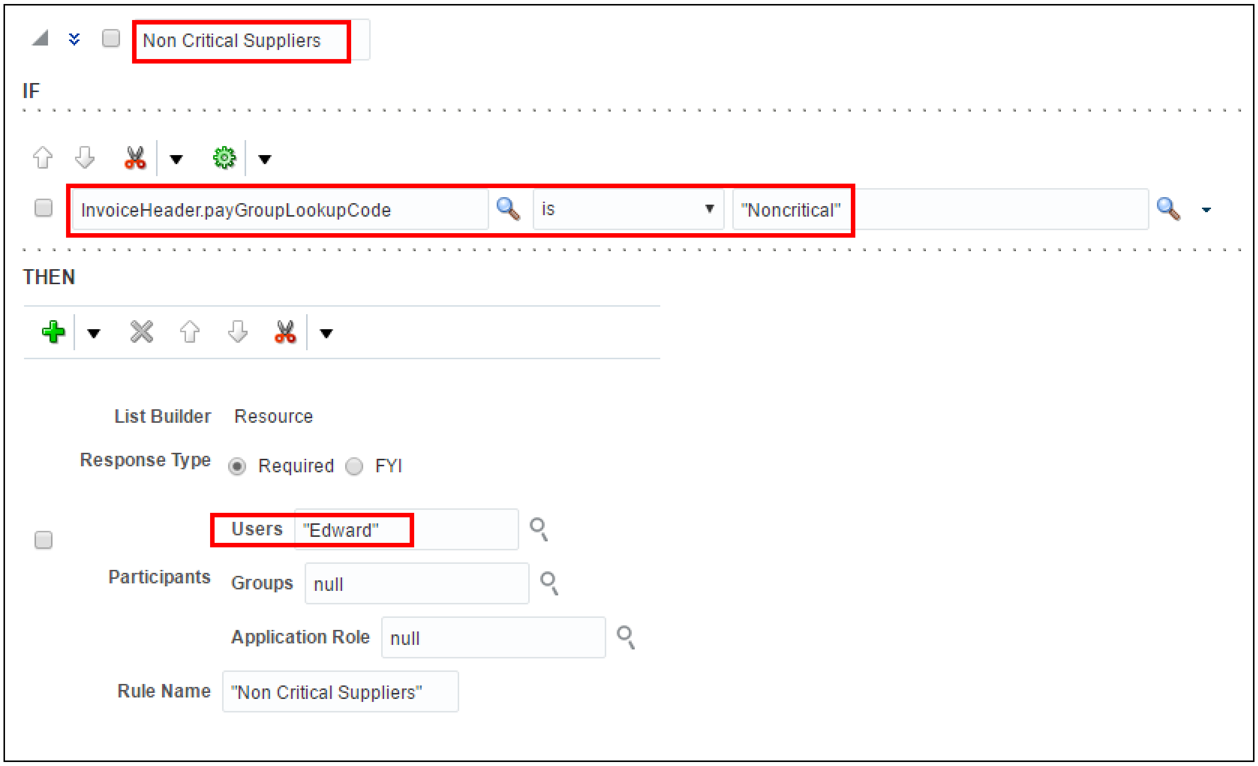
Use Case10: Configure an approval rule to send a notification to a group of approves and once the invoice is approved, generate an FYI notification to the CEO.

The business requirement is that invoices related to **Critical** Suppliers should be sent for an approval to a group of approvers; consisting of the Finance Manager, Procurement Manager, and CFO. All of them have to approve the invoice and a notification sent to the CEO of the company for information purposes and no action required from the CEO. If invoices are related to **Noncritical** Suppliers then the invoice has to approved by Finance Manager.

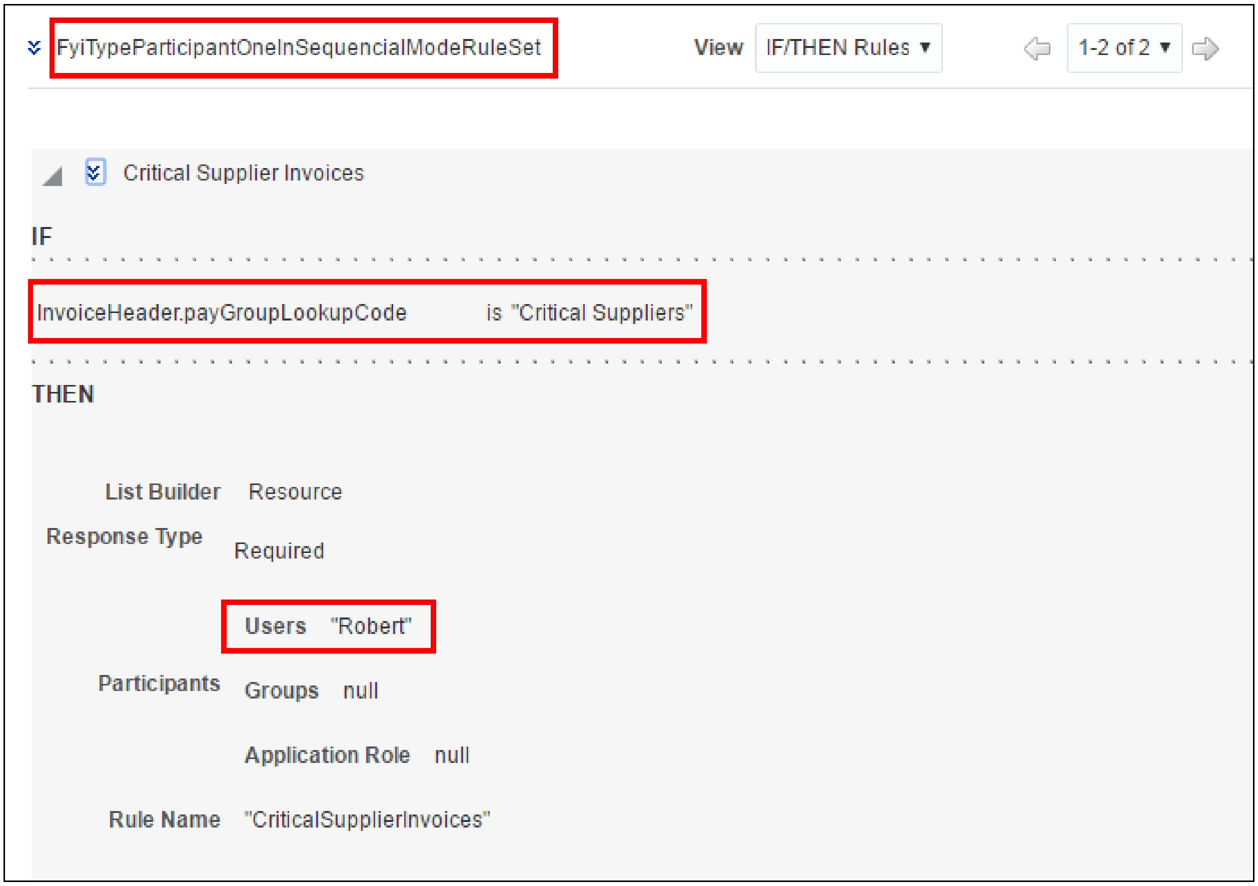
Screen shot: Configure the first approval rule using **ParallelTypeParticipantInParallel modeRuleSet** with the list builder approval group.



Screen shot: Configure another approval rule using **ParallelTypeParticipantInParallel modeRuleSet** with the list builder resource to route invoice to Finance Manager "Edward".



Screenshot: Configure another approval rule using **FyiTypeparticipantOneinSequentialModeRuleSet** with the list builder **Resource** and give user name of the CEO.


FyiTypeParticipantOneInSequencialModeRuleSet
View
IF/THEN Rules
1-2 of 2
Critical Supplier Invoices
IF
InvoiceHeader.payGroupLookupCode
is "Critical Suppliers"
THEN
List Builder
Resource
Response Type
Required
Users
"Robert"
Participants
Groups
null
Application Role
null
Rule Name
"CriticalSupplierInvoices"

Use Case 11: Configure an approval rule to stop FYI completion notification to a user for a specific set of invoices.

The business requirement is if an expense is incurred in **USD** or **EUR** currency out of the Budgeted Funds and the invoice amount is more than 500 dollars then the invoice has to be approved by a set of approval groups. It does not matter which group approves the invoice first.

Invoices with amounts less than 500 dollars need to be autoapproved.

Apart from this, the business user only wants to be notified for those invoices that were approved through the workflow process and not for those invoices that were autoapproved.

Solution:

To achieve this business requirement, configure the approval rules as follows:

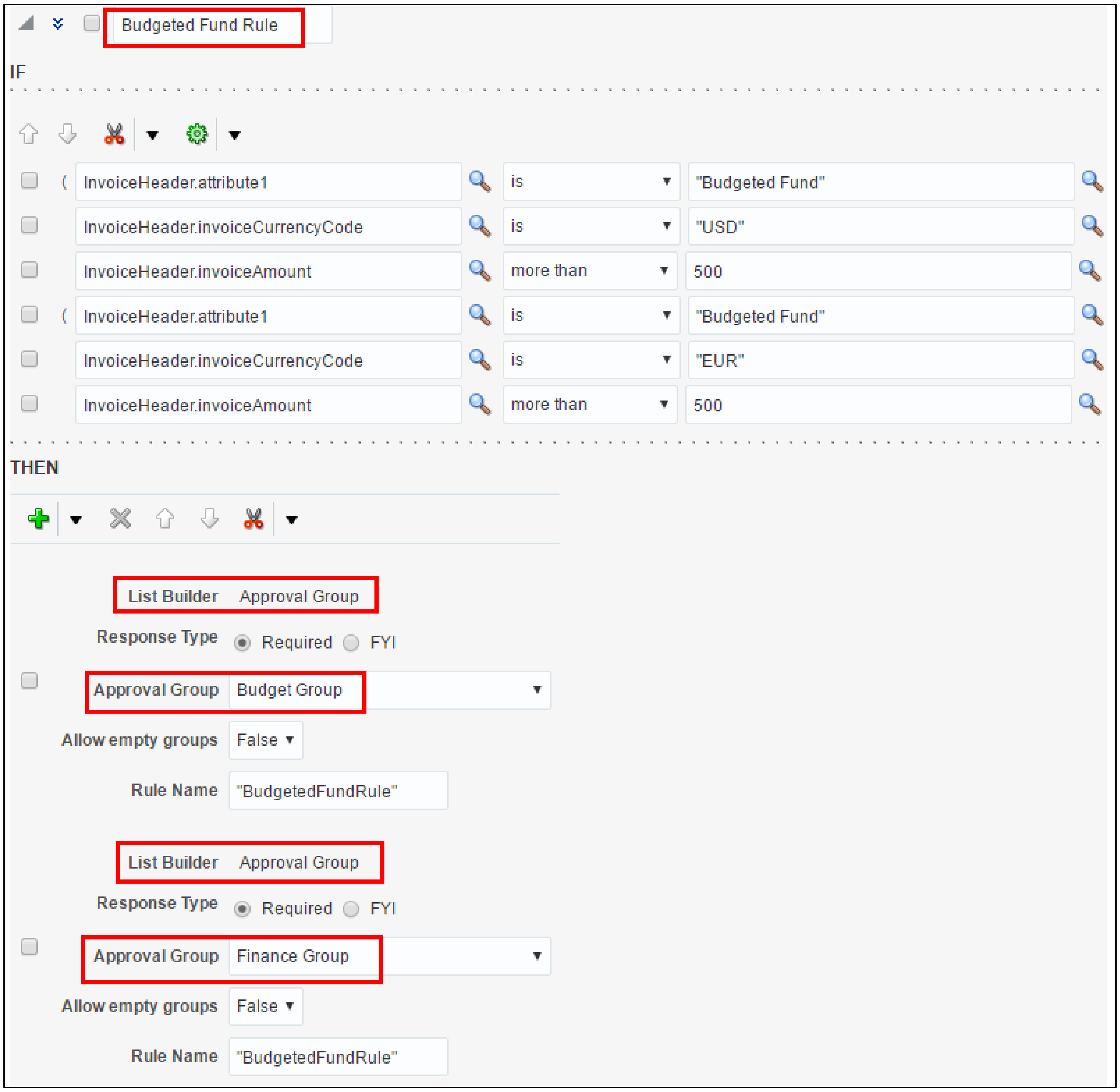
1. Create one rule using serial participant with nested conditions and configure two THEN parts using two approval groups (Budget Group and Finance Group).

2. Create a second rule for auto approval using serial participant.

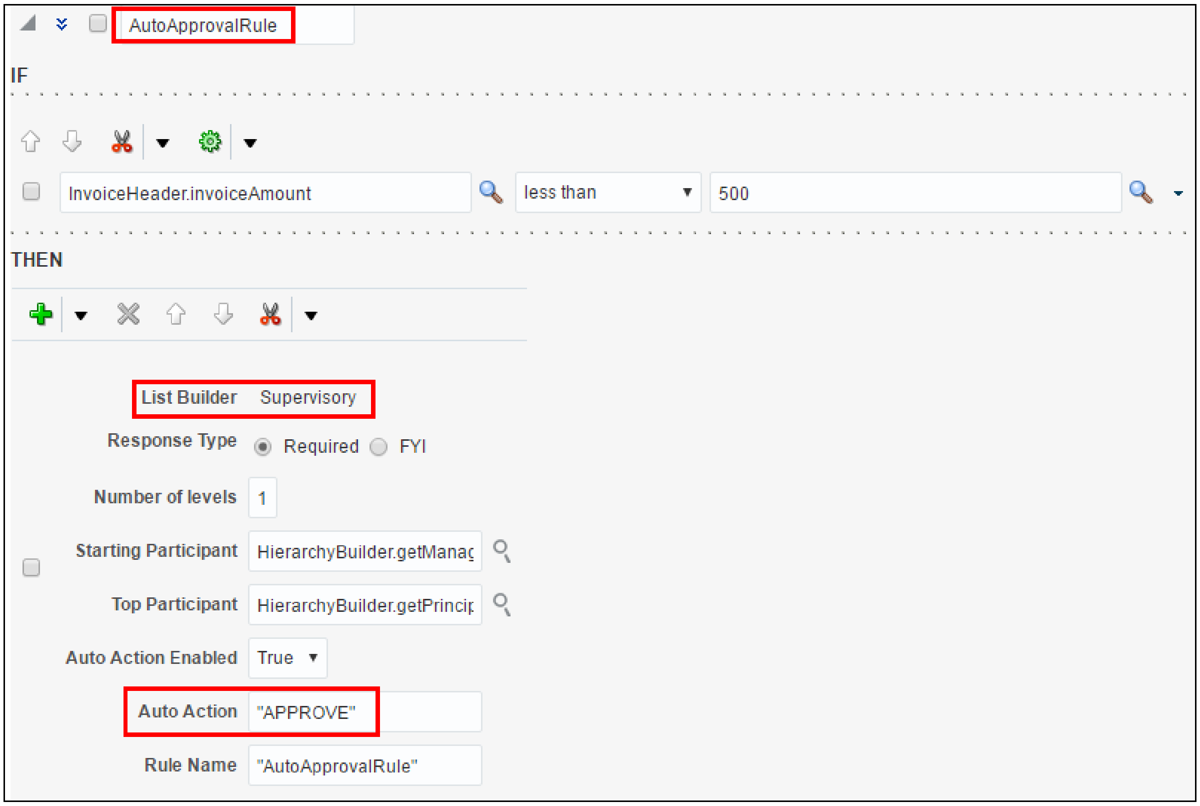
3. The delivered product doesnot stop sending notifications for autoapproved invoices only, but the following workaround can be used to achieve the business requirement.

    - Delete the notification setting for **Complete** task status.
    - Configure an approval rule with FYI participant two in sequential mode to send FYI notification only for those invoices which are not autoapproved.

    Rule1: Create one rule using serial participant with nested conditions and configure two THEN parts using two approval groups (Budget Group and Finance Group).

