

# Joget DX 8

# Designing your first Process

 <http://facebook.com/jogetworkflow>

 <http://twitter.com/jogetworkflow>

# Prerequisites

- Installed Joget.
- Understand various components of Joget.
- General understanding of Joget as an end user.

# Content

1. Business Process Design (BPE)
2. Designing your First Process with Process Builder
3. Running your First Automated Process
4. Participant Mapping
5. Process Monitoring



# Chapter 1

## Business Process Design (BPE)

# Business Process Management

- BPM is a management approach focused on aligning all aspects of an organization with the wants and needs of clients.
- Wants & needs = business goals.
- BPM attempts to improve processes continuously.

# Business Process Engineering

1. Identify a **process**
2. Identify **start** and **end** of the process
3. Identify process **participants**
4. Identify **as-is** process **activities**
5. Identify **business rules**
6. Identify **areas for optimization**: process activities and business rules that can be:
  - Improved
  - Eliminated
7. Draw the improved / **to-be** process as flowchart

# Identify a Process

- E.g:
  - Purchase Request Process
  - Purchase Order Process



Note: Let's start simple by focusing **only** on **purchase request process** first.

# Business Process Engineering

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# Start & End of Purchase Request Process

- **Start:** 
  - Applicant submits **purchase request** form
- **End:** 
  - Applicant informed with **purchase request** result

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# Process Participants






-  Request applicant.
-  Request approver.
-  Purchasing department (PD).

Note: The approver can also be the same participant that handles the purchase orders.

# Business Process Engineering

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# As-is Process Activities

-  Applicant **submits** purchase request form to PD.
-  PD staff **checks** available stock.
-  PD staff **approves / rejects** purchase request.
-  PD staff **informs applicant** on the request status.
-  PD staff **escalates** approved requests to the purchaser in the department to perform purchase ordering.

# Business Process Engineering

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# Business Rules

1. If **requested item in stock is low**:
  - Approver processes purchase requestElse if **many more stock is available**:
  - Reject purchase request
  
2. If purchase request is **approved**:
  - Escalate approved request to purchaser to handle ordering.
  - Inform applicant on the approved requestElse if purchase request is **rejected**:
  - Inform applicant on the rejected request

# Business Process Engineering

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# To-Be Process Activities

## As-Is

1. Applicant **submits purchase request** form to PD
2. PD **checks available stock**
3. PD **informs** applicant on **existing abundance of stock**
4. PD **approves / rejects** purchase request
5. PD **informs** applicant on **request status**
6. PD **escalates** approved requests **to purchaser** to handle purchase ordering

improved

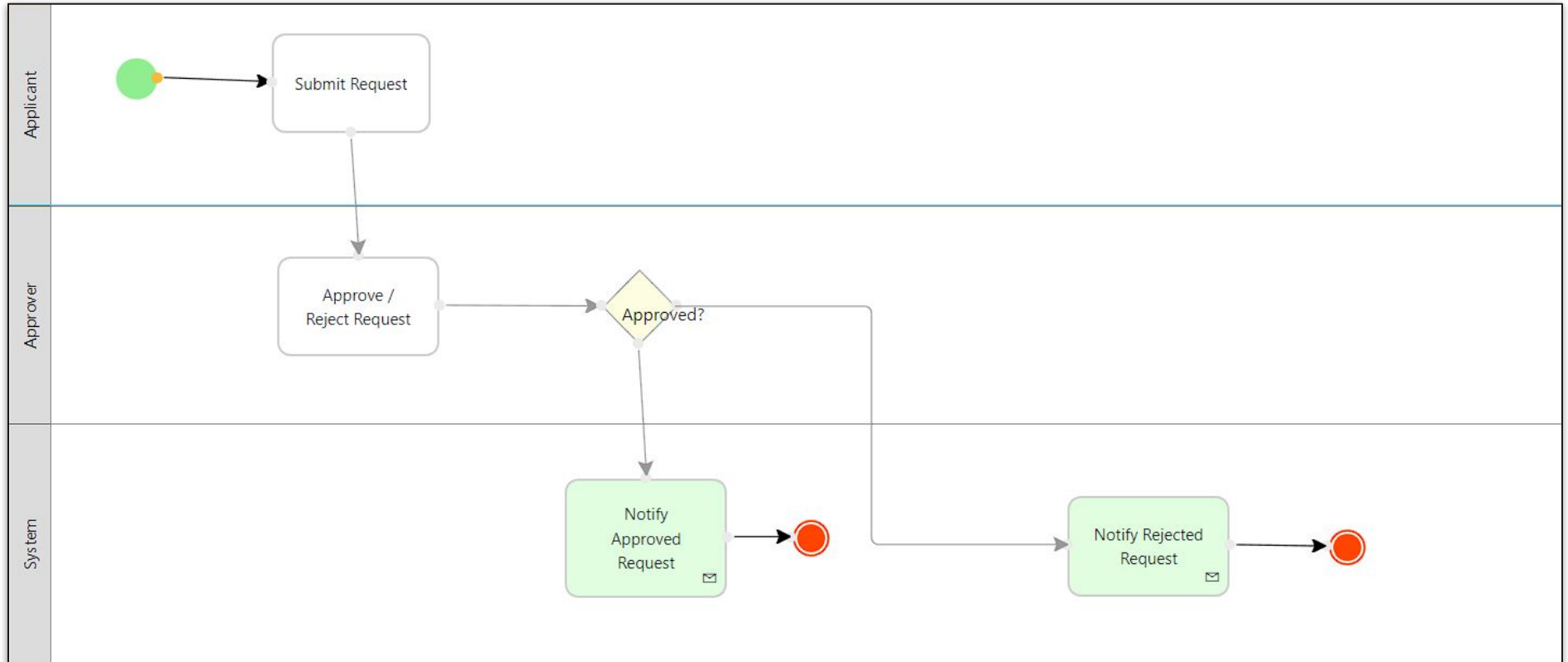
## To-Be

1. Applicant **submits purchase request** form to PD
2. System **checks available stock**
3. System **notifies** applicant on **existing abundance of stock**
4. PD **approves / rejects** purchase request
5. System **notifies** *applicant* on **request status** & *purchaser* on **new approved request** via email

# Business Process Engineering

1. Identify a **process**
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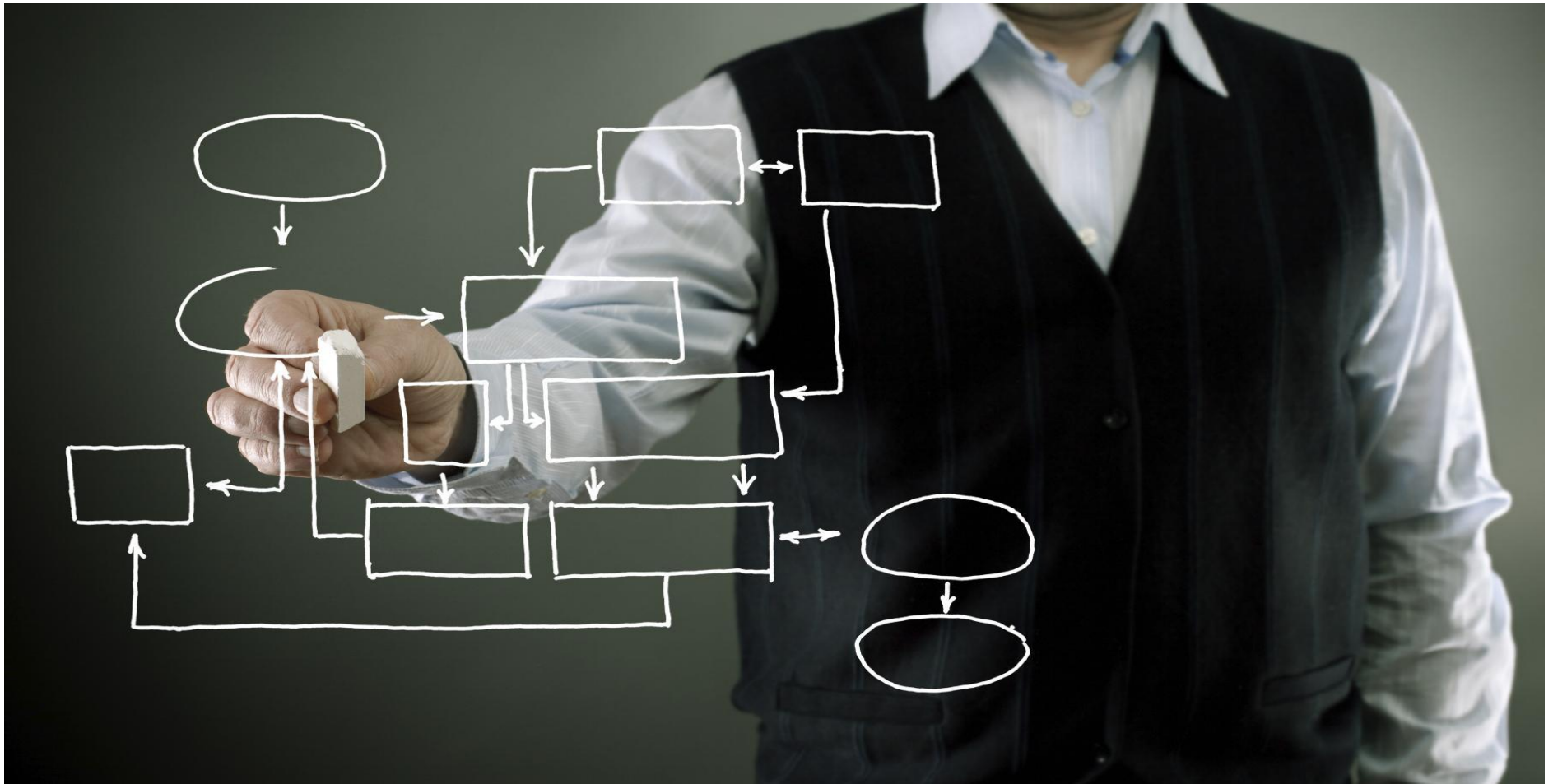
# To-Be Purchase Request Process



# Business Process Engineering

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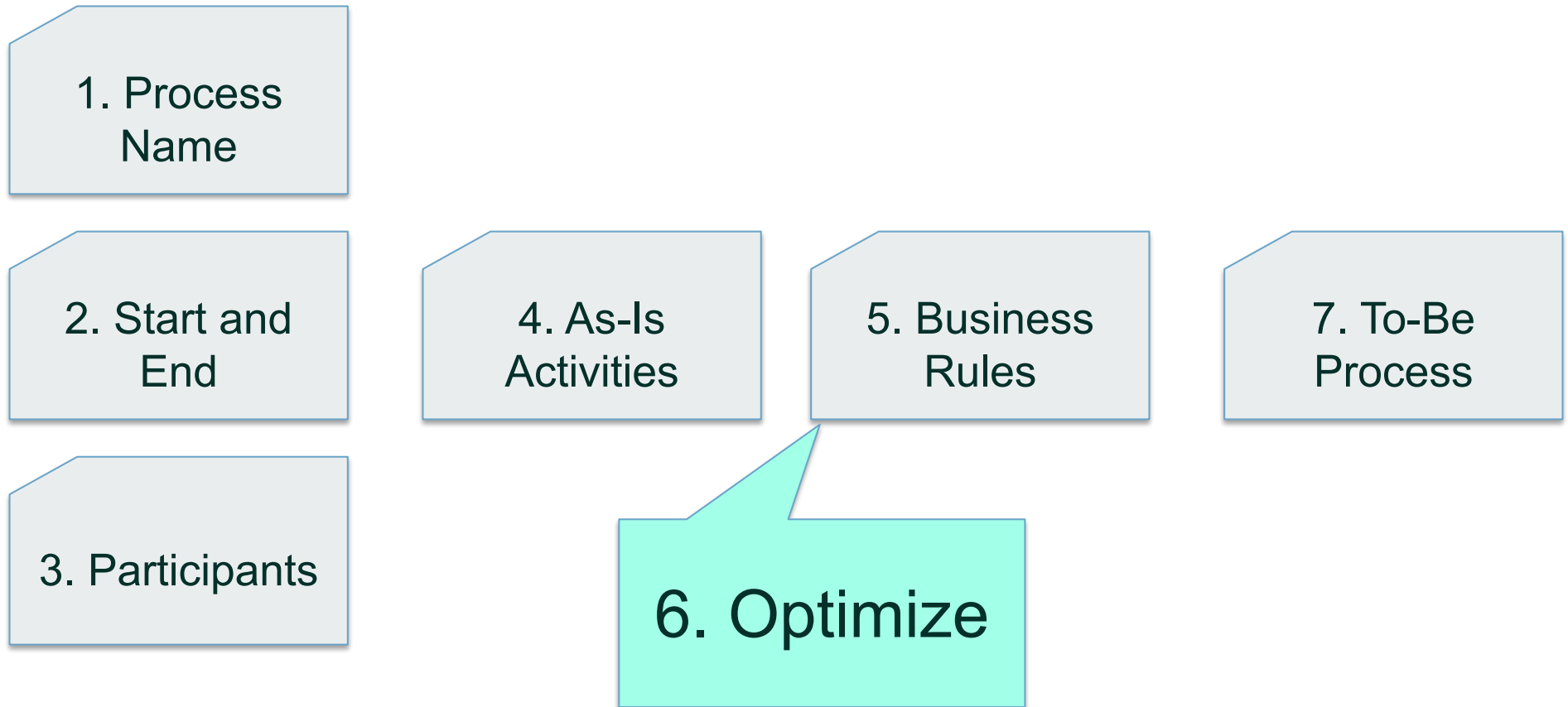
# Now, Identify a Process, and Engineer It!



# Sample Process Statement

- Jane needs to get some stationeries.  
The request that she submits must be first approved by PD staff before being sent to another respective staff in the department to handle the order.  
The department will then notify Jane accordingly.

# Hands-On: Business Process Engineering



# Chapter 1 Review

- General understanding on how to best design a Process.
- With the finished process design, one can now bring the finished process design/flow and implement it in Joget.

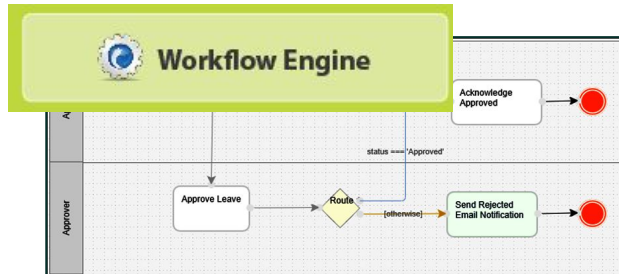
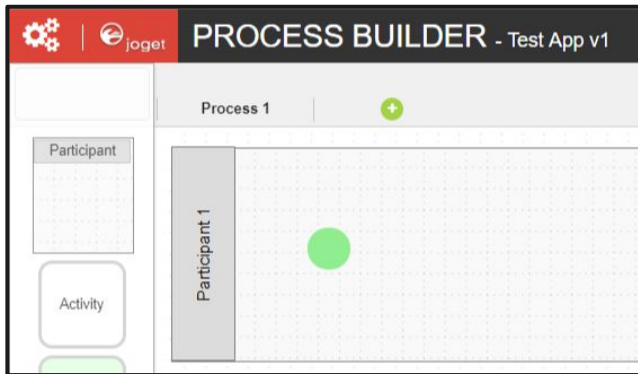
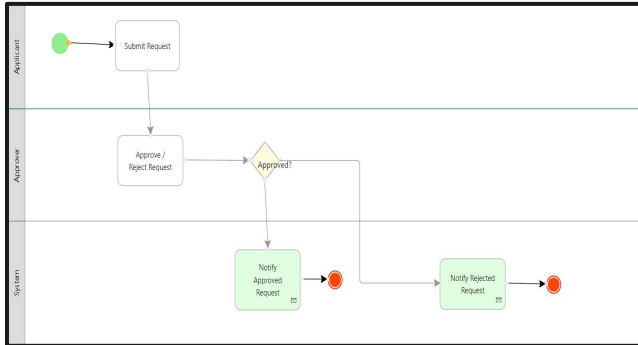




# Chapter 2

## Designing your first Process with Process Builder

# Business Process Automation



**Business Process Design**



**Process Design**



**Process**



## Apps

Progressive Web Apps  
Various Form Factors



Customer  
Onboarding



Supplier  
Portal



Loan  
Application



Service Request  
Portal

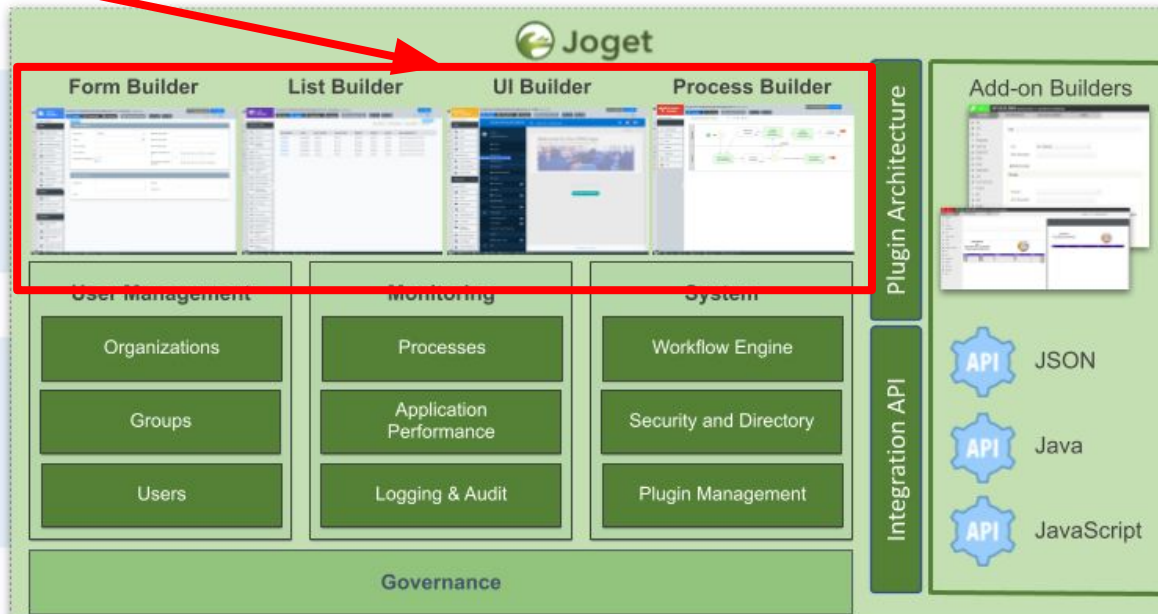


Joget  
Marketplace



## Development

Simple, Visual,  
Drag and Drop.



## Platform

Open, Flexible and  
Extensible.



## Infrastructure

On-Premise, Containers,  
Private / Public / Hybrid  
Cloud. App Server,  
DB, OS Independent.

### Application Server



### Database



### Operating System



### Containers and Cloud



## Integration

Easy integration with  
various enterprise  
technologies.





## Apps

Progressive Web Apps  
Various Form Factors



Customer  
Onboarding



Supplier  
Portal



Loan  
Application



Service Request  
Portal

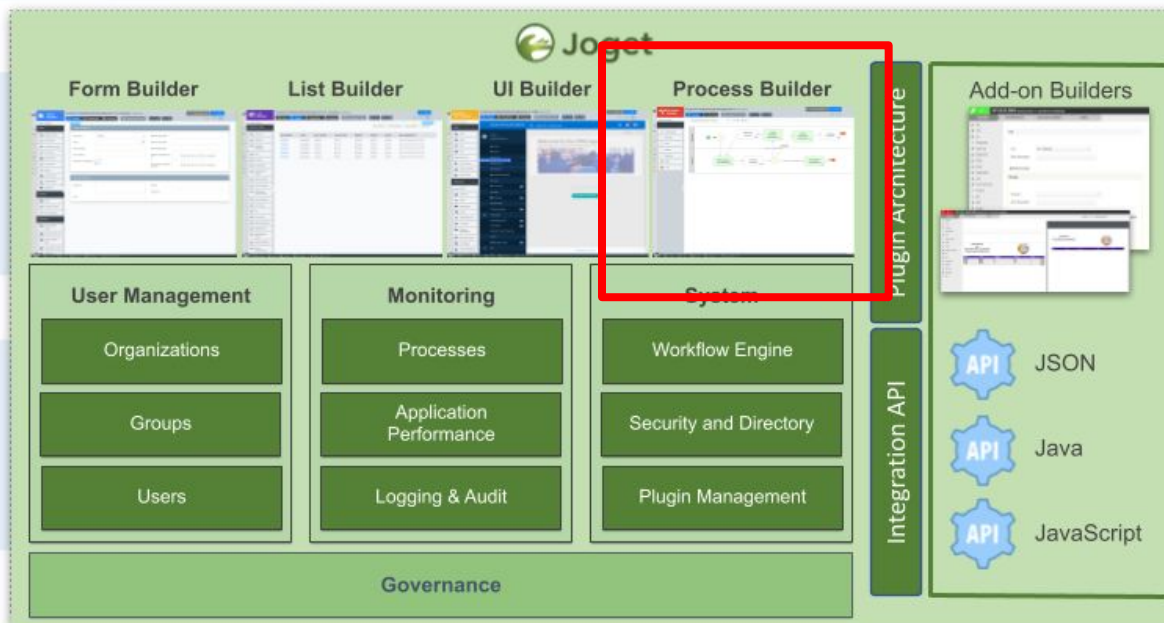


Joget  
Marketplace



## Development

Simple, Visual,  
Drag and Drop.



## Platform

Open, Flexible and  
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## Infrastructure

On-Premise, Containers,  
Private / Public / Hybrid  
Cloud. App Server,  
DB, OS Independent.

### Application Server



### Database



### Operating System



### Containers and Cloud



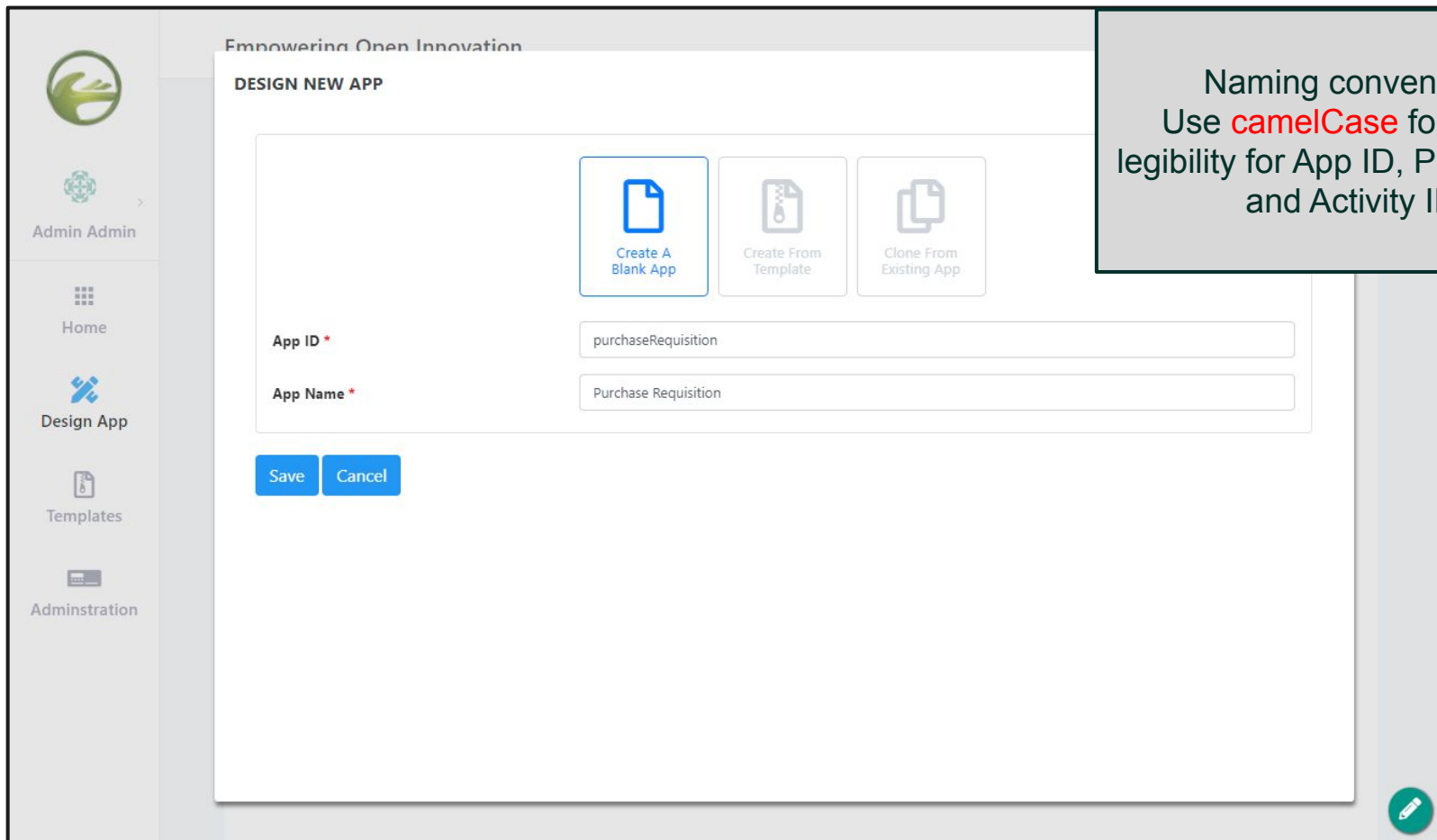
## Integration

Easy integration with  
various enterprise  
technologies.



# Create Your First App

- Design Apps -> Design New App



The screenshot shows the 'Design New App' interface in Joget. On the left is a sidebar with navigation icons and labels: 'Admin Admin', 'Home', 'Design App' (highlighted), 'Templates', and 'Administration'. The main content area is titled 'DESIGN NEW APP' and features three options: 'Create A Blank App' (selected), 'Create From Template', and 'Clone From Existing App'. Below these are two text input fields: 'App ID \*' with the value 'purchaseRequisition' and 'App Name \*' with the value 'Purchase Requisition'. At the bottom are 'Save' and 'Cancel' buttons. A callout box on the right provides naming conventions.

