



Joget DX

Designing Your First Userview

 <http://facebook.com/jogetworkflow>

 <http://twitter.com/jogetworkflow>

Prerequisites

- Created Process, Form, and Datalist.

Content

1. Introduction to Userview Builder
2. Designing Your First Userview
3. Introduction to PWA



Chapter 1

Introduction to Userview Builder



Apps

Progressive Web Apps
Various Form Factors



Customer Relationship



Employee Services Portal



Expenses Claims App



Internal Service Request App



Development

Simple, Visual,
Drag and Drop.

Joget DX

Form Builder

List Builder

Userview Builder

Process Builder

Plugin Architecture

Integration API

- JSON
- Java
- JavaScript



Platform

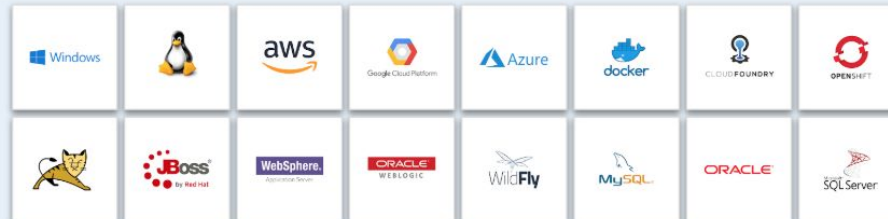
Open, Flexible and
Extensible.

<p>User Management</p> <ul style="list-style-type: none"> Organizations Groups Users 	<p>Monitoring</p> <ul style="list-style-type: none"> Processes Application Performance Logging & Audit 	<p>System</p> <ul style="list-style-type: none"> Workflow Engine Security and Directory Plugin Management
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Infrastructure

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

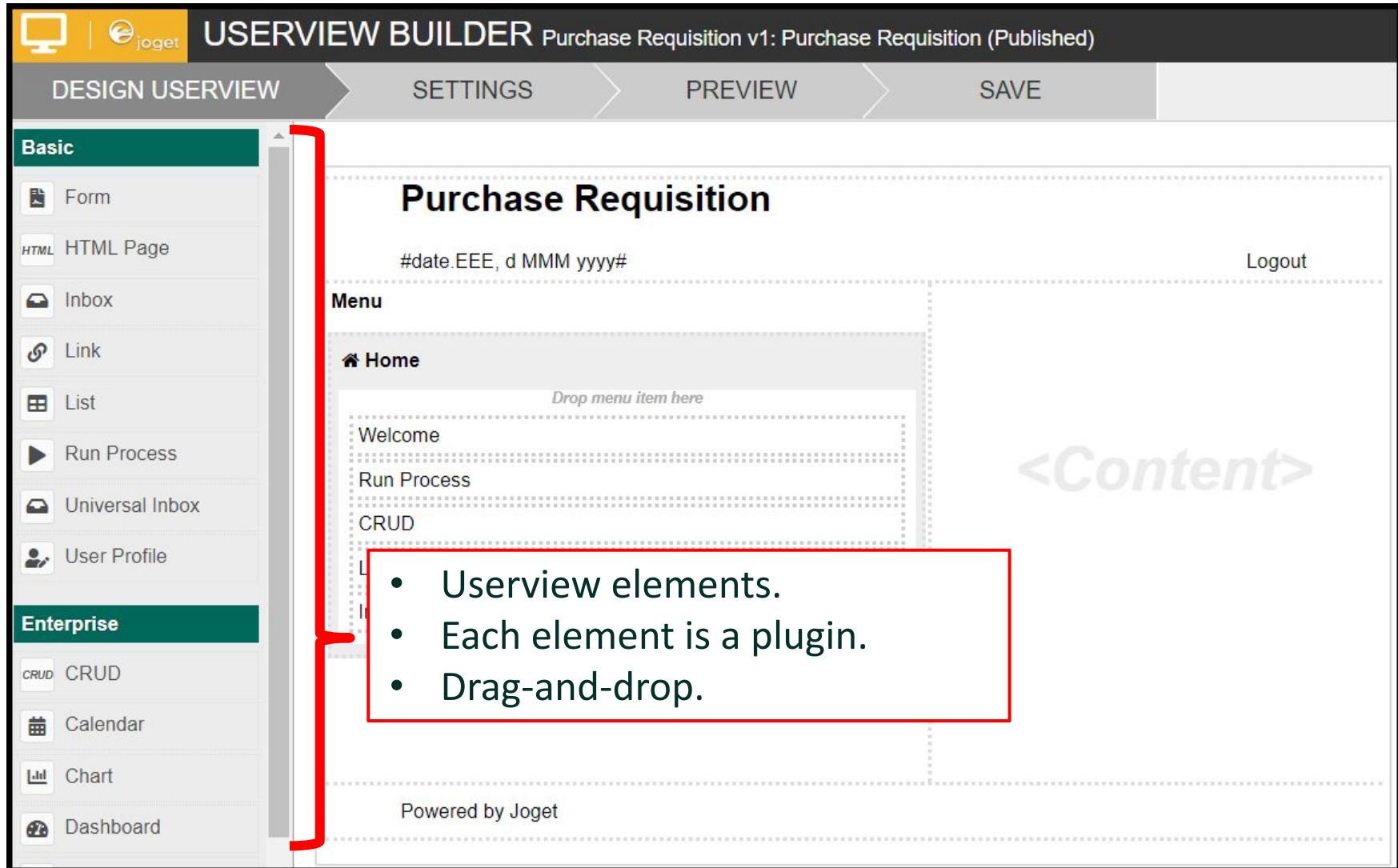


Icons by icons8.com

Userview Builder

- Application front-end interface builder.
- Serves as the wrapper for forms, processes, datalists.
- Extensible functionalities through Joget's plugin architecture.

Userview Builder



USERVERVIEW BUILDER Purchase Requisition v1: Purchase Requisition (Published)

DESIGN USERVIEW SETTINGS PREVIEW SAVE

Basic

- Form
- HTML Page
- Inbox
- Link
- List
- Run Process
- Universal Inbox
- User Profile

Enterprise

- CRUD
- Calendar
- Chart
- Dashboard

Purchase Requisition

#date.EEE, d MMM yyyy# Logout

Menu

Home

Drop menu item here

Welcome

Run Process

CRUD

<Content>



Powered by Joget

- Userview elements.
- Each element is a plugin.
- Drag-and-drop.

Userview Builder

- Sample Userview using the **DX Progressive** theme

EXPENSES CLAIMS APP

Admin Admin +

Dashboard

My Expenses +

Approver List +

Finance List +

Setup Category

Info +

Home > Dashboard

Expenses Claims Dashboard

My Expenses ↻ ↗

TITLE	AMOUNT \$	STATUS
January 2020 Claims	1110.00	Draft
December 2019 claims	2400.00	Draft
Travel to UK		Draft
Jake	110.00	Submitted

4 items found, displaying all items.
[CSV](#) | [Excel](#) | [XML](#) | [PDF](#)

Create A New Expense Claim

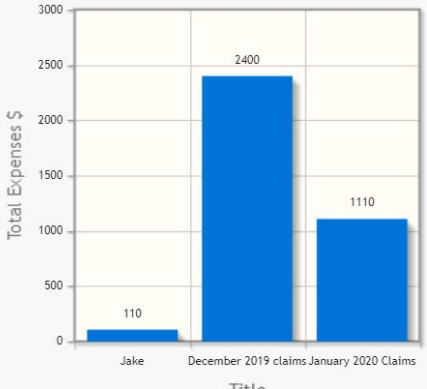
My Inbox ↻ ↗

TITLE	STATUS	
January 2020 Claims	Draft	Claimant Edit
December 2019 claims	Draft	Claimant Edit
Travel to UK	Draft	Claimant Edit
Jake	Submitted	HOD Approve

4 items found, displaying all items.
[CSV](#) | [Excel](#) | [XML](#) | [PDF](#)

Expenses Trend ↻ ↗

[Reset to default layout](#)

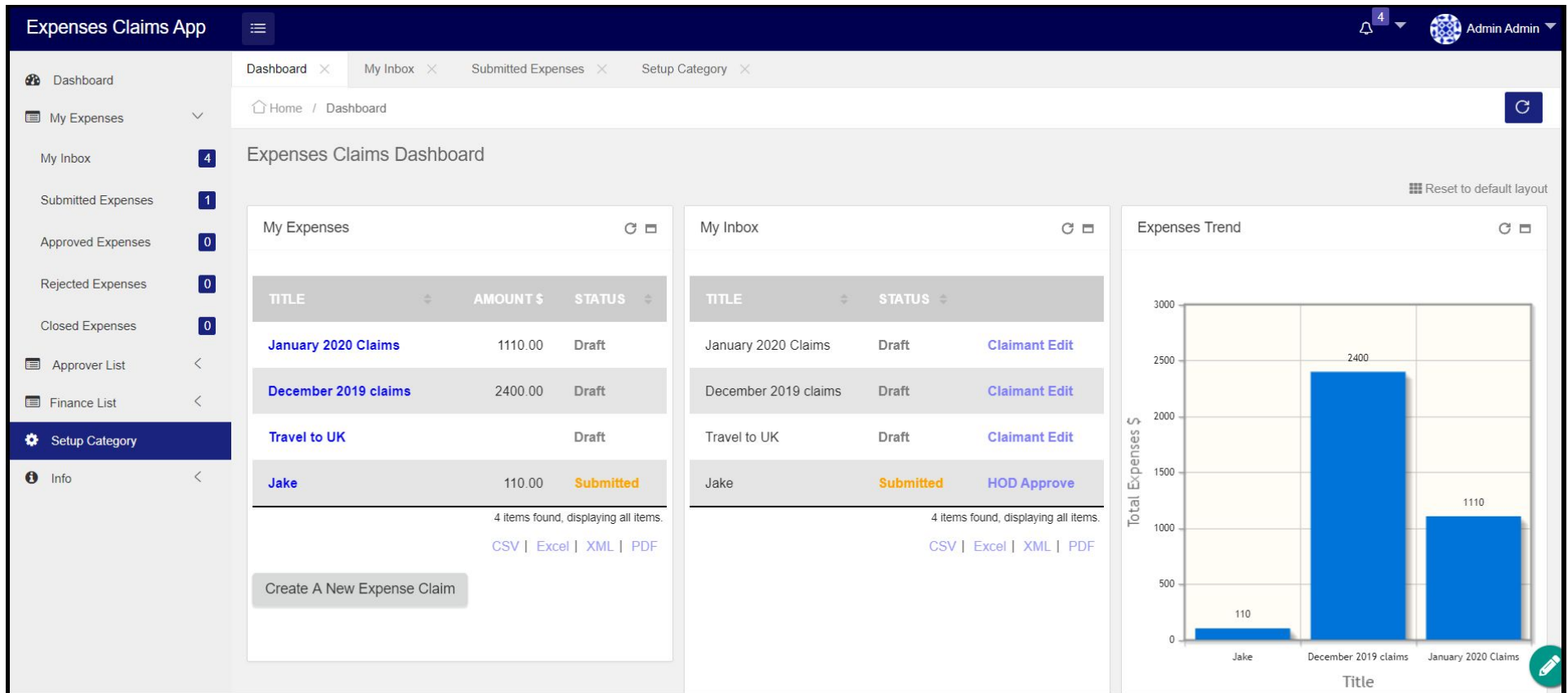


Title	Total Expenses \$
Jake	110
December 2019 claims	2400
January 2020 Claims	1110

8

Userview Builder

- Sample Userview using the **DX X-Admin** theme



The screenshot displays the 'Expenses Claims App' dashboard. The left sidebar contains navigation items: Dashboard, My Expenses (with a dropdown), My Inbox (4), Submitted Expenses (1), Approved Expenses (0), Rejected Expenses (0), Closed Expenses (0), Approver List, Finance List, Setup Category (selected), and Info. The main content area is titled 'Expenses Claims Dashboard' and features three widgets:

- My Expenses Table:**

TITLE	AMOUNT \$	STATUS
January 2020 Claims	1110.00	Draft
December 2019 claims	2400.00	Draft
Travel to UK		Draft
Jake	110.00	Submitted

4 items found, displaying all items.
[CSV](#) | [Excel](#) | [XML](#) | [PDF](#)

Create A New Expense Claim
- My Inbox Table:**

TITLE	STATUS	
January 2020 Claims	Draft	Claimant Edit
December 2019 claims	Draft	Claimant Edit
Travel to UK	Draft	Claimant Edit
Jake	Submitted	HOD Approve

4 items found, displaying all items.
[CSV](#) | [Excel](#) | [XML](#) | [PDF](#)
- Expenses Trend Chart:**

A bar chart showing total expenses for three categories: Jake (\$110), December 2019 claims (\$2400), and January 2020 Claims (\$1110). The Y-axis is labeled 'Total Expenses \$' and ranges from 0 to 3000. The X-axis is labeled 'Title'.