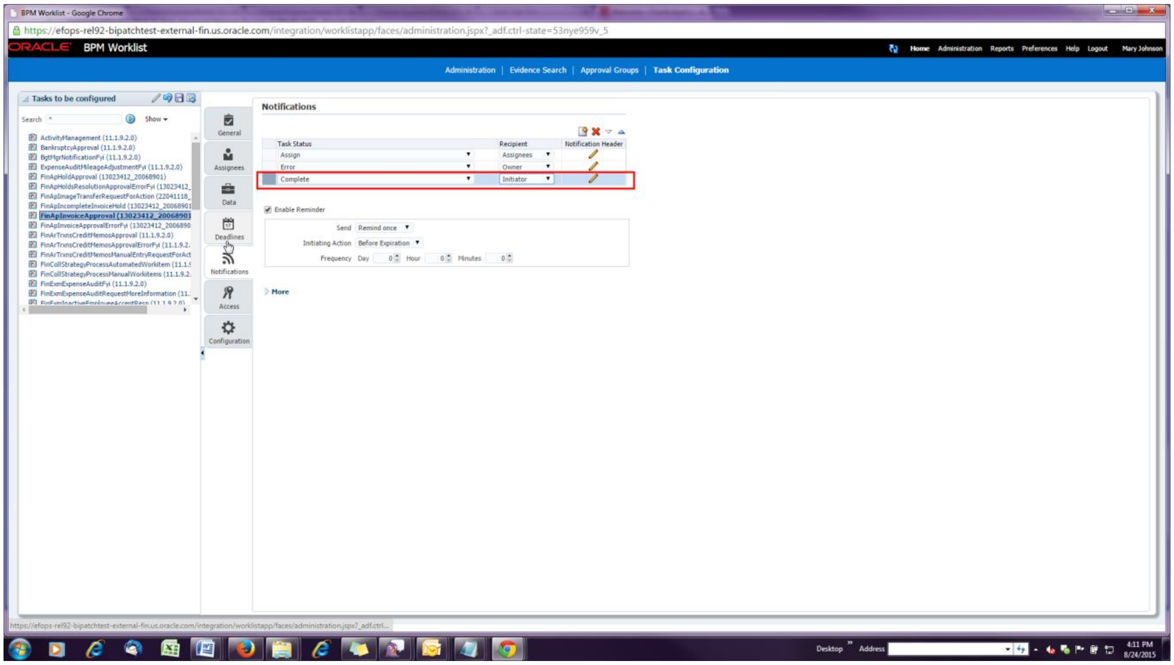


Rule2: Create a second rule for auto approval using serial participant.

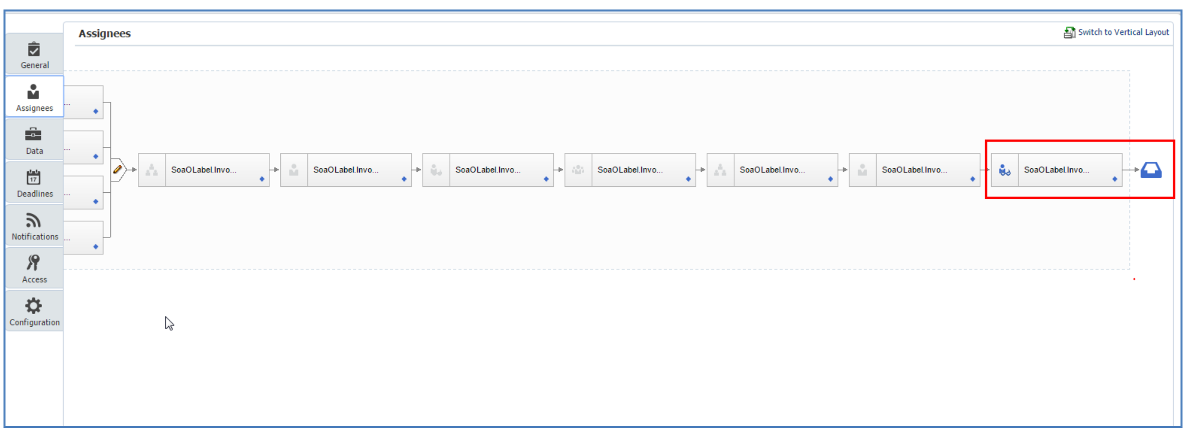


Rule3: Rule for FYI notifications for invoices that are approved only through the approval workflow.

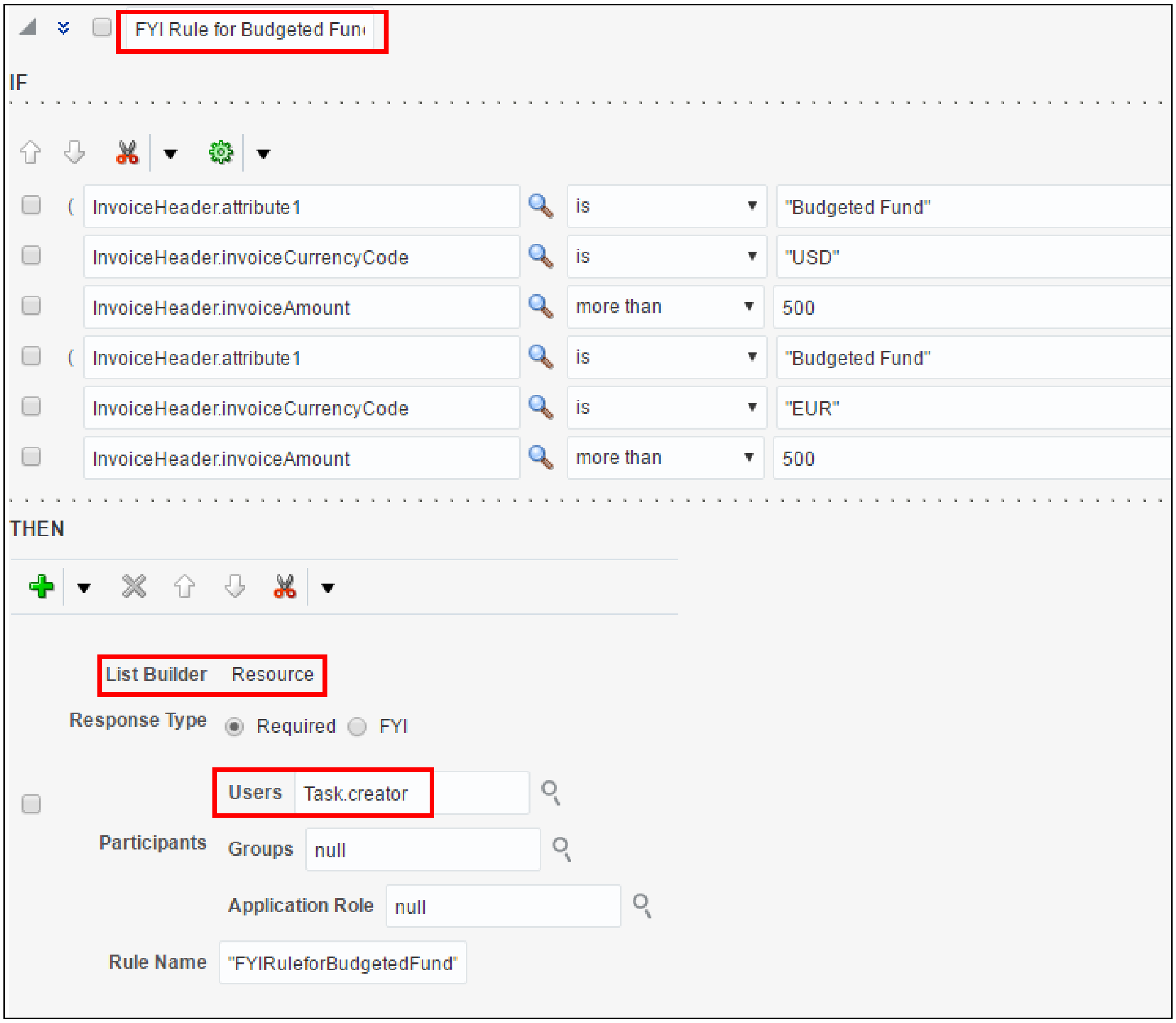
Navigate to Notifications and Task status > delete the entry for Complete task status.



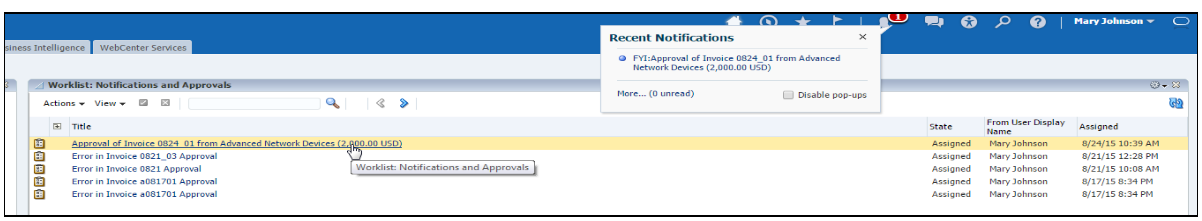
Select the FYI ParticipantTwoInSequencialModeRuleSet.



1. Configure a rule as shown in the below screenshot to send FYI notification only for invoices that are not autoapproved. To achieve this, use the same approval condition which was used to send the approval notification for all other invoices that are not autoapproved. If you have multiple rules configured, then you need to configure them here as well.



2. FYI approval notifications are generated and sent to the user who initiated the approval process.



Use case 12: Configure an approval rules in one currency that is applicable across various countries and currencies.

The business requirement is to configure approval rules based on the invoice amount limit in functional currency (USD) only and another approval rule that is applicable across countries. The business user creates invoices in their respective local currency but the amount limit is defined in the functional currency (USD).

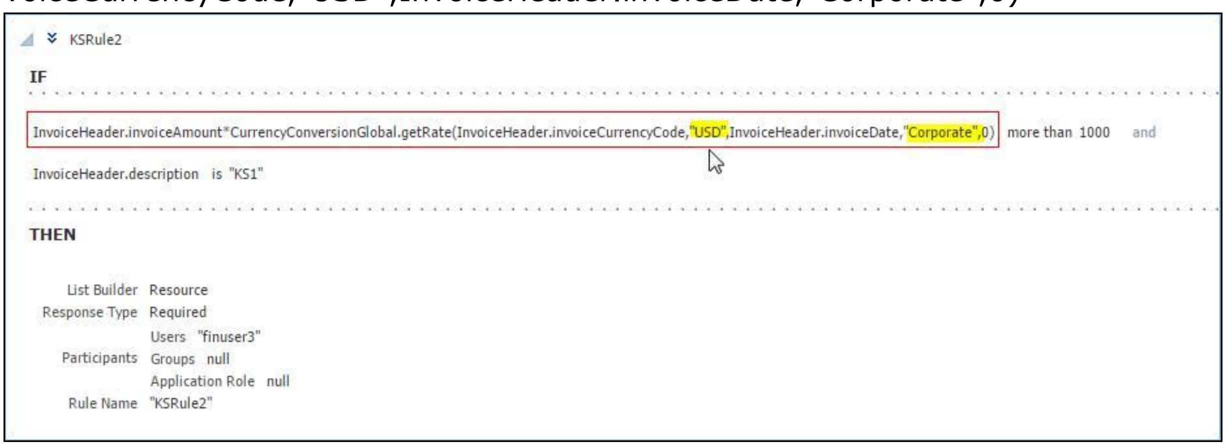
Since all the approval limits are defined in USD, all the invoice amounts need to be converted into USD for approval rules evaluation.

Solution: To achieve the requirement, you need to configure the approval using the following function which converts the invoice amount to USD.

By using this function, the customer does not need to define the approval rules for each countries specific currency.

Rule Definition:

Configure an approval rule with the IF condition to convert the currency amount to the functional currency:
InvoiceHeader.invoiceAmount*CurrencyConversionGlobal.getRate(InvoiceHeader.invoiceCurrencyCode,"USD",InvoiceHeader.invoiceDate,"Corporate",0)



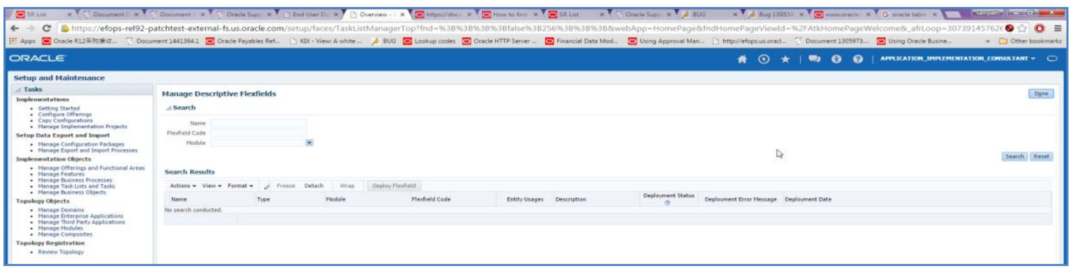
Use Case13: Configure an approval rule to send a notification to a project manager.

The business requirement is to route project related invoices to respective project managers based on the project number selected on invoice distributions.

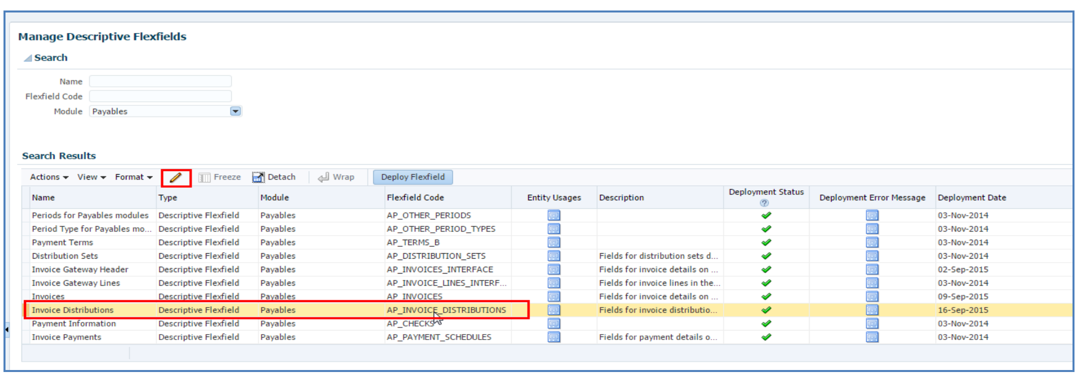
Solution: Currently, this requirement is not supported with the delivered product. But a work around is in place to capture the project manager in a Descriptive Flexfield (DFF) and configure approval rules using DFF values.

Steps to configure DFF for capturing the project manager and configuring the approval rules using the DFF value:

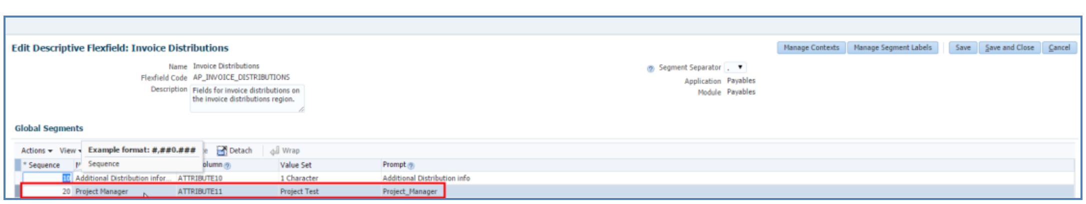
1) Navigation: Go to Setup and Maintenance and query for the task Manage Descriptive Flexfields.



2) Query **Invoice distributions** DFF and click on the Edit icon.