Naming convention:  
Use **camelCase** for better legibility for App ID, Process ID, and Activity ID

# Naming Convention

- Use **camel case** for App ID, Process ID, Activity ID.  
For example:-
  - **purchaseRequisition**
  - **purchaseRequestProcess**
  - **submitRequest**
- Do not use **snake case** as it conflicts with process instance ID naming convention:-  
1\_purchaseRequisition\_purchaseRequestProcess\_submitRequest
- Maintain consistent naming convention that you have decided across the board.

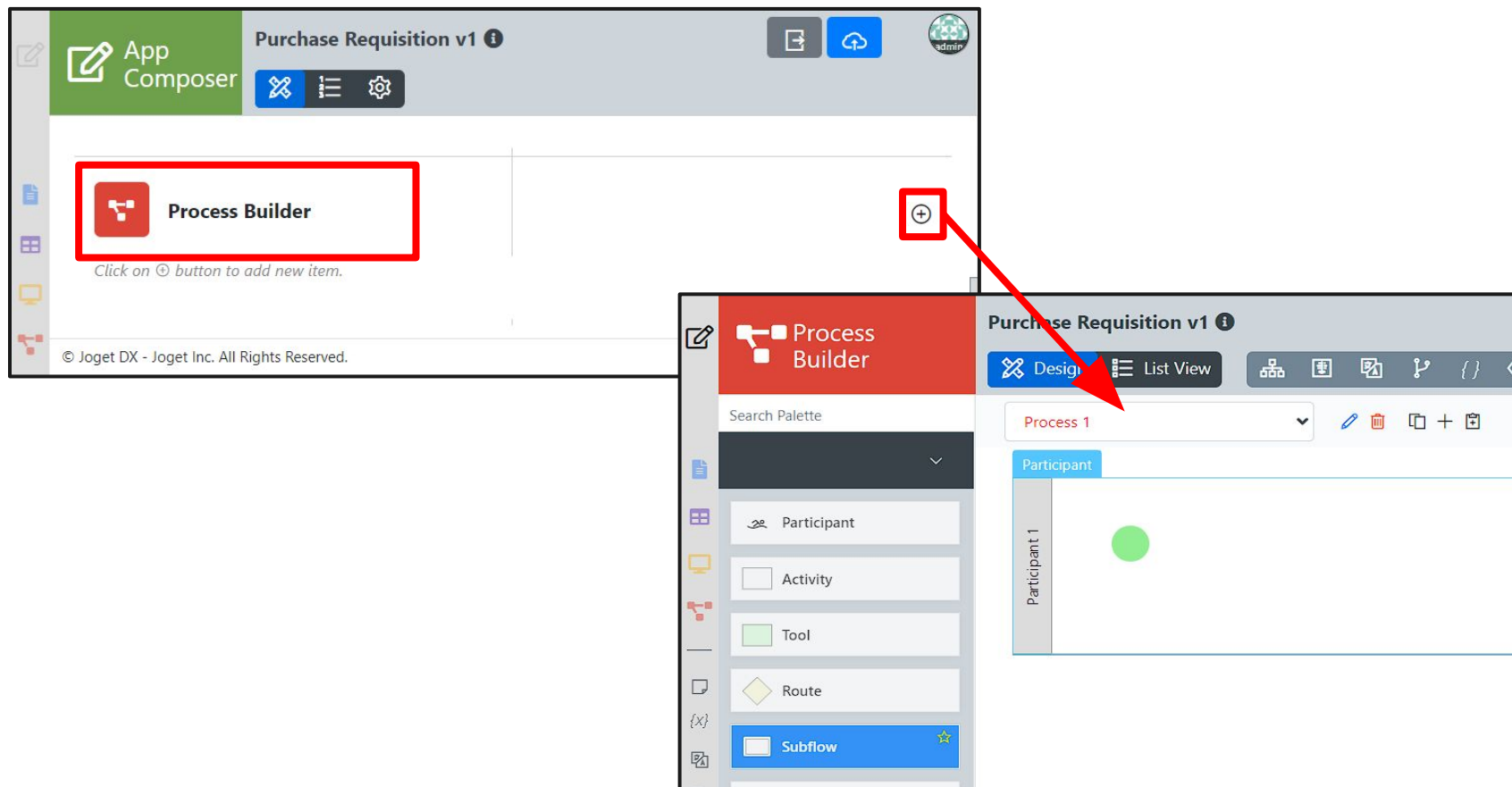
# Create Your First App

- Purchase Requisition Application
  - Purchase Request Process
    - Applicant **submits**
    - Approver **approves**
    - Applicant is **notified** of the request result



# Design Your First Process

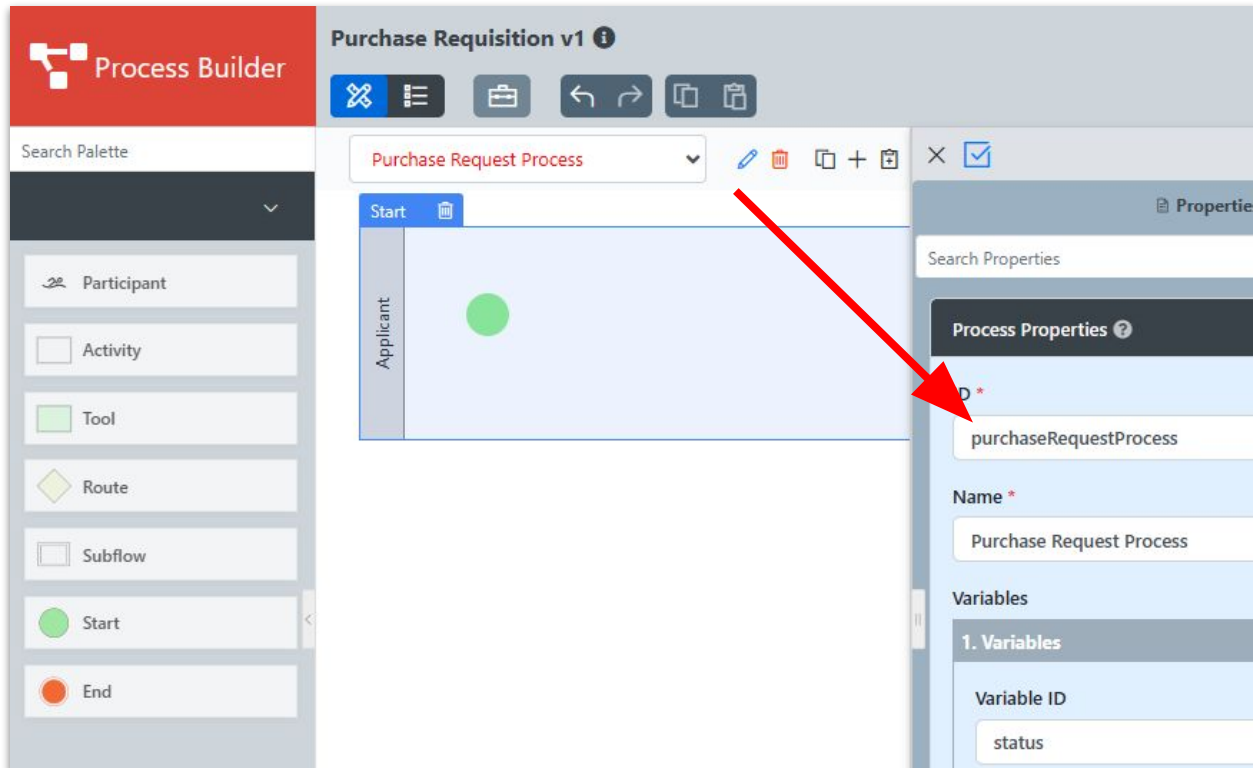
- Launch Process Builder – **App Composer** > ⊕ (Add New) On Process Builder Section





# Defining Your Process

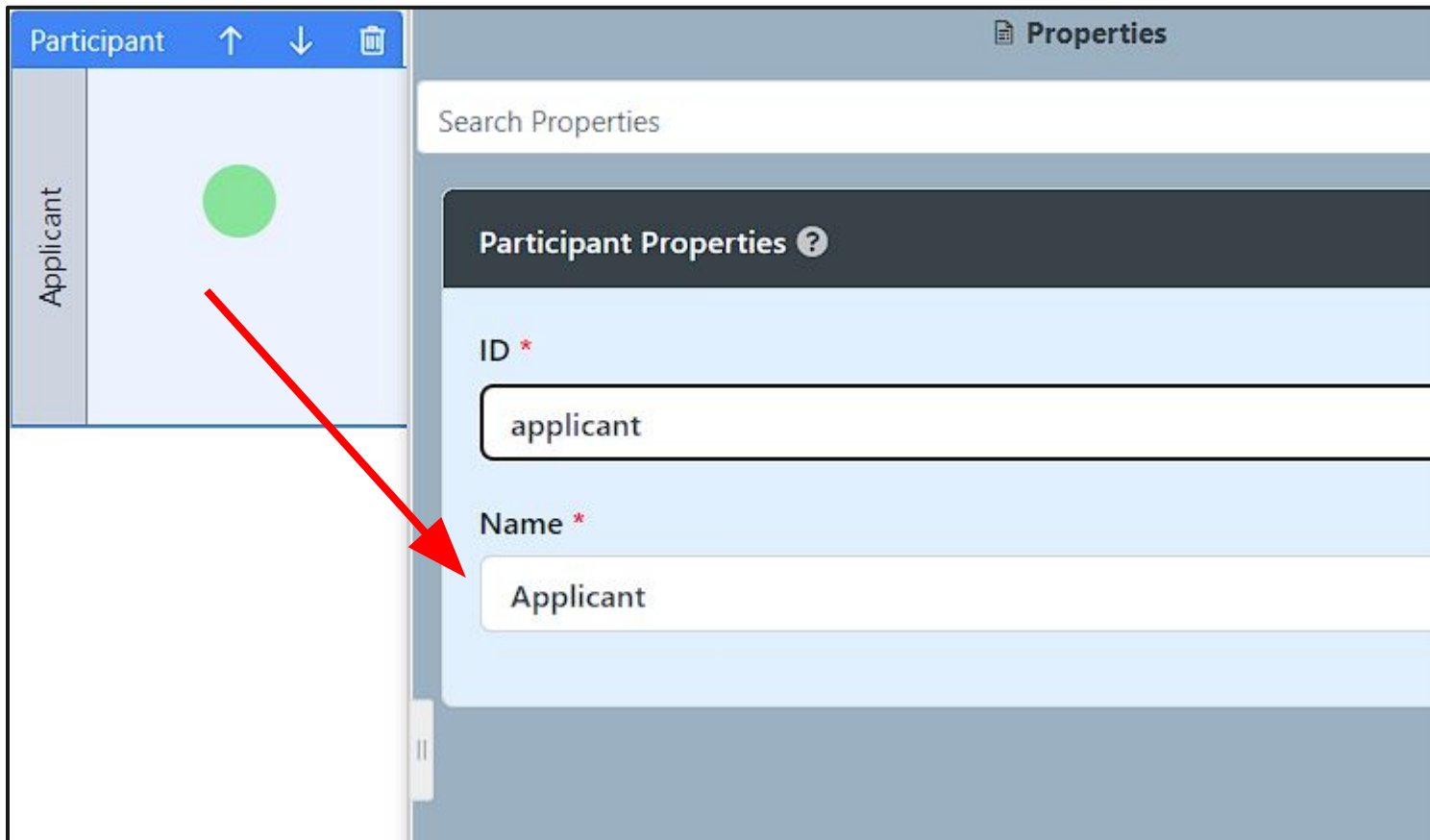
- Rename Process ID and Name
  - Use **camel case** for ID – **purchaseRequestProcess**
  - Do not use **snake case** as it conflicts with process instance ID naming convention



The screenshot displays the Joget Process Builder interface for a process titled "Purchase Requisition v1". On the left is a "Search Palette" with various process elements like Participant, Activity, Tool, Route, Subflow, Start, and End. The main workspace shows a process flow starting with a "Start" event (green circle) and a participant labeled "Applicant". A red arrow points from the "Purchase Request Process" dropdown in the top toolbar to the "ID" field in the "Process Properties" panel on the right. The "ID" field contains the value "purchaseRequestProcess". Below the "ID" field, the "Name" field contains "Purchase Request Process". The "Variables" section shows a list of variables, with "1. Variables" expanded, showing a variable with ID "status".

# Defining Your Participant

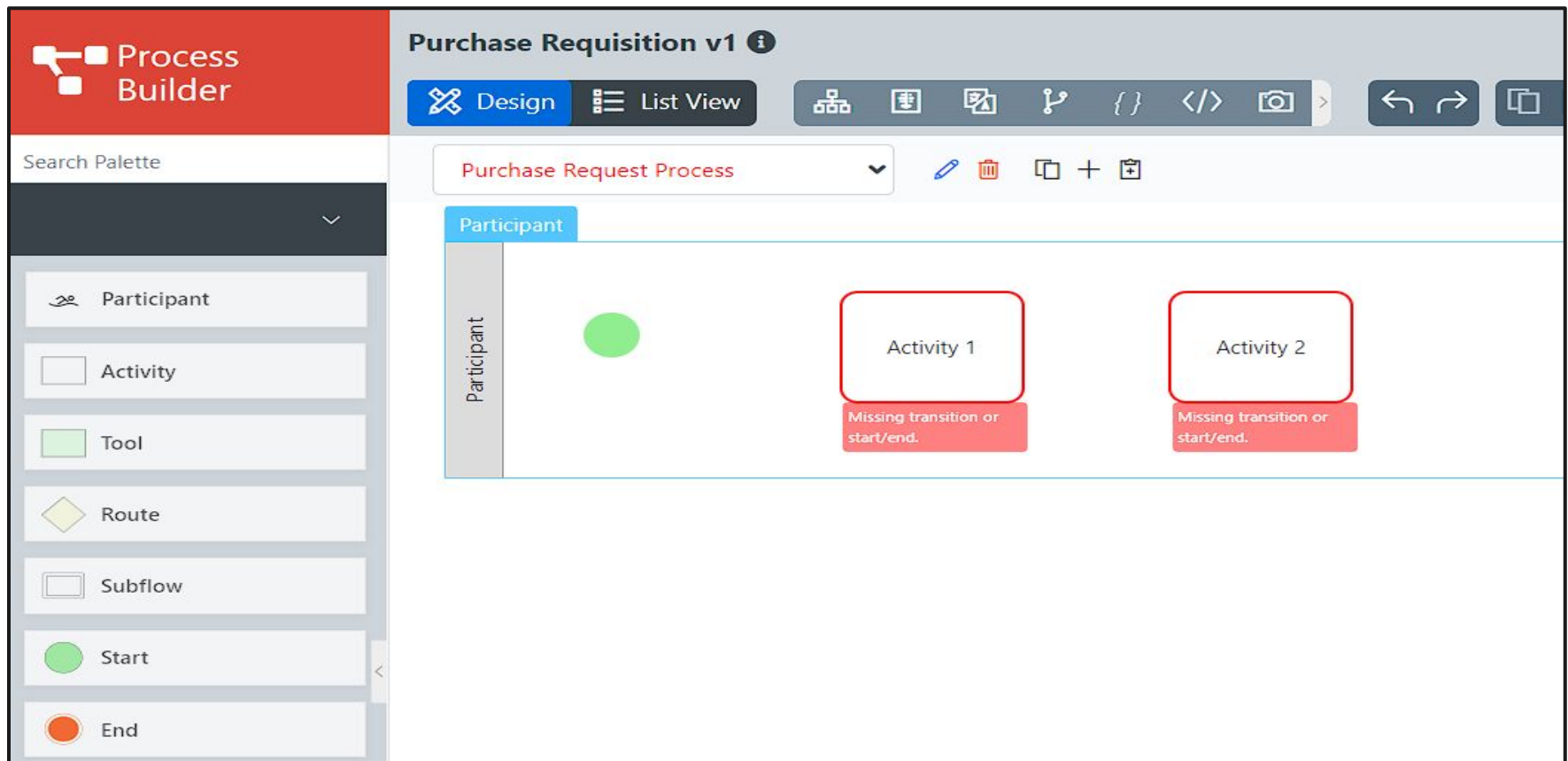
- Rename the existing participant to **Applicant**.



The screenshot displays the Joget Designer interface. On the left, the 'Participant' panel shows a green circle icon and the label 'Applicant'. On the right, the 'Properties' panel is open, showing a search bar and a section titled 'Participant Properties'. The 'ID' field contains 'applicant' and the 'Name' field contains 'Applicant'. A red arrow points from the 'Applicant' label in the Participant panel to the 'Name' field in the Properties panel.

# Smart Guide

- The Process Builder will highlight logical errors as you design.

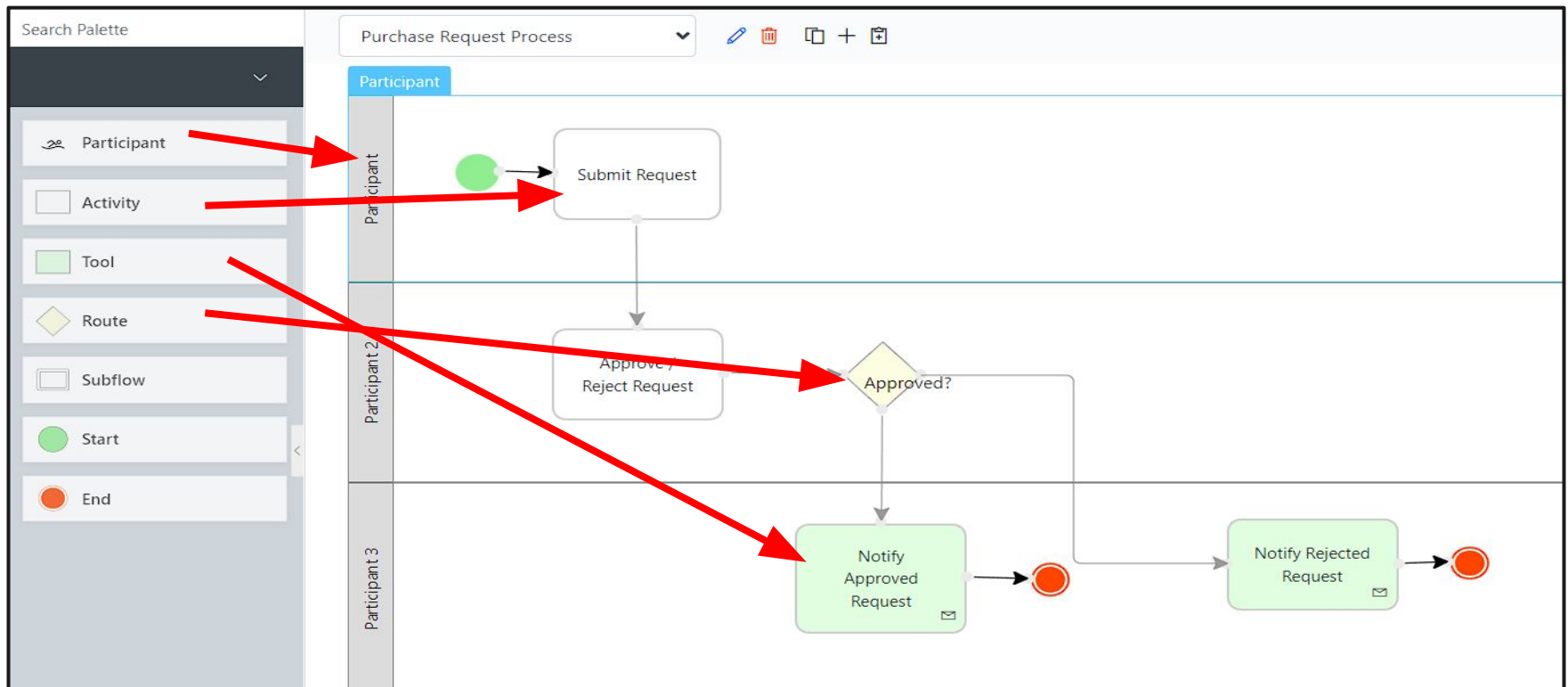


# About Smart Guide

- Advises only on possible design errors.
- Will **NOT** advise on flawed business logic, design inefficiency.

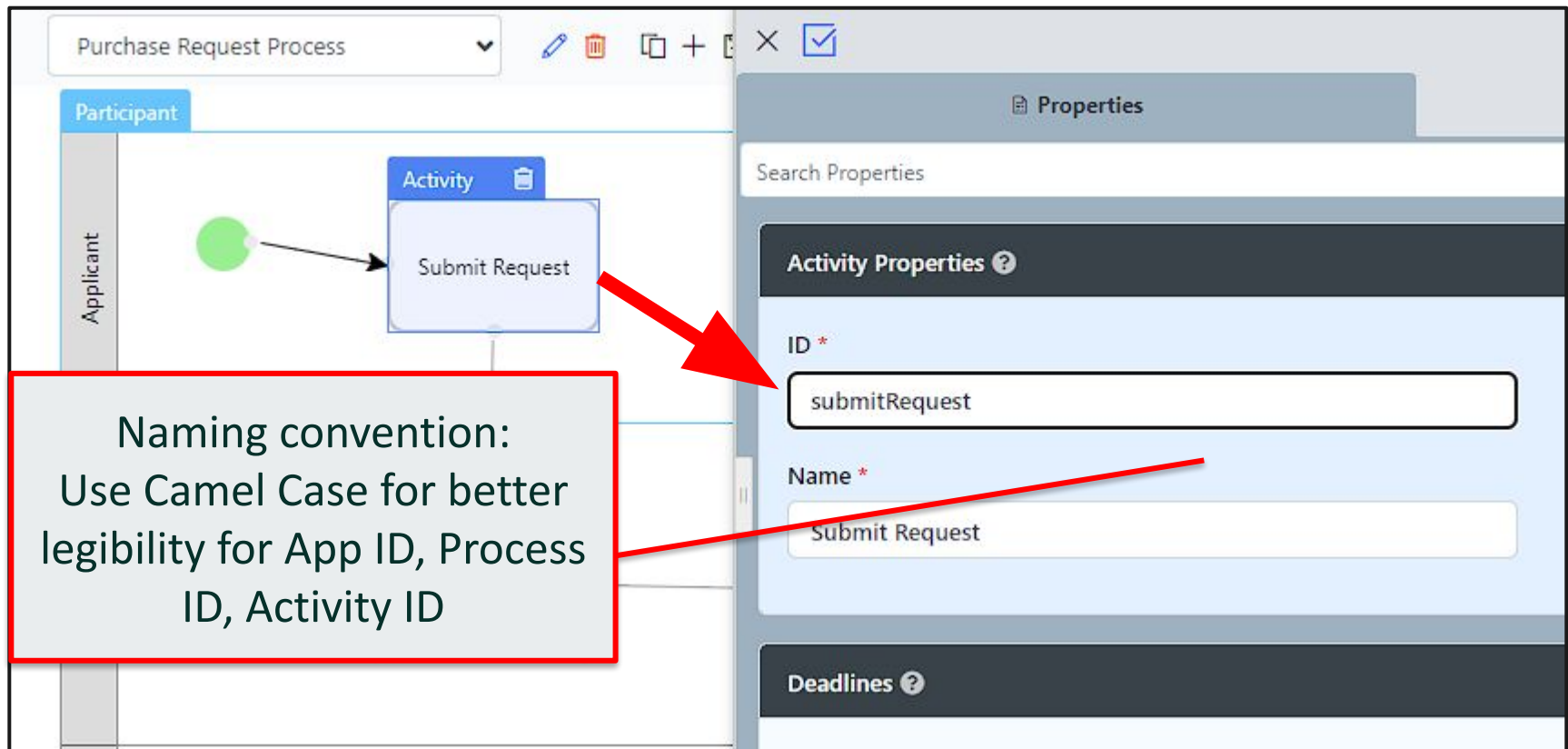
# Insert Activities and Transitions

- Drag and drop, select the appropriate nodes to build the Process.



# Rename Activity ID and Name

- Rename the activity node to make it meaningful.
- Use **camelCase** naming convention for ID (submitRequest).

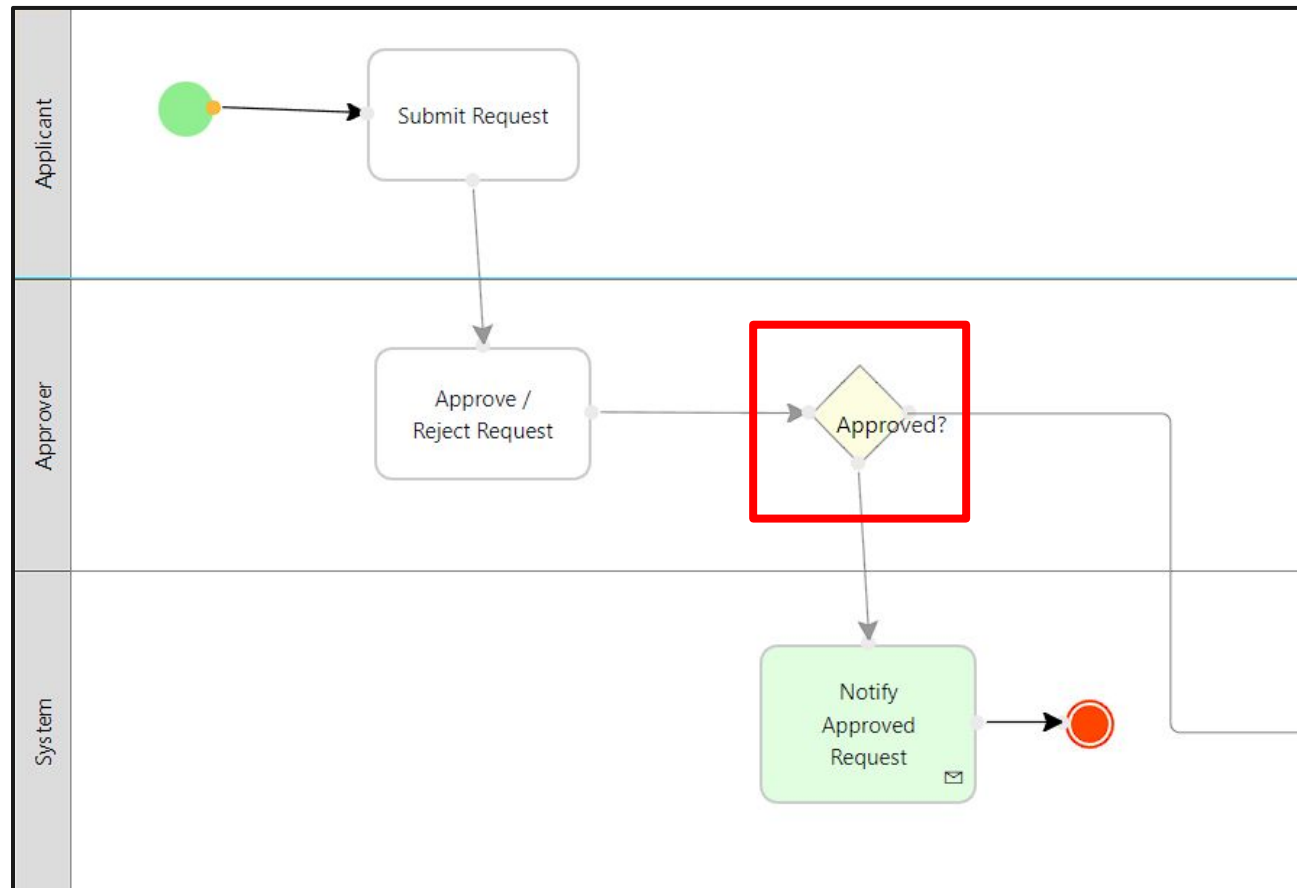


The screenshot shows the Joget Designer interface. On the left, a process diagram titled 'Purchase Request Process' is displayed. It features a participant named 'Applicant' with a green start node connected to an activity named 'Submit Request'. On the right, the 'Properties' panel is open, showing the 'Activity Properties' section. The 'ID' field is set to 'submitRequest' and the 'Name' field is set to 'Submit Request'. A red arrow points from the 'Submit Request' activity in the diagram to the 'ID' field in the Properties panel. Another red arrow points from a text box to the 'Name' field.