Title	Total Expenses \$
Jake	110
December 2019 claims	2400
January 2020 Claims	1110

Plugin Types



App Builder Components & Supported Plugin Types

Userview Builder

- Userview Menu
- Userview Permission
- Userview Theme

Datalist Builder

- Datalist Binder
- Datalist Action
- Datalist Column Formatter
- Datalist Filter Type

Process Builder

- Deadline
- Process Participant
- Process Tool
- Process Form Modifier
- Decision Tool

Form Builder

- Form Element
- Form Load Binder
- Form Store Binder
- Form Options Binder
- Form Validator
- Form Permission
- Process Form Modifier
- Post Form Submission Processing
- Generator

Addon Builder

App Platform

- Audit Trail
- Hash Variable
- Web Service

Platform

- Directory Manager
- Web Service

Chapter Review

- General understanding of the Userview Builder and its functionality.
- General understanding on its elements and its extensibility capability.



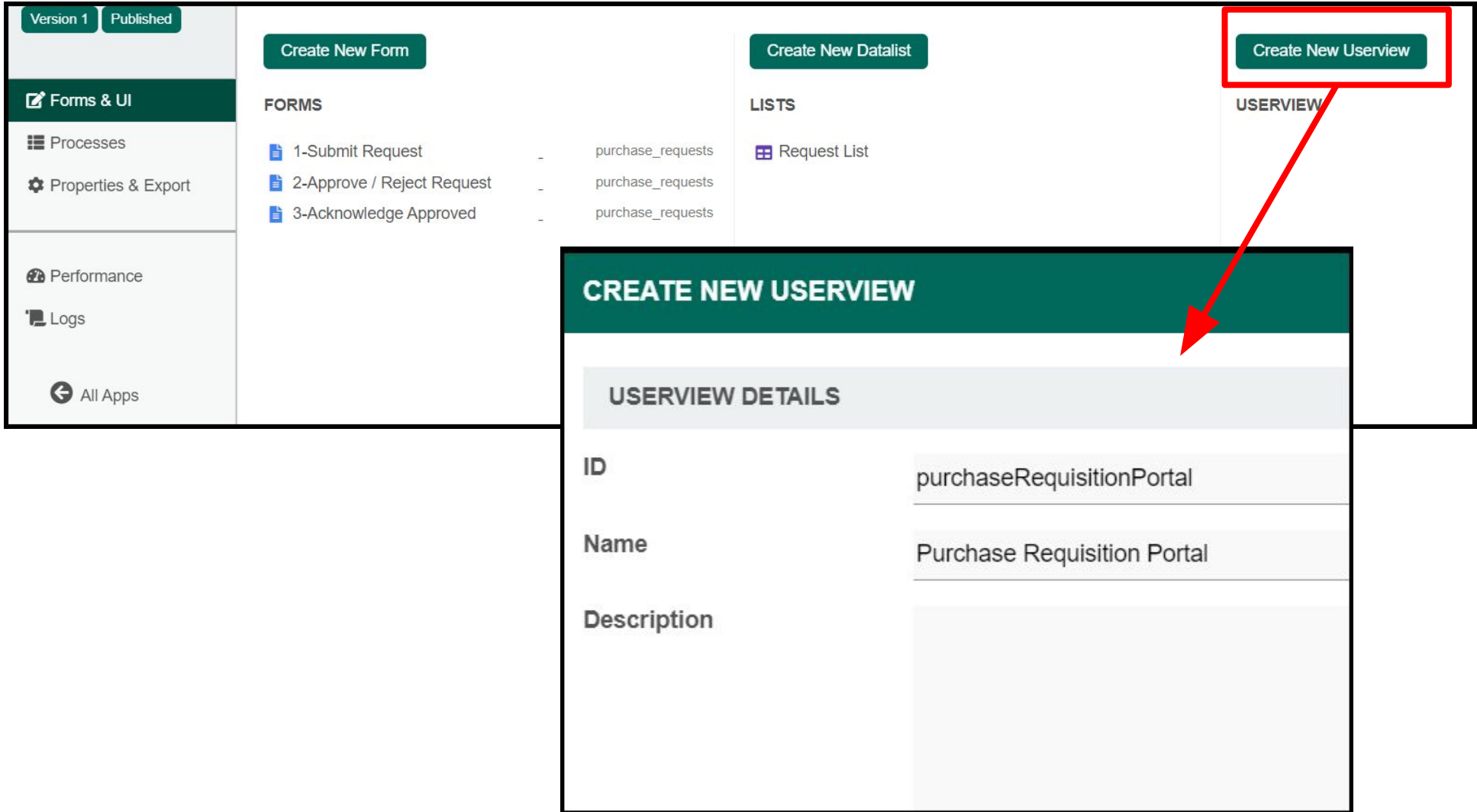
Chapter 2

Designing Your First Userview

Before You Continue

- This chapter serves more or less a recap of what we have learnt previously in
 - Designing your First Process
 - Designing your First Form
 - Designing your First Datalist

Create New Userview

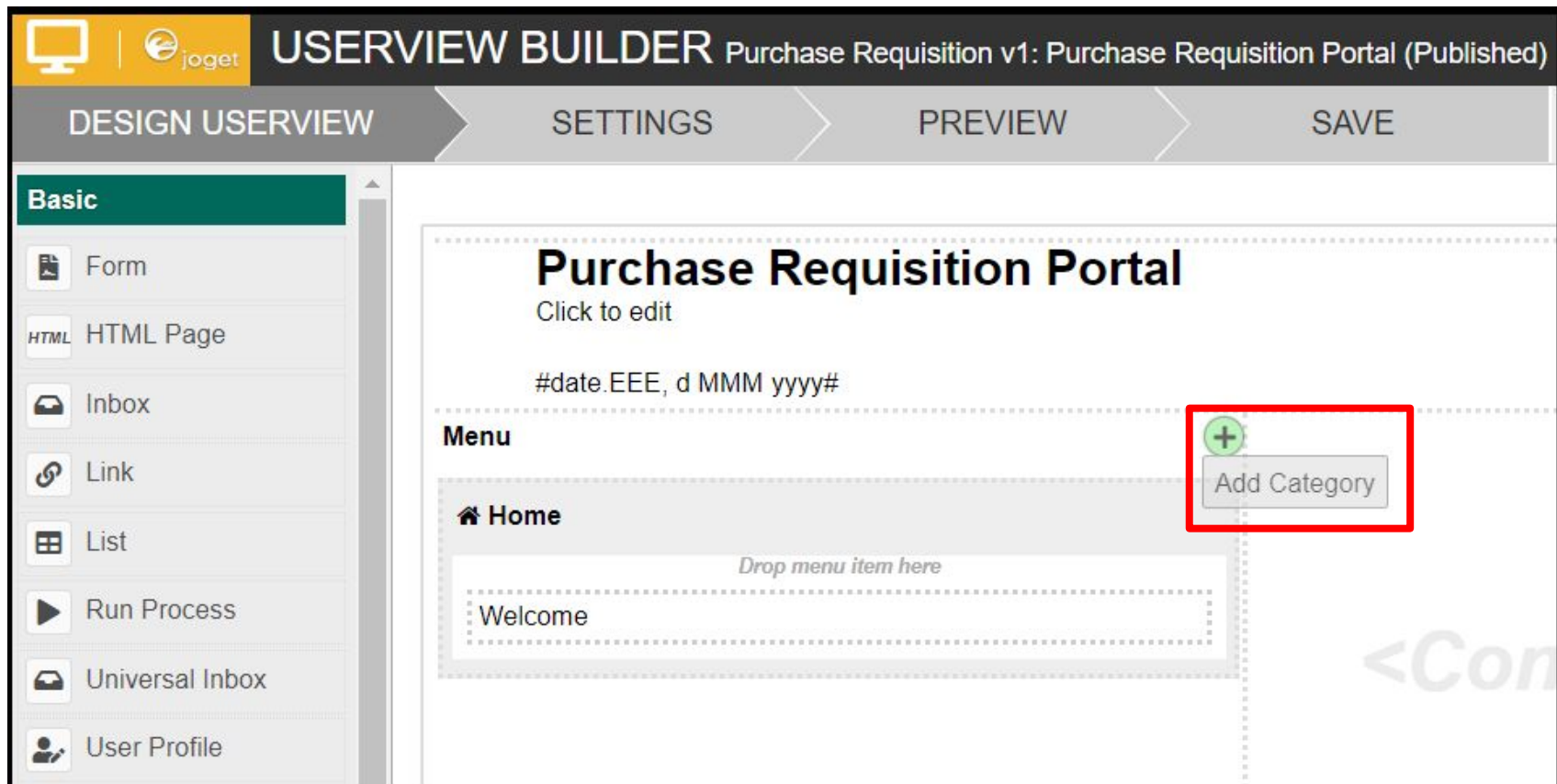


The screenshot displays the Joget application interface. On the left is a navigation sidebar with options like 'Forms & UI', 'Processes', 'Properties & Export', 'Performance', 'Logs', and 'All Apps'. The main area contains three columns: 'FORMS' with 'Create New Form' button and a list of forms; 'LISTS' with 'Create New Datalist' button and a 'Request List'; and 'USERVIEW' with a 'Create New Userview' button highlighted by a red box. A red arrow points from this button to a modal window titled 'CREATE NEW USERVIEW'. The modal window has a header 'CREATE NEW USERVIEW' and a section 'USERVIEW DETAILS' with the following fields:

USERVIEW DETAILS	
ID	purchaseRequisitionPortal
Name	Purchase Requisition Portal
Description	

Userview Category

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



USERVIEW BUILDER Purchase Requisition v1: Purchase Requisition Portal (Published)

DESIGN USERVIEW SETTINGS PREVIEW SAVE

Basic

- Form
- HTML Page
- Inbox
- Link
- List
- Run Process
- Universal Inbox
- User Profile

Purchase Requisition Portal
Click to edit

#date.EEE, d MMM yyyy#

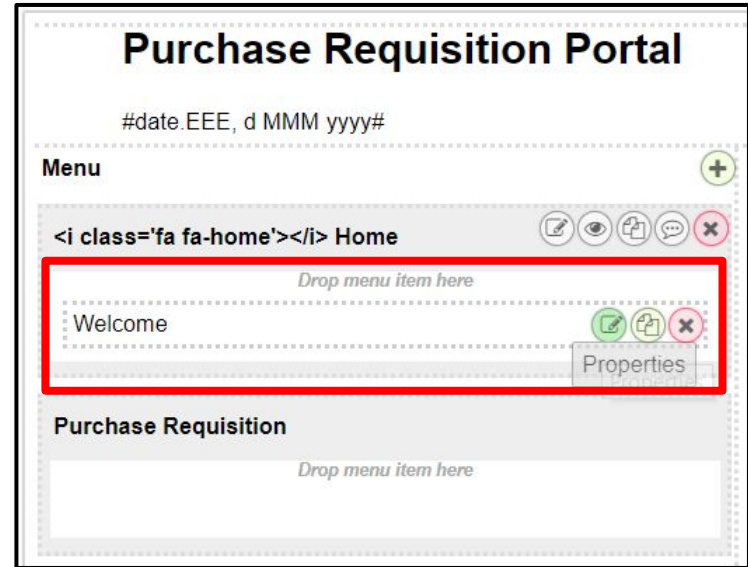
Menu

- Home
- Drop menu item here
- Welcome

Add Category

HTML Page As the First Item

- When the **Userview** is loaded, the first available (and permissible) item will be loaded automatically.
- **HTML Page** is recommended as the first menu item, to serve as the landing page.
- It will be automatically added when a new Userview is created.
- You may edit as needed by clicking on **Properties** while hovering over it.
- Reference: <http://dev.joget.org/community/display/DX7/HTML+Page>