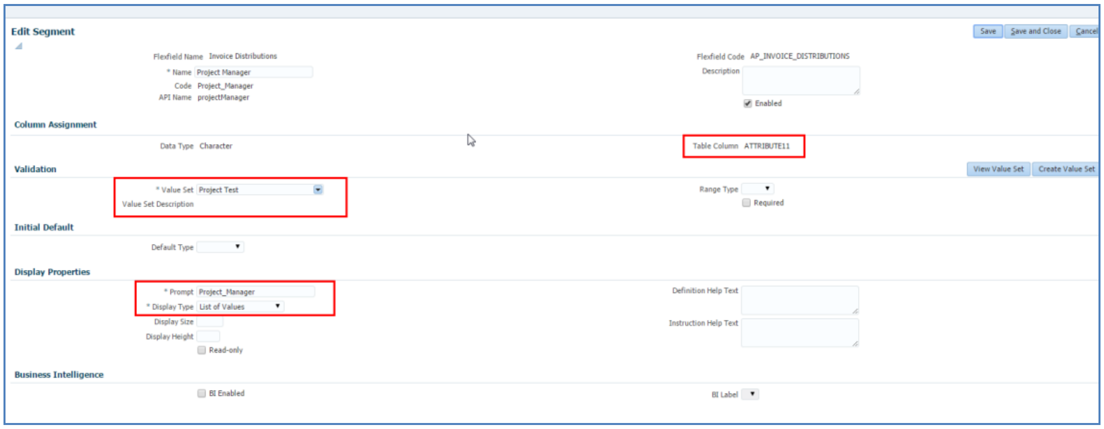


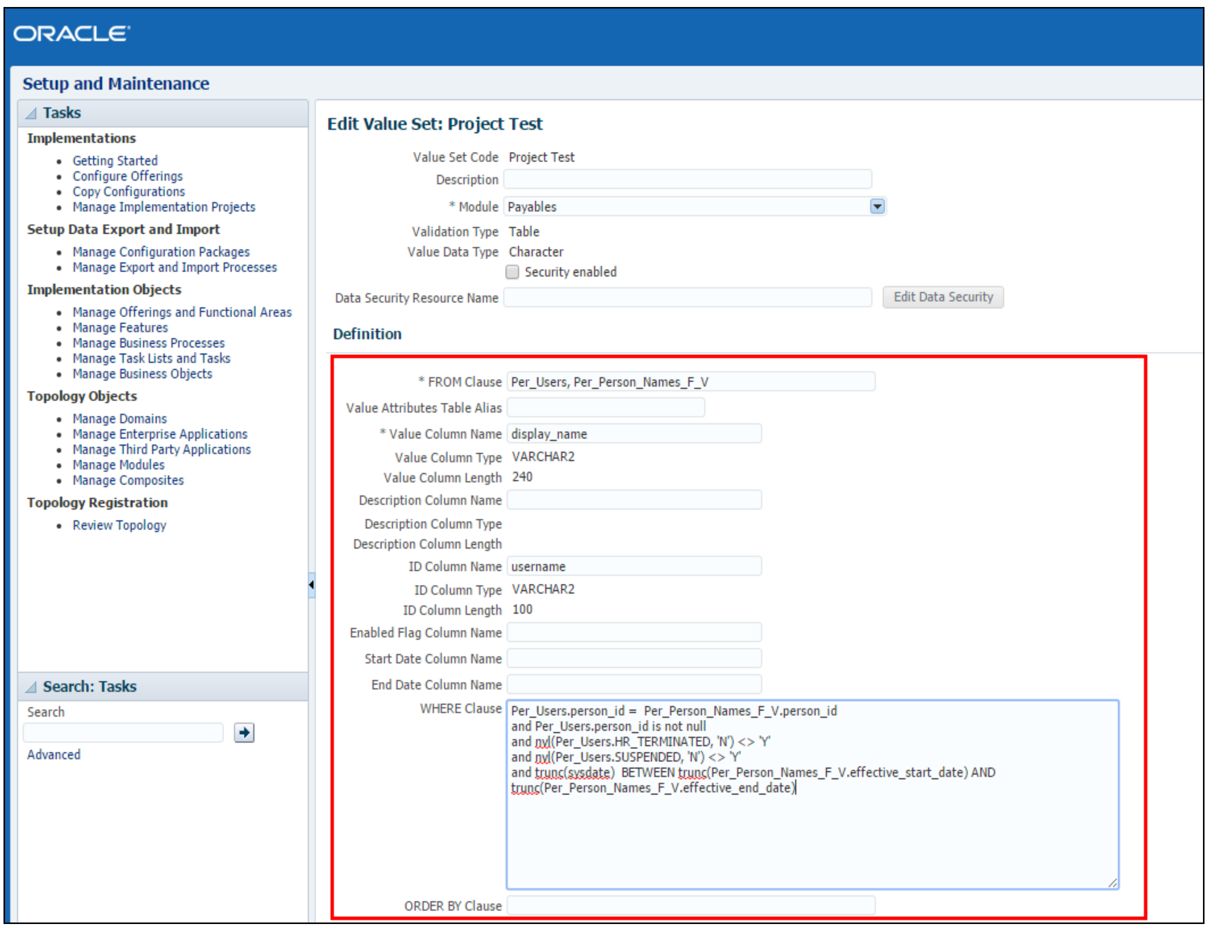
3) Define global segment value to capture Project Manager (here attribute 11 is used to define Project Manager).



4) Define value set using SQL query (query provided below). Here we defined a value set called **Project Test** based on table validation type and selected

display type as LOV values. This query provides all user names corresponding to user login names.





From Clause: Per_Users, Per_Person_Names_F_V

Value Column Name: display_name

ID column name: username

Where clause: Per_Users.person_id = Per_Person_Names_F_V.person_id

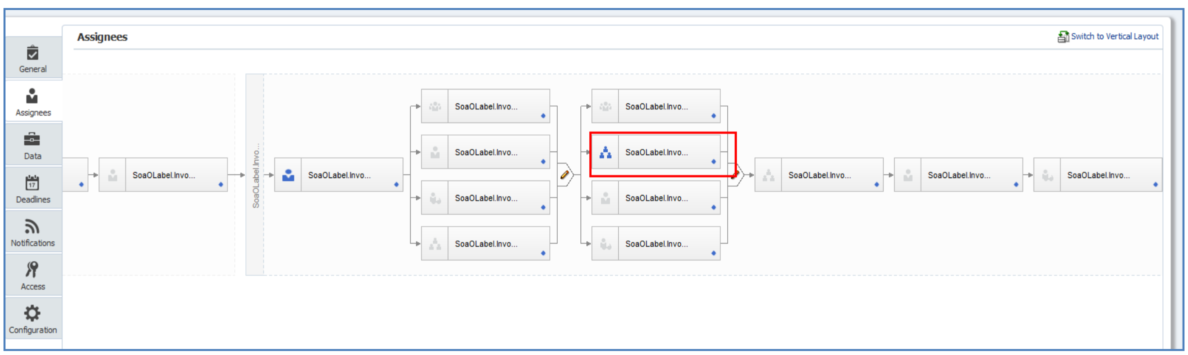
and Per_Users.person_id is not null

and nvl(Per_Users.HR_TERMINATED, 'N') <> 'Y'

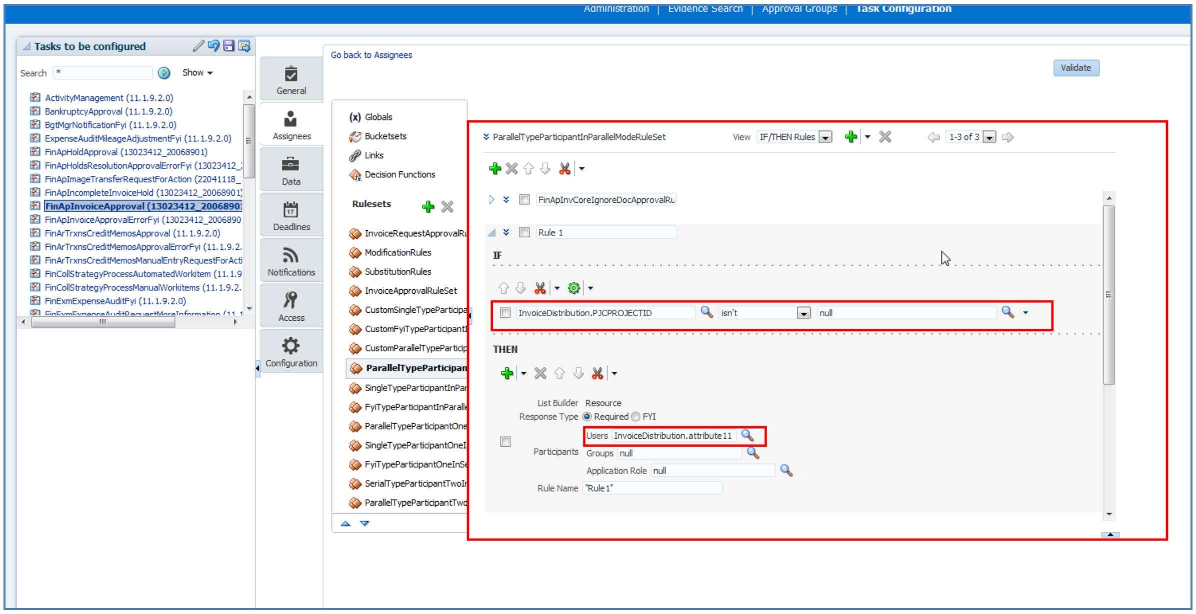
and nvl(Per_Users.SUSPENDED, 'N') <> 'Y'

and trunc(sysdate) BETWEEN trunc(Per_Person_Names_F_V.effective_start_date) AND trunc(Per_Person_Names_F_V.effective_end_date)

5) Define the approval rule in BPM to route project invoices to a particular user selected in DFF in invoice distributions (In this example, we have used parallel participants in parallel mode to configure approval rule).

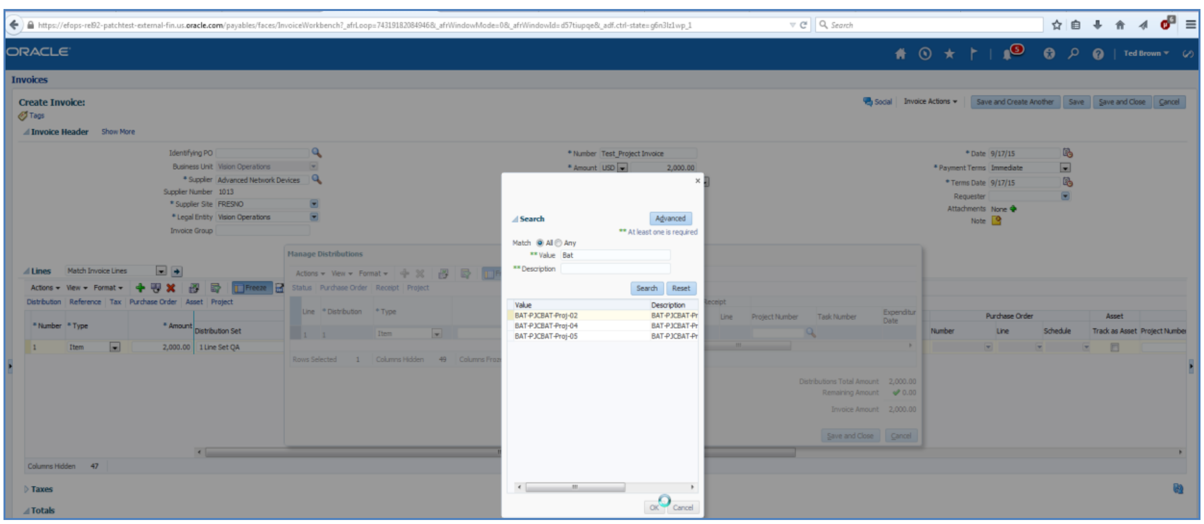


6) Define a rule with an IF condition using project attributes. In the THEN part section, select resource list builder and in the User field provide the DFF path like **InvoiceDistributions.attribute11** (In this example of the DFF we have used **attribute11** to capture project manager information).

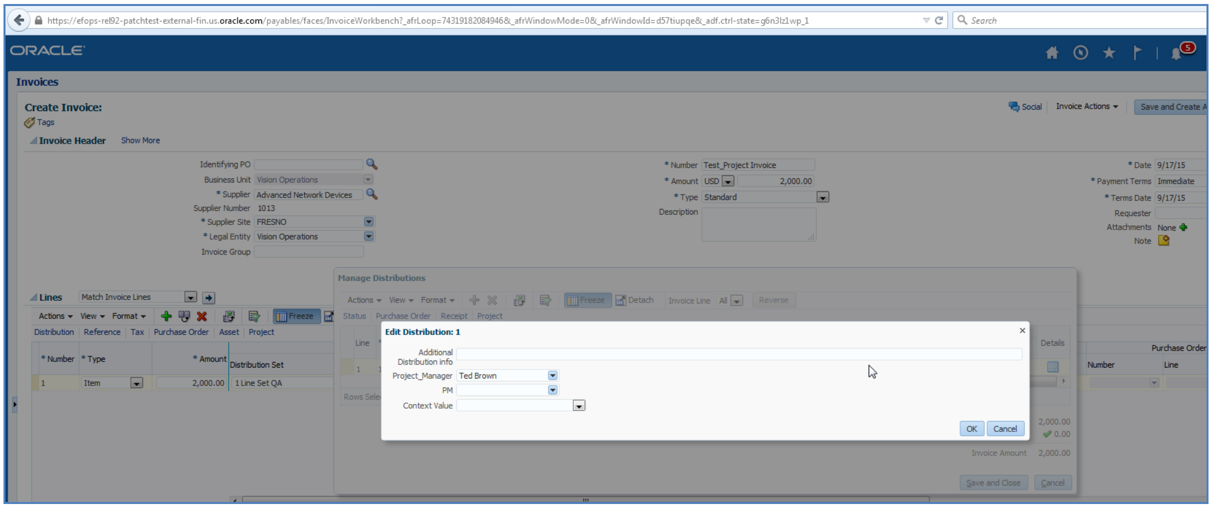


7) Create an invoice using the project attributes and select the DFF field from the invoice distribution and select the project manager name against each distribution line.

Note: This is a manual activity that the user needs to pick the respective project manager name from the user LOV in the DFF. The DFF field for project manager lists all the user names. We are not automatically populating the DFF value based on the project selected in the invoice distributions.



8) Select the project manager name in DFF. Save and Close the distributions and initiate invoice for approval.



9) Login with the user **Ted Brown** in BPM UI/ The notification is available in the BPM work list.

Use Case 14: Configure an approval rule to route an approval notification to a cost center manager.

The business requirement wants the invoice to be routed to the cost center manager based on the expenditure that has been incurred for that cost center. The cost center is captured on the invoice lines or distributions as part of the account code combination.

Solution:

Setup the cost center manger in HCM for each cost center.

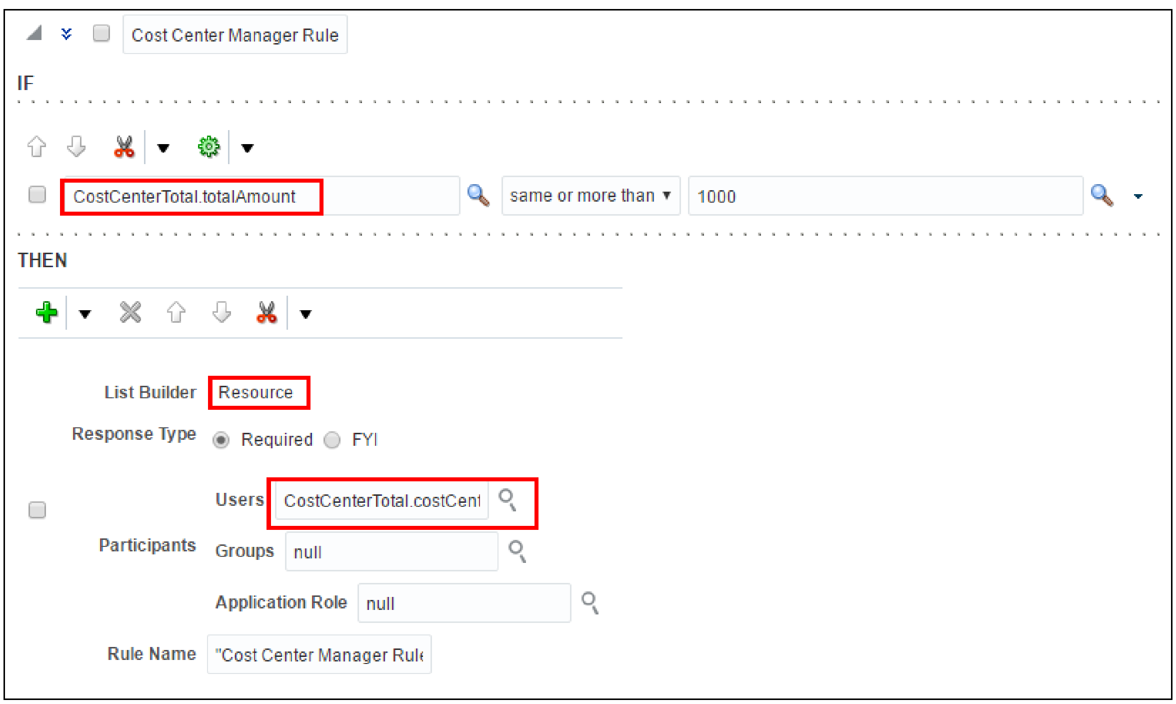
Note: Refer to the HCM on how to define cost center manager for a cost center.

Example: If the cost center total amount is more than $1,000, then route the approval notification to the respective cost center manager.