Naming convention:  
Use Camel Case for better  
legibility for App ID, Process  
ID, Activity ID

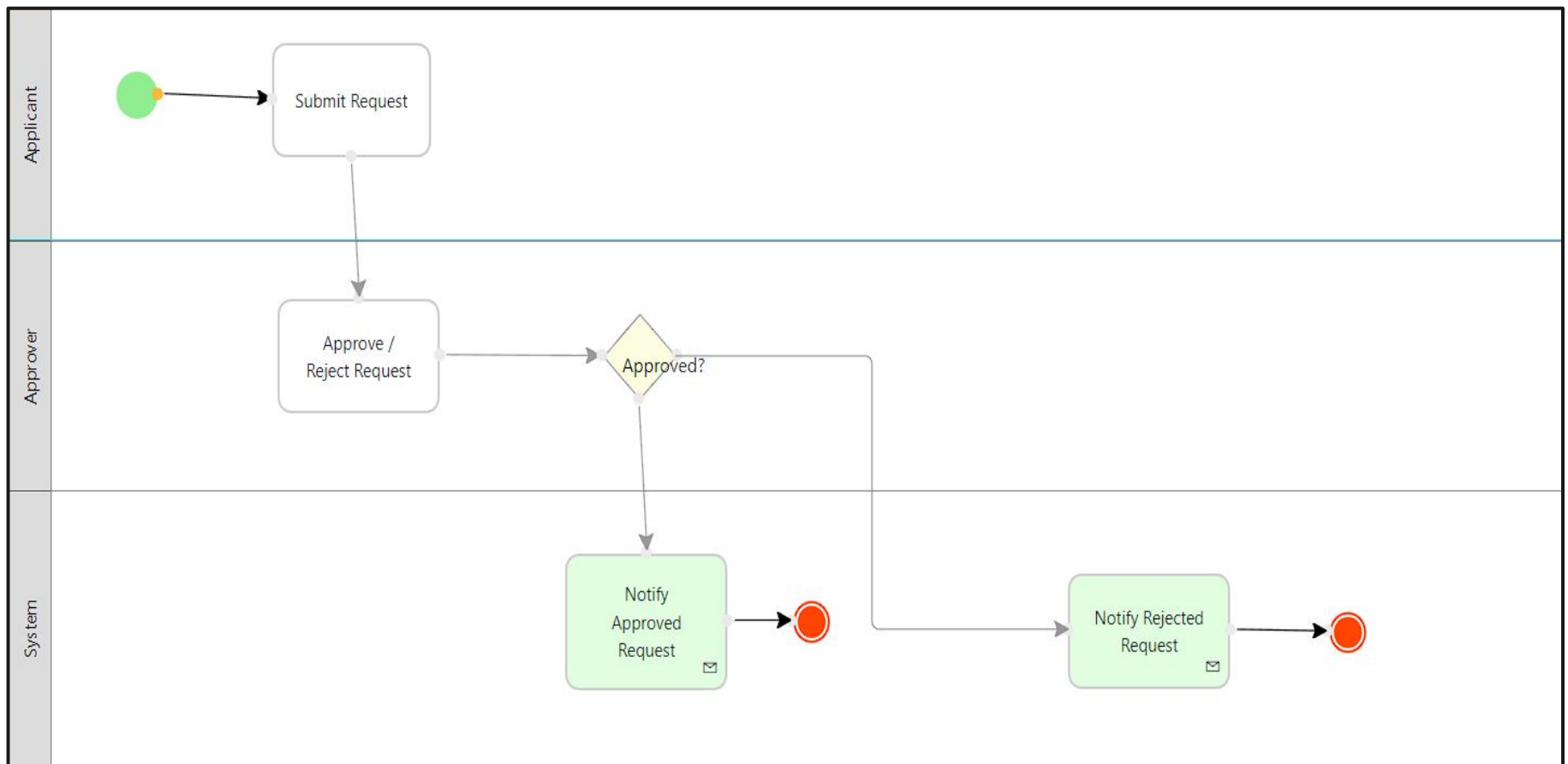
# Implementing the Business Rule

- Route: Diamond-shaped node – Used to implement business rules.



# Completing the Design

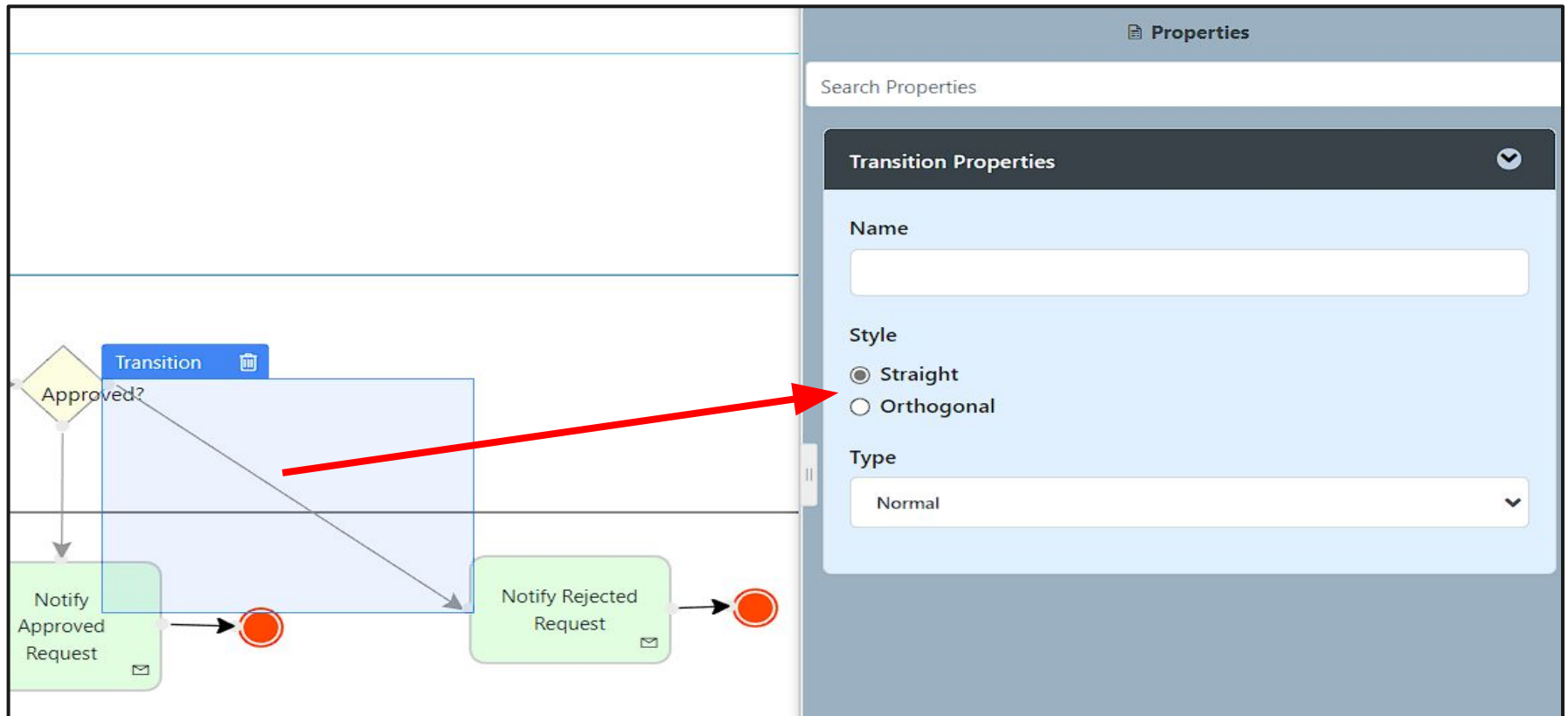
- Insert the rest of the activities.





# Managing the Transition Style

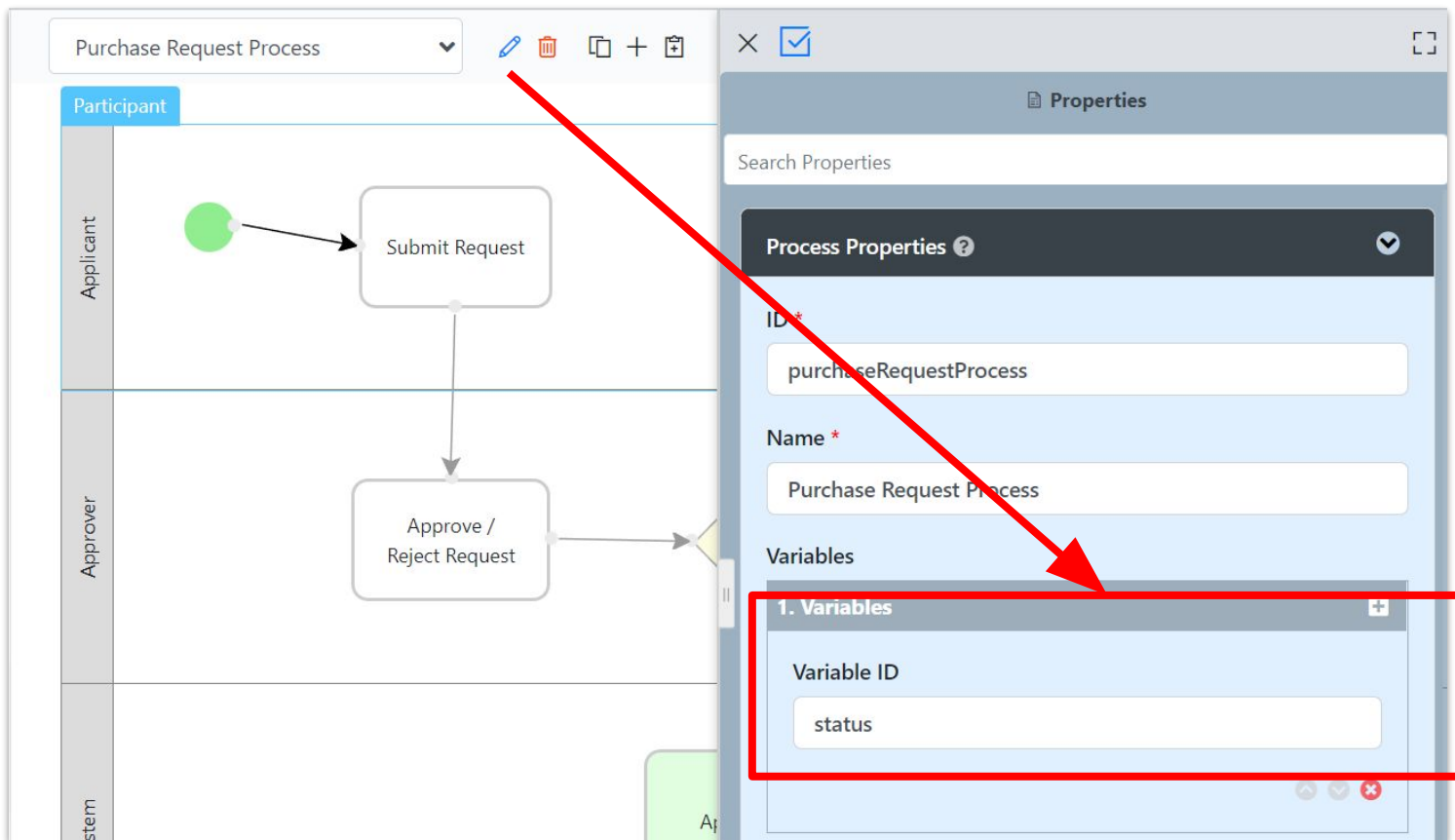
- Set style to Straight / Orthogonal to style your transition.



The screenshot displays the Joget BPMN editor interface. On the left, a BPMN diagram is shown with a yellow diamond decision node labeled "Approved?". Two outgoing transitions lead to green rounded rectangular task nodes: "Notify Approved Request" and "Notify Rejected Request". A red arrow points from the "Notify Rejected Request" task back to the "Transition Properties" panel on the right. The right panel, titled "Properties", contains a "Search Properties" bar and a "Transition Properties" section. In this section, the "Style" property is set to "Straight" (indicated by a selected radio button), and the "Type" is set to "Normal" in a dropdown menu.

# Declaring the Workflow Variable

- Variables used in the Process must be declared in the Process's properties.

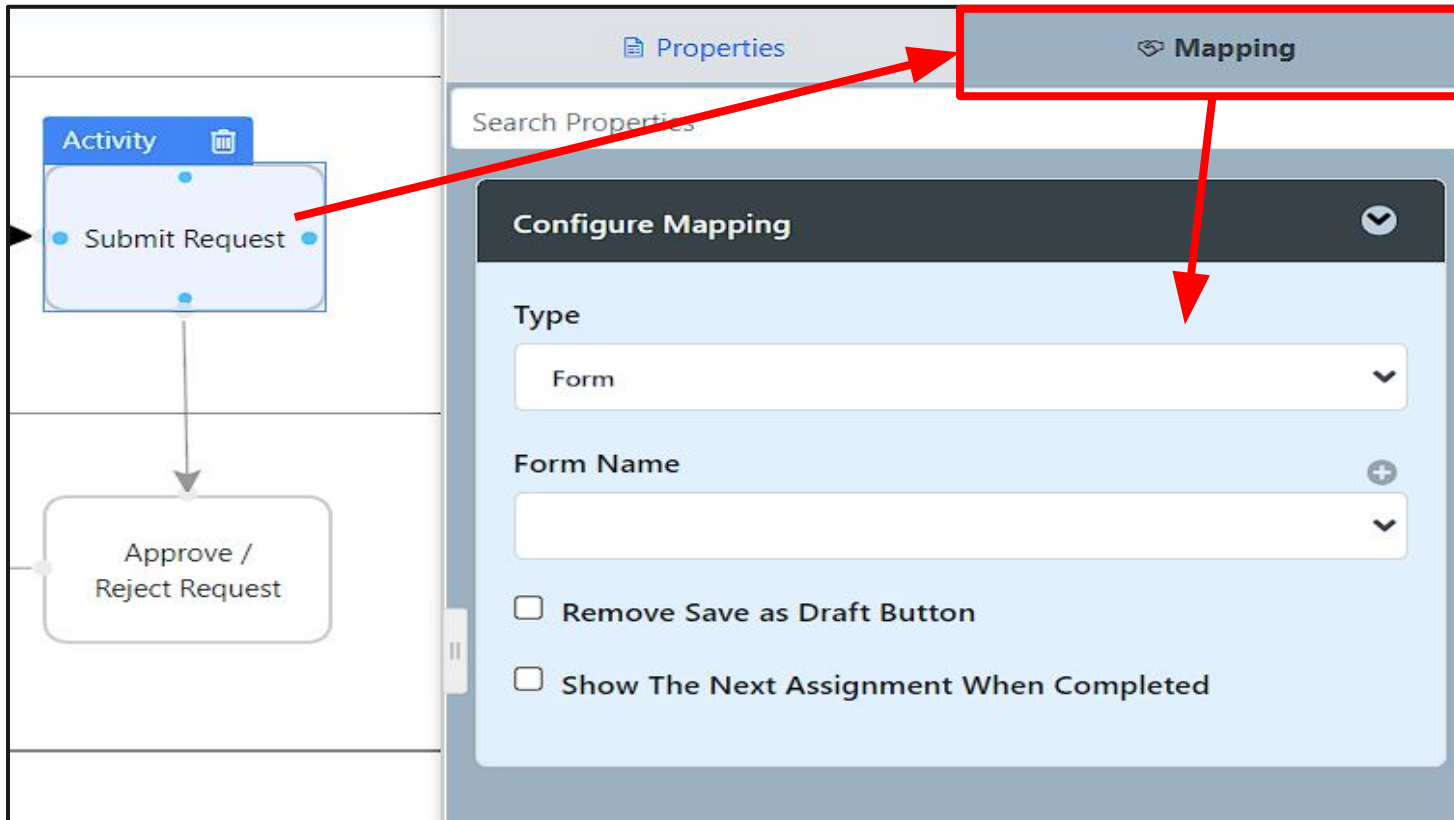


The screenshot displays the Joget workflow editor interface. On the left, a process diagram titled "Purchase Request Process" is shown. It features a swimlane with three participants: "Applicant", "Approver", and "System". The process flow starts with a green start node in the "Applicant" lane, leading to a "Submit Request" task. This task then flows into an "Approve / Reject Request" task in the "Approver" lane. The process ends with a yellow end node in the "System" lane. A red arrow points from the "Submit Request" task to the "Variables" section of the "Properties" panel on the right. The "Properties" panel shows the "Process Properties" tab selected. Under the "Variables" section, a table lists the declared variables:

| Variable ID |
|-------------|
| status      |

# Implementing the Business Rules

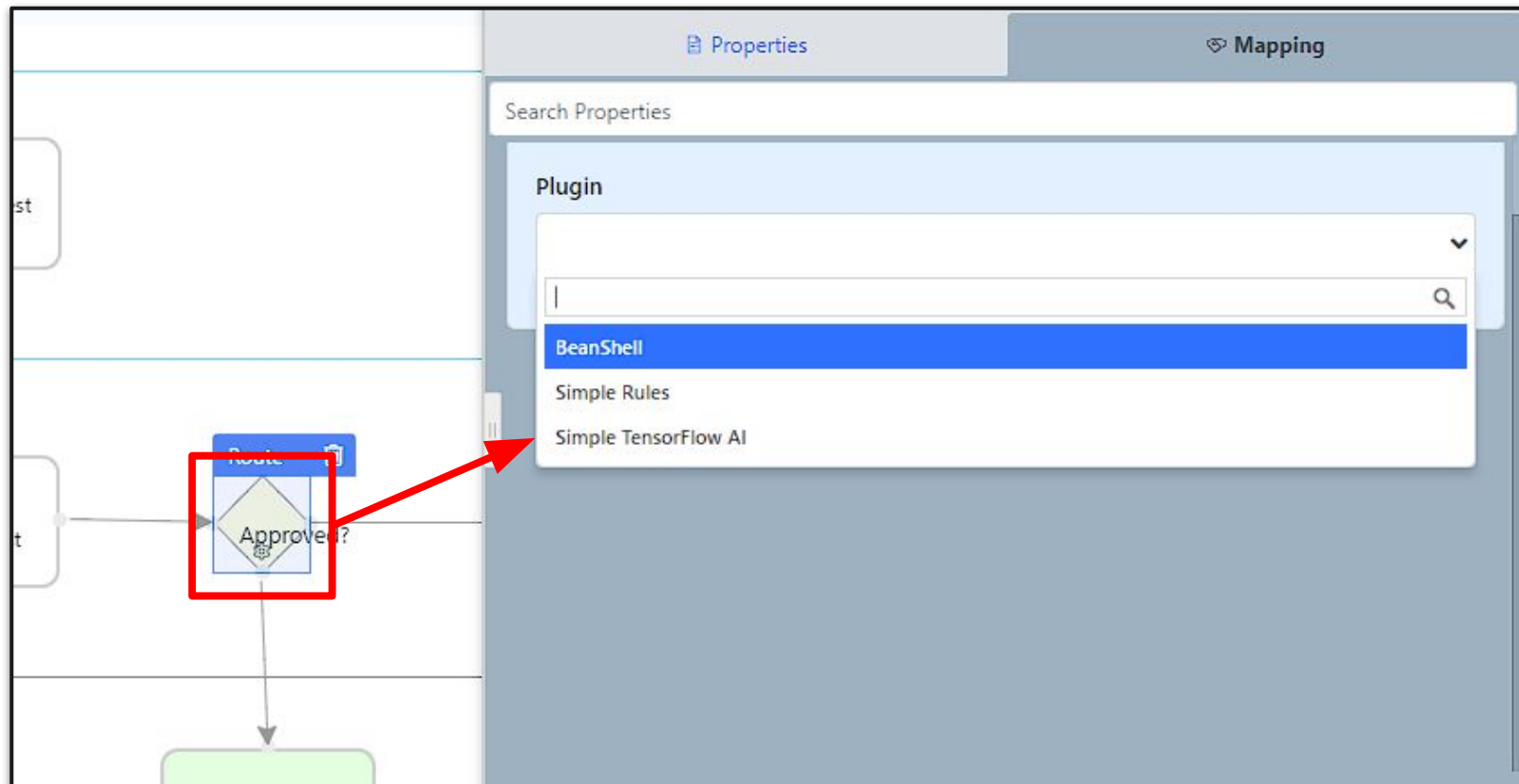
- Process Mapper  
Process Builder > Any Node > Mapping Tab



The screenshot displays the Joget Process Mapper interface. On the left, a process flow diagram shows an 'Activity' node labeled 'Submit Request' with a trash icon, which is connected to a rounded rectangle node labeled 'Approve / Reject Request'. On the right, a sidebar contains two tabs: 'Properties' and 'Mapping'. The 'Mapping' tab is highlighted with a red box. A red arrow points from the 'Submit Request' activity to the 'Mapping' tab. Another red arrow points from the 'Mapping' tab to the 'Configure Mapping' section. The 'Configure Mapping' section includes a 'Type' dropdown menu set to 'Form', a 'Form Name' dropdown menu, and two checkboxes: 'Remove Save as Draft Button' and 'Show The Next Assignment When Completed'.

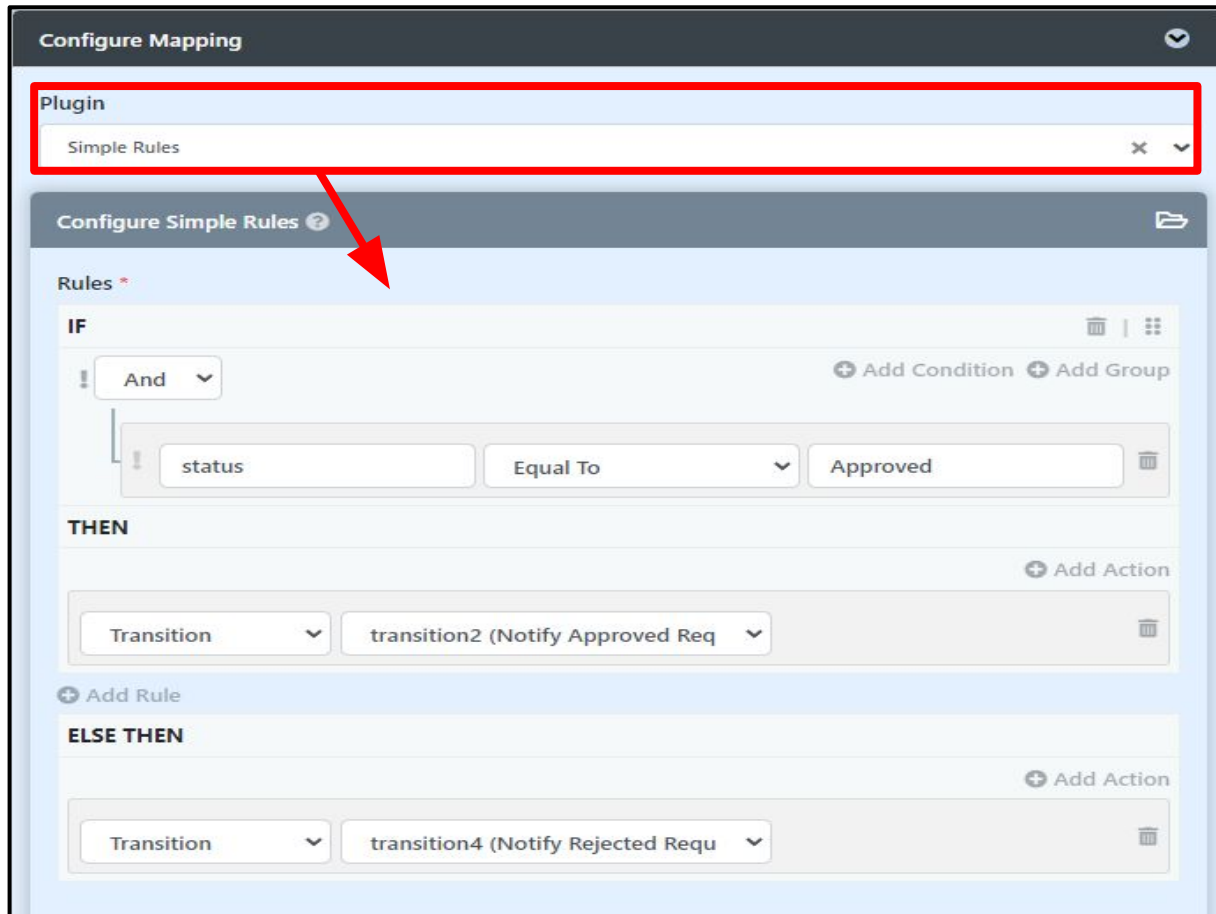
# Implementing the Business Rules

- Route: Diamond-shaped node – Used to implement business rules.