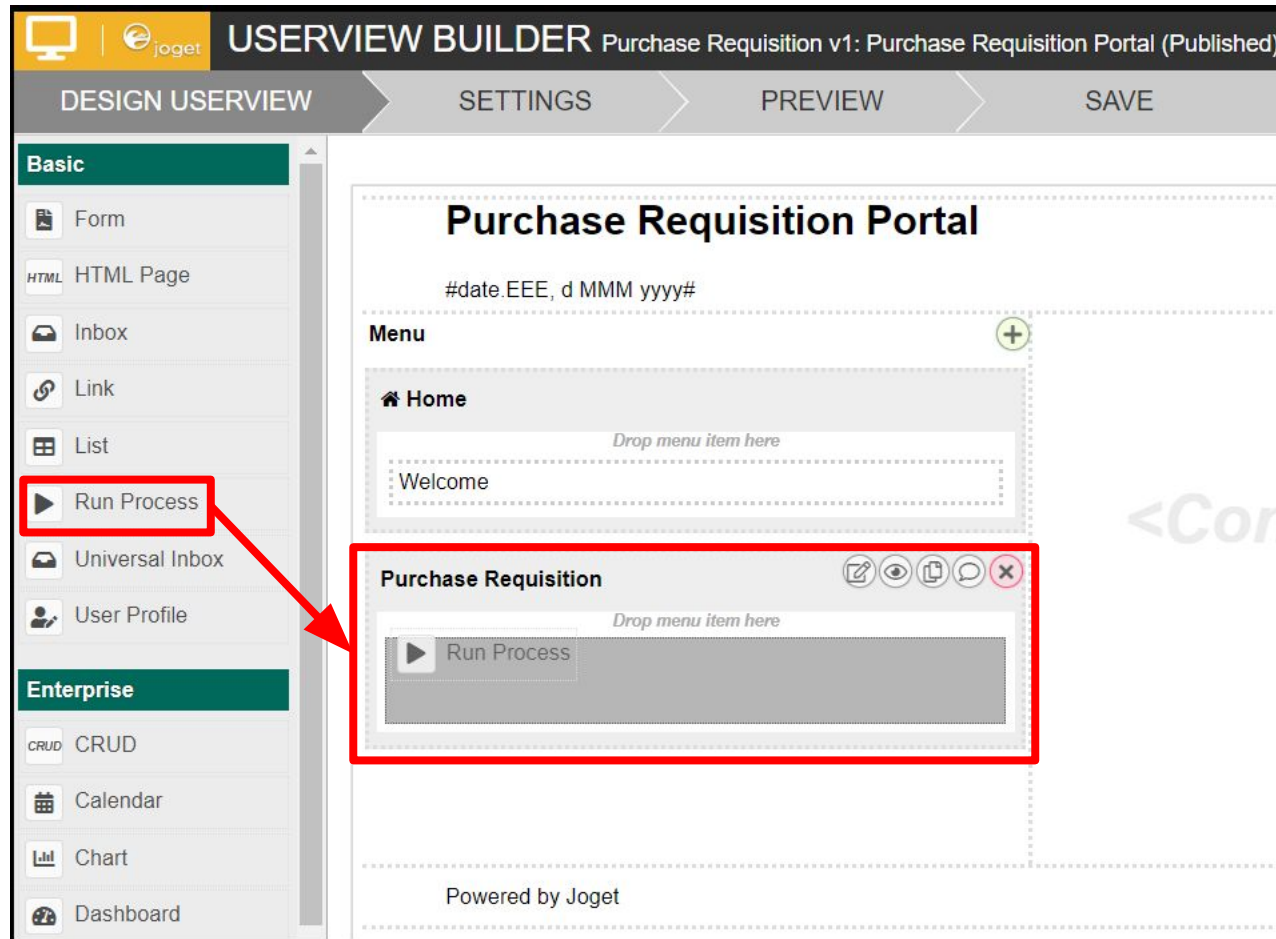


Run Process Menu

- **Run Process** enables one to start a process instance from the Userview.
- Reference:
<http://dev.joget.org/community/display/DX7/Run+Process+Menu>

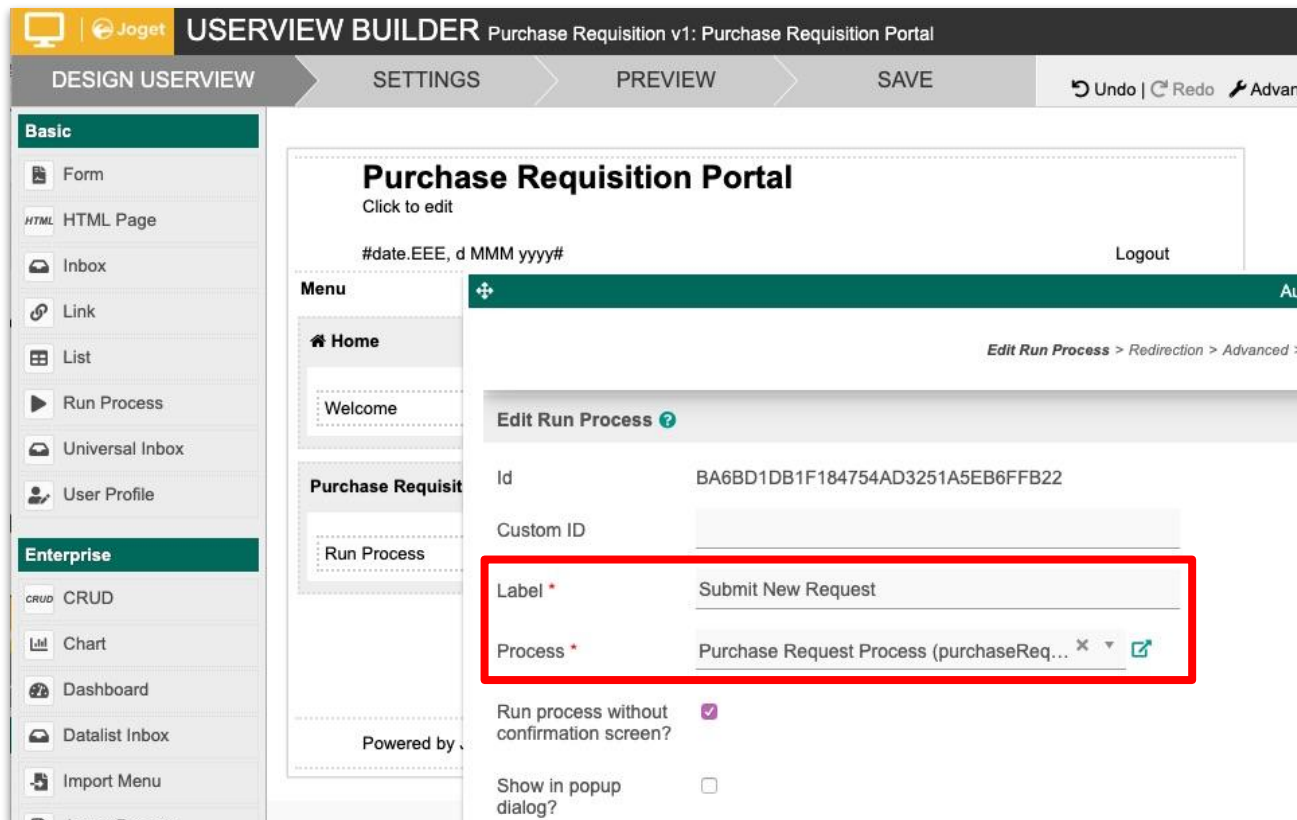
Add Run Process Into Userview

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



Integrate Run Process Into Userview

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



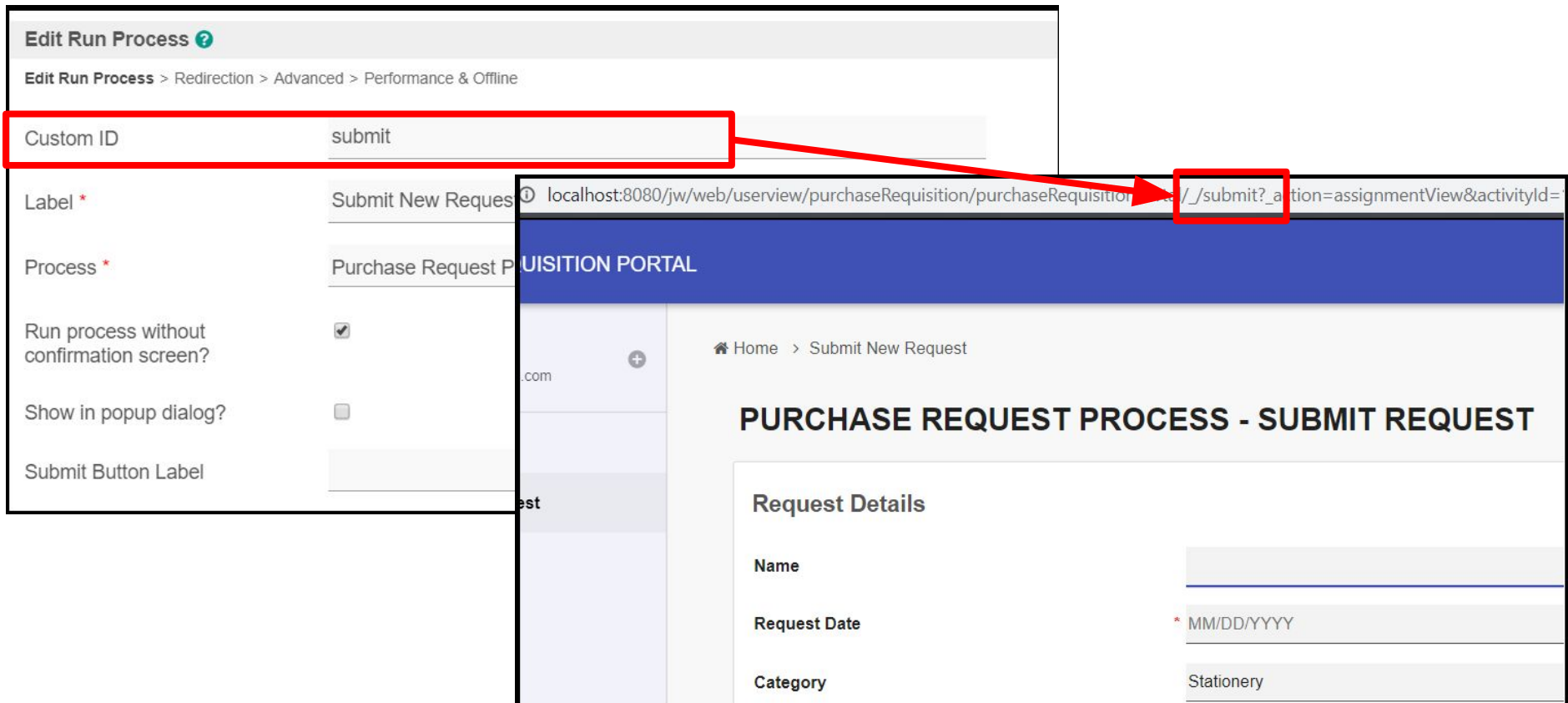
The screenshot shows the Joget Userview Builder interface for a 'Purchase Requisition Portal'. The main workspace displays a preview of the user view with a menu on the left. The 'Purchase Requisition Portal' menu item is selected, and its configuration is shown in the right-hand pane. The configuration includes:

- Id:** BA6BD1DB1F184754AD3251A5EB6FFB22
- Custom ID:** (empty text field)
- Label:** Submit New Request
- Process:** Purchase Request Process (purchaseReq...)
- Run process without confirmation screen?:**
- Show in popup dialog?:**

The 'Label' and 'Process' fields are highlighted with a red rectangle in the image.

Custom ID for Userview Menu

- Assign a **Custom ID**. It is used to identify the link's name.
- Custom ID is **optional** but it must be **unique** when set.