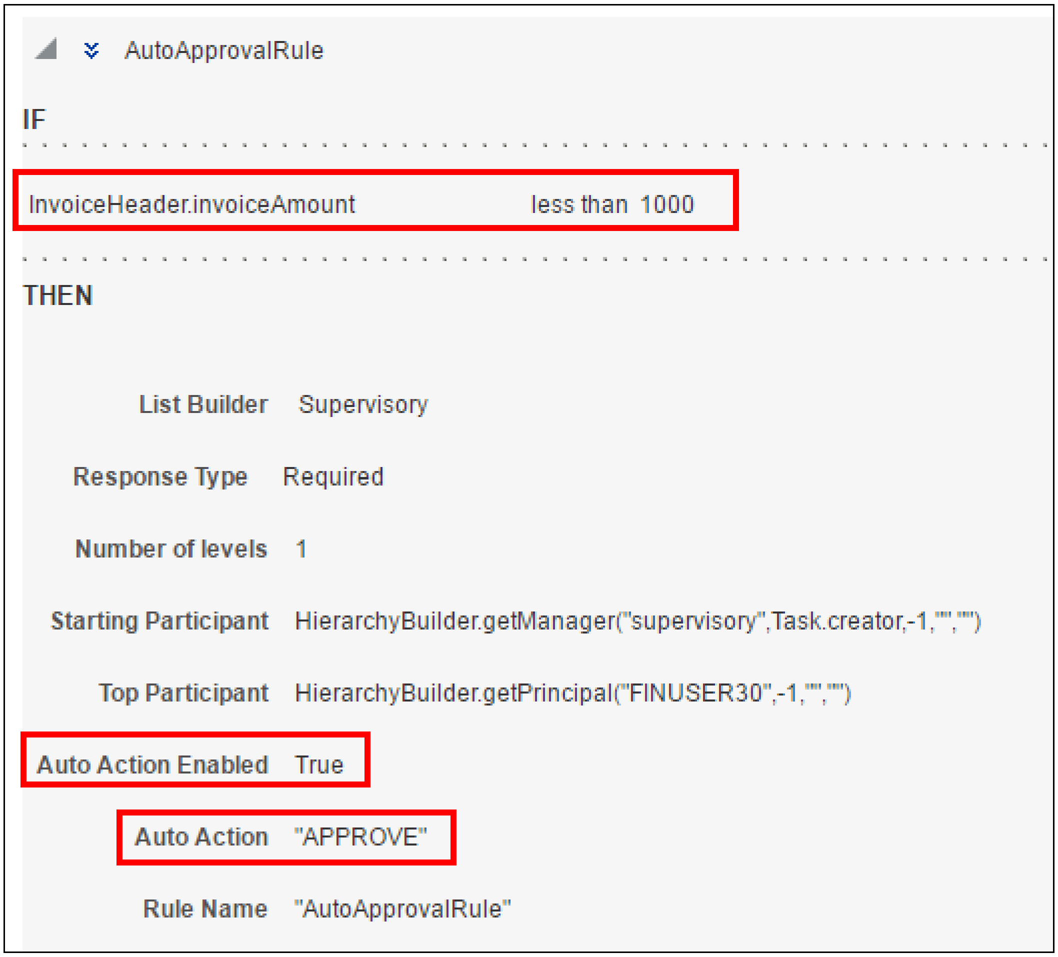
Steps:

1) In the ***IF*** condition, Select the attribute **CostCenterTotal.costCenter**.

2) In the ***THEN*** section, Select list builder as **Resource** and enter the value as **CostCenterTotal.costCenterManagerName**.



If invoice amount is less than 1000 dollars then invoice needs to be auto approved.


AutoApprovalRule
IF
InvoiceHeader.invoiceAmount less than 1000
THEN
List Builder Supervisory
Response Type Required
Number of levels 1
Starting Participant HierarchyBuilder.getManager("supervisory",Task.creator,-1,"","")
Top Participant HierarchyBuilder.getPrincipal("FINUSER30",-1,"","")
Auto Action Enabled True
Auto Action "APPROVE"
Rule Name "AutoApprovalRule"

Use Case15: Configure an approval rule to route approval notifications to various approvers based on the cost center total limit.

The business wants approvals to be triggered based on the amount limits defined around the cost center. If an invoice has multiple distributions for the same cost center, then the limits have to be verified after summing up all the distributions for the same cost center.

Solution:

Rules Defined: For cost center 110, Approver A is authorized to approve if the total for cost center is less than $1000 and Approver B is authorized to approve if the total for cost center is above $1000.

Invoice 1: This invoice has following distributions. Approver B has to receive the approval notification as the sum of distribution exceeds $1000 (even though each distribution is less than $1000).

Distribution	Distribution – Cost Center	Amount
1	110	$800
2	110	$700
3	110	$500
Distribution 110 – Total		$2000

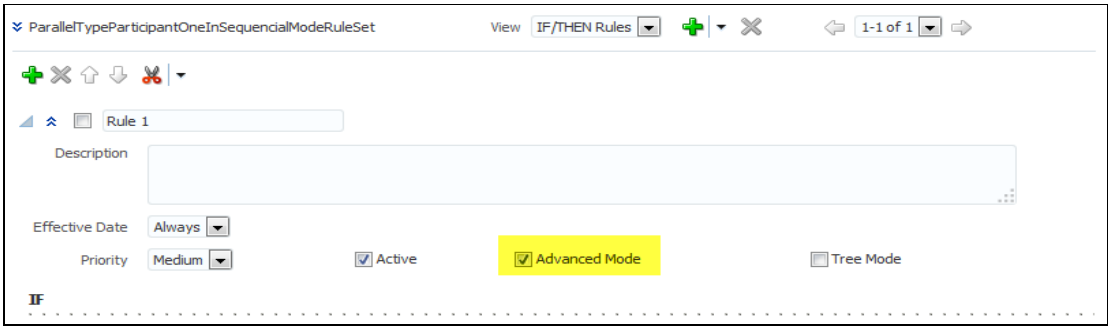
Invoice 2: This invoice has following distributions. Approver A has to receive the approval notification as the sum of distribution is less than $1000.

Distribution	Distribution – Cost Center	Amount
1	110	$500
2	110	$300
Distribution 110 – Total		$800

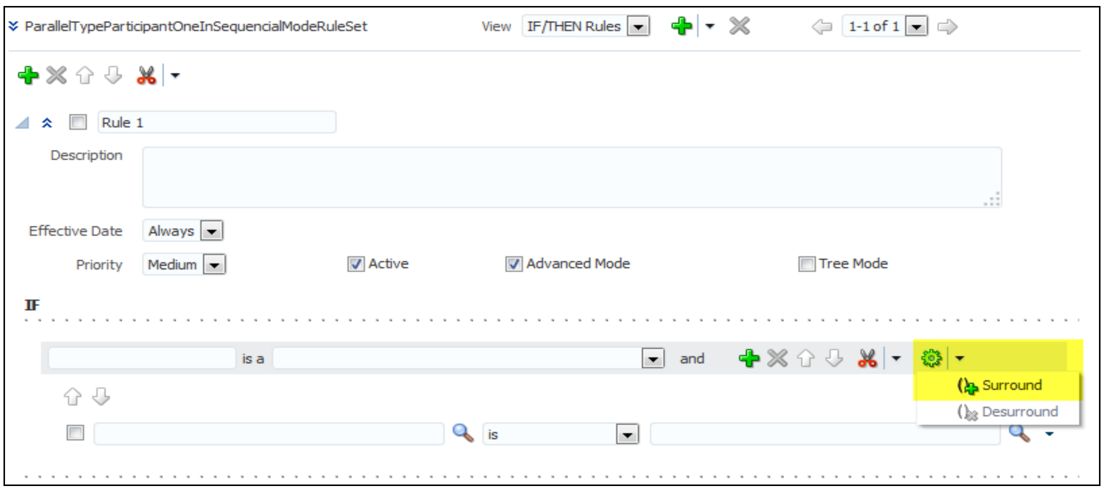
You need to leverage the aggregate functionality in approvals. In the given scenario this aggregate function helps to create a loop and sum the distribution amounts for a given cost center. Later this total amount needs to be checked against the approval limits.

Steps to create the rules: (ADD periods after each number in the steps to create.)

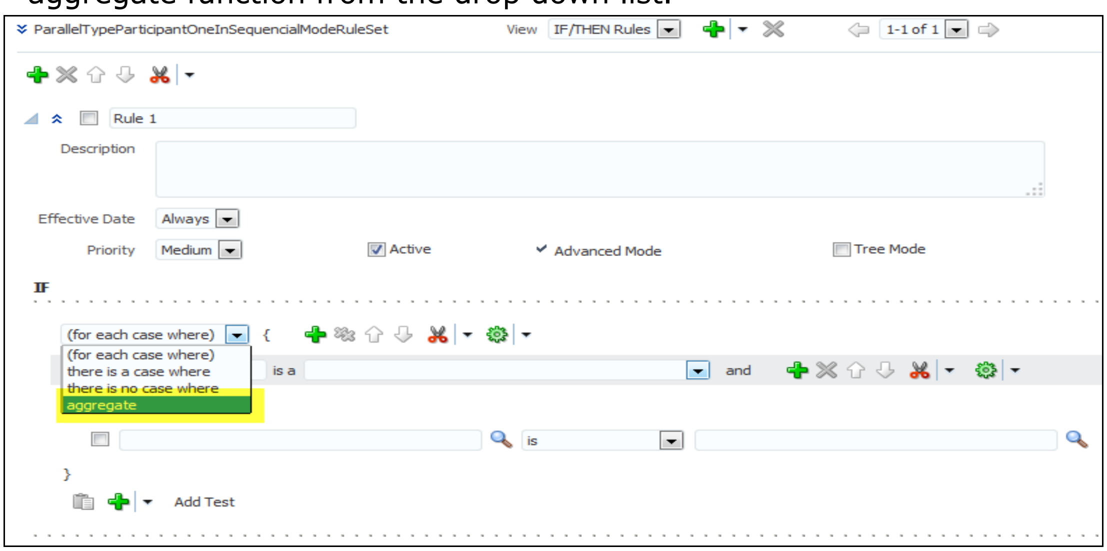
1) Create a new rule in the required participant type.
2) Expand the advanced settings and enable the advanced mode.



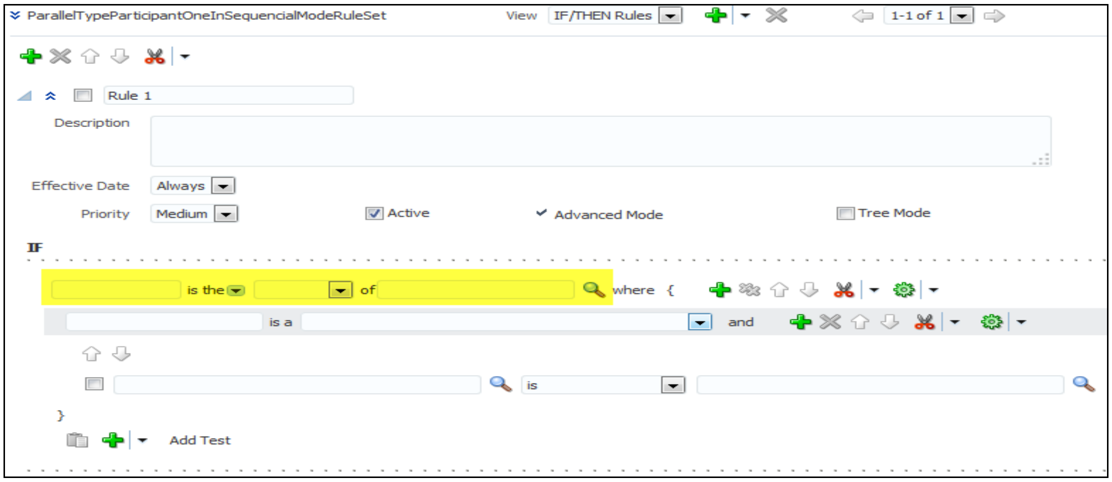
3) In the IF condition enable the surround option (loop). This is available at the end of the condition row.



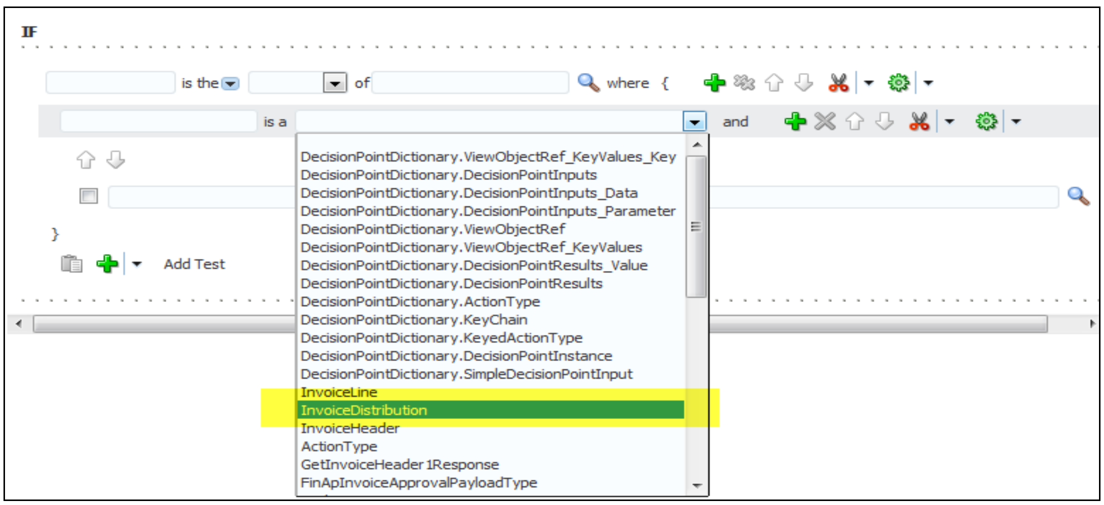
4) A new drop down for the type of surround function is visible. Select the aggregate function from the drop down list.



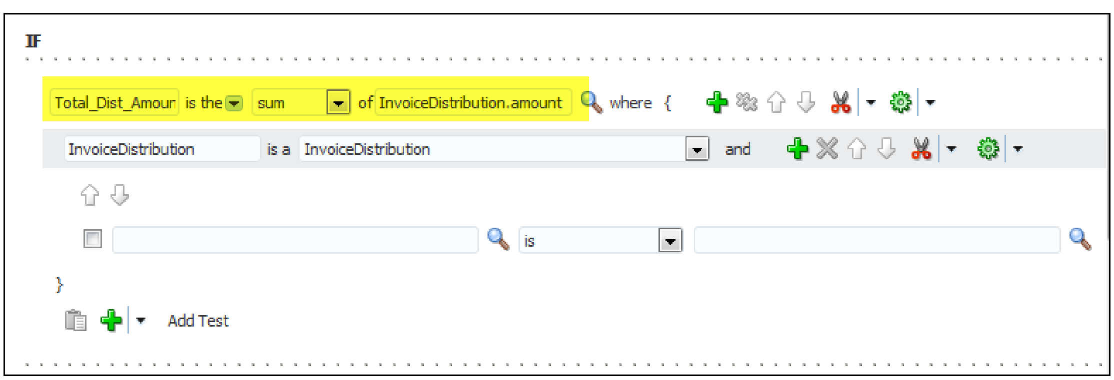
5) Once selected, the aggregate condition displays a new line. This line denotes what action needs to be performed while enacting the loop.



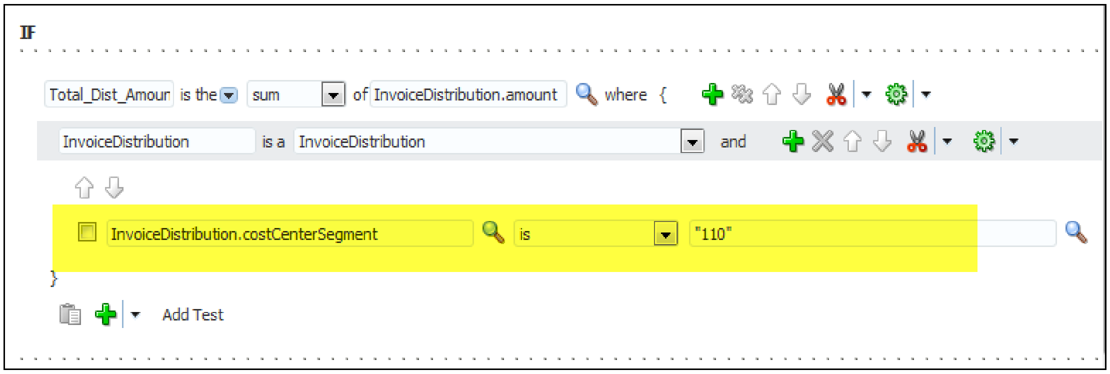
6) First, the conditions need to be defined in the loop. In the condition line, select the value InvoiceDistribution as shown in the screenshot.