# Implementing the Business Rules

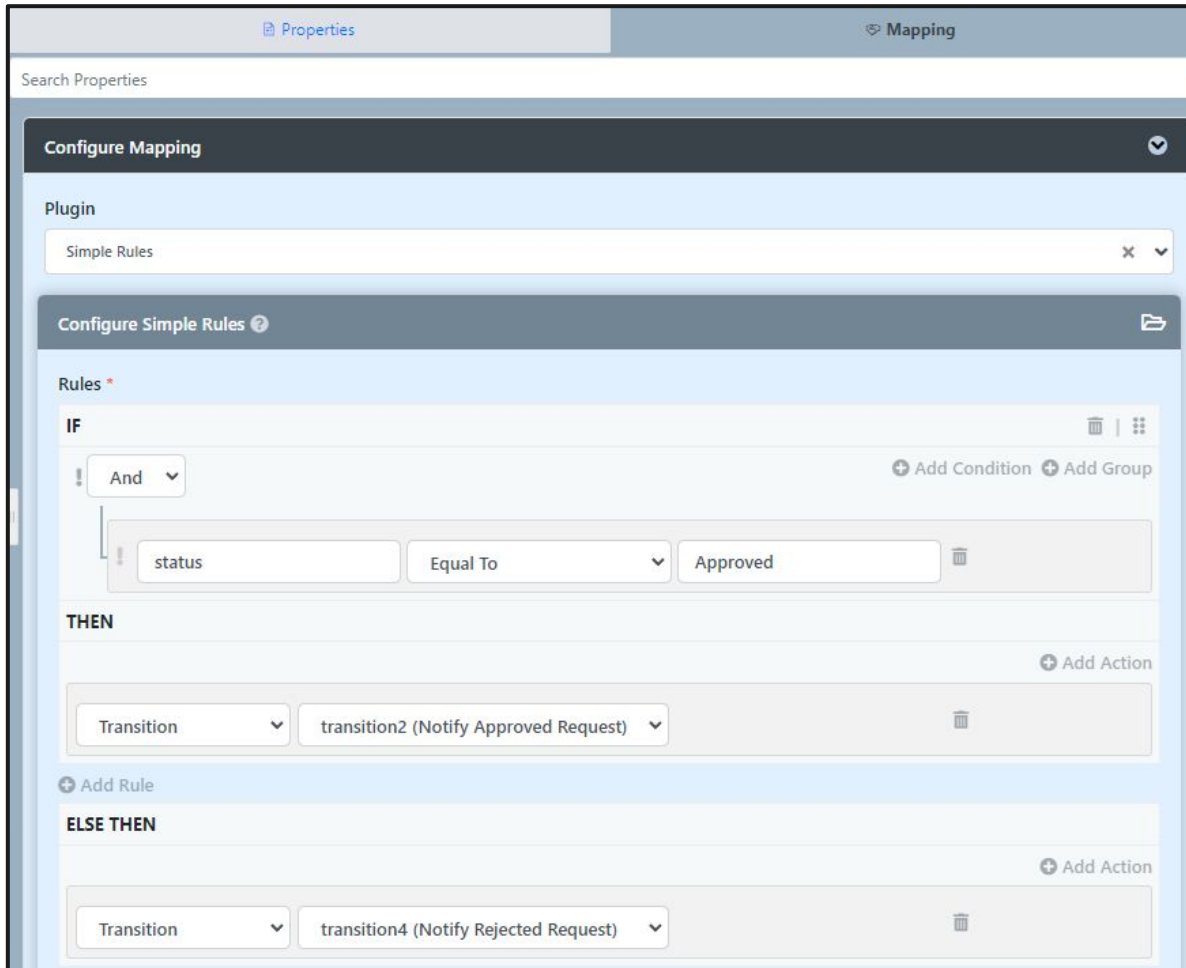
- Choose **Simple Rules**.



The screenshot displays the 'Configure Mapping' window in Joget. At the top, a 'Plugin' dropdown menu is highlighted with a red box and contains the selection 'Simple Rules'. A red arrow points from this dropdown to the 'Configure Simple Rules' panel below. This panel is titled 'Configure Simple Rules' and contains a 'Rules' section. The 'Rules' section is currently set to 'IF' logic. Under the 'IF' section, there is a condition: 'status' is 'Equal To' 'Approved'. Below the 'IF' section is the 'THEN' section, which contains an action: 'Transition' to 'transition2 (Notify Approved Req)'. At the bottom, there is an 'ELSE THEN' section with an action: 'Transition' to 'transition4 (Notify Rejected Req)'. The interface includes various icons for adding conditions, groups, actions, and rules, as well as delete icons for each rule component.

# Setting the Rules for Transition Condition

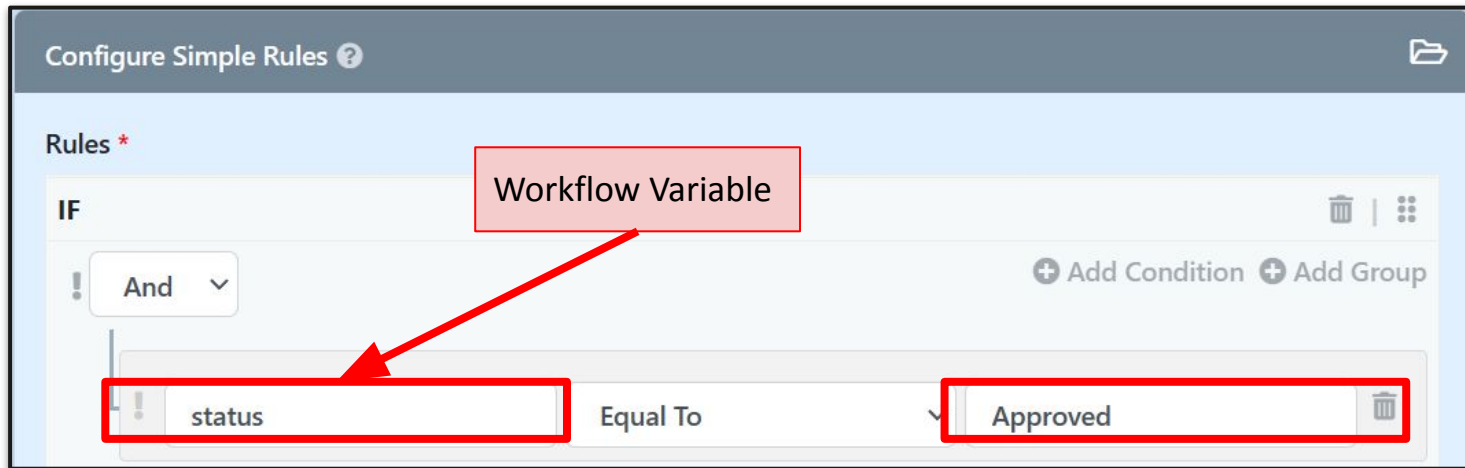
- When the **status** variable is met with certain condition(s), route accordingly.



The screenshot displays the 'Mapping' tab in the Joget configuration tool. The 'Configure Mapping' section is active, showing a 'Plugin' dropdown set to 'Simple Rules'. Below this, the 'Configure Simple Rules' section is expanded, revealing a 'Rules' configuration area. The 'IF' condition is set to 'And', and a single condition is defined: 'status' is 'Equal To' 'Approved'. The 'THEN' section contains one action: 'Transition' to 'transition2 (Notify Approved Request)'. An 'ELSE THEN' section is also visible, with an action 'Transition' to 'transition4 (Notify Rejected Request)'. The interface includes search bars, expandable sections, and various icons for adding, deleting, and grouping rules and actions.

# Simple Rules Decision Plugin

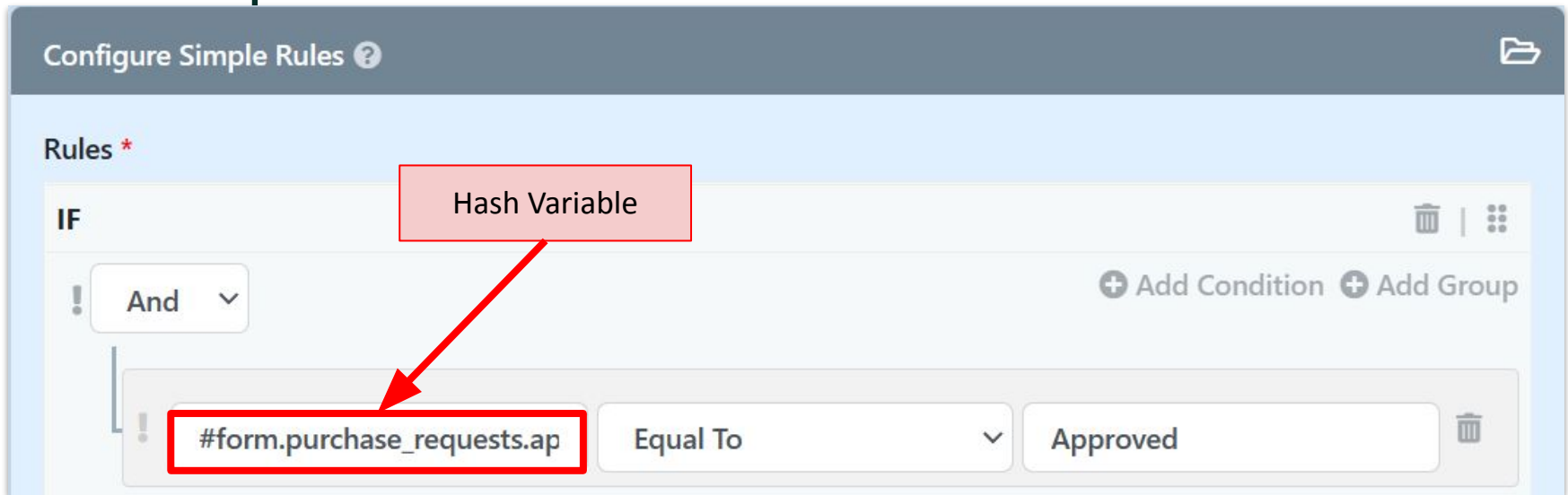
- **Hash variable** is supported in input fields as well for complex use cases.



**Note:** This means you don't even need workflow variables to control the route!  
e.g.: using Form Hash variable to read form field value to route

# Simple Rules Decision Plugin

- **Hash variable** is supported in input fields as well for complex use cases.



The screenshot shows the 'Configure Simple Rules' interface. A rule is defined with the condition 'IF' and a logical operator 'And'. The first condition is a hash variable '#form.purchase\_requests.ap' (highlighted with a red box and labeled 'Hash Variable' with a red arrow), followed by the operator 'Equal To' and the value 'Approved'.

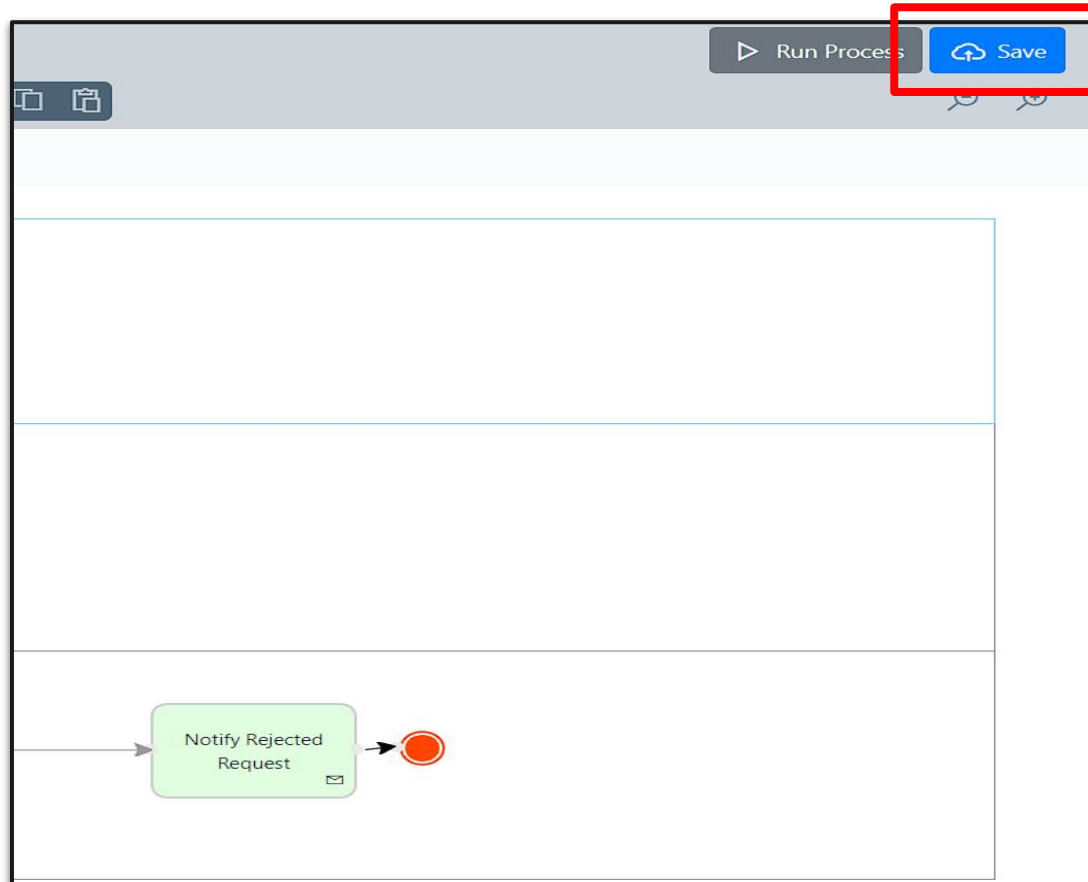
e.g.: using *Form Hash Variable* to read form field value to route

**#form.purchase\_requests.approval#**



# Deploying Your Process Design

- On the top right corner of the builder, click on the “Save” button to push your finished process to your Joget App.

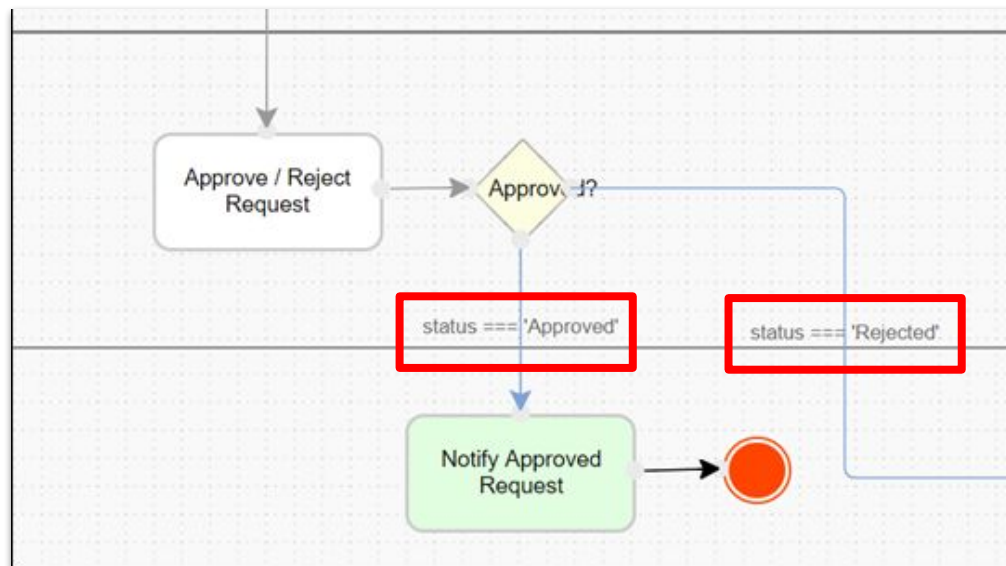


# If and otherwise...

- Does this resemble the typical programming if-else condition block?
- Is this the best design?
- Why not if-else-if-else everything? (In other words, explicitly set all possible conditions)

# Alternative Business Rule Implementation

- Prior to DX 8, business rules implementation must be done in the Process Builder.
- This approach is **no longer recommended** as it is difficult to change business logic without redeploying the whole process design of the entire app.

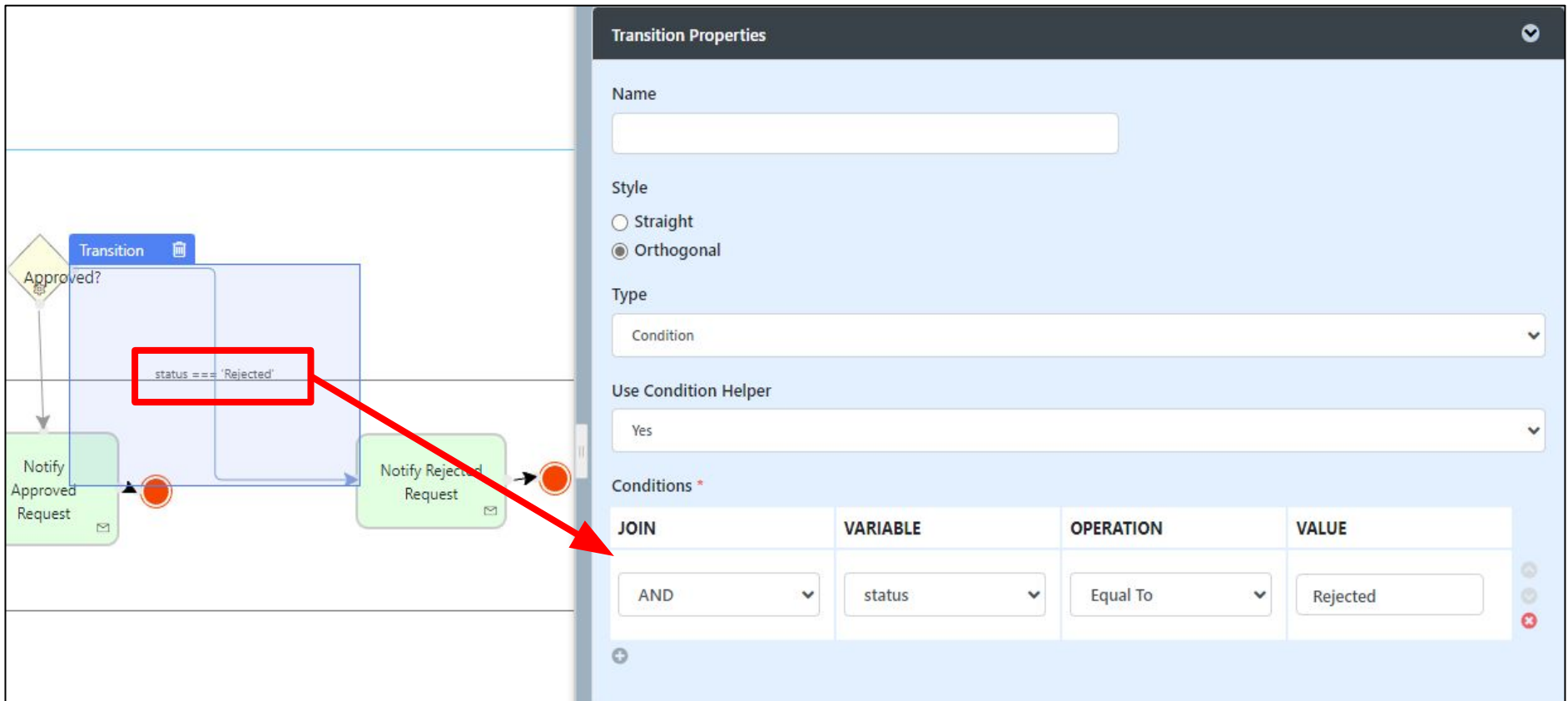


# Advantages of using Process Mapper

- Decision Tool Plugin takes precedence over Process Builder conditional setup.

# Alternative – Defining the Transition Condition

- When the **status** variable is met with certain condition(s), route accordingly.



The screenshot displays the Joget Designer interface. On the left, a workflow diagram shows a decision diamond labeled 'Approved?'. If approved, the flow goes to an action box 'Notify Approved Request'. If not approved, the flow goes to a transition box with the condition 'status == 'Rejected'', which then leads to an action box 'Notify Rejected Request'. A red box highlights the transition condition, and a red arrow points from it to the 'Conditions' table in the 'Transition Properties' panel on the right.

**Transition Properties**

Name

Style

☐ Straight

☒ Orthogonal

Type

Condition

Use Condition Helper

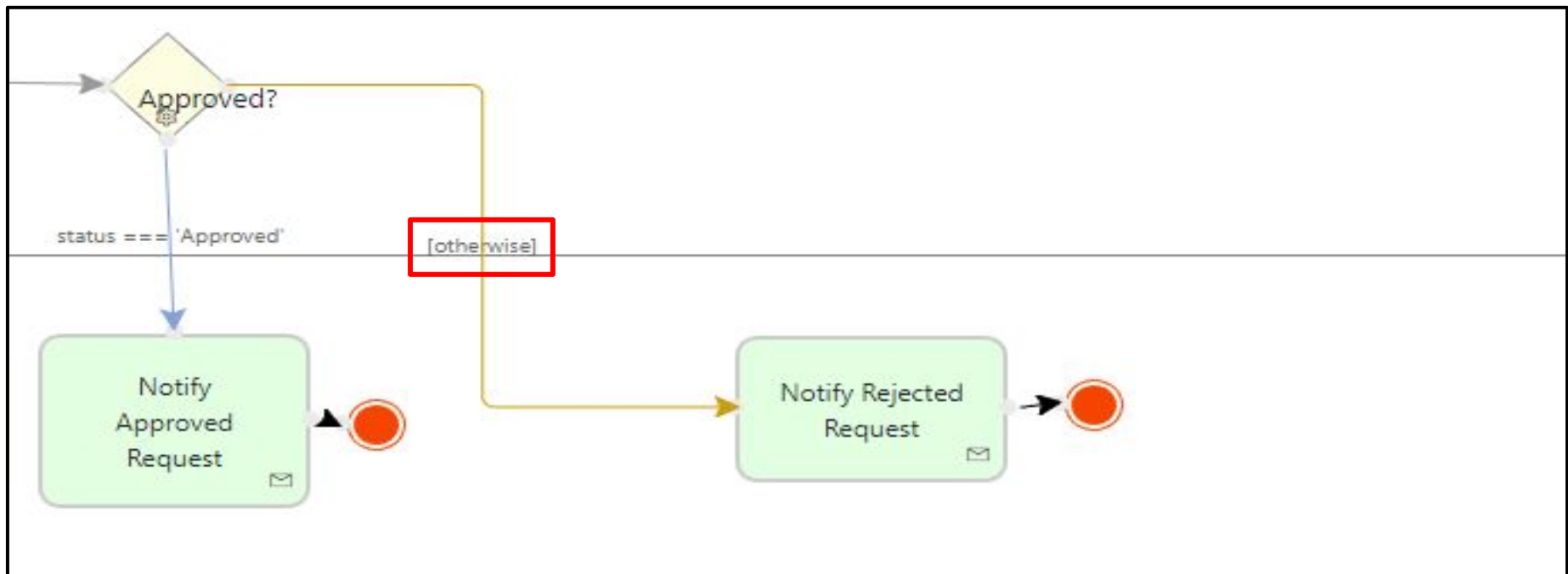
Yes

Conditions \*

| JOIN | VARIABLE | OPERATION | VALUE    |
|------|----------|-----------|----------|
| AND  | status   | Equal To  | Rejected |

# Alternative – Anything else...

- Handling the “otherwise”, if any.



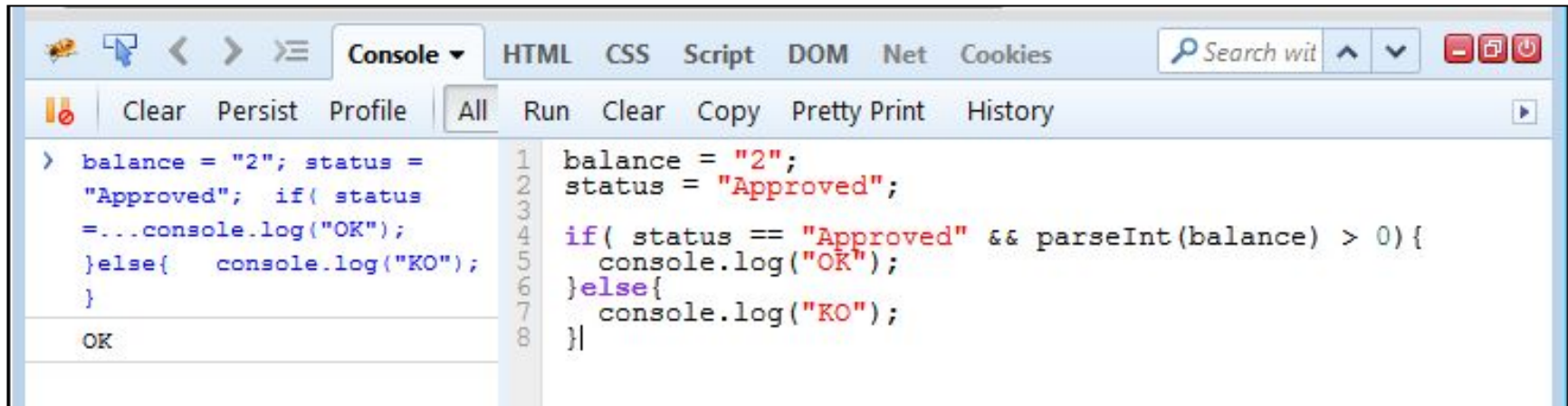
Note: In this case, “otherwise” is also correct. All conditions are set explicitly for educational purposes.

# Good to Know

- Expressions in “Condition” are evaluated in JavaScript.
- Workflow variable are stored as data type **string**.

# Good to Know

- Native Javascript functions are accepted. For example...
  - `status == "Approved" && parseInt(balance) > 0`
- Make sure of debugger tool such as **Firebug / Developer Tools** to test the expression before deploying.