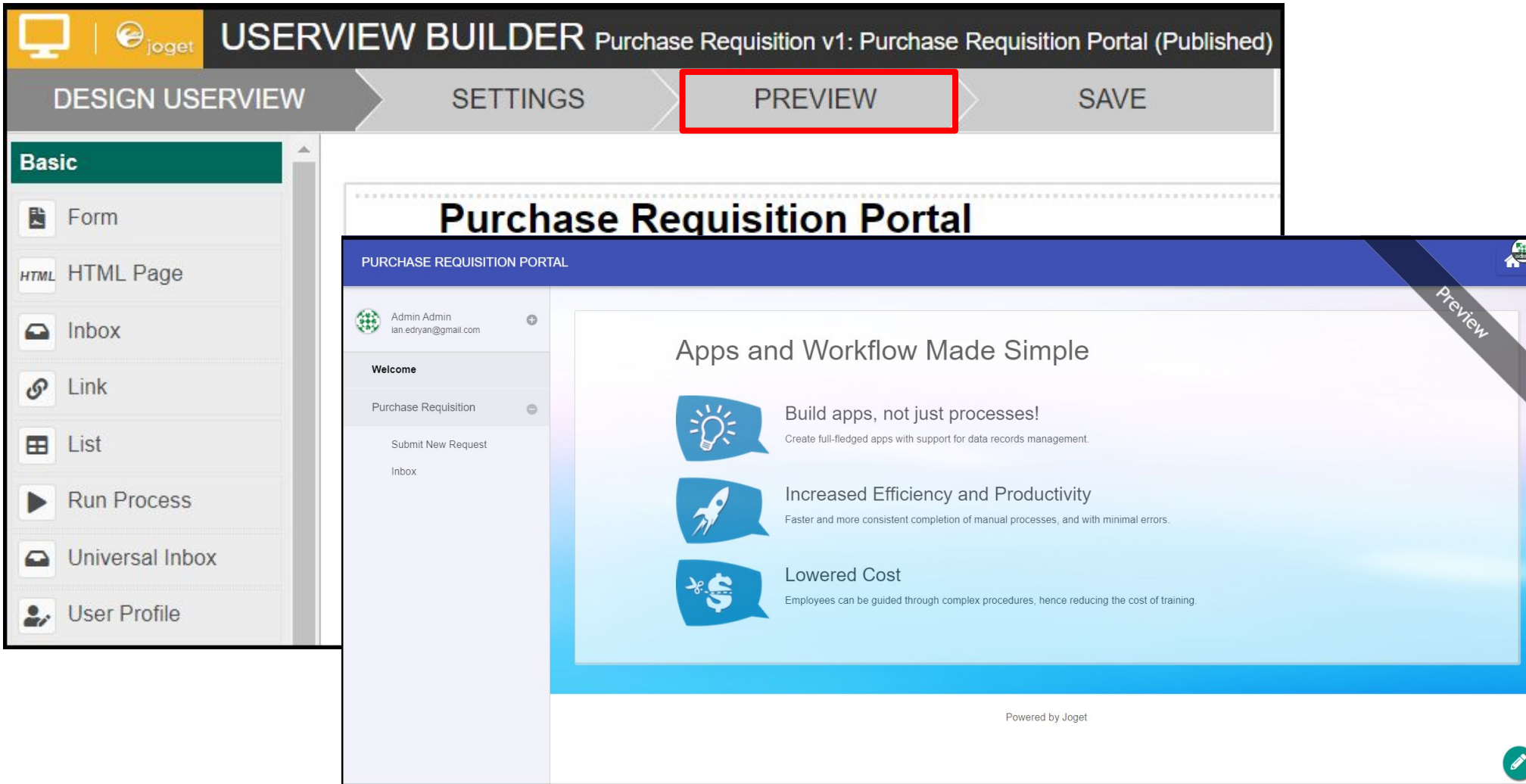
The image shows two overlapping screenshots. The top-left screenshot is the 'Edit Run Process' configuration page. It has a breadcrumb trail: 'Edit Run Process > Redirection > Advanced > Performance & Offline'. A red box highlights the 'Custom ID' field, which contains the text 'submit'. Below it, the 'Label' field contains 'Submit New Request'. The 'Process' field contains 'Purchase Request P...'. There are checkboxes for 'Run process without confirmation screen?' (checked) and 'Show in popup dialog?' (unchecked). A 'Submit Button Label' field is also present.

The bottom-right screenshot shows a web browser window displaying a 'PURCHASE REQUEST PORTAL'. The browser's address bar shows a URL ending in '/submit?_action=assignmentView&activityId=...'. A red box highlights this part of the URL, and a red arrow points from the 'submit' text in the configuration screenshot to this part of the URL. The web page has a blue header with 'PURCHASE REQUEST PORTAL' and a breadcrumb trail 'Home > Submit New Request'. The main content area is titled 'PURCHASE REQUEST PROCESS - SUBMIT REQUEST' and contains a 'Request Details' form with fields for 'Name', 'Request Date' (with a date mask '* MM/DD/YYYY'), and 'Category' (with the value 'Stationery').

Add Inbox Into Userview

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

Preview Userview



The screenshot displays the Joget Userview Builder interface. At the top, the title bar reads "USERVIEW BUILDER Purchase Requisition v1: Purchase Requisition Portal (Published)". Below this, a navigation bar contains four buttons: "DESIGN USERVIEW", "SETTINGS", "PREVIEW" (highlighted with a red border), and "SAVE".

On the left side, there is a sidebar menu under the heading "Basic" with the following items: Form, HTML Page, Inbox, Link, List, Run Process, Universal Inbox, and User Profile.

The main workspace shows a preview of the "Purchase Requisition Portal". The preview includes a blue header with the text "PURCHASE REQUISITION PORTAL" and a "Preview" diagonal banner in the top right corner. The main content area features the heading "Apps and Workflow Made Simple" and three key benefits:

- Build apps, not just processes!**
Create full-fledged apps with support for data records management.
- Increased Efficiency and Productivity**
Faster and more consistent completion of manual processes, and with minimal errors.
- Lowered Cost**
Employees can be guided through complex procedures, hence reducing the cost of training.

At the bottom of the preview, it says "Powered by Joget".

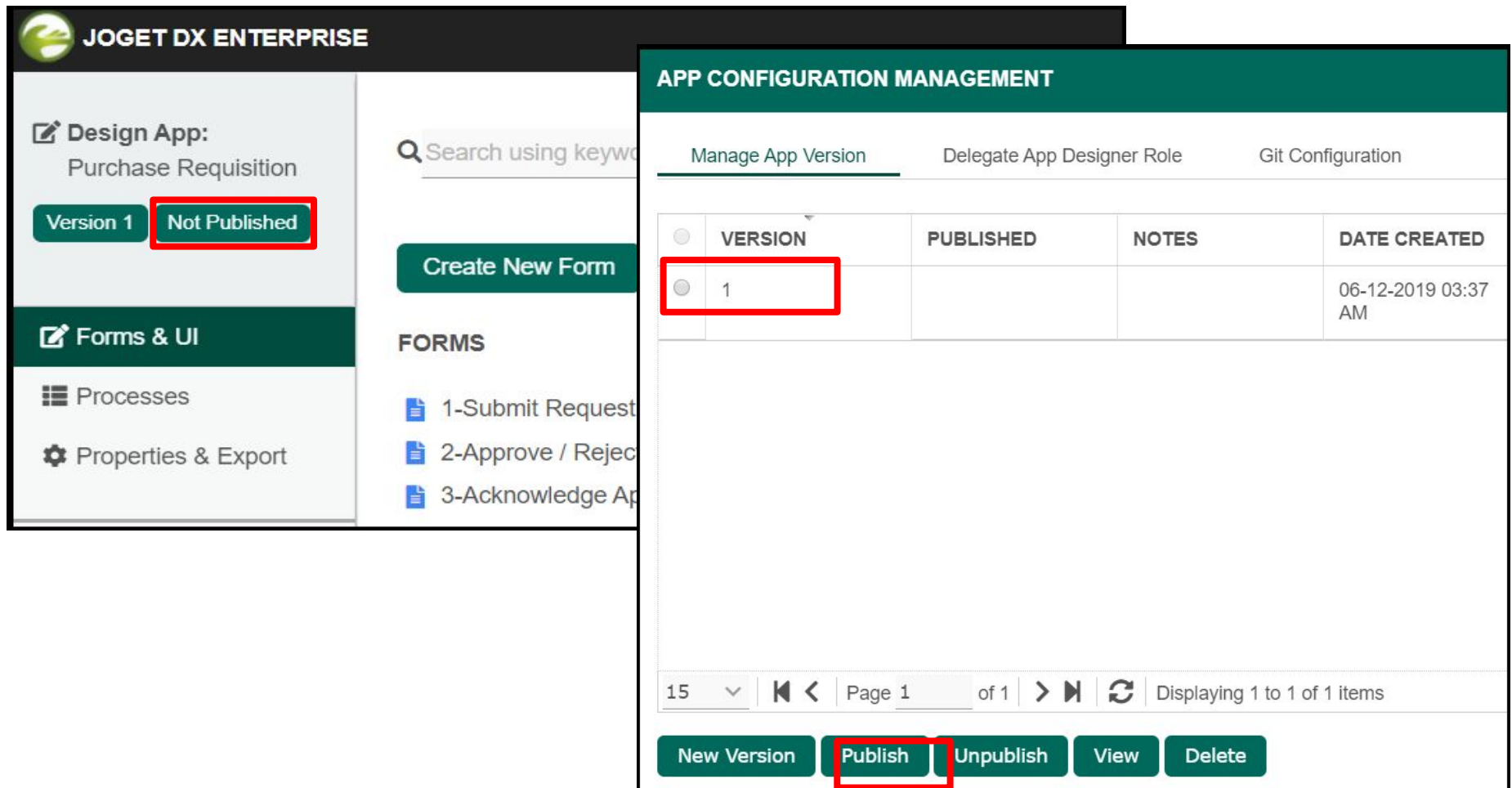
Publish the App

- With the Userview 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/Publish** button, select the version to publish.



The screenshot displays the Joget DX Enterprise interface. On the left, the 'Design App: Purchase Requisition' section shows 'Version 1' and a 'Not Published' status button. The main area is titled 'APP CONFIGURATION MANAGEMENT' and features a table with columns for 'VERSION', 'PUBLISHED', 'NOTES', and 'DATE CREATED'. A single row with '1' in the 'VERSION' column is highlighted. Below the table, a 'Publish' button is highlighted in red.

JOGET DX ENTERPRISE

Design App: Purchase Requisition

Version 1 Not Published

Create New Form

FORMS

- 1-Submit Request
- 2-Approve / Reject
- 3-Acknowledge Ap

APP CONFIGURATION MANAGEMENT

Manage App Version Delegate App Designer Role Git Configuration

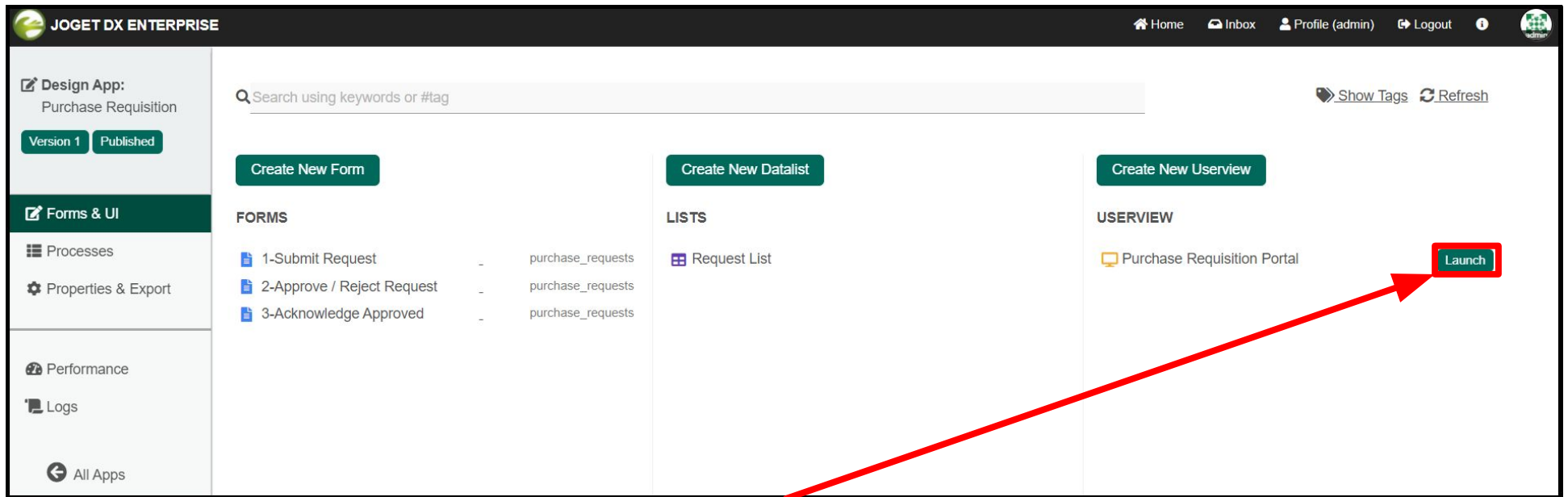
VERSION	PUBLISHED	NOTES	DATE CREATED
1			06-12-2019 03:37 AM