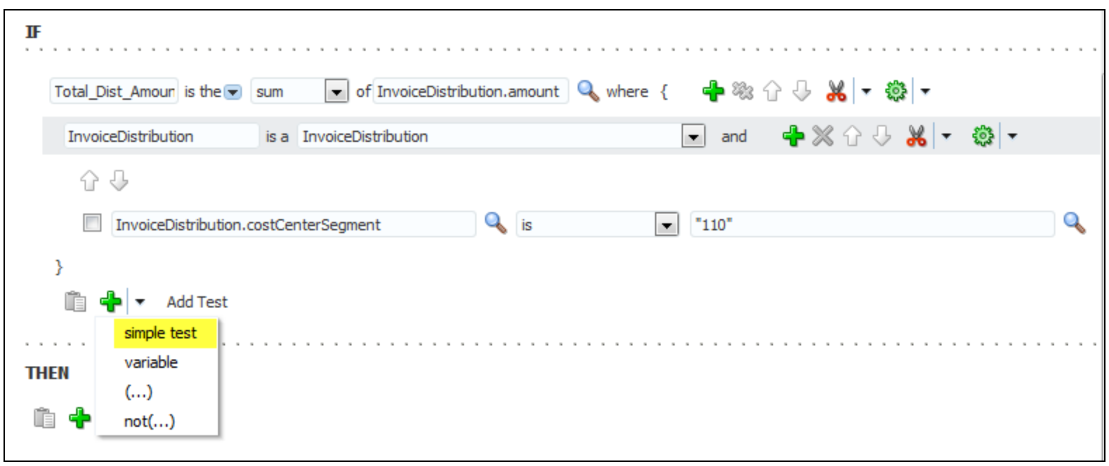
7) Fill the action to be done for the loop, to sum the entire distributions amount. Enter the action as shown in the screenshot. Here the Total_Dist_Amount is free text, Sum is the action, InvoiceDistribution.Amount is the value selected from dropdown menu.



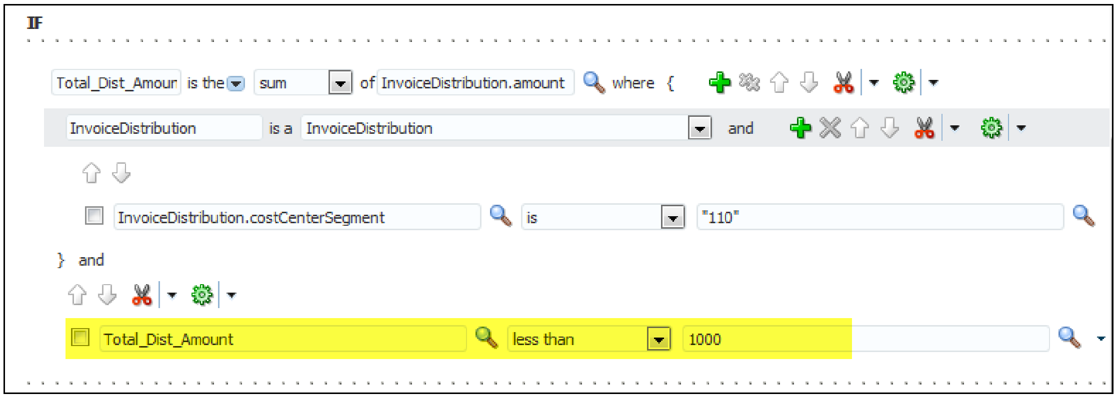
8) Add another condition to sum only the distributions that are part of a specific cost center. In this example, the cost segment value is 110. Write the condition as show in the image.



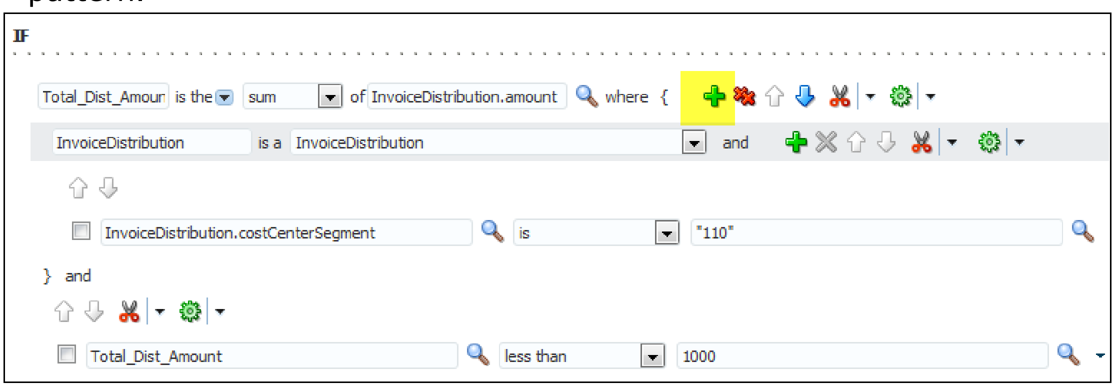
9) The loop definitions are configured. The applicationsums all distribution amounts whose cost center is 110. The total distribution amount now needs to be checked against the approval limit. The first check is for amounts less than $1000. Click the Add Test Icon and add a simple test.



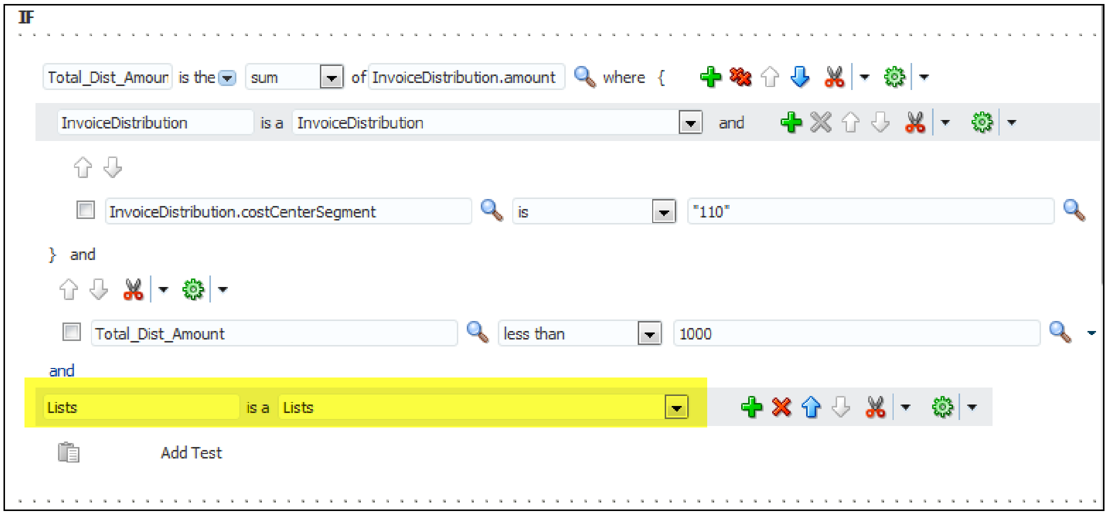
10) Add the condition as shown in the image.



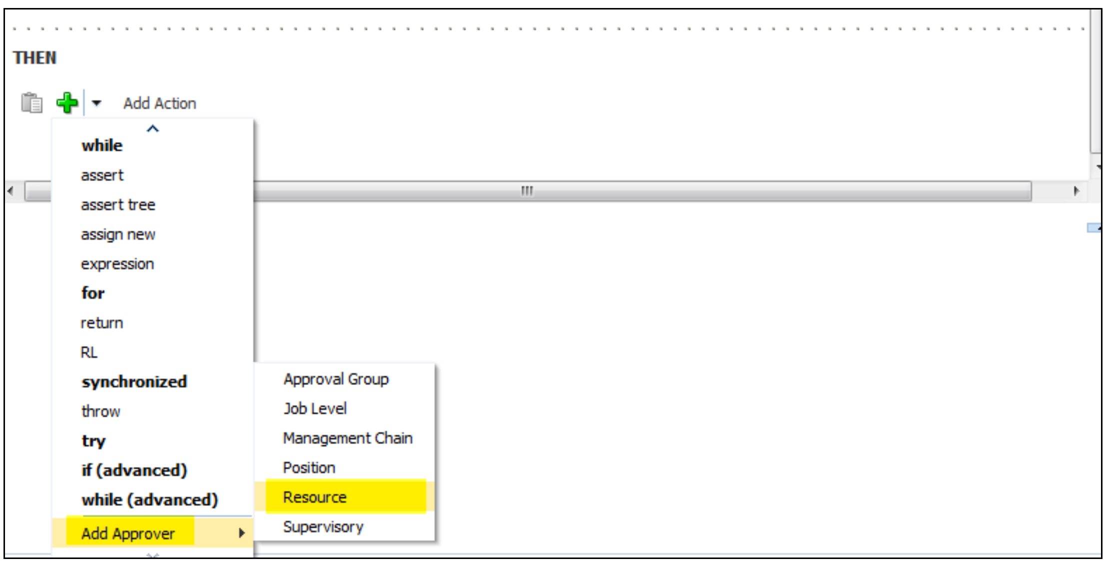
11) Now the condition definition is ready and the action result needs to be defined. Here you need to send the approval notification to user Person A (say user name is Finuser2). Before that we need to add one condition which is very specific to usage of the surround function. If the requirement is to send the notification to an approval group, add a condition as Lists is Lists and if the supervisor hierarchy is used, add the condition as Task is Task. Click on Add pattern.



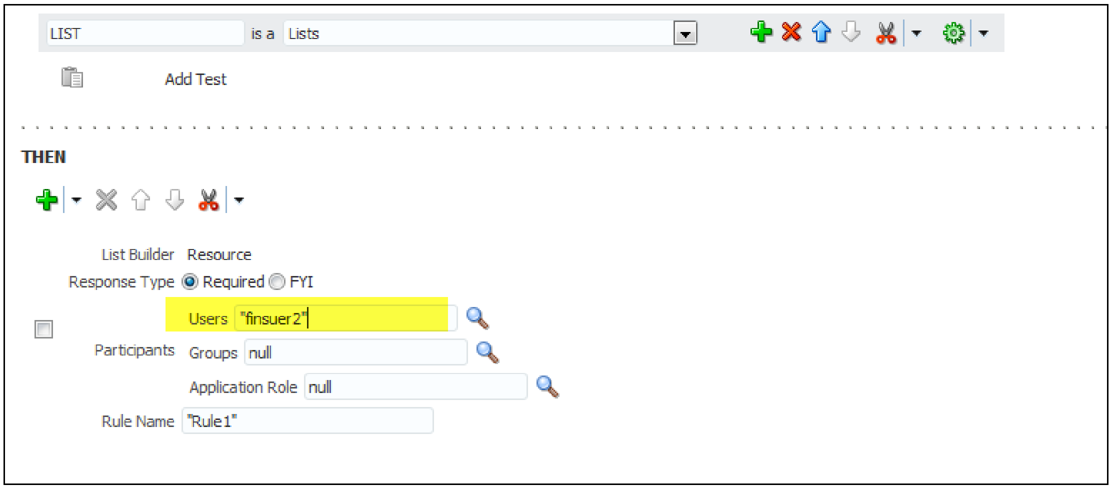
12) Add the condition as Lists is Lists. In this example, a specific user is used as the recipient.



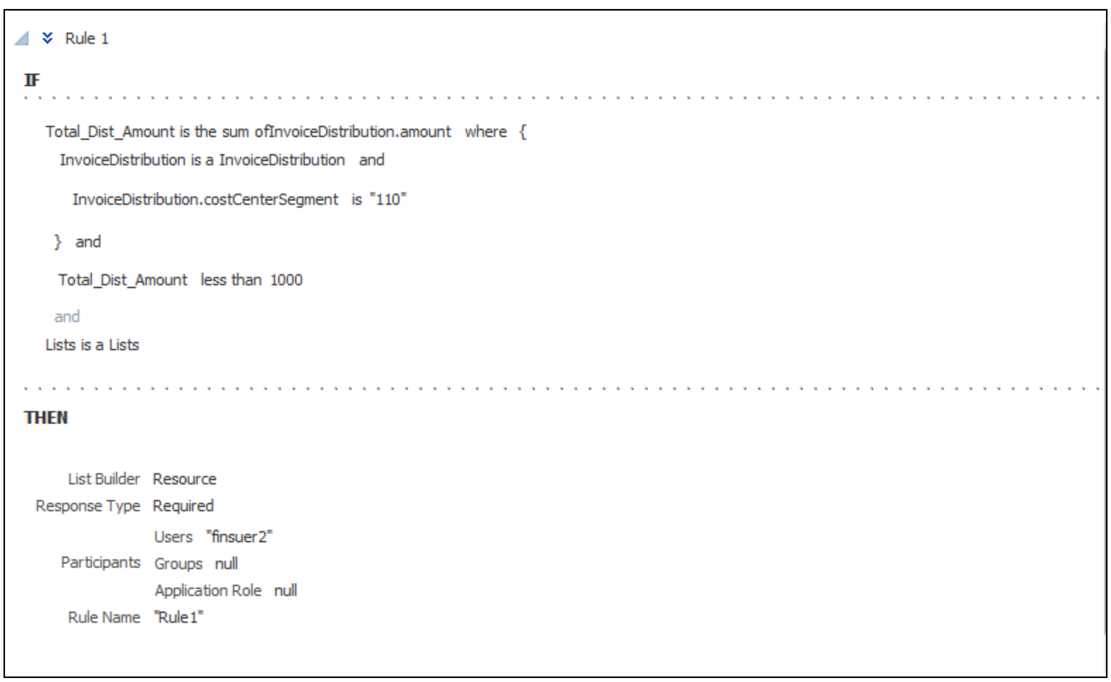
13) Now add the person for approval. Under the Then section select the action Add Approver-> Resource.



14) Add the user name as shown in the image.



15) The rule definition is now complete. Validate the rule and save it.
16) Now add the same rule by copying it and change the approval limit condition as Total_Dist_Amount more than 1000. And in the Then section, change the approver as person B (Say finuser3).
17) Validate the rule and save it. Commit the changes.
18) After saving the rule it will look like below:



Note: If you need multiple approval limits then you need to create similar rules for different amount limits.

Usecase16: Configure approval rules using various participants. FONTS?

The business wants to define the approval policy as the following::

1. If invoices are created with the natural accounts related to an adjustment and suspense accounts (5310, 5320) then the invoice should be autorejected.

2. If the invoice is created with accounts other than the adjustment and suspense account and is related to Contract expenditure (Which is captured in DFF field at invoice header level) and Invoice amount is less than $25,000 dollars then the invoice needs to be approved by the Payables department head and Accounts Manager. These approvers are grouped under Approval group1 (AG1).

3. If invoice is created with accounts other than the adjustment and suspense account and is related to Contract expenditure (Which is captured in DFF field at invoice header level) and Invoice amount is more than $25,000 dollars and less than $100,000 dollars then invoice needs to be approved by the Finance Manager and Finance Director (Grouped under Approval group2: AG2). Once the AG2 approves the invoice then invoice should be approved by the Finance Executive Director and Finance VP (Grouped under Approval group3: AG3).

4. If invoice is created with accounts other than the adjustment and suspense account and is related to Contract expenditure (Which is captured in DFF field at invoice header level) and Invoice amount is more than $100,000 dollars then the invoice needs to be approved by the Finance SVP and Finance Controller (Grouped under Approval group4: AG4). Once invoice is approved by AG4 then invoice should be approved by the CFO and CEO (Grouped under Approval group5: AG5).

Solution Approach:

- Create five approval groups AG1, AG2, AG3, AG4, and AG5 with the required users.

- You need to choose two participants for your requirement:

  - Participant 1: SingleTypeParticipantInParallelModeRuleSet.

  - Participant 2: SingleTypeParticipantOneInSequencialModeRuleSet.

- Rules setup using Participant 1 **SingleTypeParticipantInParallelModeRuleSet**.

  - Create autoreject rule for requirement #1 – Link to the rule setup.

  - Create approval rule for requirement #2 – Link to the rule setup.

  - Create approval rule for requirement #3 – Link to the rule setup.