The screenshot shows the Firebug Console window. The 'Console' tab is selected, and the 'All' filter is active. The console displays the output 'OK' from a JavaScript execution. The code being executed is as follows:

```
> balance = "2"; status =  
  "Approved"; if( status  
  ==...console.log("OK");  
  }else{ console.log("KO");  
  }  
OK
```

The code in the editor pane is:

```
1 balance = "2";  
2 status = "Approved";  
3  
4 if( status == "Approved" && parseInt(balance) > 0){  
5   console.log("OK");  
6 }else{  
7   console.log("KO");  
8 }
```



# Chapter 2 Review

- Create a new App.
- Design and deploy Process design into the App.
- Understand the naming convention.
- Define various kind of process design elements.
- Define workflow variable.
- Deploying process design to Joget.

Note: 3.1.jwa (Simple Rules) and 3.2.jwa (Transition Conditions) files are available

# Materials

- App with Simple Rules is available at **3.1.jwa**
- App with Transition Conditions is available at **3.2.jwa**



# Chapter 3

## Running your First Automated Process

# How to Test?

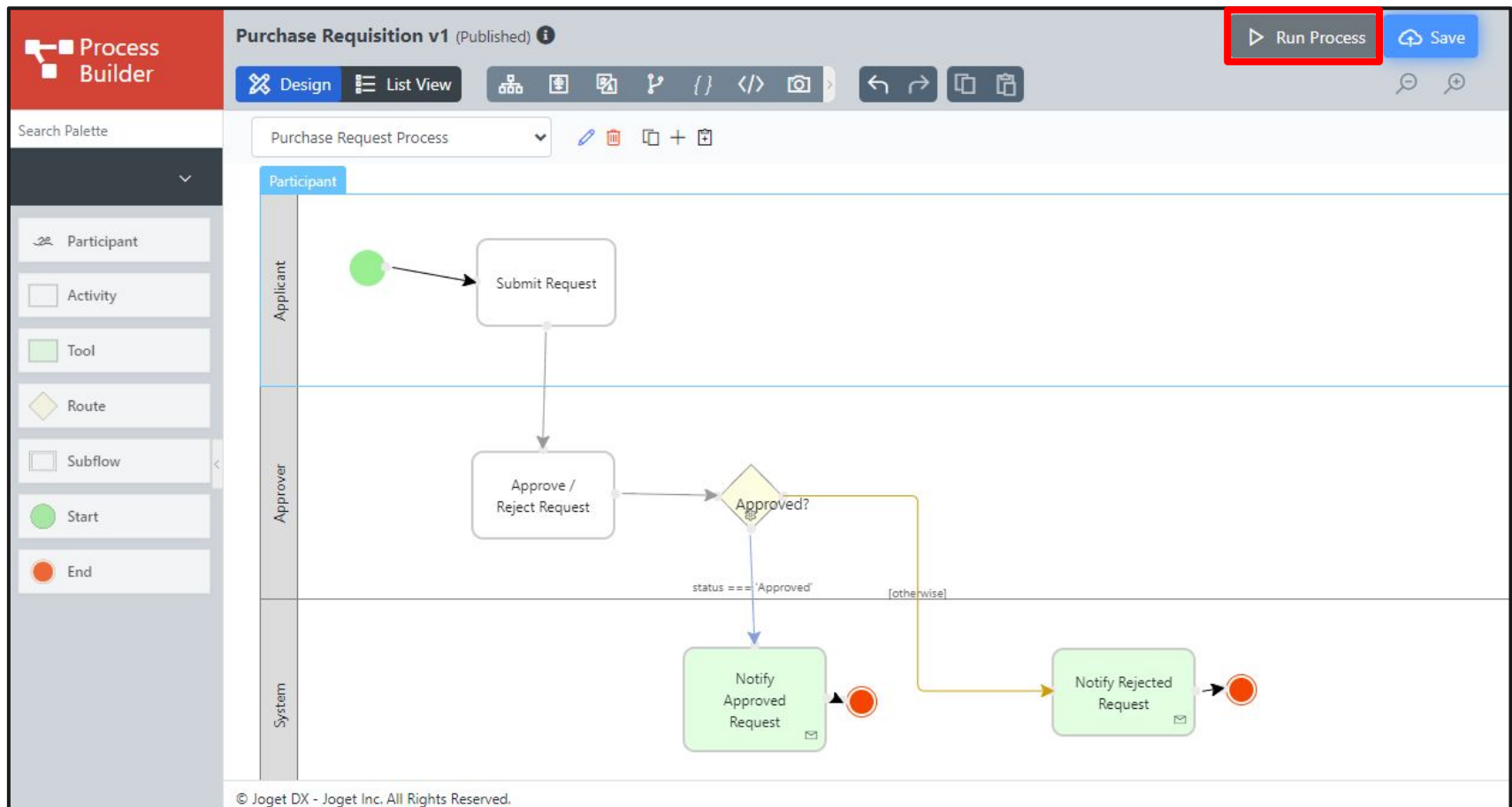
- There are 2 ways in general.
  - Make use of the “**Run Process**” button in the Process Builder
  - Make use of **UI**(for all users)

# How to Test?

- There are 2 ways in general.
  - Make use of the “**Run Process**” button in the Process Builder
  - Make use of **UI**(for all users)

# Verify the Process Using Run Process

- Run through the Process to verify.



# Verify the Process

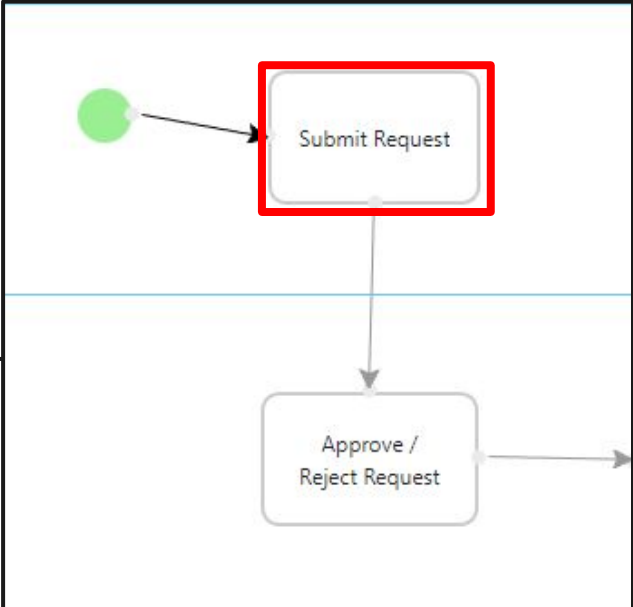
- Complete the assignment to proceed.

HINT: Activity name is configured in Process Builder

**PURCHASE REQUEST PROCESS - SUBMIT REQUEST**

status

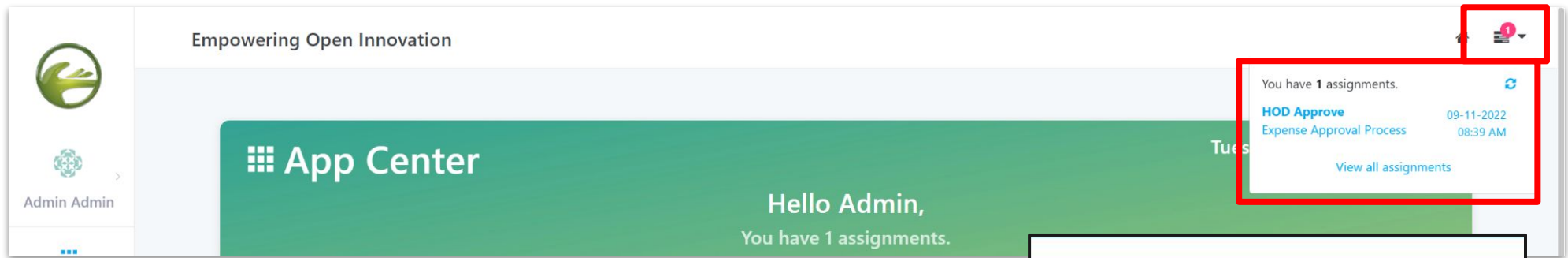
Complete



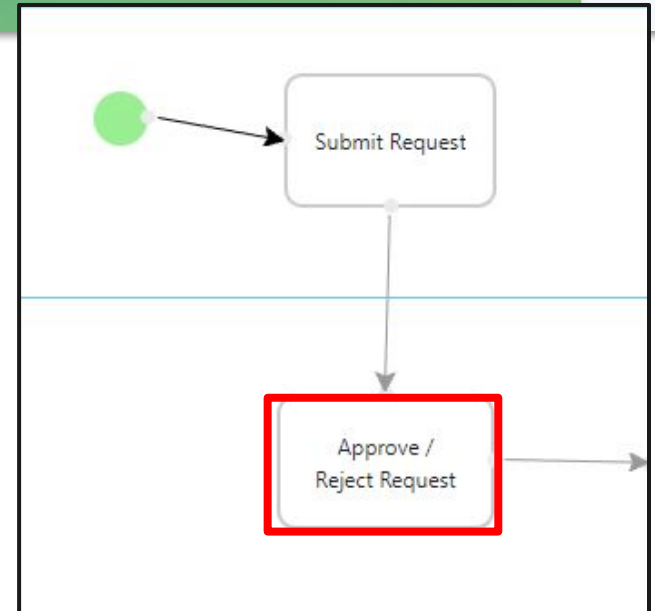
```
graph TD; Start(( )) --> SubmitRequest[Submit Request]; SubmitRequest --> ApproveReject[Approve / Reject Request]; ApproveReject --> End(( ))
```

# Accessing the Assignments

- App Center -> Universal Inbox



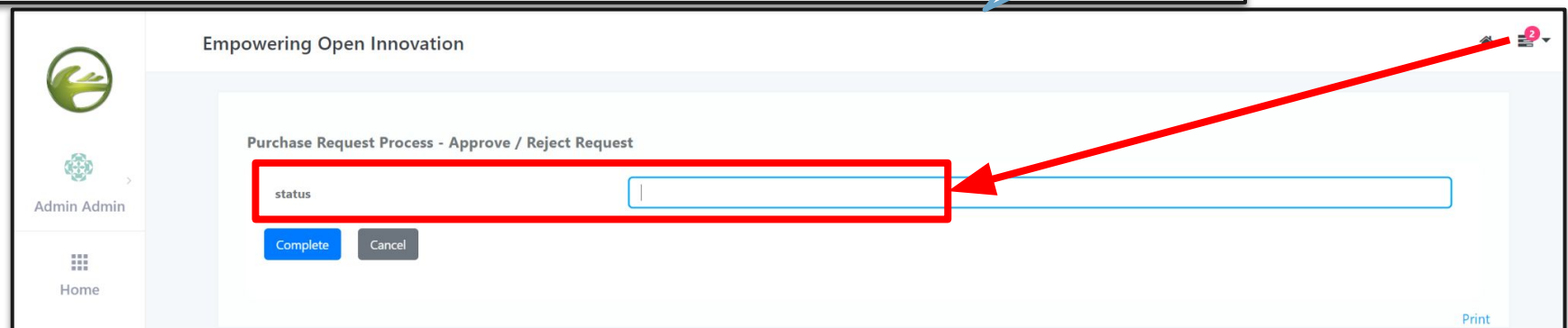
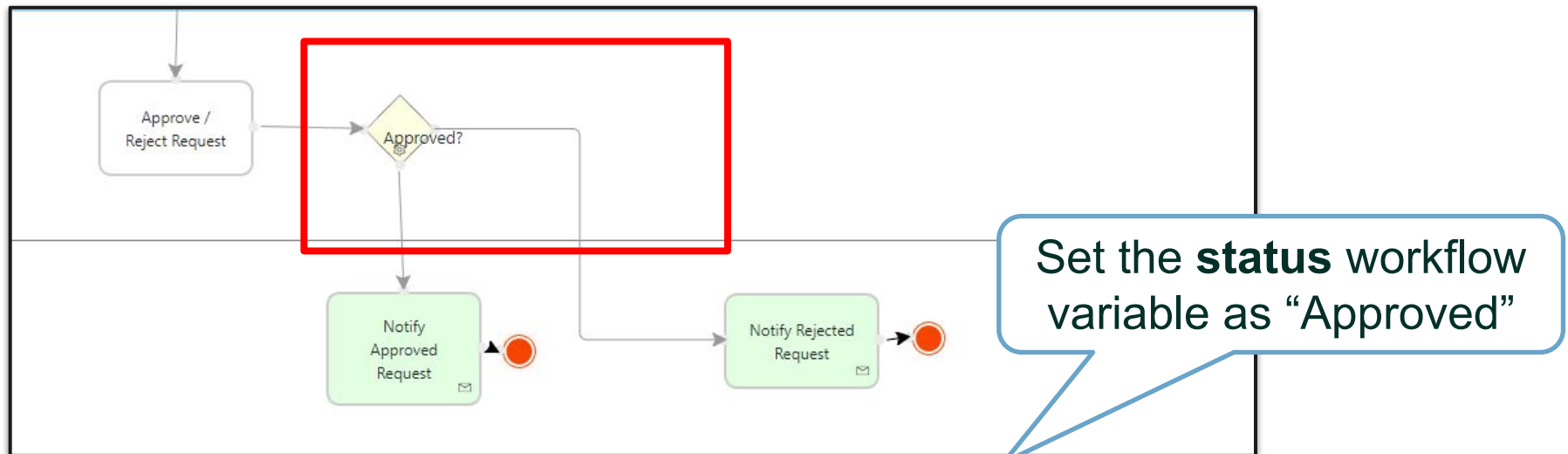
The screenshot shows the Joget App Center interface. On the left is a sidebar with the Joget logo and the text "Admin Admin". The main header area says "Empowering Open Innovation". Below this is a green banner with the "App Center" logo and the text "Hello Admin, You have 1 assignments." In the top right corner, there is a notification icon with a red circle containing the number "1". A red box highlights this icon and a dropdown menu that appears below it. The dropdown menu contains the text "You have 1 assignments." followed by a refresh icon. Below this, it lists "HOD Approve" with a timestamp of "09-11-2022 08:39 AM" and "Expense Approval Process". At the bottom of the dropdown is a link that says "View all assignments".





# Determining the Flow Using Route

- Manipulate the Process using Workflow Variable and complete the process.



The screenshot shows the 'Purchase Request Process - Approve / Reject Request' interface. On the left is a sidebar with the Joget logo, 'Admin Admin', and 'Home' links. The main area has a title bar 'Empowering Open Innovation' and a subtitle 'Purchase Request Process - Approve / Reject Request'. Below the subtitle is a form with a red rectangle around the 'status' label and an adjacent text input field. A red arrow points from the 'status' label to the input field. Below the input field are 'Complete' and 'Cancel' buttons. A 'Print' link is in the bottom right corner.

# Exercise

- Run through the process from the start again to test out the “Rejected” case scenario.
- The last chapter will inform you how to be *exactly* sure if your process flows properly.

# Good to know

- At this point of time, the App is NOT published yet, therefore end user would not be able to run it.
- “Run Process” button at the App Designer’s Processes tab is a convenient way to verify your process flow.

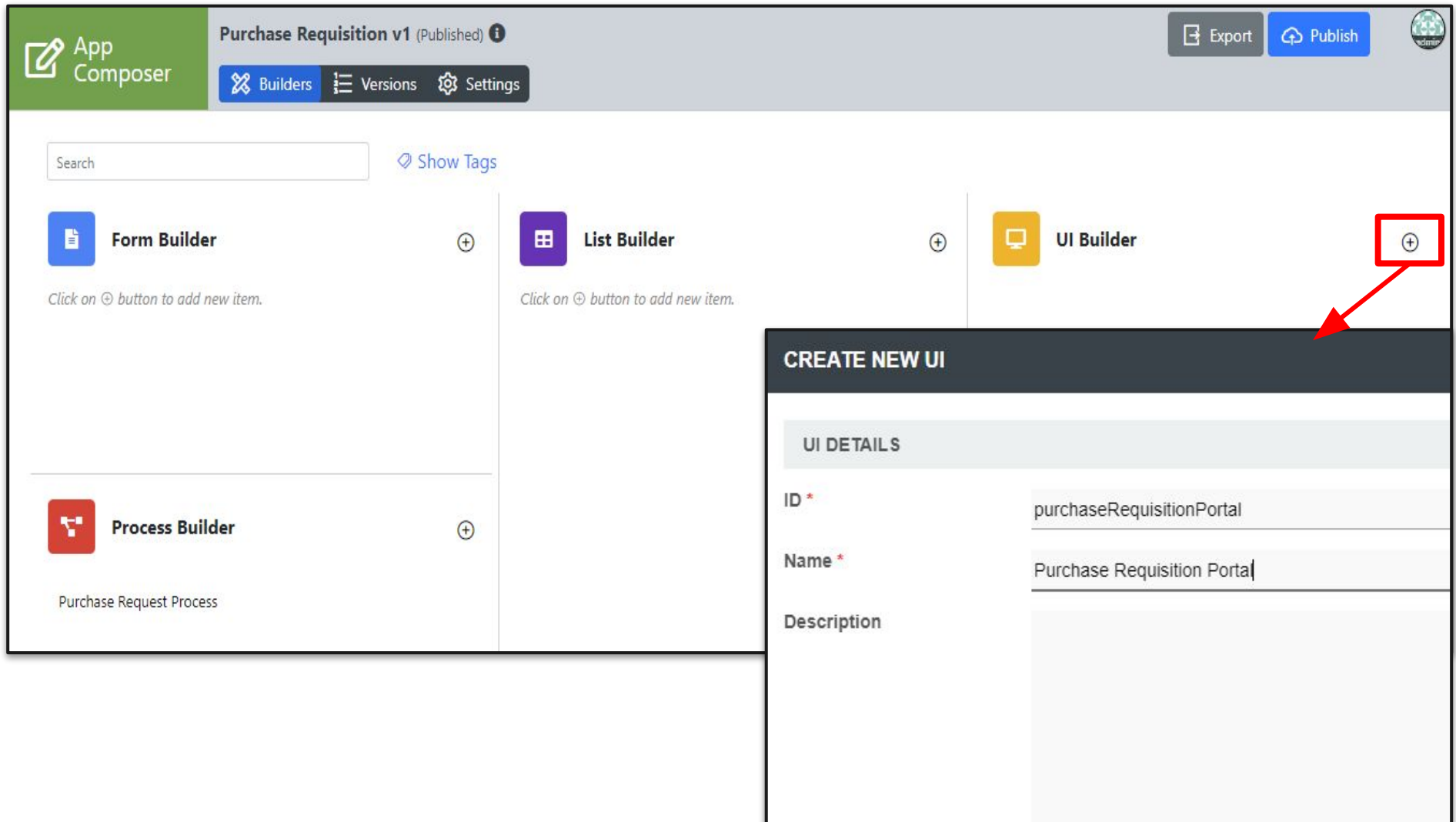
# How to Test?

- There are 2 ways in general.
  - Make use of the “**Run Process**” button in App Design > Processes (only for admin)
  - Make use of **UI**(for all users)

# Verify the Process Using UI

- Create a new UI.
- Add **Run Process** and **Inbox** element.
- **Publish** the App.
- Try running the whole process again by accessing the UI from the app center.

# Create New UI



The screenshot displays the Joget App Composer interface for a 'Purchase Requisition v1' application. The main workspace shows three UI components: Form Builder, List Builder, and UI Builder, each with a '+' button to add new items. A red box highlights the '+' button next to the UI Builder component, with a red arrow pointing to the 'CREATE NEW UI' dialog box that appears on the right.

**App Composer** | Purchase Requisition v1 (Published) | Export | Publish

Builders | Versions | Settings

Search | Show Tags

**Form Builder** (+) | **List Builder** (+) | **UI Builder** (+)

Click on ⊕ button to add new item.

**Process Builder** (+)

Purchase Request Process

**CREATE NEW UI**

**UI DETAILS**

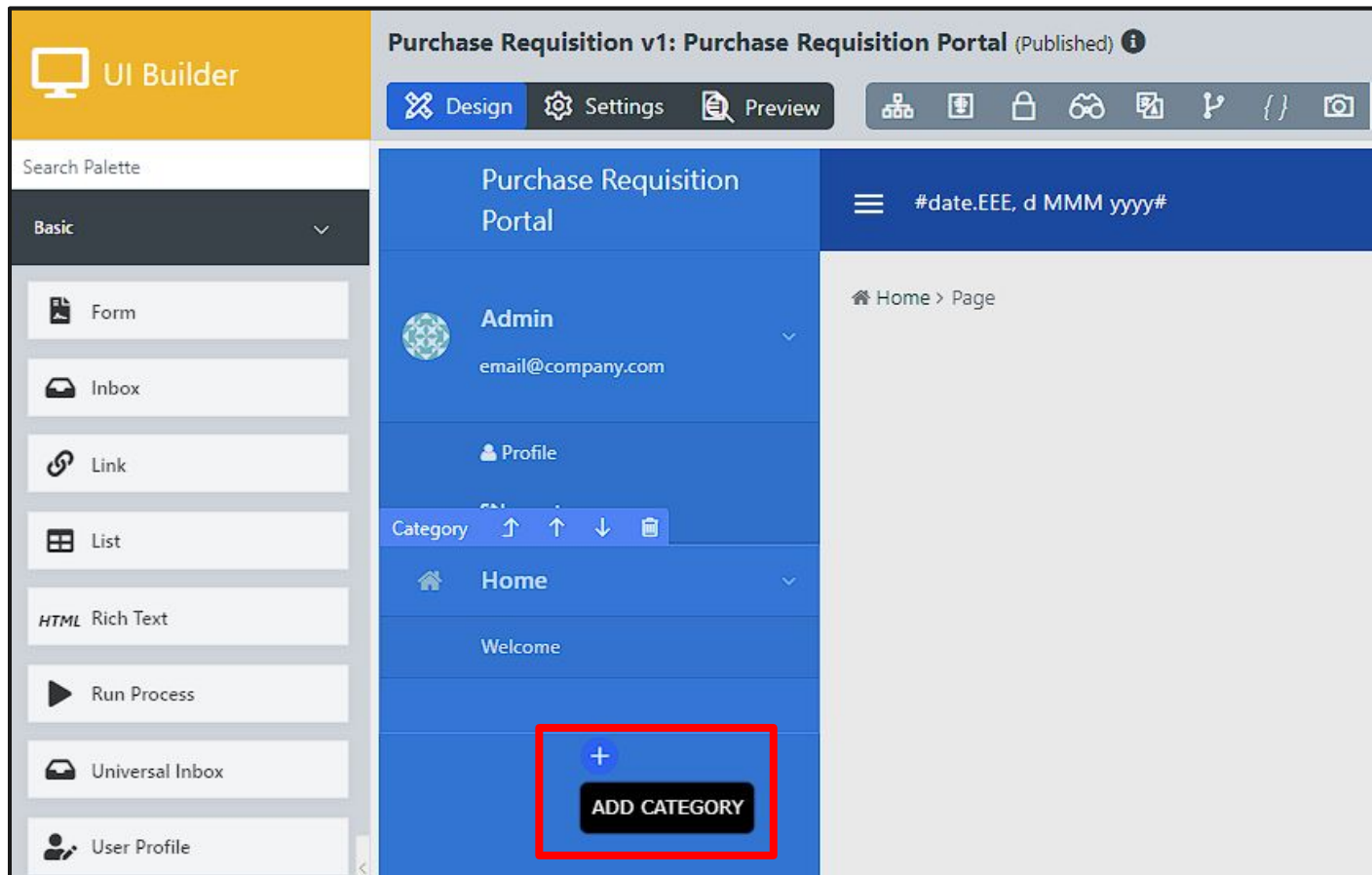
ID \* | purchaseRequisitionPortal

Name \* | Purchase Requisition Porta|

Description

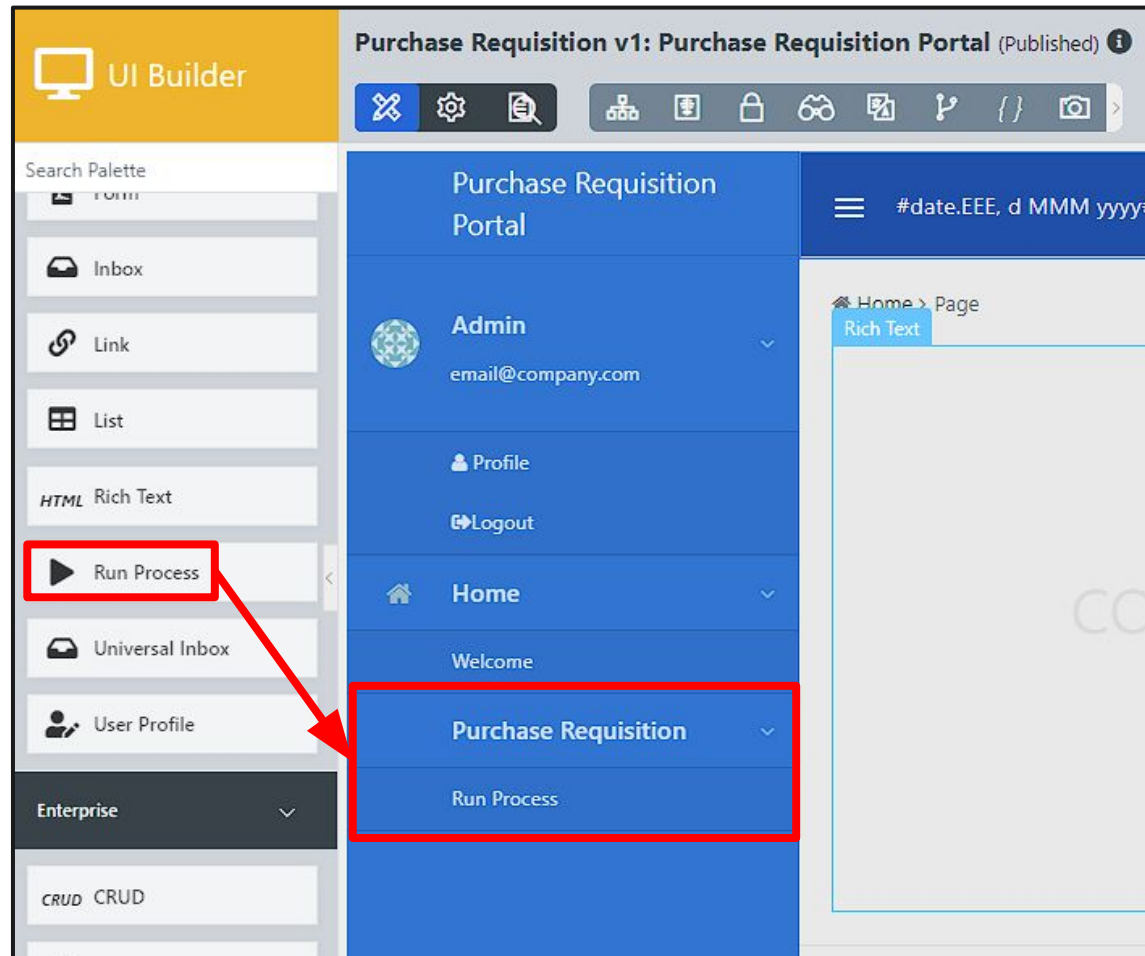
# UI Category

- Items are organized by Category.
- Add 1 new category – Purchase Requisition.