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

New Version Publish Unpublish View Delete

Launching the Published App

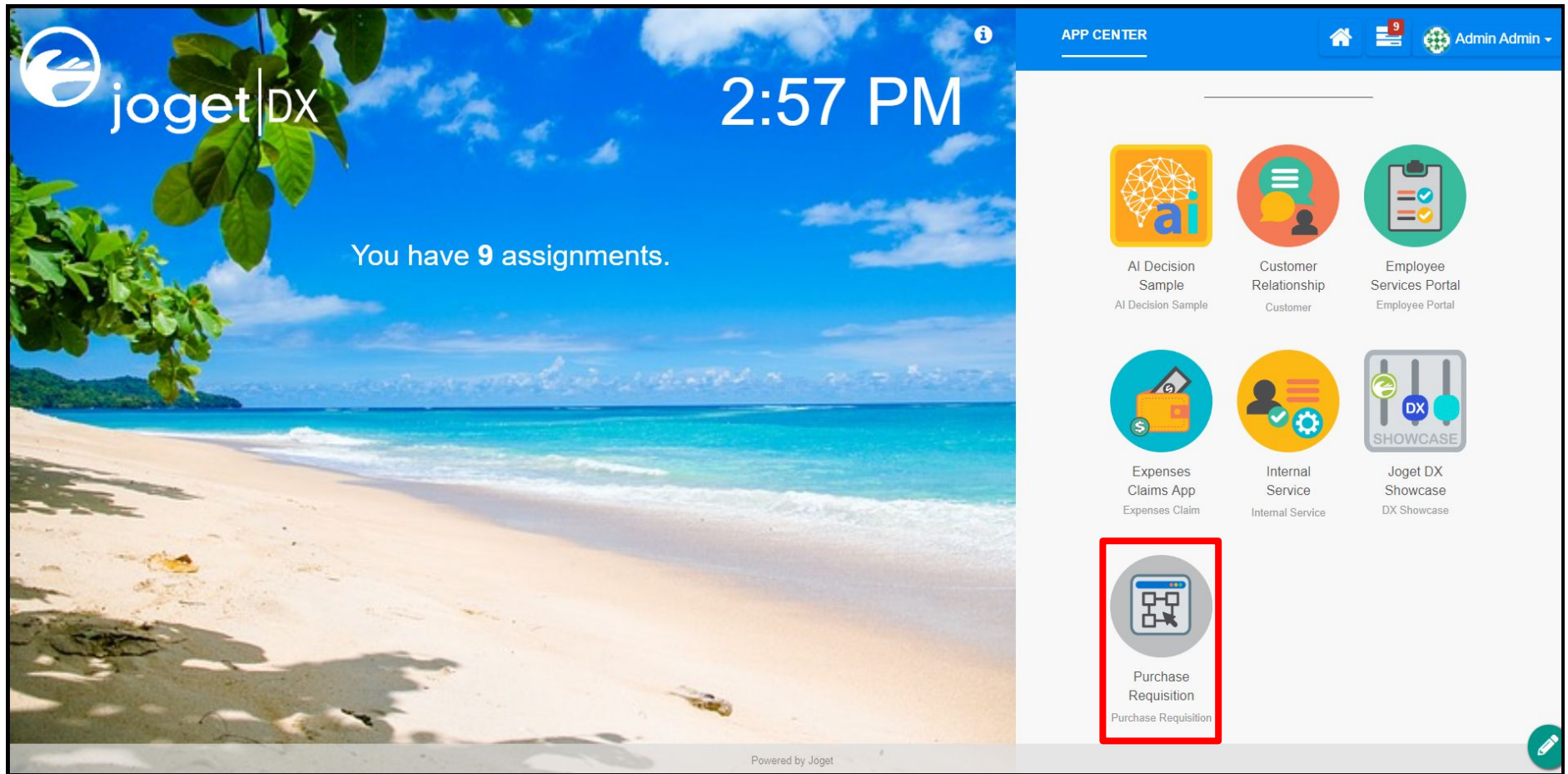
- Click on **Launch** under Userview pane.



The screenshot displays the Joget DX Enterprise interface. The top navigation bar includes 'Home', 'Inbox', 'Profile (admin)', 'Logout', and a user icon. The left sidebar contains navigation options: 'Design App: Purchase Requisition' (with 'Version 1' and 'Published' buttons), 'Forms & UI' (with 'Processes', 'Properties & Export', 'Performance', and 'Logs'), and 'All Apps'. The main content area features a search bar and three columns: 'FORMS' (with 'Create New Form' button and a list of three items), 'LISTS' (with 'Create New Datalist' button and a 'Request List' item), and 'USERVIEW' (with 'Create New Userview' button and a 'Purchase Requisition Portal' item). A red box highlights the 'Launch' button next to the 'Purchase Requisition Portal' user view, with a red arrow pointing to it from the bottom left.

Launching the Published App

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



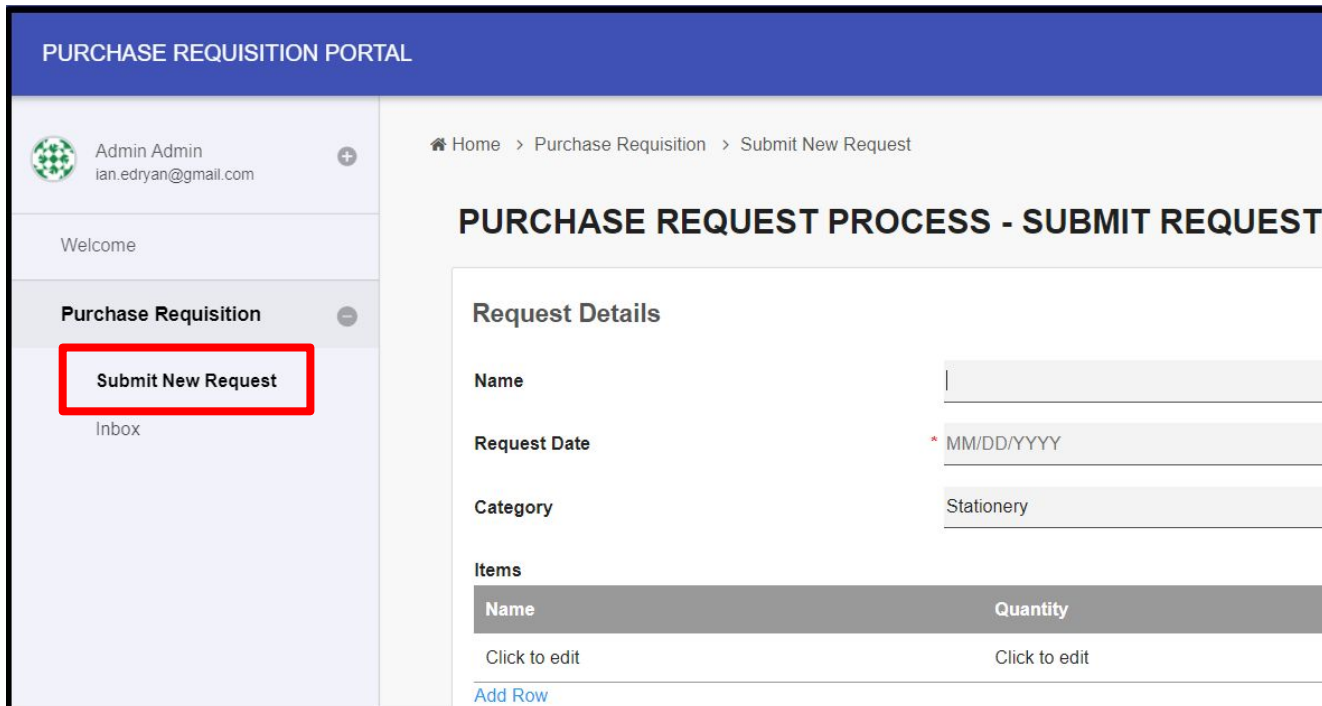
The screenshot displays the Joget DX user interface. On the left, a large banner features a beach scene with the text "joget|DX" and "2:57 PM". A notification states "You have 9 assignments." The right side of the interface is the "APP CENTER", which lists several published applications:

- AI Decision Sample (AI Decision Sample)
- Customer Relationship (Customer)
- Employee Services Portal (Employee Portal)
- Expenses Claims App (Expenses Claim)
- Internal Service (Internal Service)
- Joget DX Showcase (DX Showcase)
- Purchase Requisition (Purchase Requisition)** - This app is highlighted with a red border.

At the bottom of the interface, it says "Powered by Joget".

Exercise: Run Through the Process

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



PURCHASE REQUISITION PORTAL

Admin Admin
ian.edryan@gmail.com

Welcome

Purchase Requisition

Submit New Request

Inbox

Home > Purchase Requisition > Submit New Request

PURCHASE REQUEST PROCESS - SUBMIT REQUEST

Request Details

Name

Request Date * MM/DD/YYYY

Category Stationery

Items

Name	Quantity
Click to edit	Click to edit

[Add Row](#)

Exercise: Run Through the Process

- Submit the form (which is part of the Process's activity flow) and continue on with the next assignment by going to **Inbox**.

PURCHASE REQUEST PROCESS - SUBMIT REQUEST

Request Details

Name

Request Date * MM/DD/YYYY

Category Stationery

Items

Name	Quantity
Click to edit	Click to edit

[Add Row](#)

Remarks

Exercise: Integrate DataList Into Userview

- Add a **List** element into the Userview to incorporate the Datalist that was created earlier.
- Name it as “**List All**”.

Exercise: Add CRUD Functionality

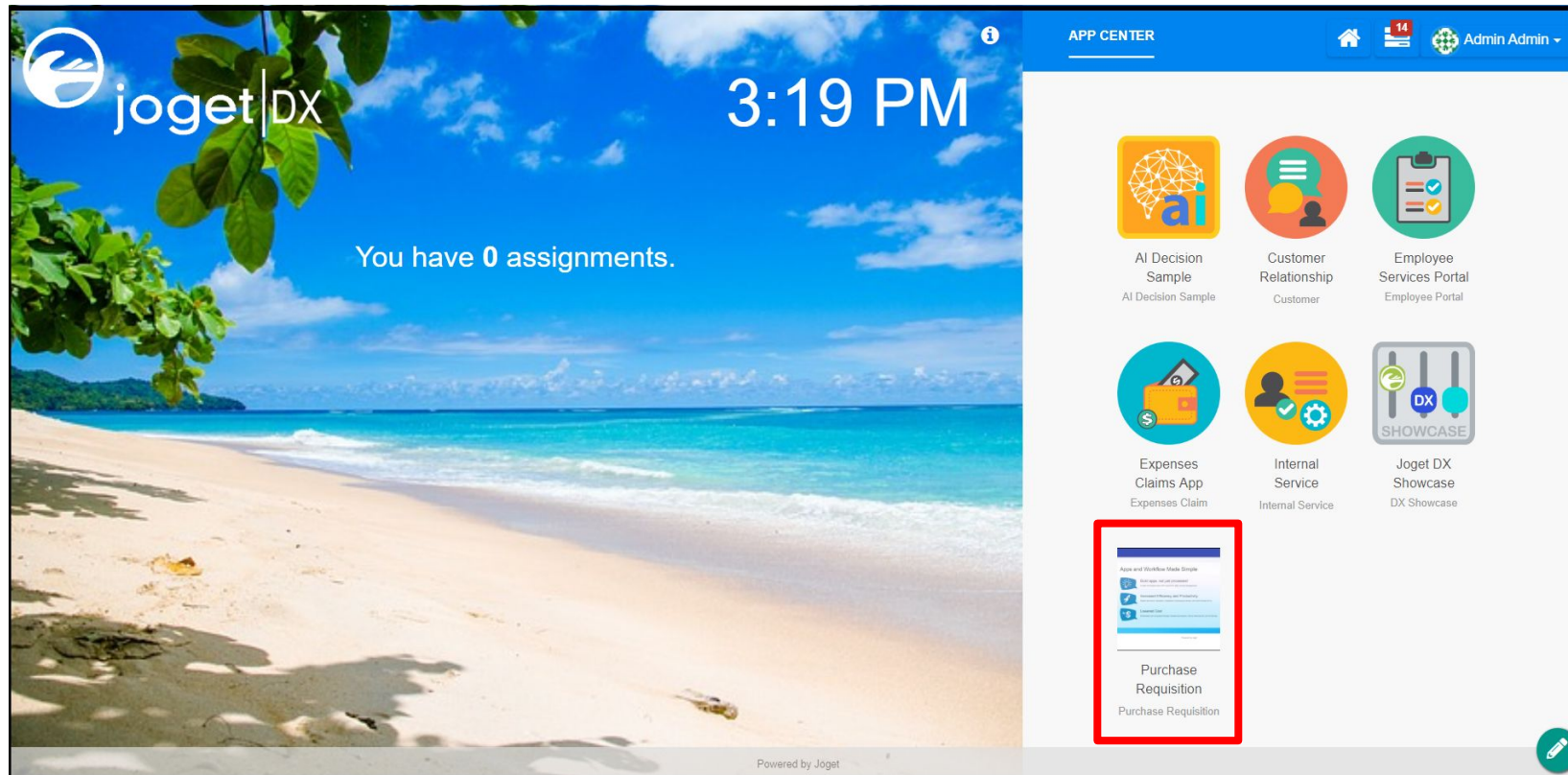
- Add a “CRUD” element into the Userview.
- Configure the CRUD to use the list created earlier and point to the appropriate form for editing.

Exercise: Change Userview Theme

- At Userview Builder's settings, change the Userview Theme to a new look and feel.
- Remember to click "OK" after selecting a new theme.
- Preview.

Exercise: App Thumbnail

Notice that other apps have each its own app thumbnail in the app center? Try to personalize yours too.



Chapter Review

We have learnt to:

1. Create Userview.
2. Use Userview as application Front-end interface.
3. Integrate Datalist, Run Process, Inbox into Userview.