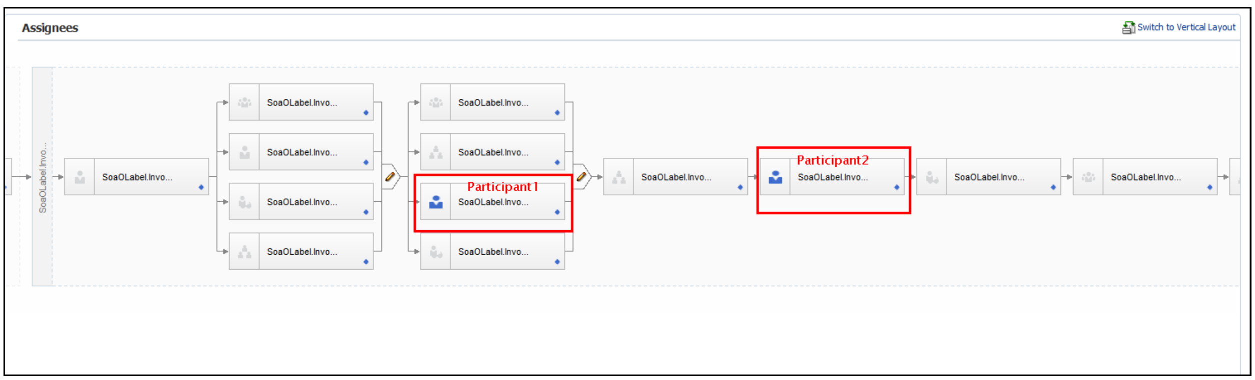
  - Create approval rule for requirement #4 – Link to the rule setup.

- Create a catch all rule with **Autoapproved** for the invoices not meeting the rules created above- You need to create the rule. (We have not created the rule and depicted in the screenshot).

- Rules setup using Participant 2 **SingleTypeParticipantOneInSequencialModeRuleSet**
  - Create a rule for the requirement #3 – Link to the rule setup.
  - Create a rule for the requirement #4 – Link to the rule setup.
  - Create an ignore participant rule for requirement #1 - Link to the rule setup.
  - Create an ignore participant rule for requirement #2- Link to the rule setup.

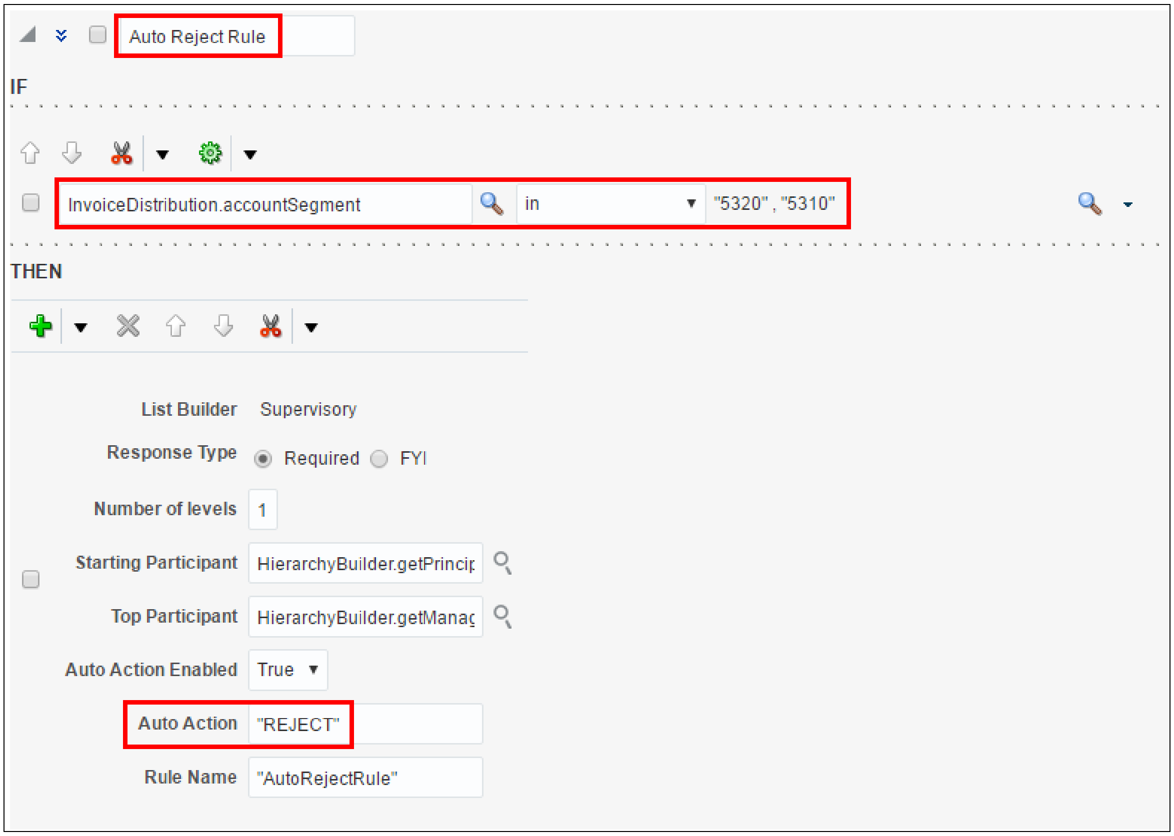
    Note: You also need to add a condition for the invoices that do not meet the rules created above (not created the rule and depicted in the screenshot).

Use the following two single type participants to achieve the business requirement:

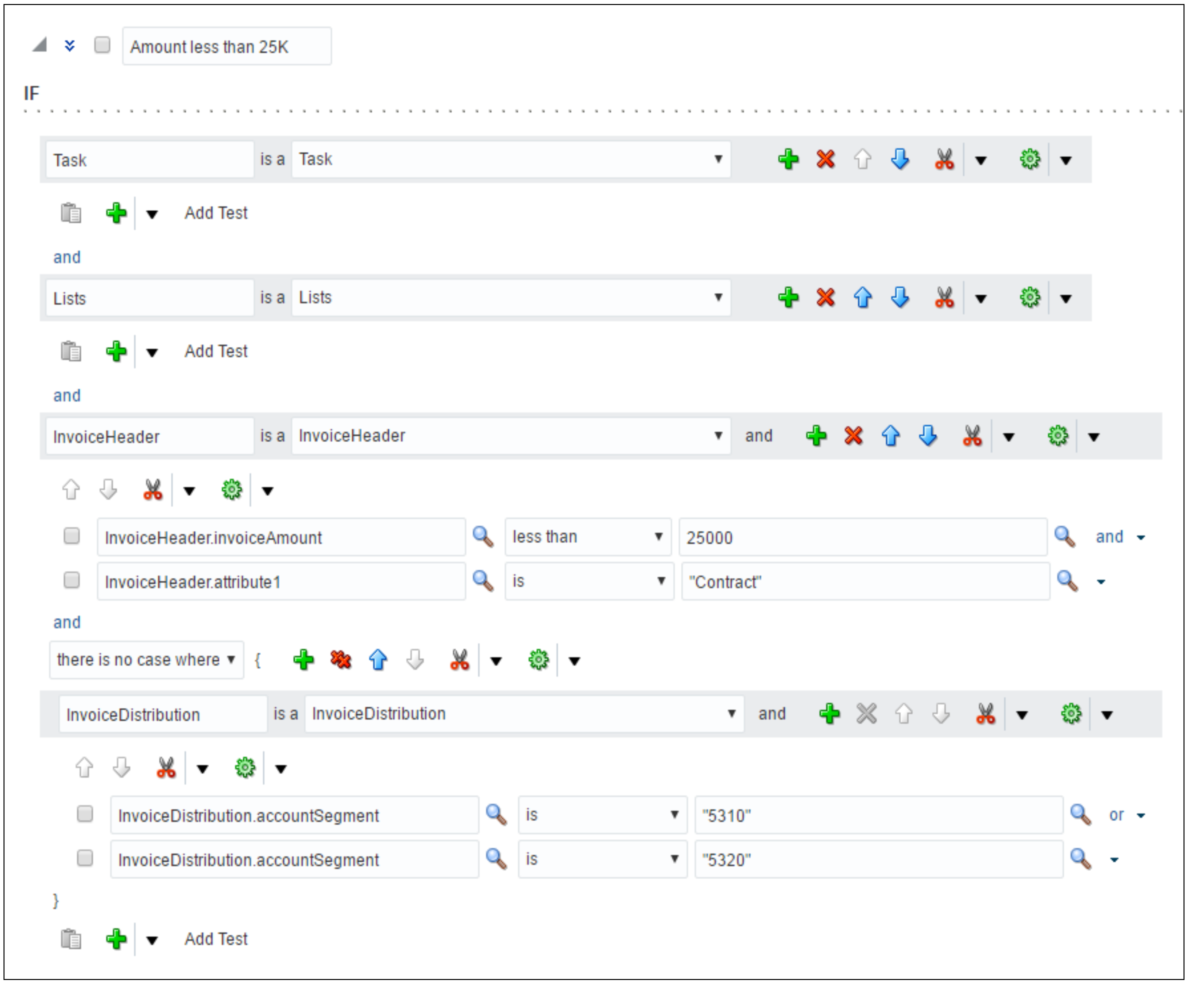


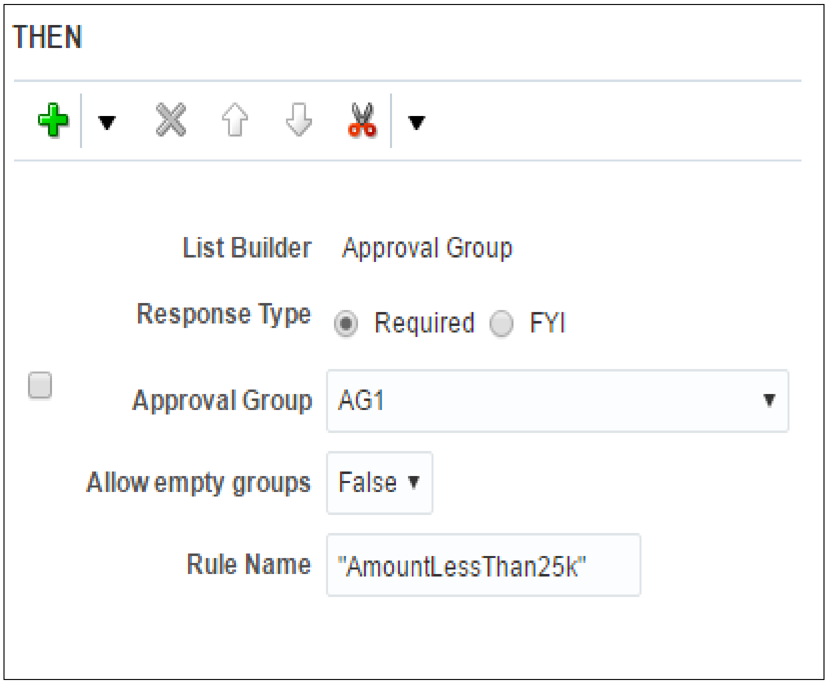
First select partcipant1 **SingleTypeParticipantInParallelModeRuleSet** to configure the following rules:

1. Define a rule to autoreject the invoice from approval if account segment is **5320** or **5310**.

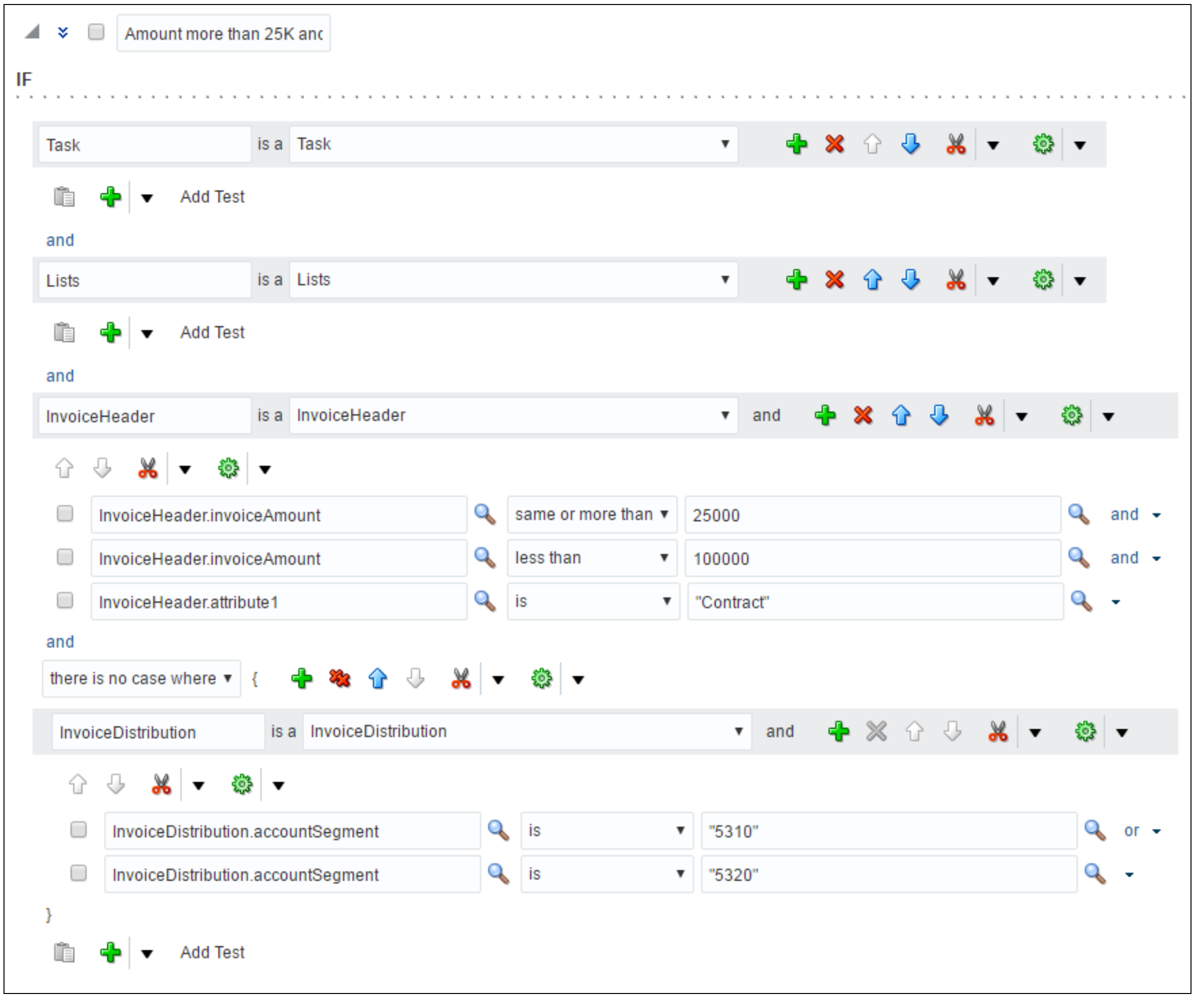


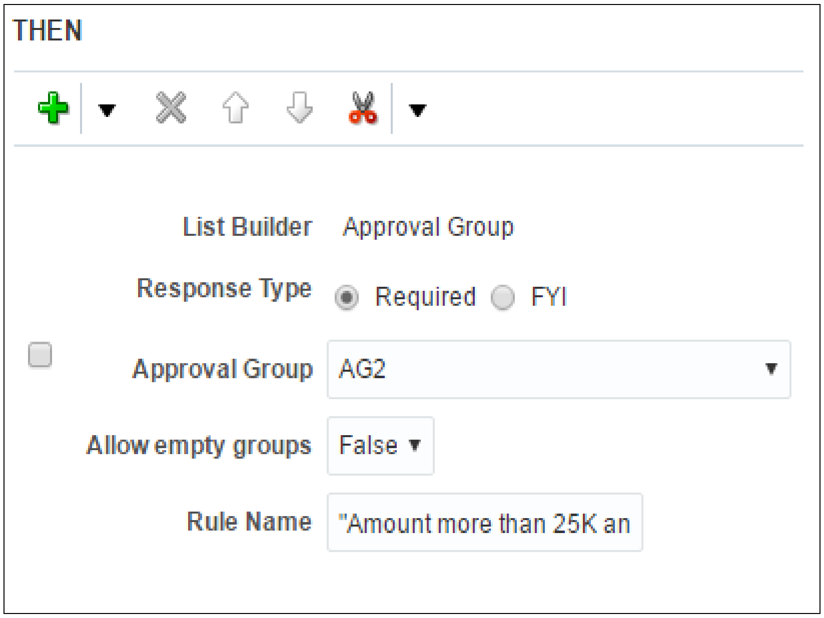
2. Define a rule with advanced options enabled to route the invoice to approval group: **AG1** if the account segment is not **5320** or **5310** and the invoice header DFF is **Contract** and the invoice amount is less than $25,000.