# Add Run Process Into UI

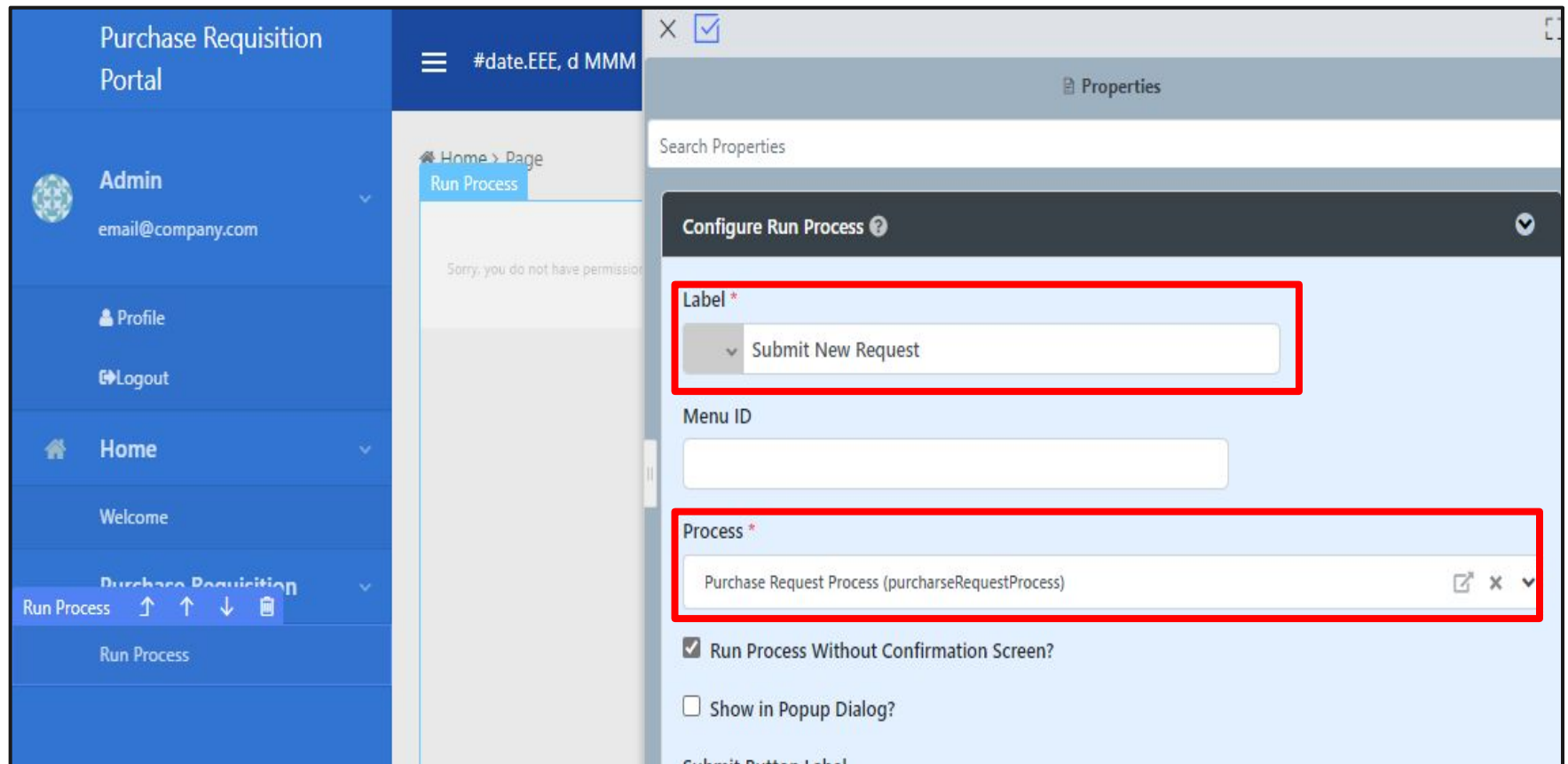
- Drag-n-drop **Run Process** into **Purchase Requisition** category.





# Integrate Run Process Into UI

- Set the appropriate label.
- Select Purchase Request Process in Process.



The screenshot displays the Joget configuration interface. On the left is a blue sidebar with the 'Purchase Requisition Portal' header and a user profile for 'Admin' (email@company.com). The main content area shows a breadcrumb 'Home > Page' and a 'Run Process' button. A 'Properties' panel on the right is open, showing the 'Configure Run Process' dialog. This dialog has two red rectangular highlights: one around the 'Label' field which contains a dropdown menu with 'Submit New Request' selected, and another around the 'Process' field which contains a dropdown menu with 'Purchase Request Process (purchaseRequestProcess)' selected. Below these fields are checkboxes for 'Run Process Without Confirmation Screen?' (checked) and 'Show in Popup Dialog?' (unchecked).

Purchase Requisition Portal

Admin  
email@company.com

Profile  
Logout

Home  
Welcome

Purchase Requisition  
Run Process

Run Process

#date.EEE, d MMM

Home > Page  
Run Process

Sorry, you do not have permission

Properties

Search Properties

Configure Run Process ?

Label \*

Submit New Request

Menu ID

Process \*

Purchase Request Process (purchaseRequestProcess)

☒ Run Process Without Confirmation Screen?

☐ Show in Popup Dialog?

# Add Inbox Into UI

- Add **Inbox** into **Purchase Requisition** category.
- Configure it to show **All Assignments**.

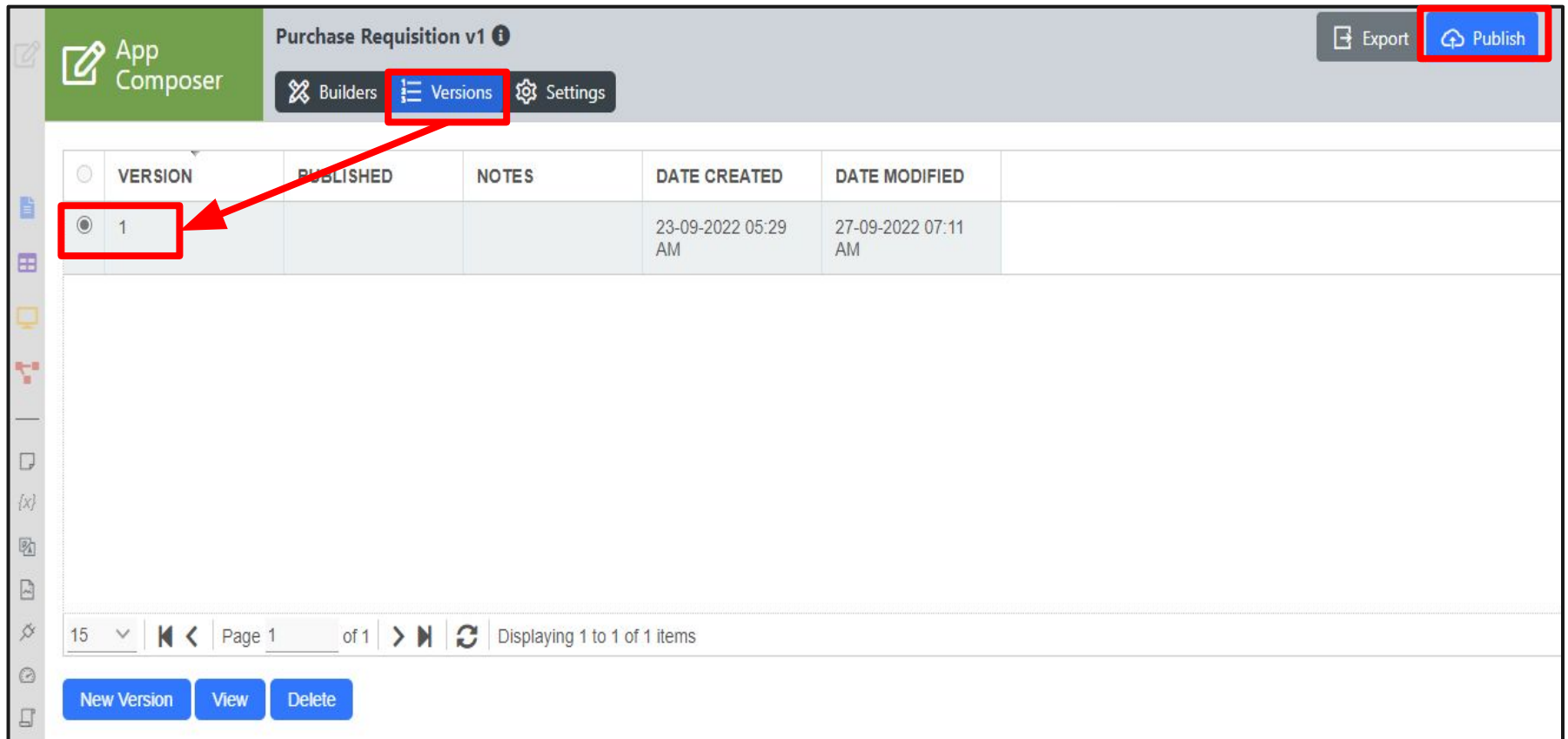
# Publish the App

- With the UI created, it is now ready for prime time.
- End users can now access them through this interface when the App is made published.

Note: Only **ONE** App version can be made published at any point of time.

# Publish the App

- Click on **Version** button, select the version to publish.



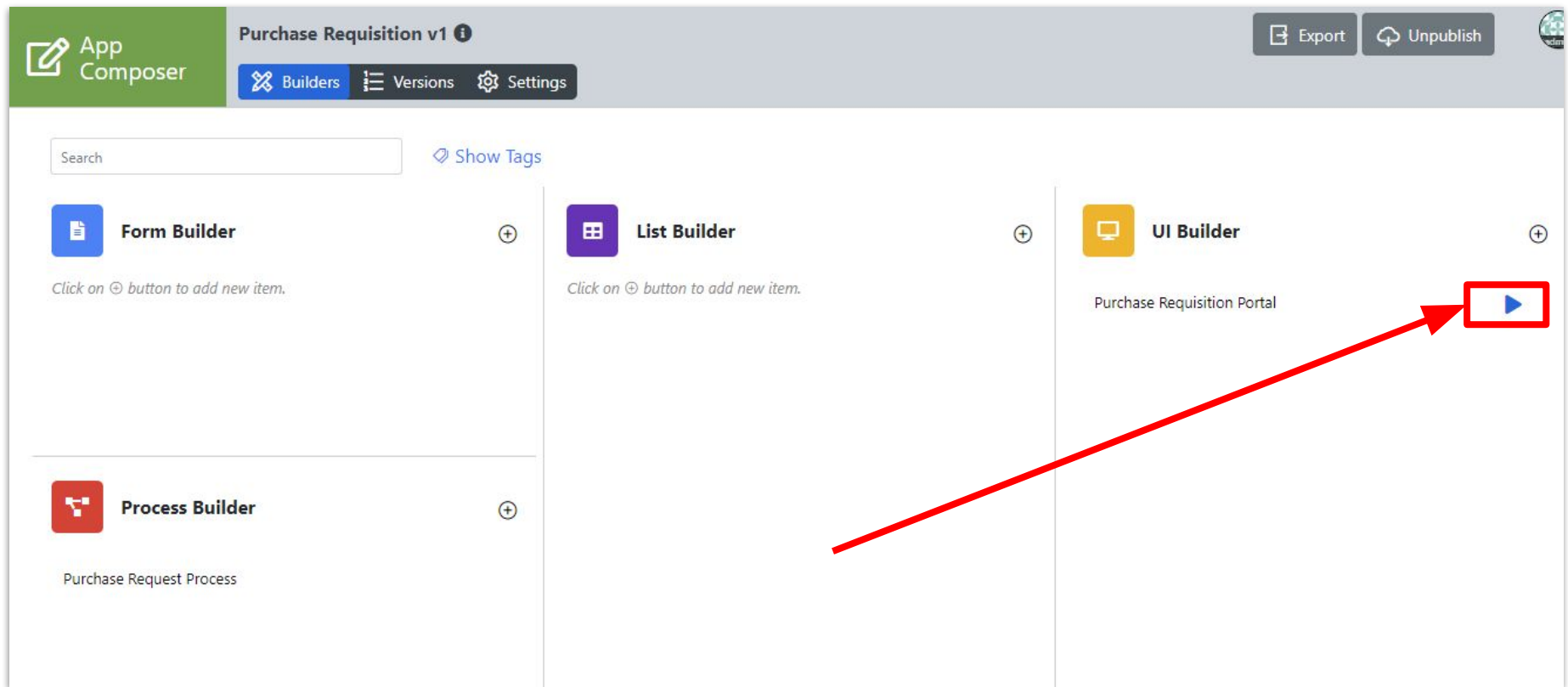
The screenshot shows the Joget App Composer interface for 'Purchase Requisition v1'. The top navigation bar includes 'Builders', 'Versions' (highlighted), and 'Settings'. The 'Publish' button is highlighted in the top right corner. The main table displays the following data:

| VERSION | PUBLISHED | NOTES | DATE CREATED        | DATE MODIFIED       |
|---------|-----------|-------|---------------------|---------------------|
| 1       |           |       | 23-09-2022 05:29 AM | 27-09-2022 07:11 AM |

The first version (1) is highlighted with a red box, and a red arrow points to it. The bottom of the interface shows a pagination bar indicating 'Page 1 of 1' and 'Displaying 1 to 1 of 1 items'. Below the pagination bar are buttons for 'New Version', 'View', and 'Delete'.

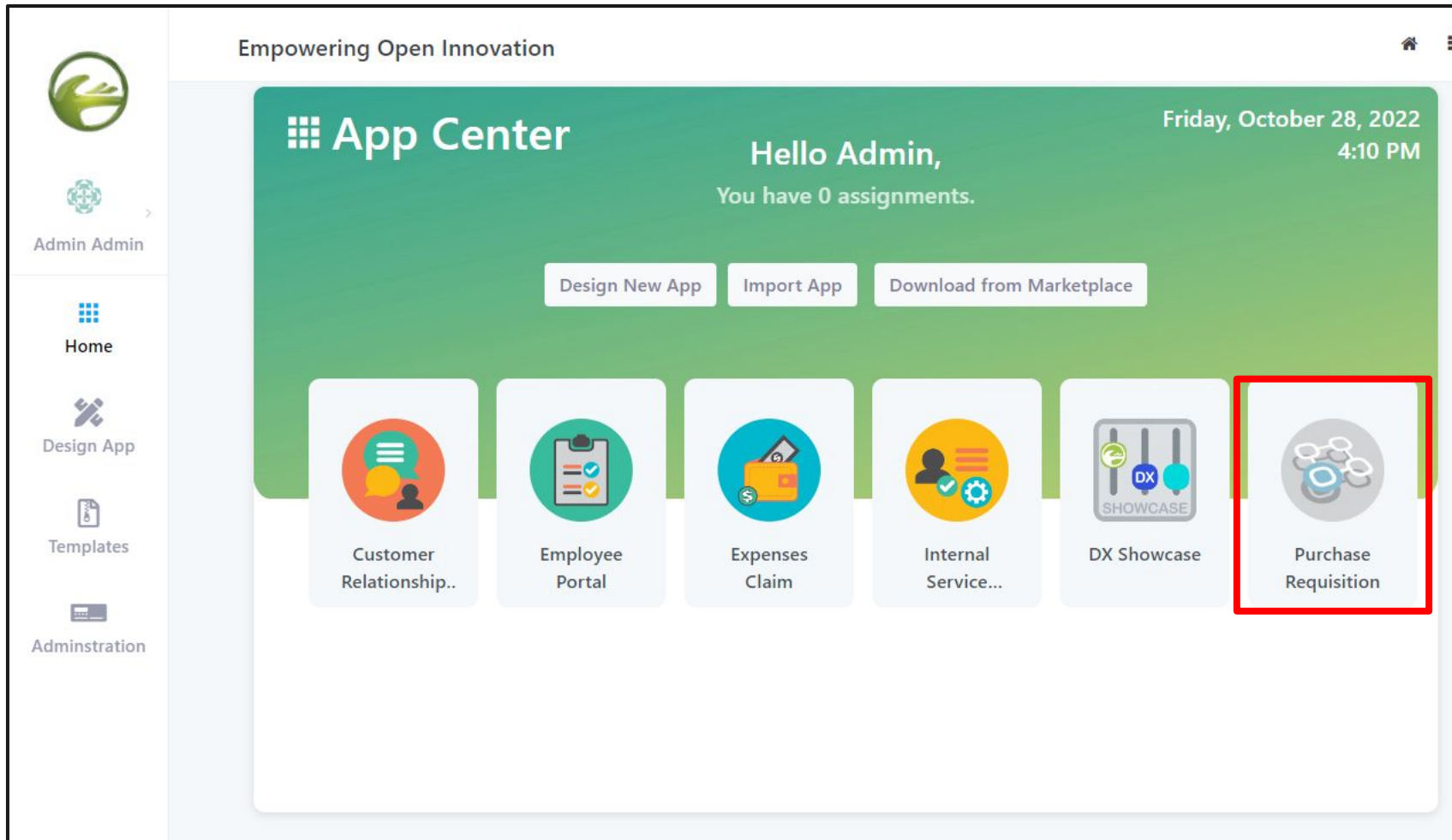
# Launching the Published App

- Click on ▶ under UI Builder pane.



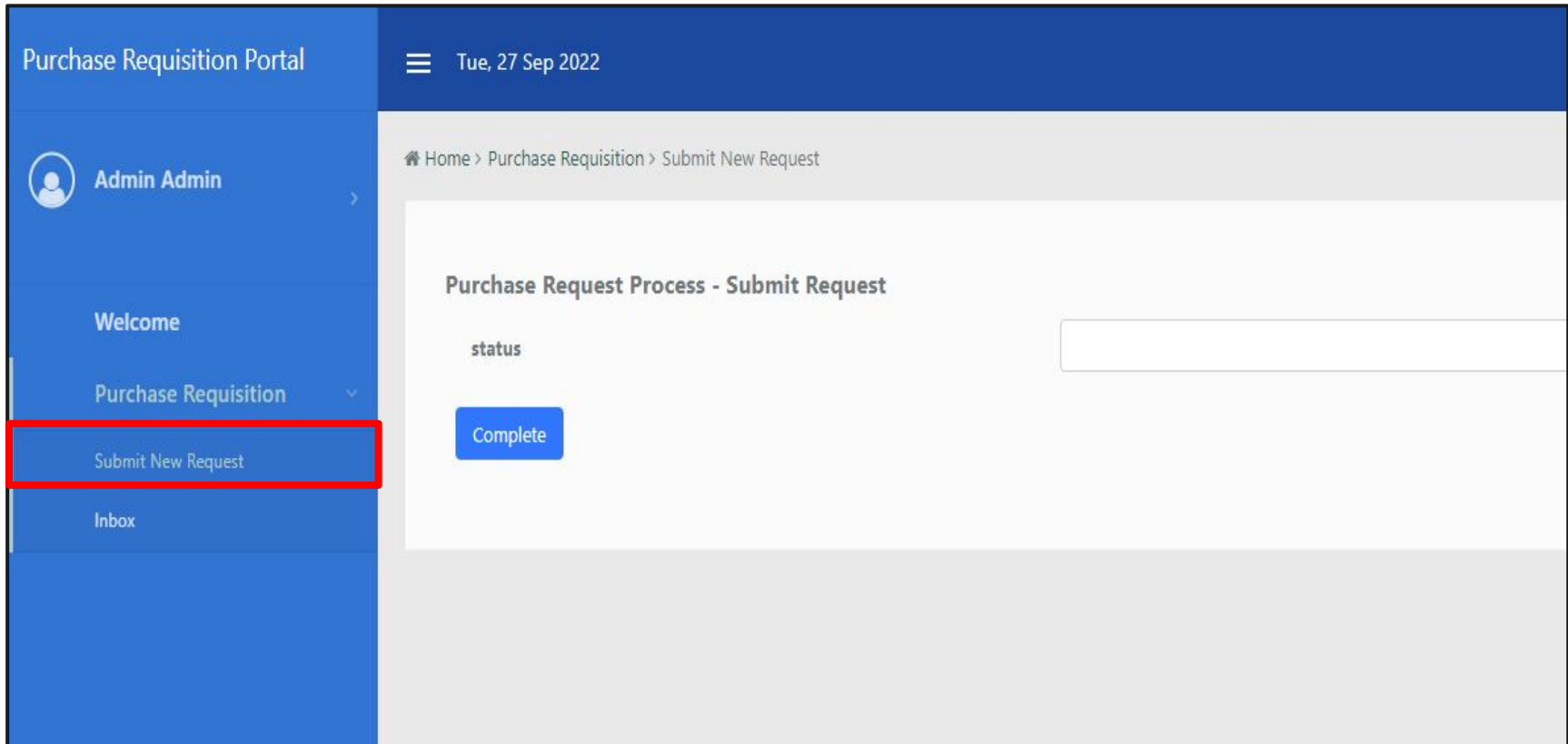
# Launching the Published App

- One can also access it through the **App Center** itself.



# Run Through the Process

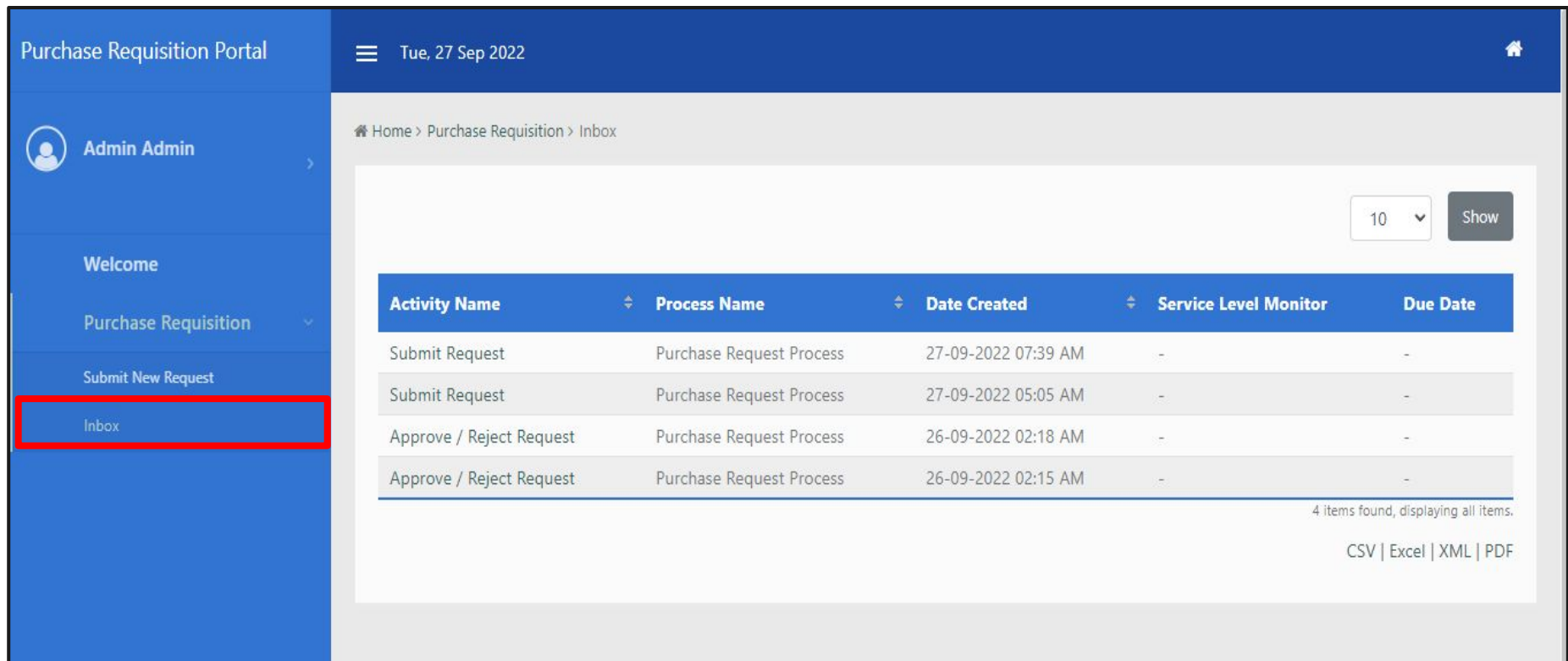
- With the UI created, run through the entire **Purchase Request Process** again by using the UI.



The screenshot displays the 'Purchase Requisition Portal' interface. The left sidebar contains a navigation menu with the following items: 'Admin Admin' (with a user icon), 'Welcome', 'Purchase Requisition' (with a dropdown arrow), 'Submit New Request' (highlighted with a red rectangle), and 'Inbox'. The main content area has a top header with a hamburger menu icon and the date 'Tue, 27 Sep 2022'. Below this is a breadcrumb trail: 'Home > Purchase Requisition > Submit New Request'. The main content area is titled 'Purchase Request Process - Submit Request' and contains a form with a 'status' label and an empty text input field. A blue 'Complete' button is positioned below the input field.

# Run through the Process

- Access subsequent assignment through the



The screenshot displays the 'Purchase Requisition Portal' interface. On the left sidebar, the 'Inbox' menu item is highlighted with a red rectangle. The main content area shows a table of activities with columns: Activity Name, Process Name, Date Created, Service Level Monitor, and Due Date. The table contains four rows of data. At the bottom right, it indicates '4 items found, displaying all items.' and provides links for 'CSV | Excel | XML | PDF'.