Chapter 3

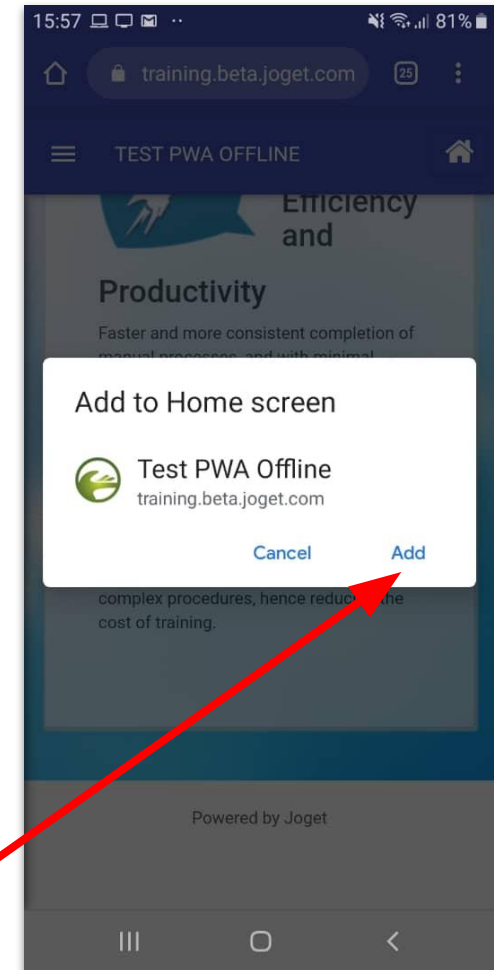
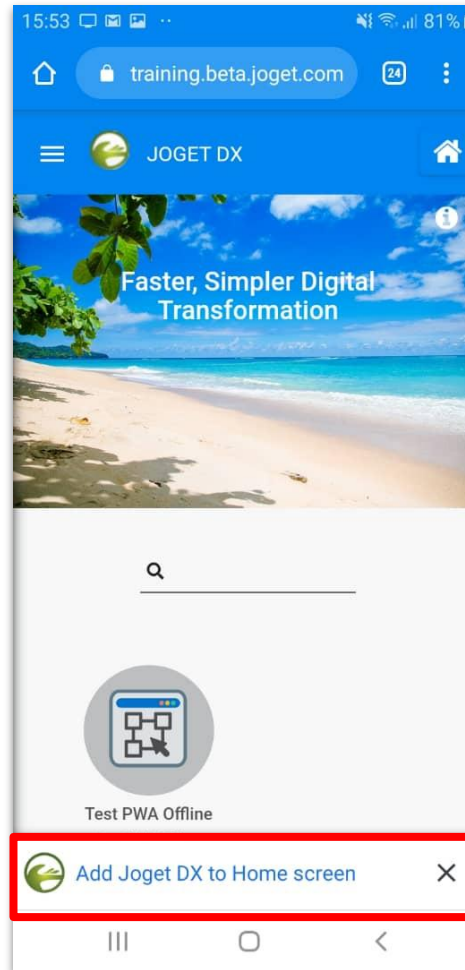
Introduction to PWA

Requirements

- Your mobile phone/device with PWA-supported browsers.
- For PWA to work, it requires Joget to have a secure web connection (HTTPS).
- The theme used in the Joget App is PWA compliant (By default: DX Progressive Theme & DX X-Admin Theme are PWA compliant).

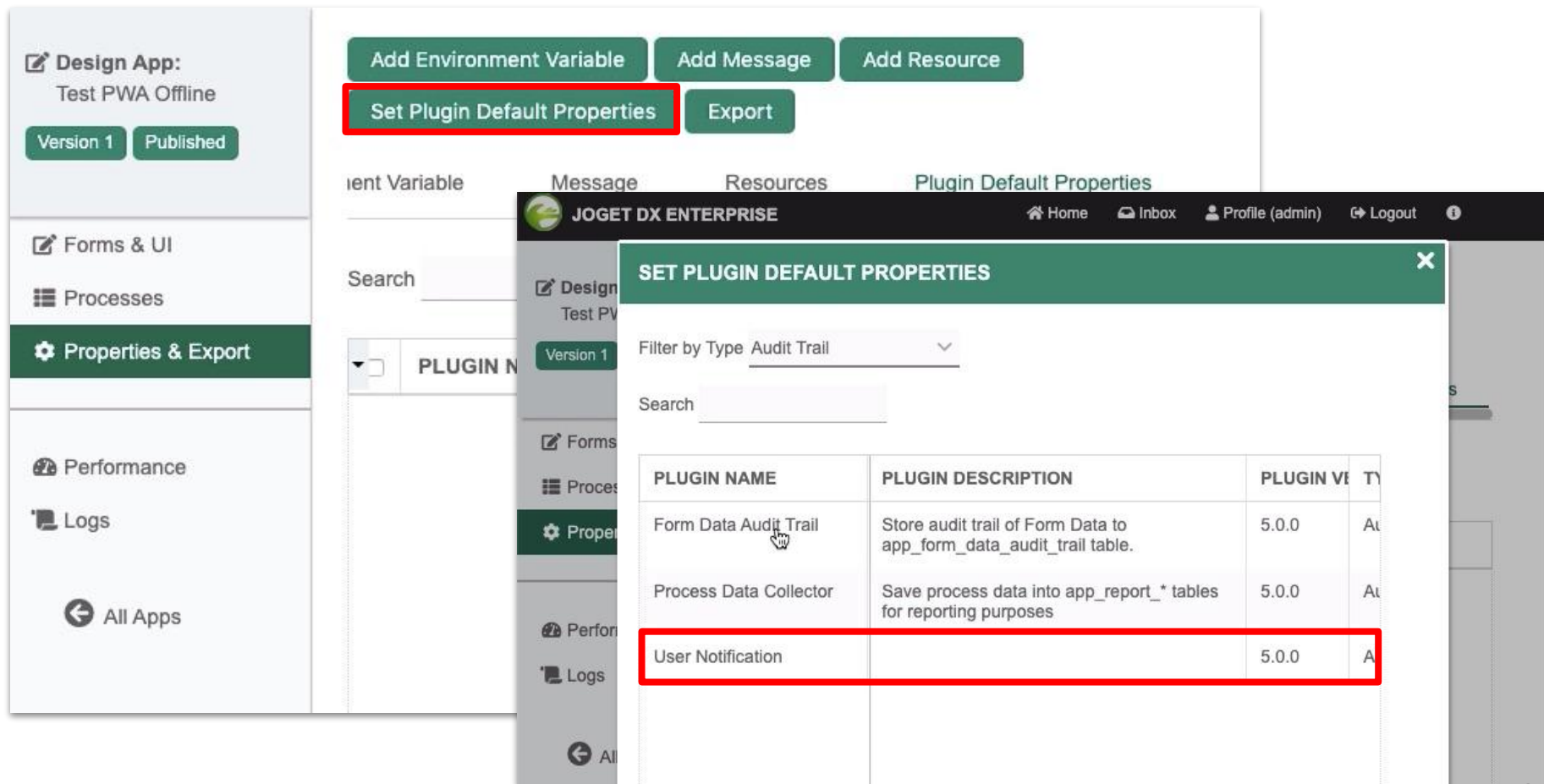
Adding to Home Screen

- Using your smartphone or browser, head over to : <https://training.beta.joget.com/jw>.
- Add to Home Screen.
- An App will appear on app launcher.
- Sign in as one of the users (This is so that Joget would know who to push the notification to).



Push Notification

- Enable Push Notification in the app itself.



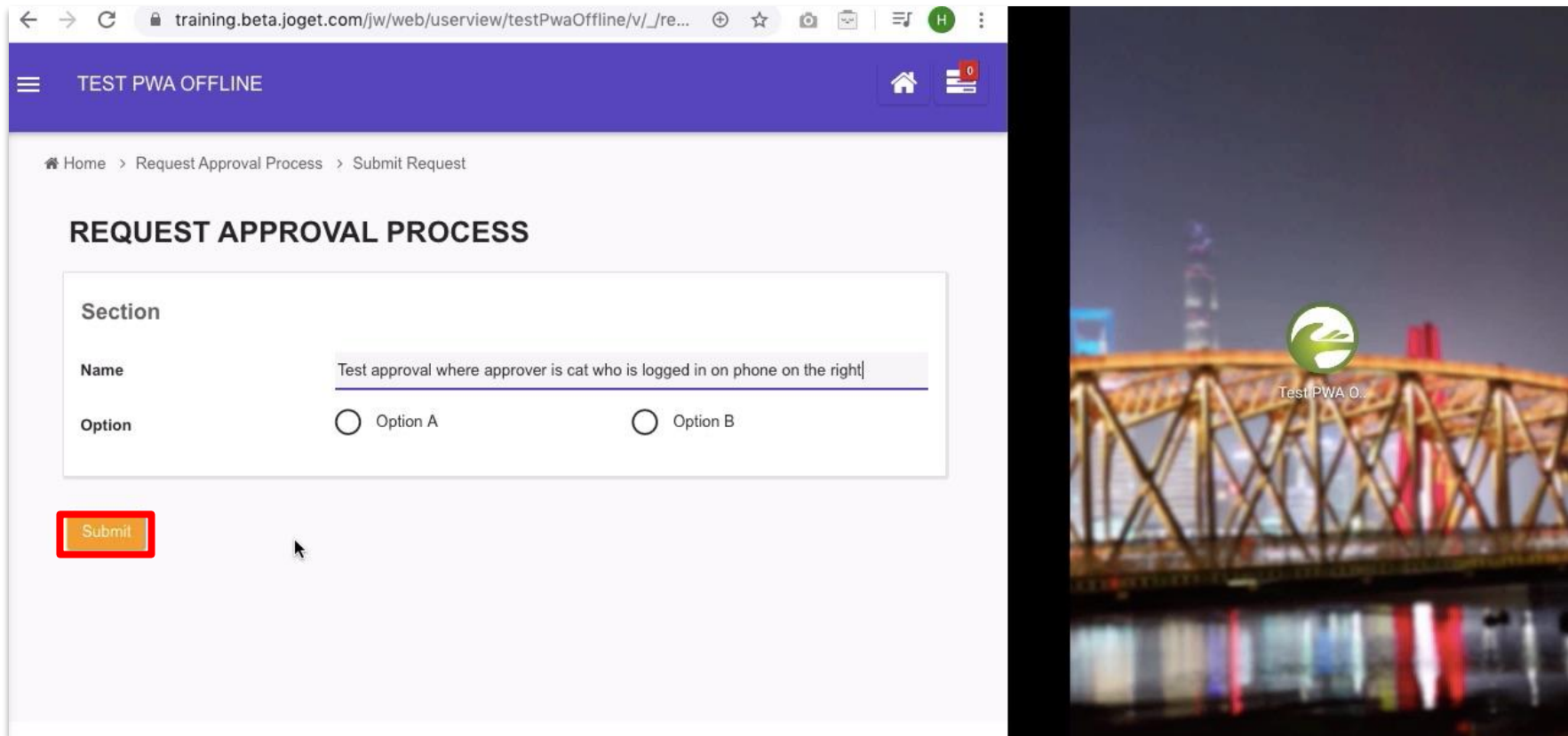
The screenshot shows the Joget DX Enterprise interface. On the left is a sidebar with navigation options: Design App (Test PWA Offline), Forms & UI, Processes, Properties & Export (highlighted), Performance, and Logs. The main area shows a 'Plugin Default Properties' dialog box. The dialog box has a title bar 'SET PLUGIN DEFAULT PROPERTIES' and a close button. Below the title bar, there is a 'Filter by Type' dropdown set to 'Audit Trail' and a search input field. A table lists the following plugins:

PLUGIN NAME	PLUGIN DESCRIPTION	PLUGIN VE	TY
Form Data Audit Trail	Store audit trail of Form Data to app_form_data_audit_trail table.	5.0.0	Au
Process Data Collector	Save process data into app_report_* tables for reporting purposes	5.0.0	Au
User Notification		5.0.0	A

The 'User Notification' row is highlighted with a red box. The background interface shows buttons for 'Add Environment Variable', 'Add Message', 'Add Resource', 'Set Plugin Default Properties' (highlighted with a red box), and 'Export'.