Amount less than 25K
IF
Task
is a
Task
Add Test
and
Lists
is a
Lists
Add Test
and
InvoiceHeader
is a
InvoiceHeader
and
InvoiceHeader.invoiceAmount
less than
25000
and
InvoiceHeader.attribute1
is
"Contract"
and
there is no case where
{
InvoiceDistribution
is a
InvoiceDistribution
and
InvoiceDistribution.accountSegment
is
"5310"
or
InvoiceDistribution.accountSegment
is
"5320"
}
Add Test

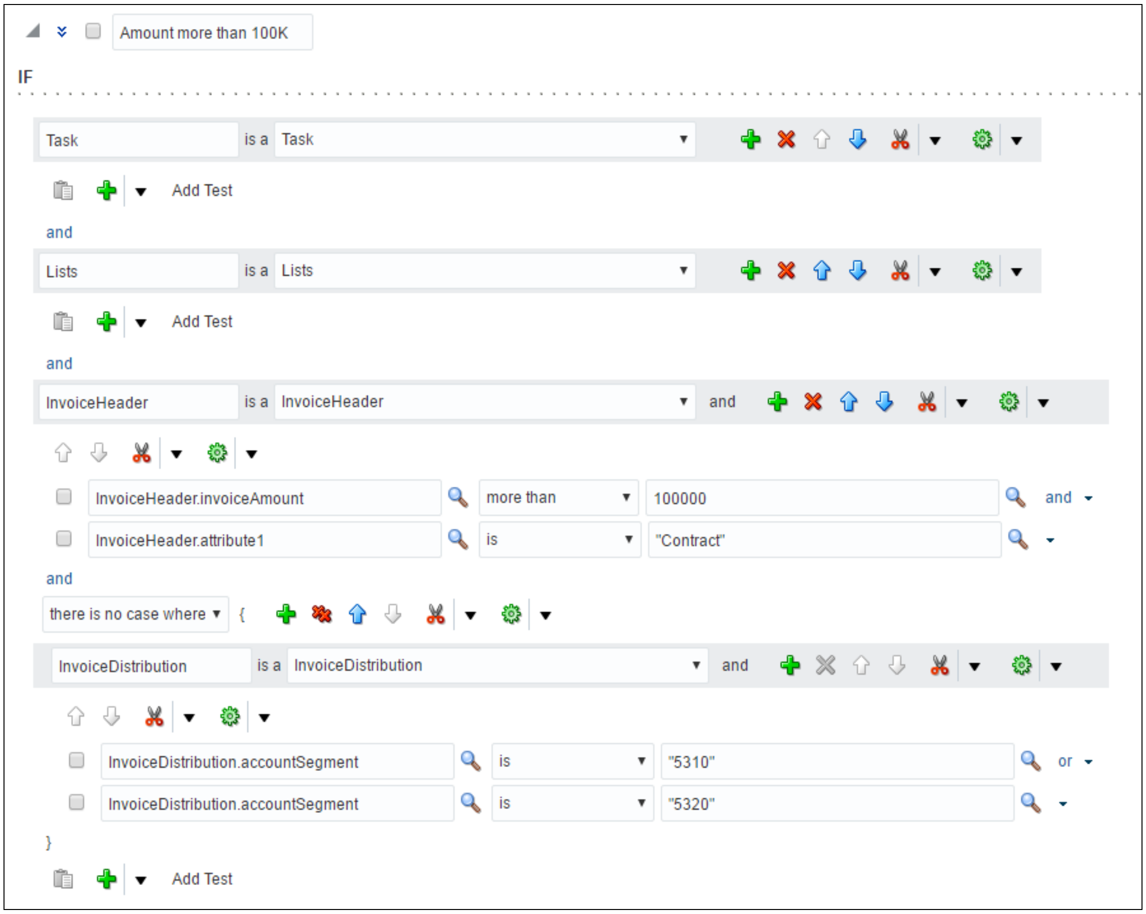


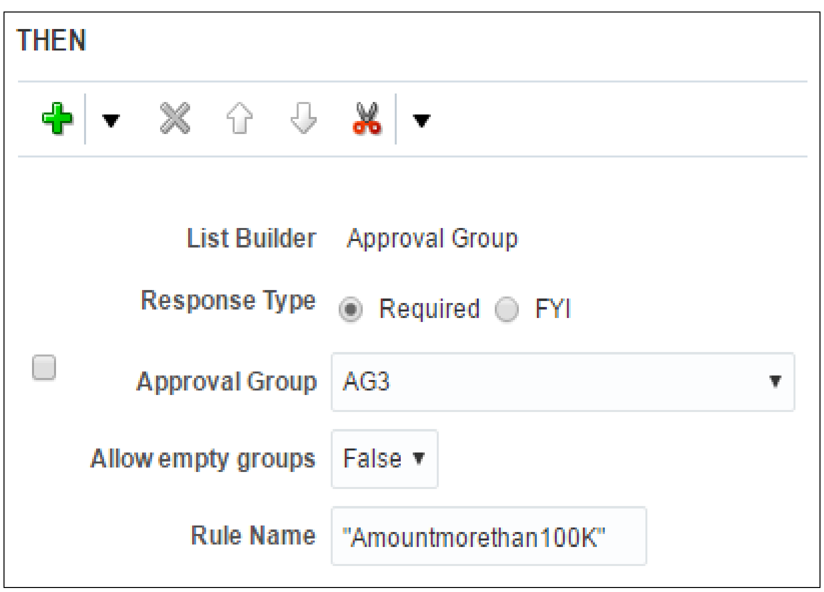
3. Define a rule with advanced options enabled to route the invoice to approval group to **AG2** if the account segment is not **5320** or **5310** and the invoice header DFF is **Contract** and the invoice amount is more than $25,000 and less than $100,000.


Amount more than 25K anc
IF
Task
is a
Task
Add Test
and
Lists
is a
Lists
Add Test
and
InvoiceHeader
is a
InvoiceHeader
and
InvoiceHeader.invoiceAmount
same or more than
25000
and
InvoiceHeader.invoiceAmount
less than
100000
and
InvoiceHeader.attribute1
is
"Contract"
and
there is no case where
{
InvoiceDistribution
is a
InvoiceDistribution
and
InvoiceDistribution.accountSegment
is
"5310"
or
InvoiceDistribution.accountSegment
is
"5320"
}
Add Test



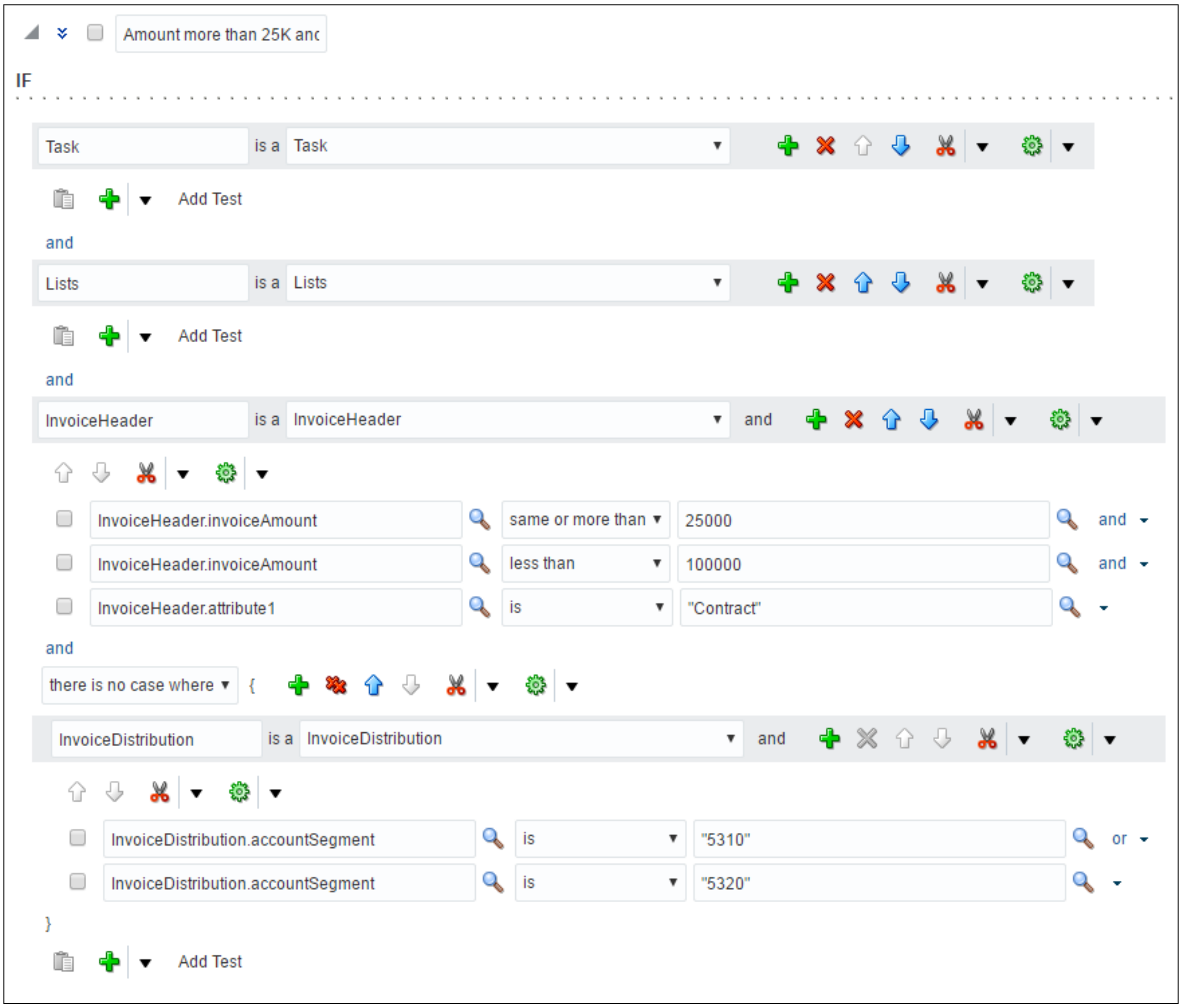
4. Define a rule with advanced options enabled to route the invoice to approval group: **AG3** if the account segment is not **5320** or **5310** and the invoice header DFF is **Contract** and the invoice amount is more than $100,000.

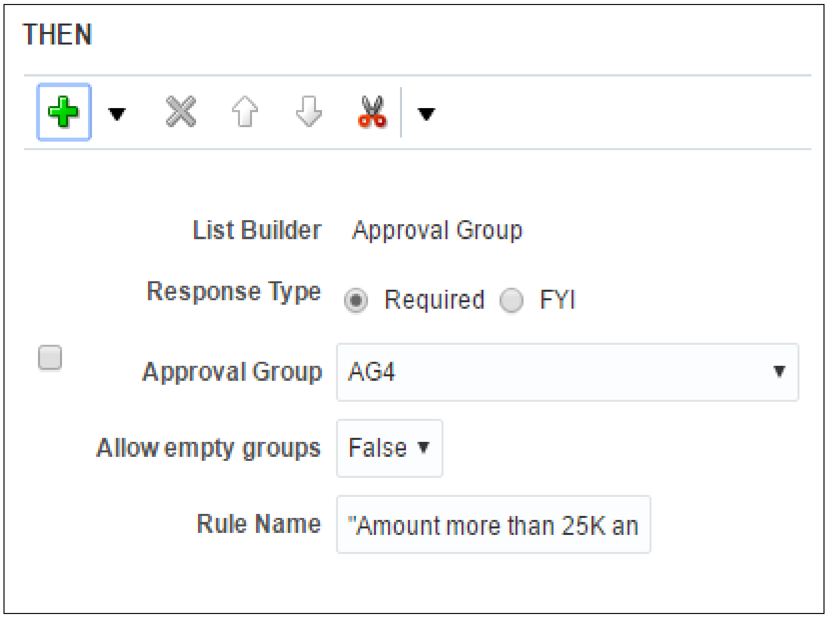

Amount more than 100K
IF
Task is a Task
Add Test
and
Lists is a Lists
Add Test
and
InvoiceHeader is a InvoiceHeader and
InvoiceHeader.invoiceAmount more than 100000 and
InvoiceHeader.attribute1 is "Contract"
and
there is no case where {
InvoiceDistribution is a InvoiceDistribution and
InvoiceDistribution.accountSegment is "5310" or
InvoiceDistribution.accountSegment is "5320"
}
Add Test


THEN
List Builder Approval Group
Response Type Required FYI
Approval Group AG3
Allow empty groups False
Rule Name "Amountmorethan100K"

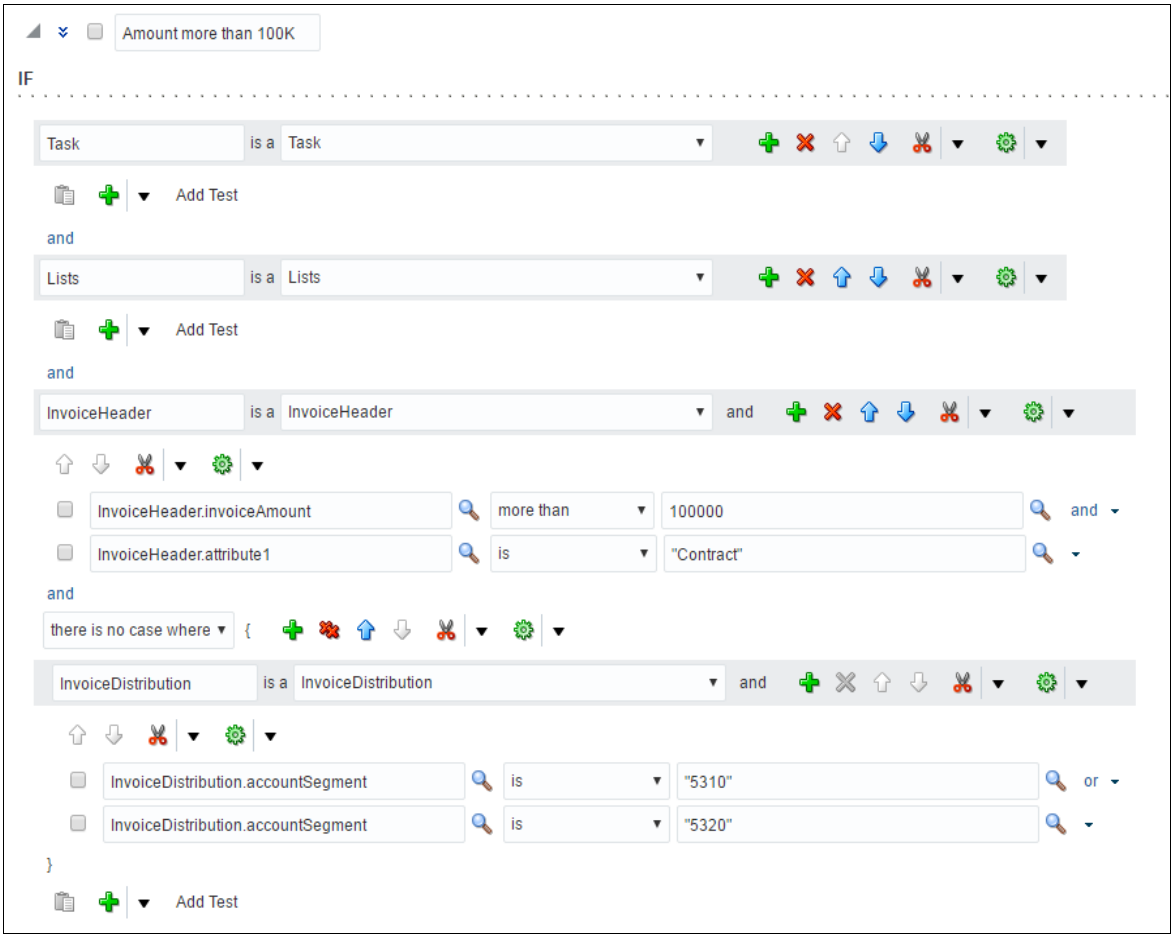
Now use Participant2 **SingleTypeParticipantOneInSequencialModeRuleSet** to configure the approval rules below:

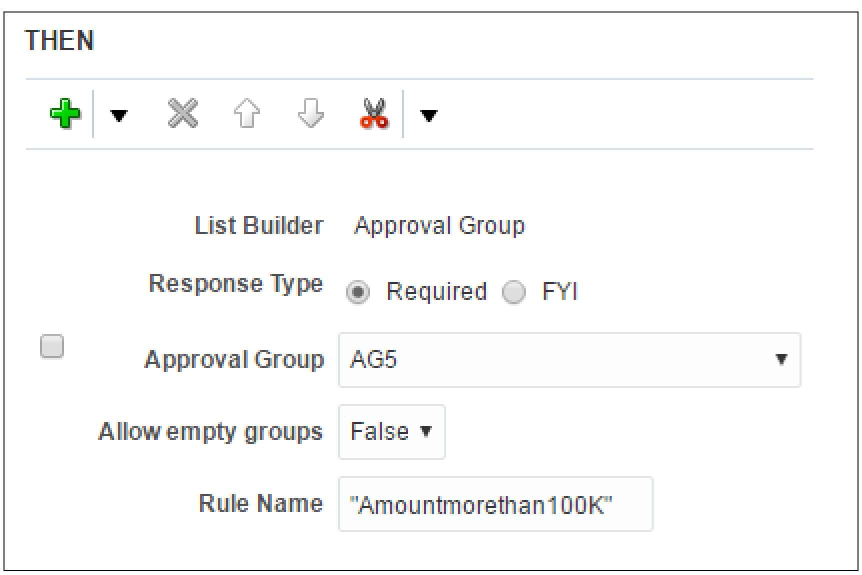
5. Define a rule with advanced options enabled to route the invoice to the approval group: **AG4** if the account segment is not **5320** or **5310** and the invoice header DFF is **Contract** and the invoice amount is more than $25,000 and less than $100,000.