Purchase Requisition Portal

Tue, 27 Sep 2022

Home > Purchase Requisition > Inbox

Admin Admin

Welcome

Purchase Requisition

Submit New Request

Inbox

| Activity Name            | Process Name             | Date Created        | Service Level Monitor | Due Date |
|--------------------------|--------------------------|---------------------|-----------------------|----------|
| Submit Request           | Purchase Request Process | 27-09-2022 07:39 AM | -                     | -        |
| Submit Request           | Purchase Request Process | 27-09-2022 05:05 AM | -                     | -        |
| Approve / Reject Request | Purchase Request Process | 26-09-2022 02:18 AM | -                     | -        |
| Approve / Reject Request | Purchase Request Process | 26-09-2022 02:15 AM | -                     | -        |

4 items found, displaying all items.

CSV | Excel | XML | PDF

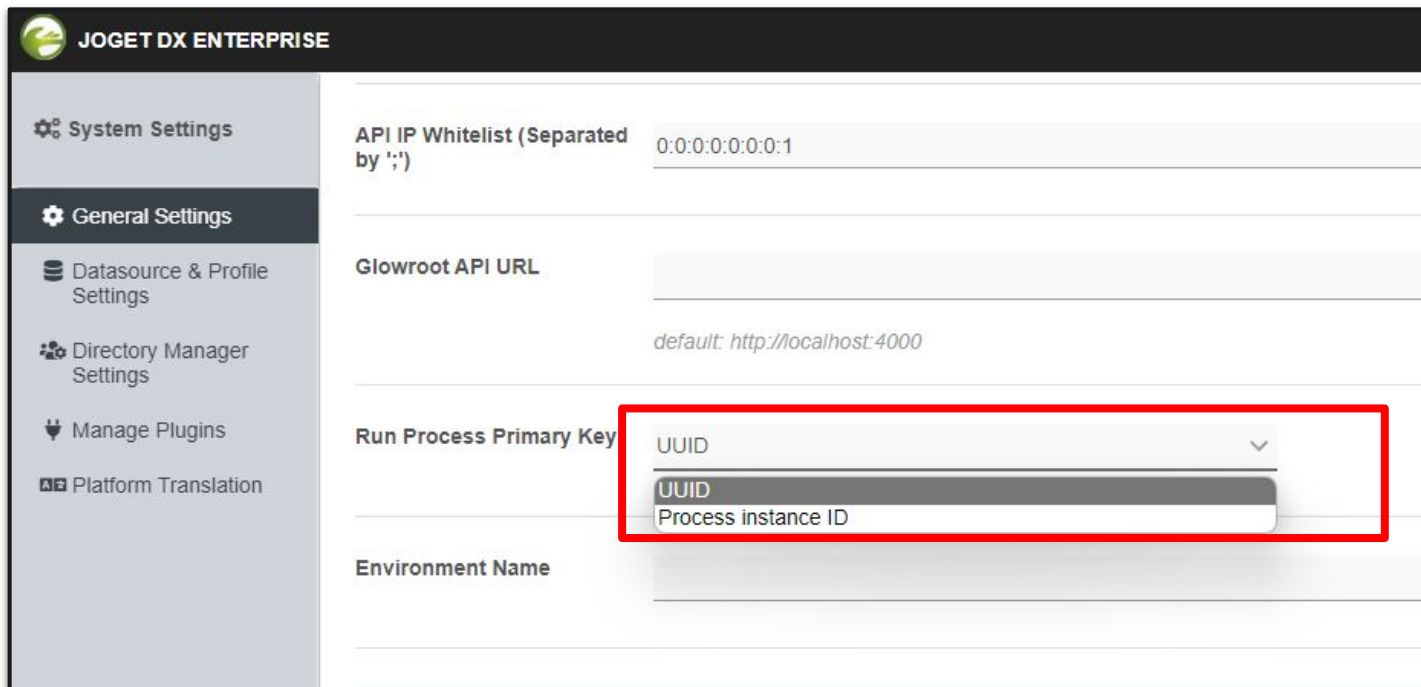


# Good To Know

- At this point of time, the App is published, therefore end user would be able to access it.

# Important Note!

- In DX 8, by **default**, Run Process will generate **UUID** as the Primary Key instead of **Process Instance ID**.
- You can **change** it back at Admin Bar > Settings > General Settings > System Administration Settings > Run Process primary key.



The screenshot shows the 'JOGET DX ENTERPRISE' Admin Bar. The left sidebar contains the following menu items: System Settings, General Settings (highlighted), Datasource & Profile Settings, Directory Manager Settings, Manage Plugins, and Platform Translation. The main content area is titled 'Run Process Primary Key' and contains the following settings:

- API IP Whitelist (Separated by ','): 0:0:0:0:0:0:1
- Glowroot API URL:  (default: http://localhost:4000)
- Run Process Primary Key: A dropdown menu with 'UUID' selected. The dropdown is highlighted with a red box, showing the options 'UUID' and 'Process instance ID'.
- Environment Name:

# Discussion

- Who is Applicant? Who is Approver?  
Have we actually defined who they really are?

# Chapter 3 Review

- Evaluate and verify the process by using:-
  - Run Process button available to only the App Designer/Admin.
  - UI which is accessible by end users.

# Materials

- Complete app is available at **3.3.jwa**



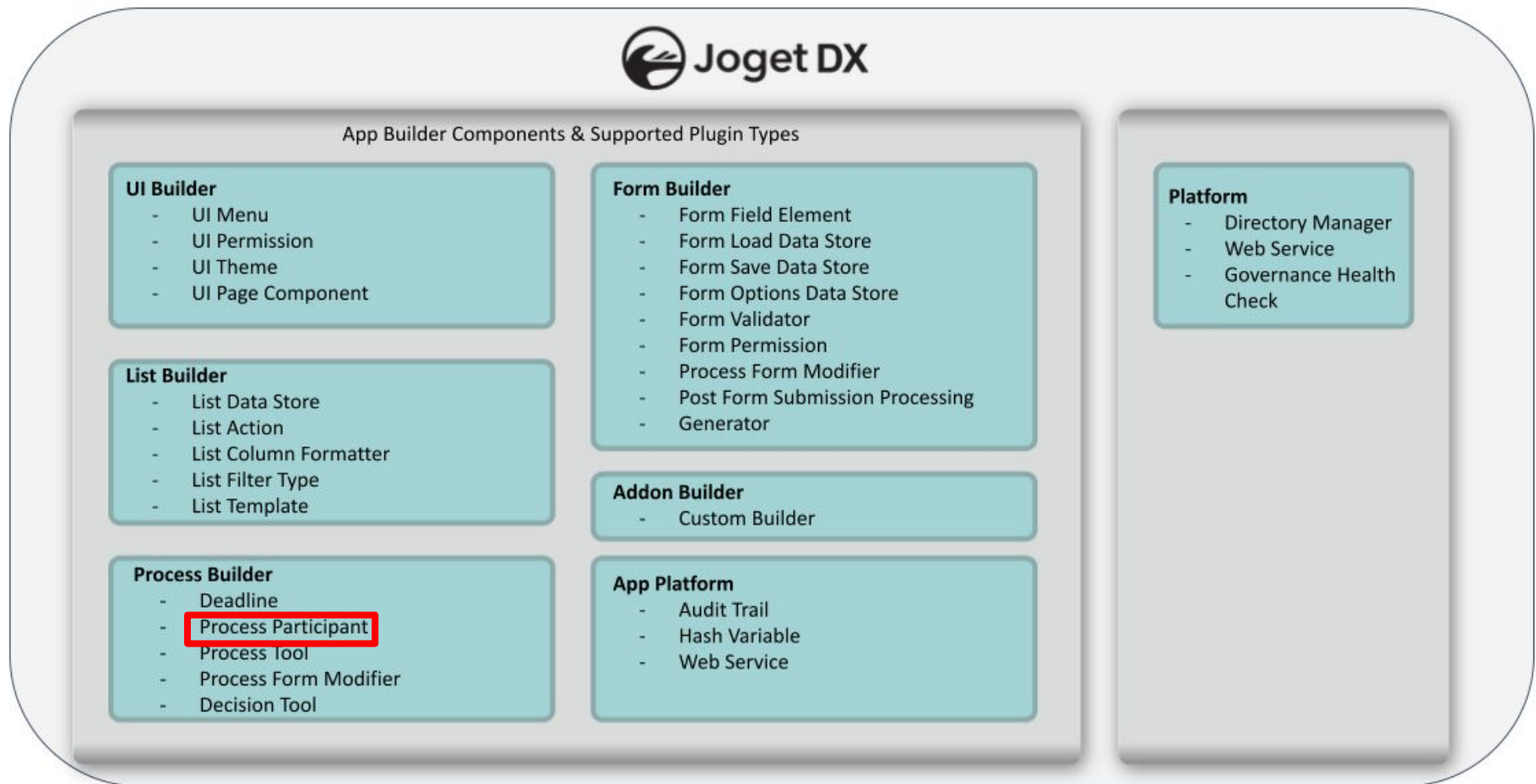
# Chapter 4

## Participant Mapping

# Participant Mapping

- User Mapping Categories.
  - Map to User or Group
  - Map to Org Chart
  - Map to Workflow Variable
  - Map to Plugin

# Plugin Types





# Where to map participants?

ALL participants must be mapped, **except** "System"

**Process Builder** | Purchase Requisition v1

Design | **List View**

Purchase Request Process

Search

Participant | Activity | Tool | Subflow | Route | Transition

**Applicant (applicant)**

|           |                    |
|-----------|--------------------|
| Name      | Applicant          |
| Type      | Performer          |
| Performer | Activity Performer |
| Activity  | Run Process        |

**Approver (approver)**

|           |                           |
|-----------|---------------------------|
| Name      | Approver                  |
| Type      | Performer                 |
| Performer | HOD of Activity Performer |
| Activity  | Previous Activity         |

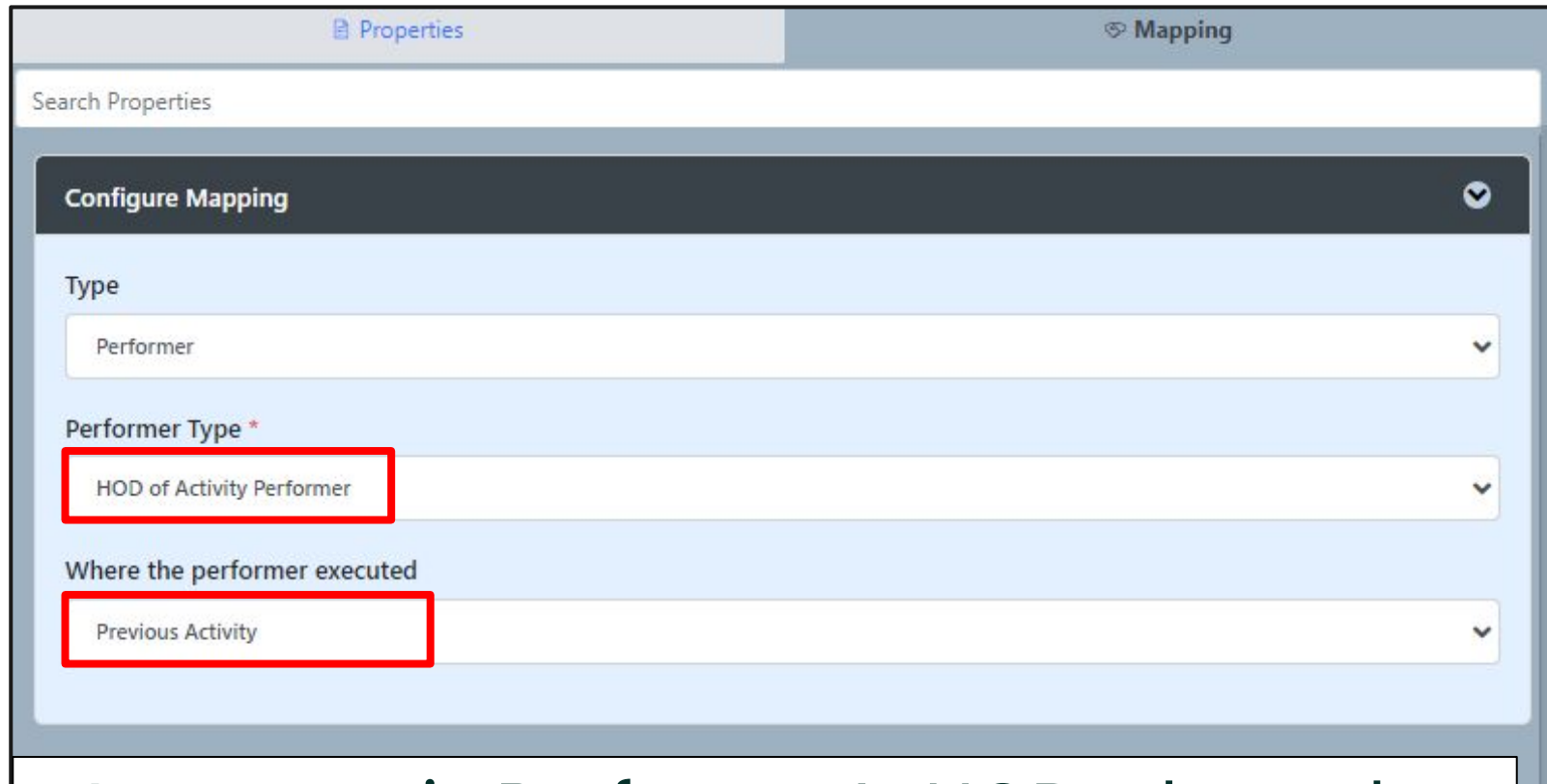
**System (system)**

# Participant Mapping

Let's assume that, applicant's HOD is responsible to approve any purchase requests made by the applicant.

| Participant  | Activity  | Tool            | Subflow | Route |
|--|-----------|-----------------|---------|-------|
| <b>Applicant (applicant)</b><br><ul style="list-style-type: none"> <li>Name: Applicant</li> <li>Type: Performer</li> <li>Performer: Activity Performer</li> <li>Activity: Run Process</li> </ul>           | All users |                 |         |       |
| <b>Approver (approver)</b><br><ul style="list-style-type: none"> <li>Name: Approver</li> <li>Type: Performer</li> <li>Performer: HOD of Activity Performer</li> <li>Activity: Previous Activity</li> </ul> |           | Applicant's HOD |         |       |
| <b>System (system)</b><br><ul style="list-style-type: none"> <li>Name: System</li> <li>Type: Variable</li> <li>Variable: status</li> <li>Represent: Users</li> </ul>                                       |           |                 |         |       |

# Approver: Performer's HOD



The screenshot shows the 'Properties' window in Joget, specifically the 'Mapping' tab. The 'Configure Mapping' section is expanded, showing three dropdown menus. The first dropdown, 'Type', is set to 'Performer'. The second dropdown, 'Performer Type \*', is set to 'HOD of Activity Performer' and is highlighted with a red box. The third dropdown, 'Where the performer executed', is set to 'Previous Activity' and is also highlighted with a red box.

Approver is Performer's HOD where the performer **executed** Previous Activity

# Process Participant Mapping

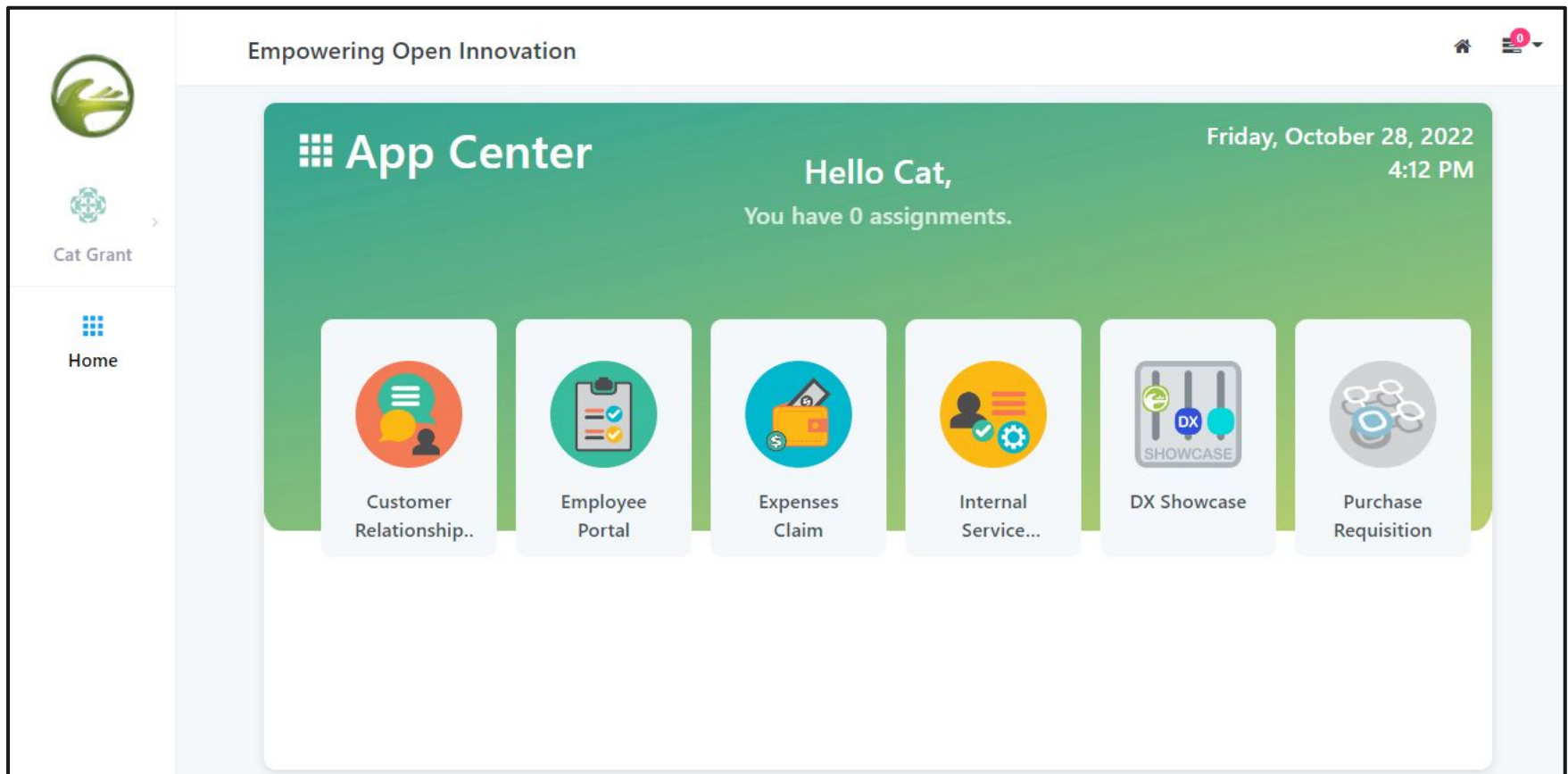
| Participant   | Activity                  | Tool | Subflow | Route | Transition | Variables |
|---|---------------------------|------|---------|-------|------------|-----------|
| <b>Applicant (applicant)</b>  |                           |      |         |       |            |           |
|  Name       | Applicant                 |      |         |       |            |           |
|  Type       | Performer                 |      |         |       |            |           |
|  Performer  | Activity Performer        |      |         |       |            |           |
|  Activity   | Run Process               |      |         |       |            |           |
| <b>Approver (approver)</b>  |                           |      |         |       |            |           |
|  Name       | Approver                  |      |         |       |            |           |
|  Type       | Performer                 |      |         |       |            |           |
|  Performer  | HOD of Activity Performer |      |         |       |            |           |
|  Activity | Previous Activity         |      |         |       |            |           |

# Test Run the Process

- With the participant mapping set, run the process again as the user “cat”, through the **Purchase Requisition Portal**.

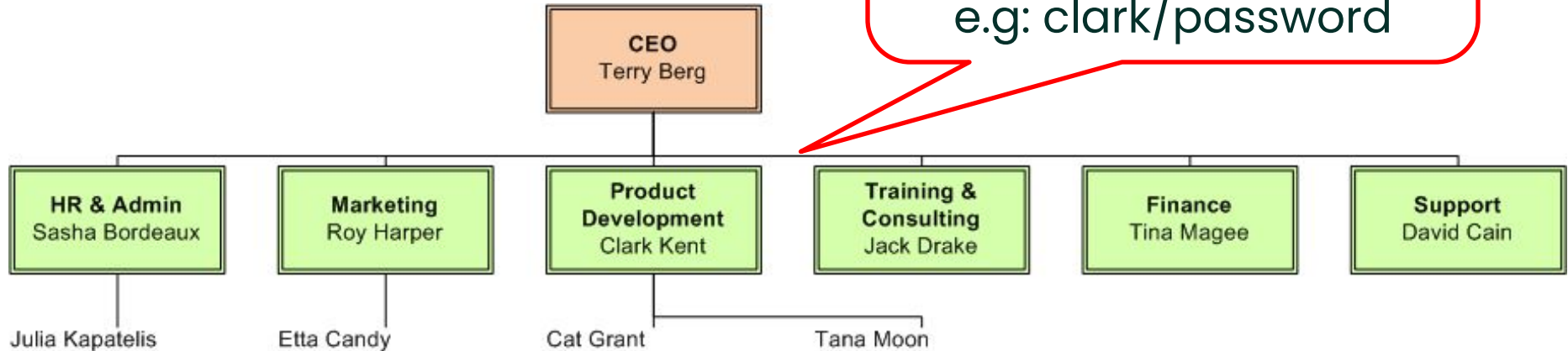
# Login As cat/password

- Open up App Center to access Purchase Requisition portal.



# Who Is Cat Grant's HOD?

**First name** is the username, and **password** is password.  
e.g: clark/password



Note: This is the sample organization chart provided upon initial installation, for your testing convenience. The 3 users: *cat*, *clark*, and *admin*, is free by default.

# Important Notes

- All participants MUST be mapped.
- Do NOT choose activity from the same swimlane as the participant that is being mapped unless it is intended so.
- Choose only activity that has been completed.
- If NO user is found, it will be defaulted to the last performer. (Possibly, the current logged in user who had just completed the prior activity OR the process requester)
- If mapped to an inactive user, do delegate, re-assign, or change mapping and re-evaluate the assignment.



# Chapter 4 Review

We have learnt to:

1. Understand various Participant Mapping options available.
2. Understand the important rules in Participant Mapping.
3. Able to relate and manage participant mapping with the administrative process monitoring module.



# Chapter 5

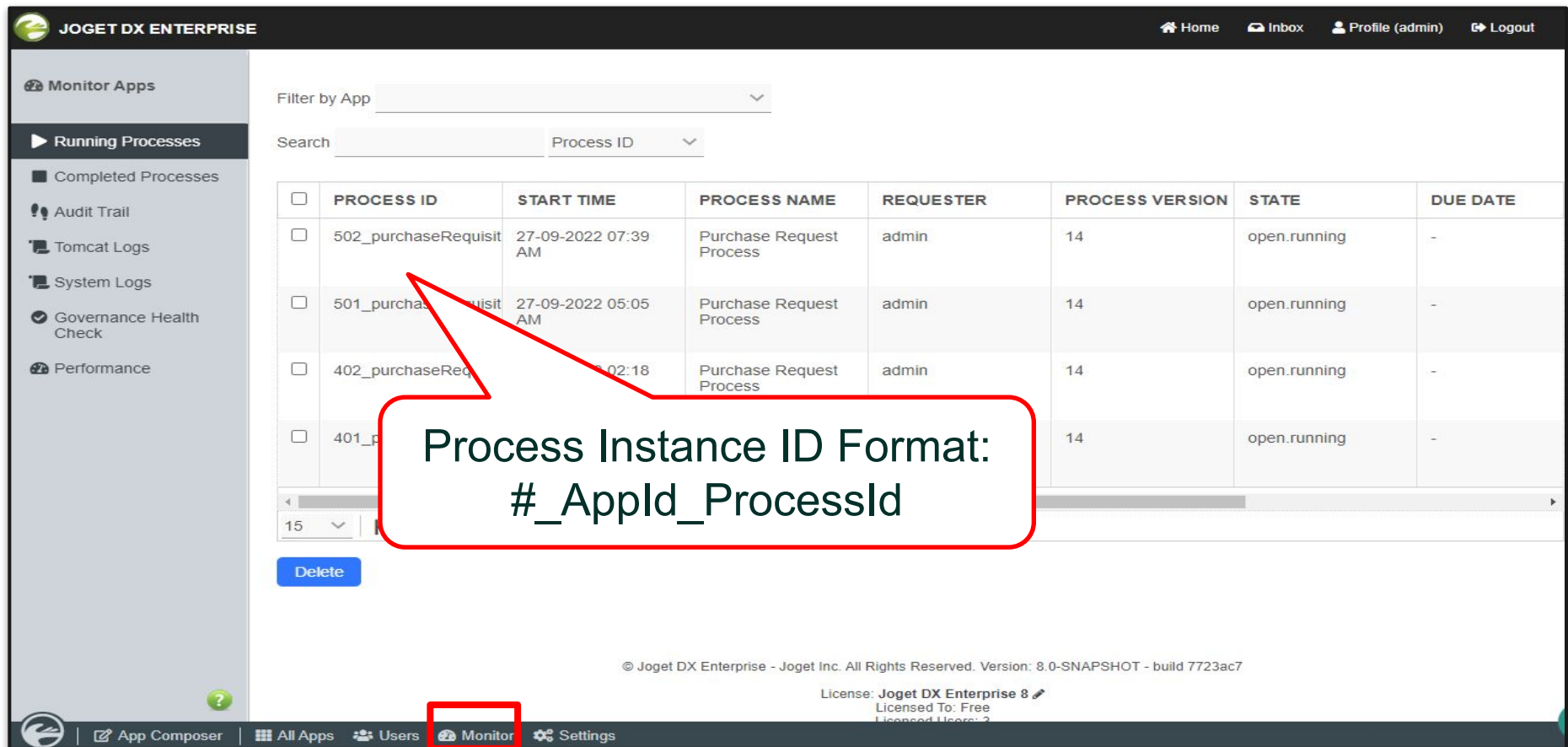
## Process Monitoring

# Monitoring Processes

- Allows you to monitor the status of processes, both **running** and **archived**.
- Allows you to view an **audit trail** of process actions.
- Captures process data to allow for the generation of reports.