Push Notification

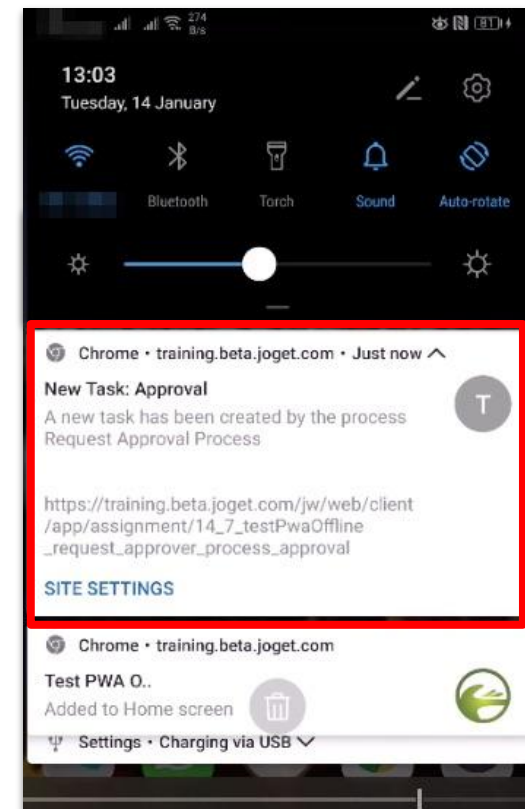
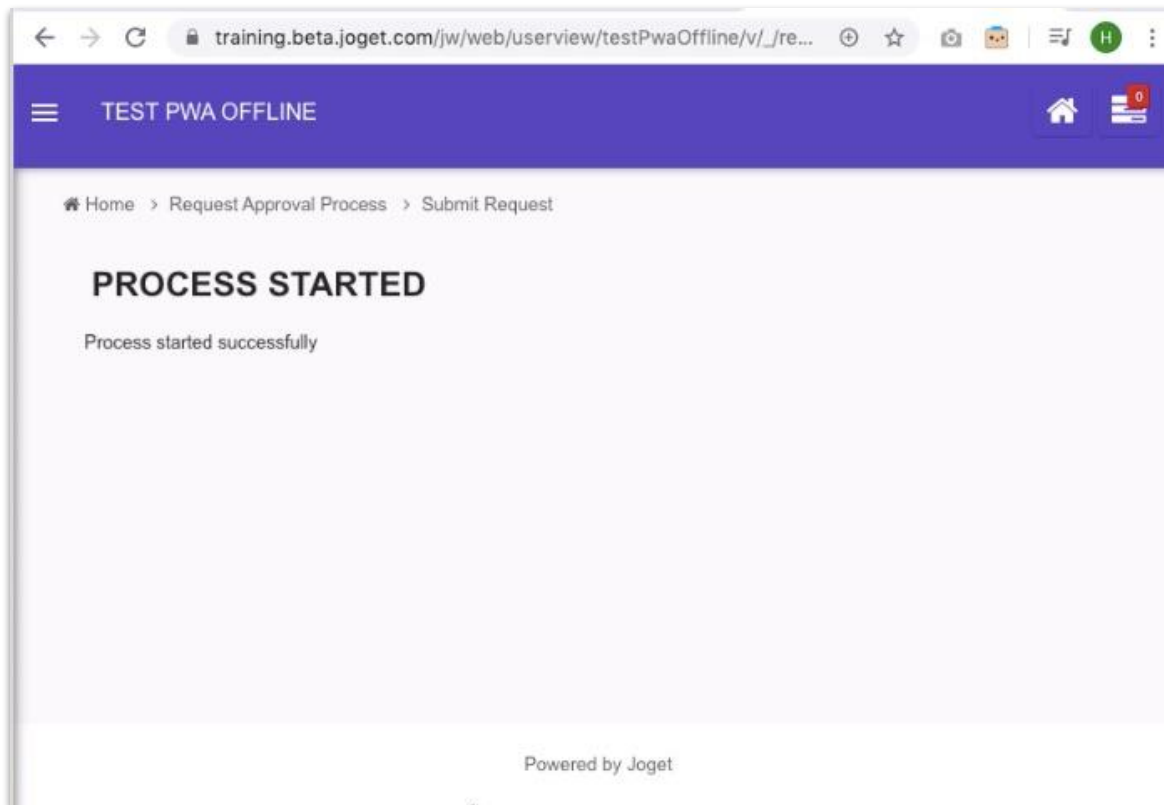
- Starts a new process instance and make sure that it assigns to the person who has signed in on the other device/browser.



The image shows a web application interface on the left and a mobile device notification on the right. The web application is titled "TEST PWA OFFLINE" and displays a "REQUEST APPROVAL PROCESS" form. The form includes a "Section" header, a "Name" field with the text "Test approval where approver is cat who is logged in on phone on the right", and two radio button options: "Option A" and "Option B". A "Submit" button is highlighted with a red box. The mobile device notification on the right shows the Joget logo and the text "Test PWA O..." over a background image of a bridge at night.

Push Notification

- Once process is started and assignment is assigned to the person signed in on the mobile device, push notification will be sent.

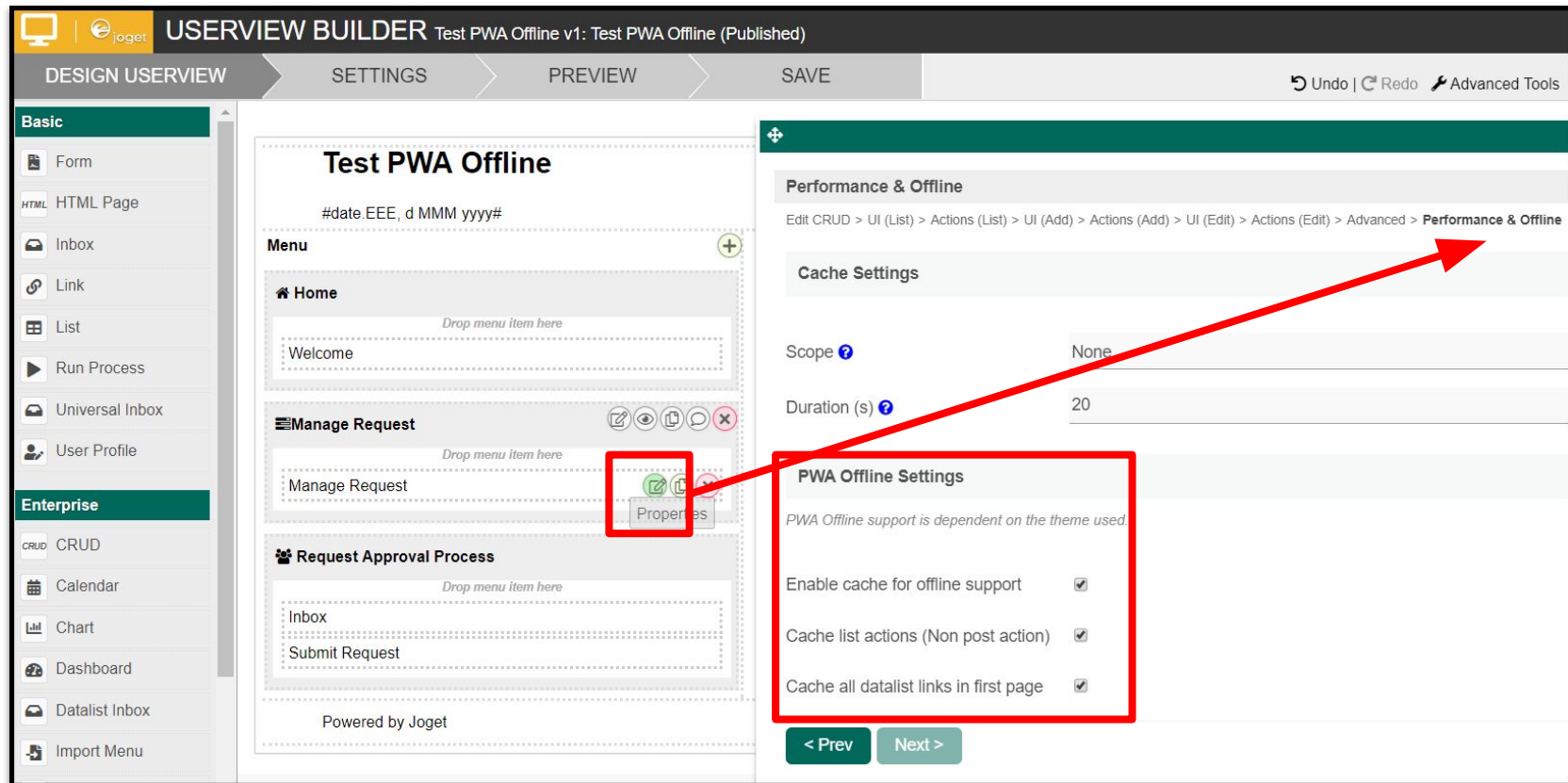


Offline Support

- Offline storage support allows uninterrupted work when device is offline.
- Compatibility depends on the theme and userview menu, down to the form and form field level.

How To Enable PWA Offline Support

- In Userview Builder, toggle “Enable Cache for Offline Support” in each menu element.



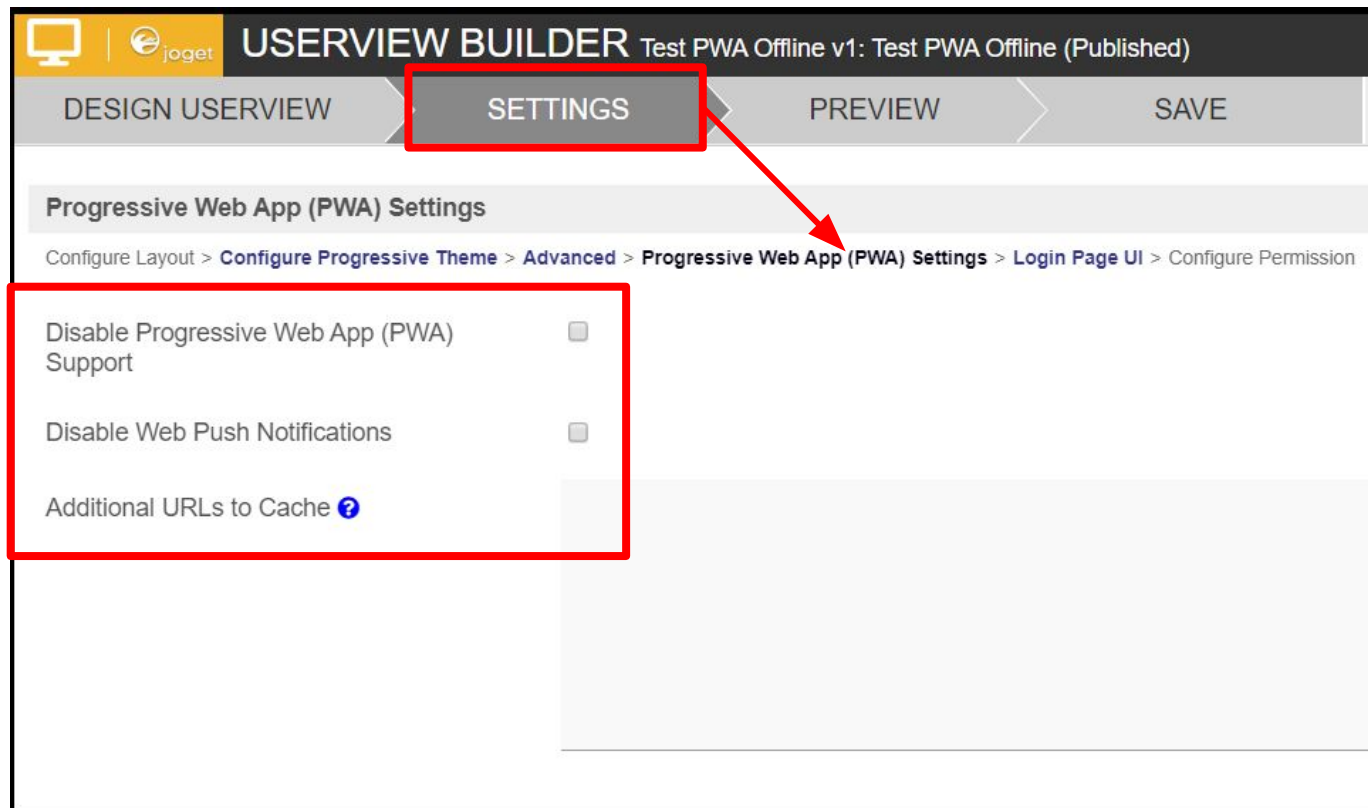
The screenshot shows the Joget Userview Builder interface for a project titled "Test PWA Offline v1: Test PWA Offline (Published)". The interface is divided into several sections:

- DESIGN USERVIEW**: The main workspace showing a menu structure for "Test PWA Offline". The menu includes "Home" (with a "Welcome" item), "Manage Request" (with a "Manage Request" item), and "Request Approval Process" (with "Inbox" and "Submit Request" items). A "Properties" button is visible for the "Manage Request" item.
- SETTINGS**: A sidebar on the left containing various widget categories:
 - Basic**: Form, HTML Page, Inbox, Link, List, Run Process, Universal Inbox, User Profile.
 - Enterprise**: CRUD, Calendar, Chart, Dashboard, Datalist Inbox, Import Menu.
- Performance & Offline**: A settings panel on the right, currently open for the "Manage Request" item. It includes:
 - Cache Settings**:
 - Scope: None
 - Duration (s): 20
 - PWA Offline Settings**:
 - Enable cache for offline support:
 - Cache list actions (Non post action):
 - Cache all datalist links in first page:

A red arrow points from the "Properties" button in the menu to the "PWA Offline Settings" section. A red box highlights the "PWA Offline Settings" section, and another red box highlights the "Properties" button.