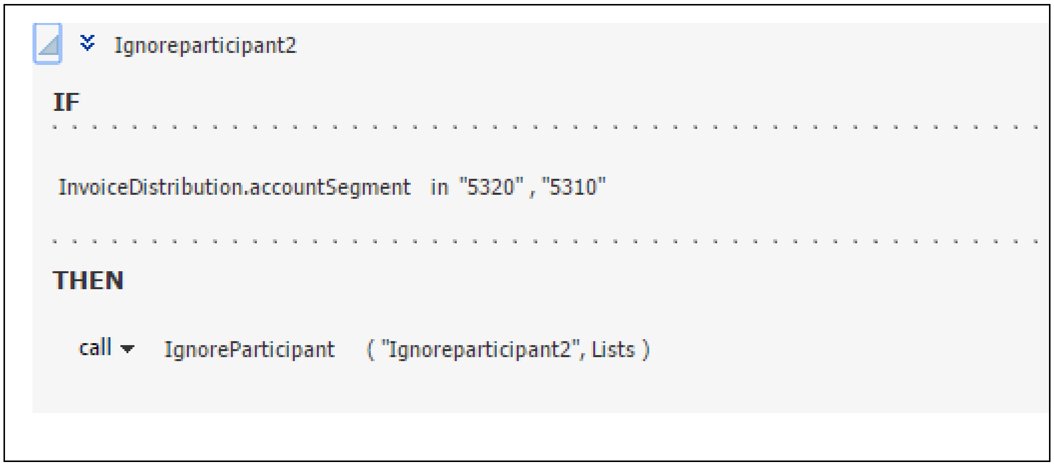


6. Define a rule with advanced options enabled to route the invoice to the approval group: **AG5** if the account segment is not **5320** or **5310** and the invoice header DFF is **Contract** and the invoice amount is more than $100,000.

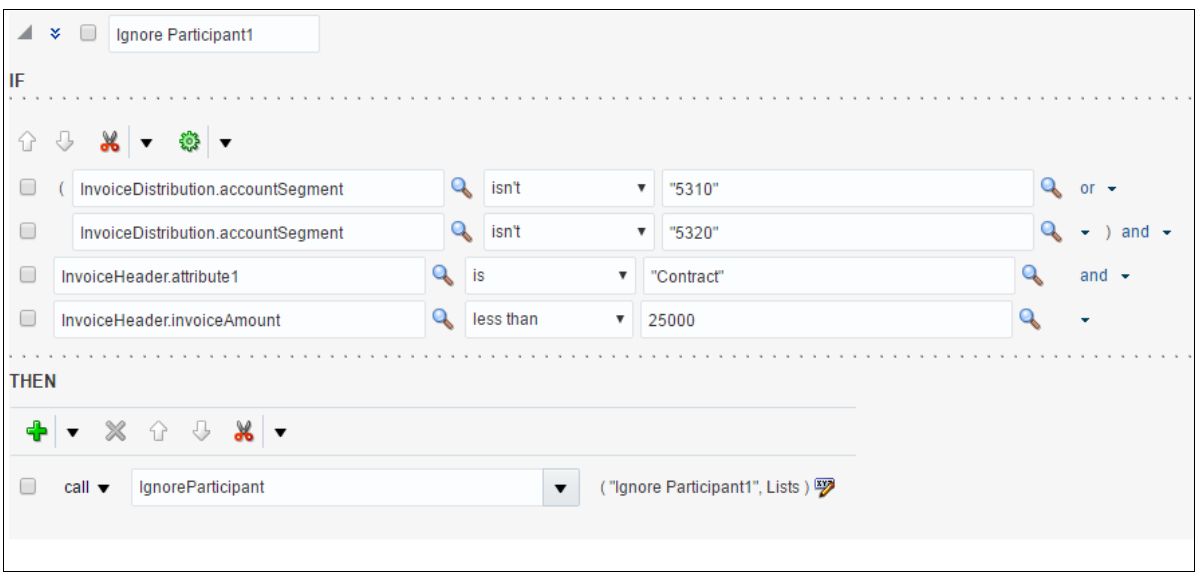




7. Define a rule to ignore the participant if the account segment is in **5320**, or **5310**, and the DFF value is not entered.



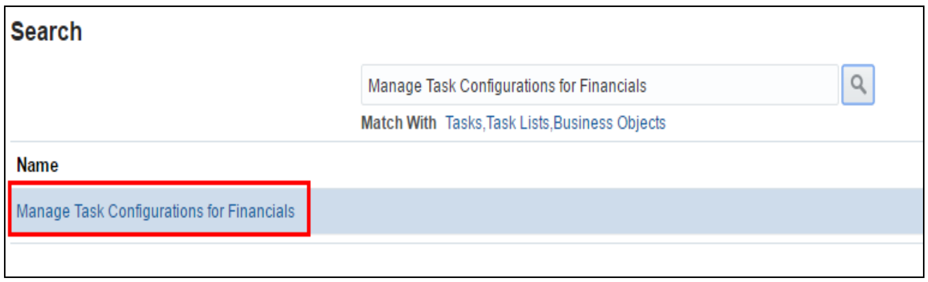
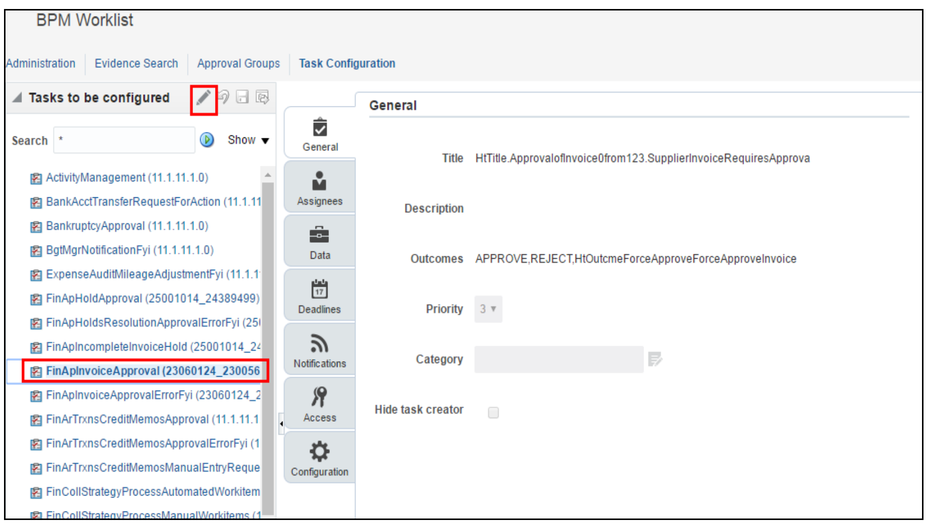
8. Define a rule to ignore the participant if the account segment is not **5320** or **5310** and the invoice header DFF is **Contract** and the invoice amount is less than $25,000.

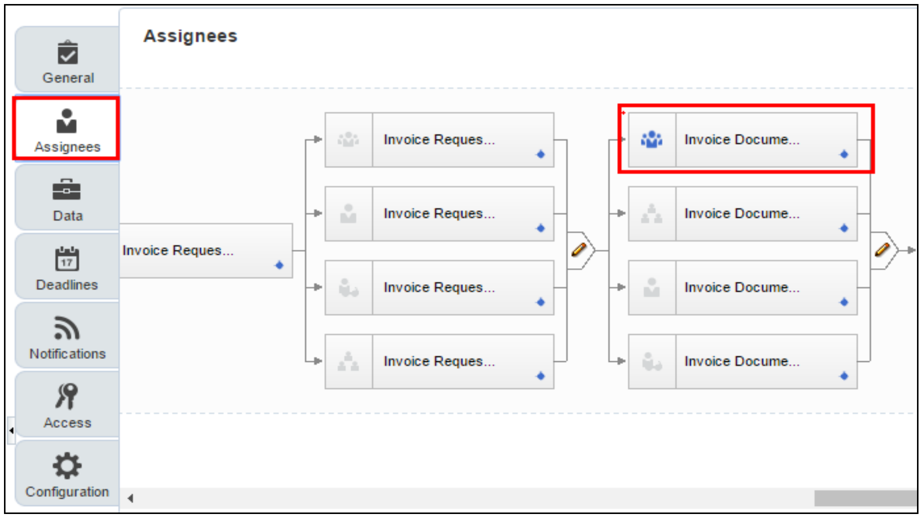
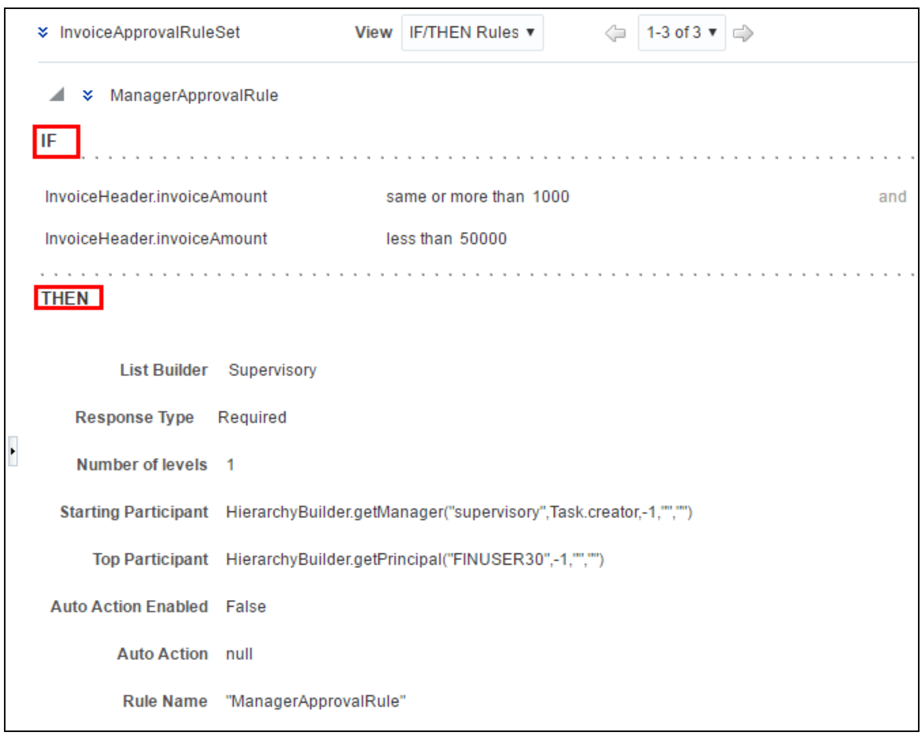


Appendix: Navigation to approval rules UI and approval groups

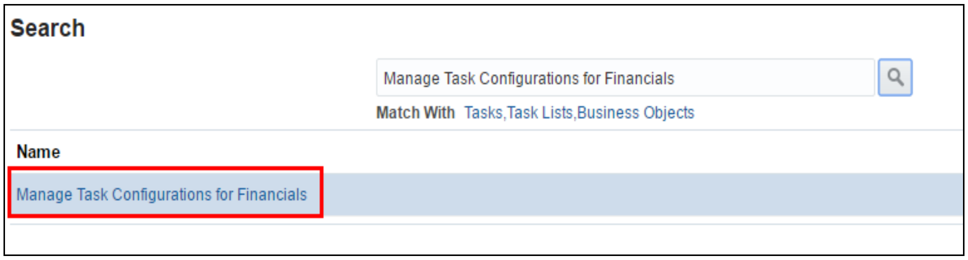
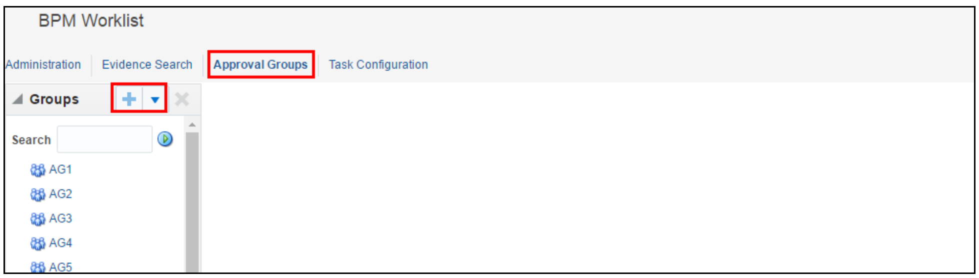
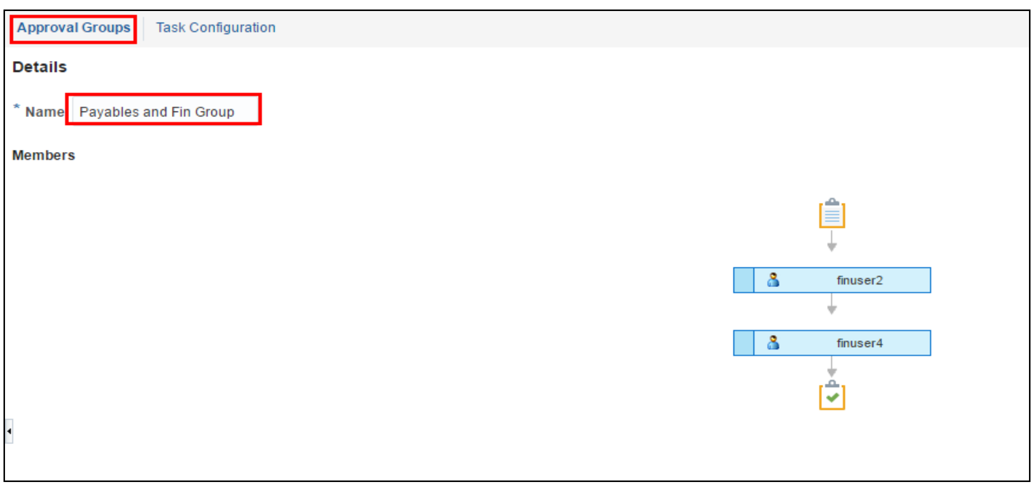
This section explains on how to navigate to Business Process Management User Interface to configure approval rules and approval group.

Navigation to configure invoice approval rules UI:

<table>
<tr>
<td>1. Navigate to Setup and Maintenance UI and search for the task Manage Task Configuration for Financials and click on the task.</td>
<td>
</td>
</tr>
<tr>
<td>2. Select FinAPInvoiceApproval task and click on edit icon</td>
<td>
</td>
</tr>
</table>

3.Click on select Assignees tab and select appropriate participant	
4.Create an approval rule with IF and THEN conditions	

Navigation to configure approval groups UI:

<table>
<tr><td>1.Navigate to Setup and Maintenance UI and search for the task Manage Task Configuration for Financials and click on the task.</td><td>
</td></tr>
<tr><td>2.Click on + Icon to create approval group</td><td>
</td></tr>
<tr><td>3.Provide name for an approval group and add approvers to the group</td><td>
</td></tr>
</table>