# Monitor Running Processes

- Click on Monitor from the Admin Bar to access.



**JOGET DX ENTERPRISE**

Home Inbox Profile (admin) Logout

Monitor Apps

Running Processes

Completed Processes

Audit Trail

Tomcat Logs

System Logs

Governance Health Check

Performance

Filter by App

Search Process ID

| PROCESS ID           | START TIME          | PROCESS NAME             | REQUESTER | PROCESS VERSION | STATE        | DUE DATE |
|----------------------|---------------------|--------------------------|-----------|-----------------|--------------|----------|
| 502_purchaseRequisit | 27-09-2022 07:39 AM | Purchase Request Process | admin     | 14              | open.running | -        |
| 501_purchaseRequisit | 27-09-2022 05:05 AM | Purchase Request Process | admin     | 14              | open.running | -        |
| 402_purchaseReq      | 27-09-2022 02:18    | Purchase Request Process | admin     | 14              | open.running | -        |
| 401_p                |                     |                          |           | 14              | open.running | -        |

Process Instance ID Format: #\_AppId\_ProcessId

Delete

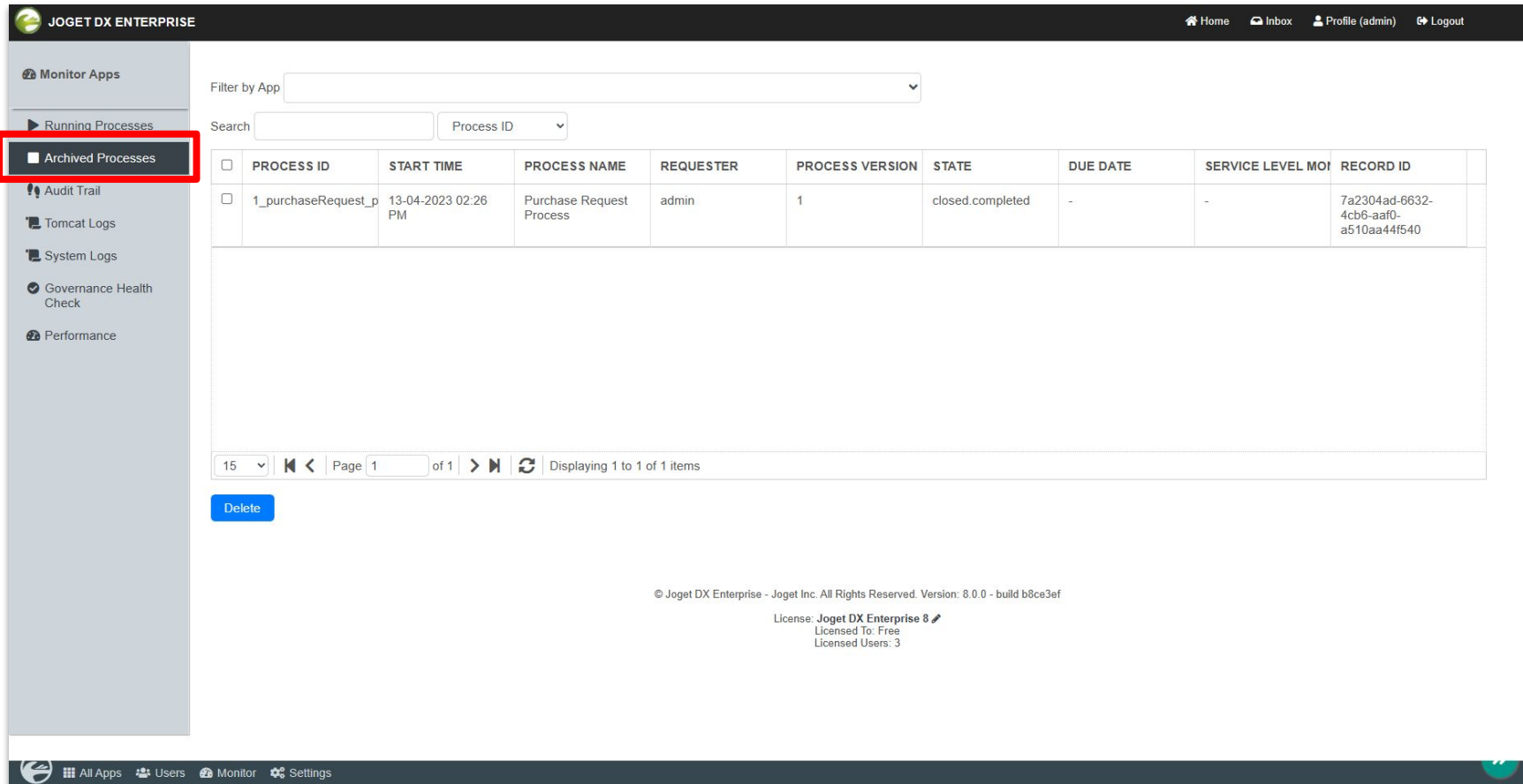
© Joget DX Enterprise - Joget Inc. All Rights Reserved. Version: 8.0-SNAPSHOT - build 7723ac7

License: Joget DX Enterprise 8  
Licensed To: Free  
Licensed Users: 2

App Composer All Apps Users **Monitor** Settings

# Monitor Archived Processes

- Click on “Archived Processes” to see completed process instances.



JOGET DX ENTERPRISE

Home Inbox Profile (admin) Logout

Monitor Apps

Running Processes

**Archived Processes**

Audit Trail

Tomcat Logs

System Logs

Governance Health Check

Performance

Filter by App

Search Process ID

|                          | PROCESS ID          | START TIME          | PROCESS NAME             | REQUESTER | PROCESS VERSION | STATE            | DUE DATE | SERVICE LEVEL MO | RECORD ID                            |
|--------------------------|---------------------|---------------------|--------------------------|-----------|-----------------|------------------|----------|------------------|--------------------------------------|
| <input type="checkbox"/> | 1_purchaseRequest_p | 13-04-2023 02:26 PM | Purchase Request Process | admin     | 1               | closed.completed | -        | -                | 7a2304ad-6632-4cb6-aaf0-a510aa44f540 |

15 Page 1 of 1 Displaying 1 to 1 of 1 items

Delete

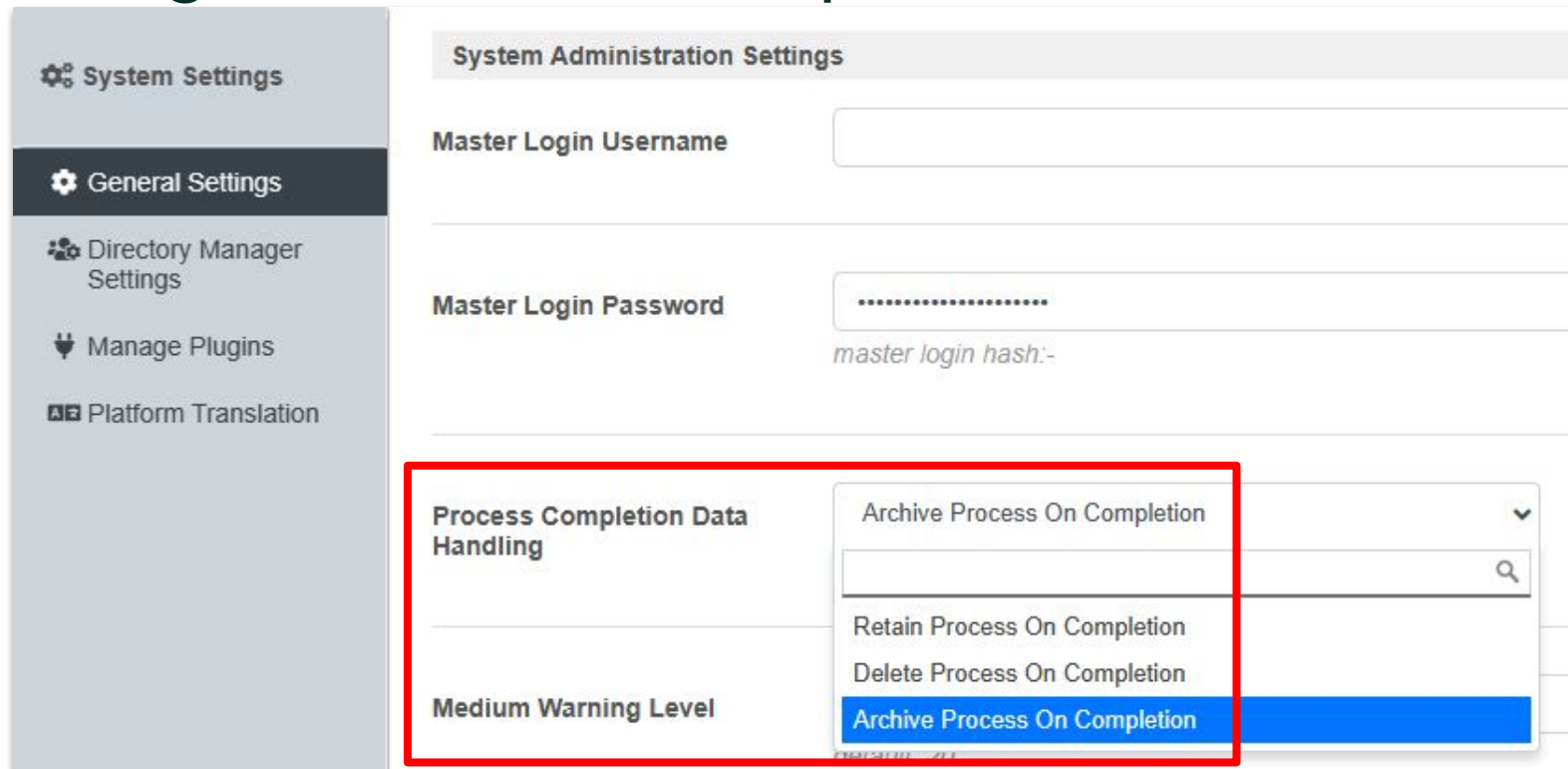
© Joget DX Enterprise - Joget Inc. All Rights Reserved. Version: 8.0.0 - build b8ce3ef

License: Joget DX Enterprise 8  
Licensed To: Free  
Licensed Users: 3

All Apps Users Monitor Settings

# By Default, it is Automatically Archived

- You can change it at Admin Bar > Settings > General Settings > System Administration Settings > Process Completion Data Handling



**System Administration Settings**

Master Login Username

Master Login Password

master login hash:-

**Process Completion Data Handling**

Archive Process On Completion

Retain Process On Completion

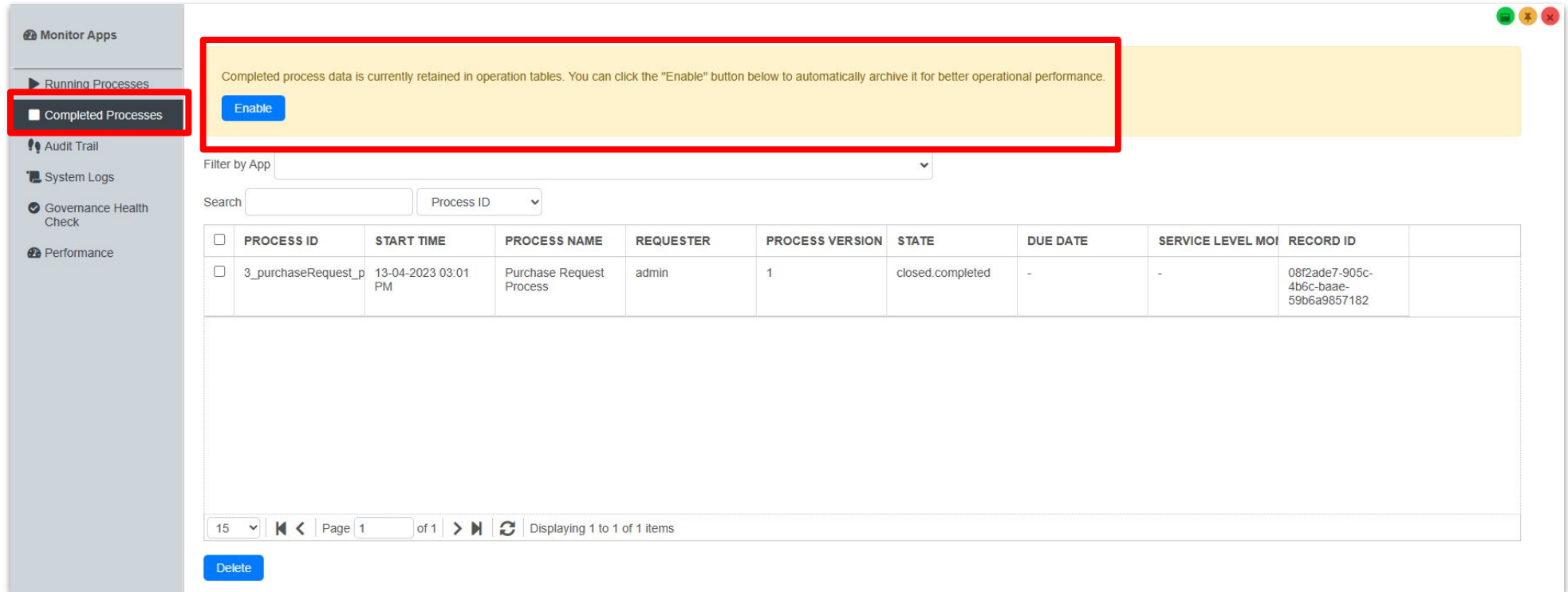
Delete Process On Completion

Archive Process On Completion

Medium Warning Level

# Retain Process on Completion

- Click on “Completed Processes” to see completed process instances.



Monitor Apps

- Running Processes
- Completed Processes**
- Audit Trail
- System Logs
- Governance Health Check
- Performance

Completed process data is currently retained in operation tables. You can click the "Enable" button below to automatically archive it for better operational performance.

[Enable](#)

Filter by App ▼

Search  Process ID ▼

| <input type="checkbox"/> | PROCESS ID          | START TIME          | PROCESS NAME             | REQUESTER | PROCESS VERSION | STATE            | DUE DATE | SERVICE LEVEL MOI | RECORD ID                            |
|--------------------------|---------------------|---------------------|--------------------------|-----------|-----------------|------------------|----------|-------------------|--------------------------------------|
| <input type="checkbox"/> | 3_purchaseRequest_p | 13-04-2023 03:01 PM | Purchase Request Process | admin     | 1               | closed.completed | -        | -                 | 08f2ade7-905c-4b6c-baae-59b6a9857182 |

15 ◀ ▶ Page 1 of 1 ↺ Displaying 1 to 1 of 1 items

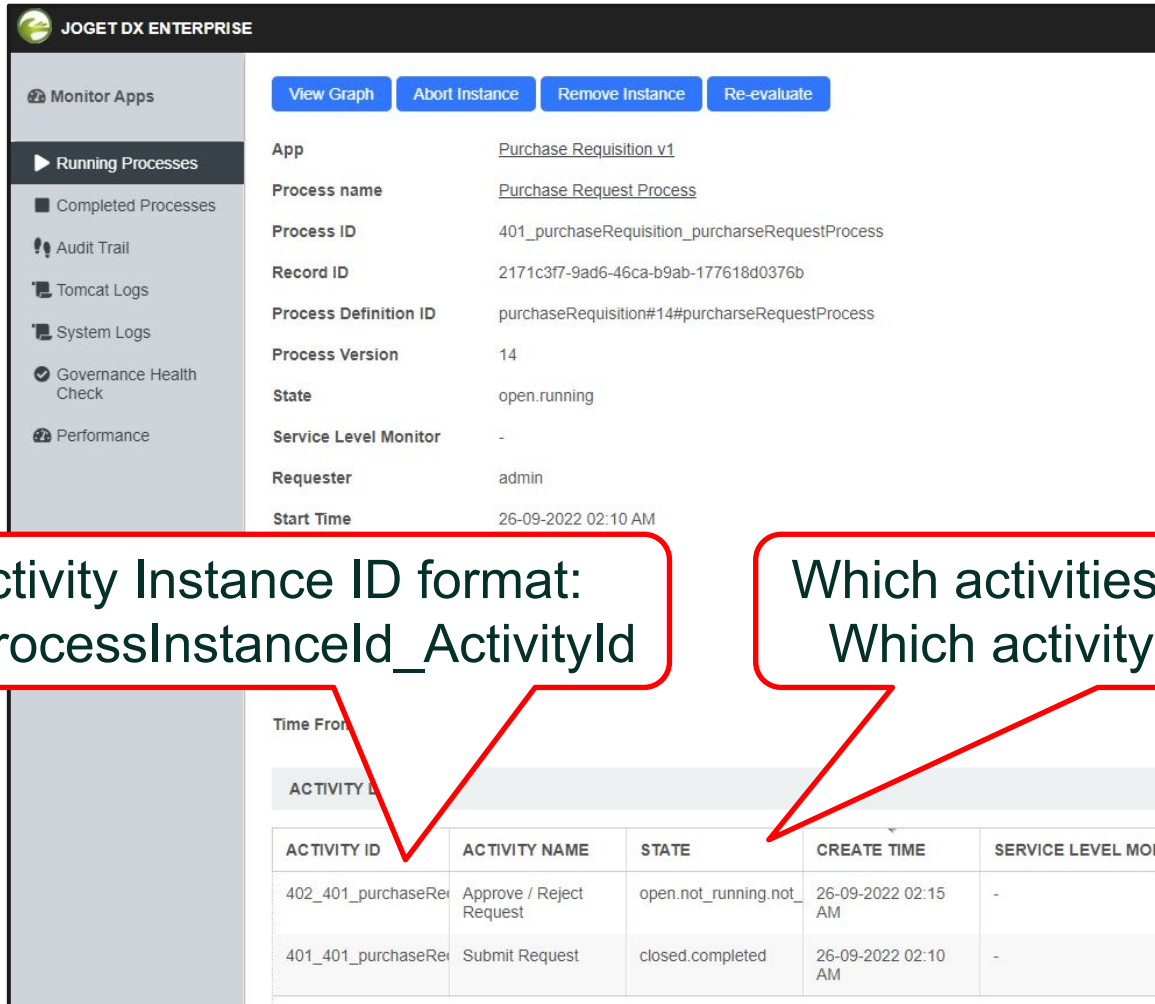
[Delete](#)

## View the Details of a Running Process Instance

- From the list of running processes, **click into any instance.**
- **Details on the current state** of the selected process instance will be shown.



# View the Details of a Running Process Instance



The screenshot displays the 'JOGET DX ENTERPRISE' interface. On the left, a sidebar contains navigation links: Monitor Apps, Running Processes (selected), Completed Processes, Audit Trail, Tomcat Logs, System Logs, Governance Health Check, and Performance. The main area shows details for a running process instance. At the top, there are four buttons: View Graph, Abort Instance, Remove Instance, and Re-evaluate. Below these, the process details are listed:

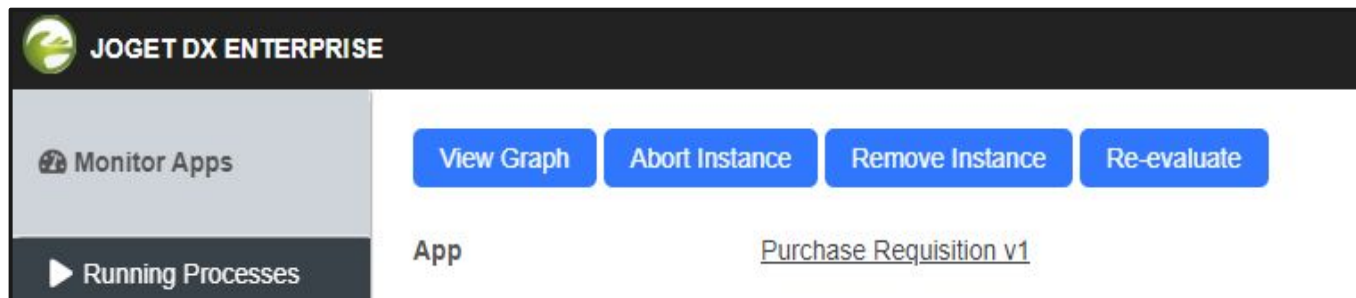
- App: [Purchase Requisition v1](#)
- Process name: [Purchase Request Process](#)
- Process ID: 401\_purchaseRequisition\_purchaseRequestProcess
- Record ID: 2171c3f7-9ad6-46ca-b9ab-177618d0376b
- Process Definition ID: purchaseRequisition#14#purchaseRequestProcess
- Process Version: 14
- State: open.running
- Service Level Monitor: -
- Requester: admin
- Start Time: 26-09-2022 02:10 AM

Below the details, there is a table showing activity instances. A red callout box points to the 'ACTIVITY ID' column, explaining the format: `#_ProcessInstanceId_ActivityId`. Another red callout box points to the 'STATE' column, asking: 'Which activities are completed? Which activity is active now?'


| ACTIVITY ID         | ACTIVITY NAME            | STATE                 | CREATE TIME         | SERVICE LEVEL MOI |
|---------------------|--------------------------|-----------------------|---------------------|-------------------|
| 402_401_purchaseRei | Approve / Reject Request | open.not_running.not_ | 26-09-2022 02:15 AM | -                 |
| 401_401_purchaseRei | Submit Request           | closed.completed      | 26-09-2022 02:10 AM | -                 |

# View the Details of a Running Process Instance

- These are actions that can be taken on a **process instance**.
  - **View Graph**
    - Displays the process diagram, where the current activities are highlighted in yellow.
  - **Abort Instance**
    - Terminates the process instance, leaving the process data intact
  - **Remove Instance**
    - Permanently delete the process instance, process data will be removed as well
  - **Re-evaluate**
    - In cases where participant mappings are changed before the process is completed, this action will allow pending assignments to be reassigned to the newly mapped participants.



# View the Details of an Activity

 JOGET DX ENTERPRISE

Monitor Apps
Running Processes
Completed Processes
Audit Trail
Tomcat Logs
System Logs
Governance Health Check
Performance

Re-evaluate
Re-evaluate Assignment(s) For User
Reassign User
Complete

Process Instance: 401\_purchaseRequisition\_purchaseRequestProcess  
Activity ID: 402\_401\_purchaseRequisition\_purchaseRequestProcess\_approval  
Activity Definition ID: approval  
Activity Name: Approve / Reject Request  
State: open.not\_running.not\_started  
Service Level Monitor: -  
List of Pending: admin  
Create time: 

| ACTIVITY ID        | ACTIVITY NAME            | STATE                 | CREATE TIME         | SERVICE LEVEL MON |
|--------------------|--------------------------|-----------------------|---------------------|-------------------|
| 402_401_purchaseRe | Approve / Reject Request | open.not_running.not_ | 26-09-2022 02:15 AM | -                 |
| 401_401_purchaseRe | Submit Request           | closed.completed      | 26-09-2022 02:10 AM | -                 |

  
Date limit:  
Due date:  
Delay:  
Finish time:  
Time: Date Created:  

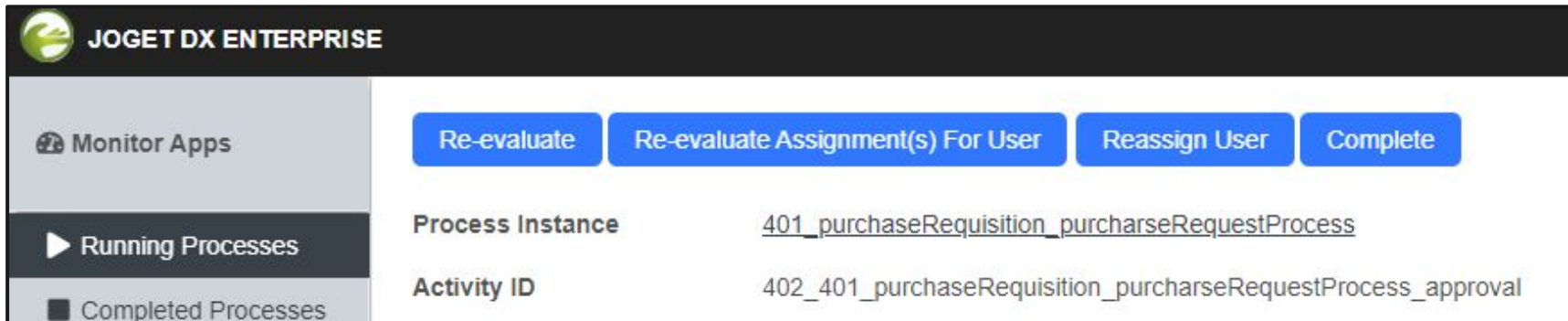
VARIABLE LIST

status: Approved
Set

Workflow variable value

# View the Details of a Running Activity Instance

- These are the actions that can be taken on an **activity instance**.
  - **Re-evaluate**
    - Re-evaluate the participant mapping for the current activity instance.
  - **Re-evaluate assignment(s) for user**
    - Re-evaluate all assignments of a particular user.
  - **Reassign user**
    - Reassign one of the assignee(s) of this activity instance to another user.
  - **Complete**
    - Complete the activity instance as the current logged in user.



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Monitor Apps

Running Processes

Completed Processes

Re-evaluate Re-evaluate Assignment(s) For User Reassign User Complete

Process Instance 401\_purchaseRequisition\_purchaseRequestProcess

Activity ID 402\_401\_purchaseRequisition\_purchaseRequestProcess\_approval

# Discussion

- What if a person who is assigned to an assignment has left the organization? What can we do?

# Chapter 4 Review

We have learned to:

1. Monitor running and completed processes.
2. Drill down into activity details of each process that is running or completed.
3. Debug processes by examining workflow variable value.
4. Appreciate the “Re-evaluate” feature in process monitoring.

# Module Review

1. Business Process Design (BPE)
2. Designing your first Process with Process Builder
3. Running your first Automated Process
4. Participant Mapping
5. Process Monitoring

# Recommended Further Learning

- Designing Forms for the activities created in your Process Flow.
- Configure Process Tool plugin for the tool created in your Process Flow.



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