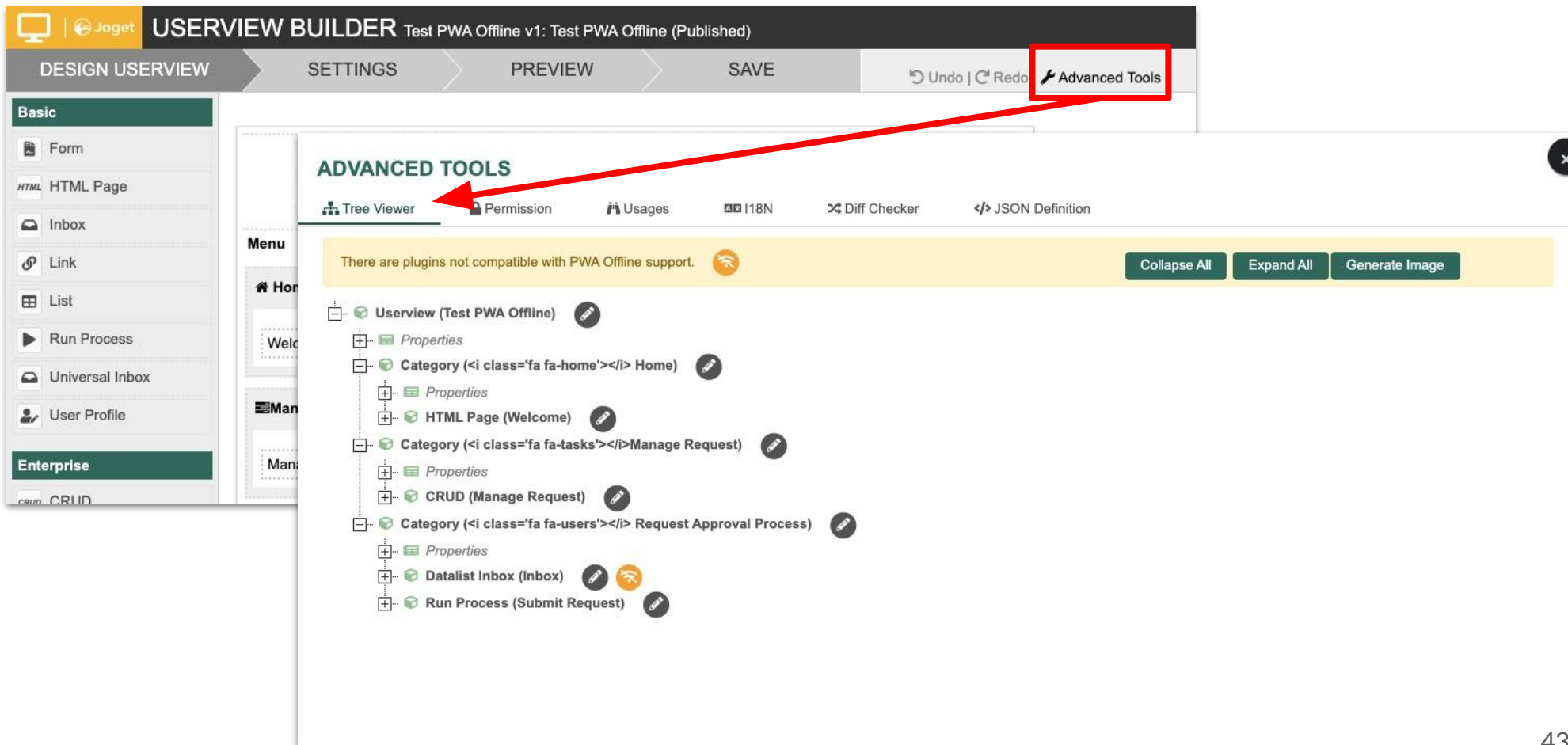
Where Are The PWA Settings?

- In Userview Builder > Settings > PWA Supported themes > Progressive Web App (PWA) Settings,



PWA Offline Compatibility

- Compatibility check inside Userview Builder's Tree Viewer.



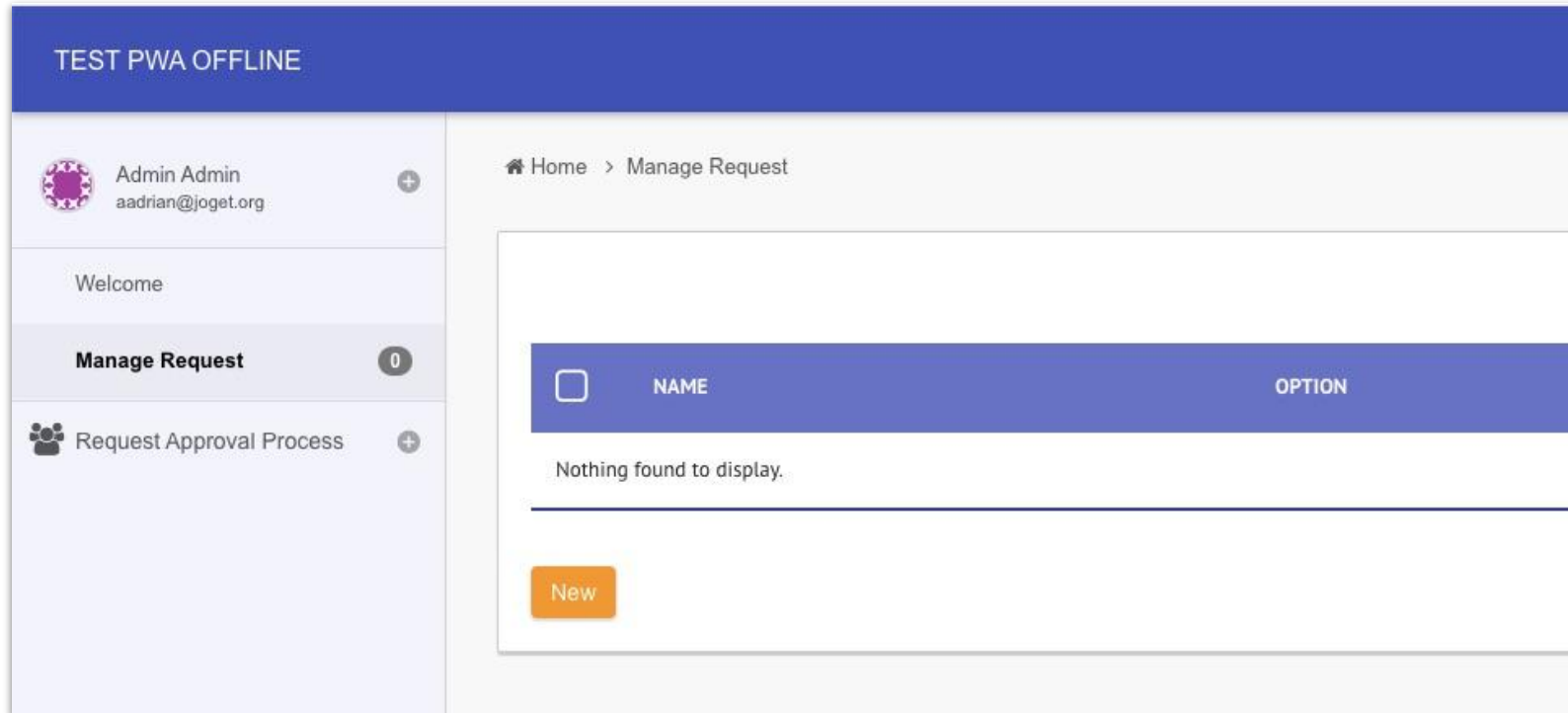
The screenshot displays the Joget Userview Builder interface. The top navigation bar includes 'DESIGN USERVIEW', 'SETTINGS', 'PREVIEW', 'SAVE', 'Undo', 'Redo', and 'Advanced Tools'. The 'Advanced Tools' panel is open, showing a 'Tree Viewer' tab. A yellow warning banner at the top of the panel states: 'There are plugins not compatible with PWA Offline support.' Below the banner, a tree view shows the following structure:

- Userview (Test PWA Offline)
 - Properties
 - Category (<i class='fa fa-home'></i> Home)
 - Properties
 - HTML Page (Welcome)
 - Category (<i class='fa fa-tasks'></i> Manage Request)
 - Properties
 - CRUD (Manage Request)
 - Category (<i class='fa fa-users'></i> Request Approval Process)
 - Properties
 - Datalist Inbox (Inbox)
 - Run Process (Submit Request)

A red arrow points from the 'Advanced Tools' button in the top navigation bar to the 'Tree Viewer' tab in the 'Advanced Tools' panel.

Exercise: Try Out PWA Offline Support

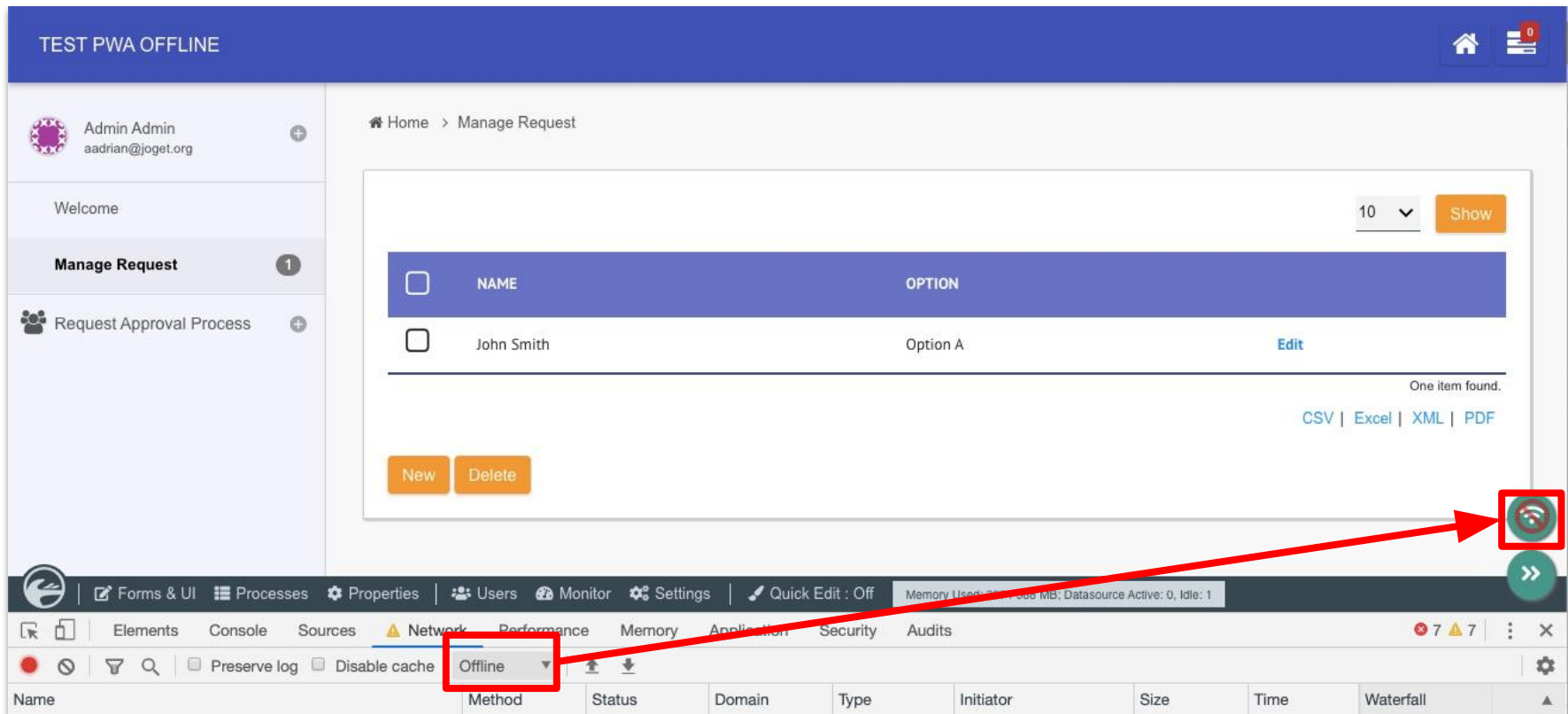
- On your PC, go to <https://training.beta.joget.com/jw>
- Click on Test PWA Offline App > Manage Request
- Try saving submit a request or save data



The screenshot displays the 'TEST PWA OFFLINE' application interface. The top navigation bar is blue with the text 'TEST PWA OFFLINE'. The left sidebar contains a user profile for 'Admin Admin' (aadrian@joget.org), a 'Welcome' message, a 'Manage Request' button with a '0' notification badge, and a 'Request Approval Process' link. The main content area shows a breadcrumb trail 'Home > Manage Request' and a table with columns 'NAME' and 'OPTION'. The table is currently empty, displaying 'Nothing found to display.' Below the table is an orange 'New' button.

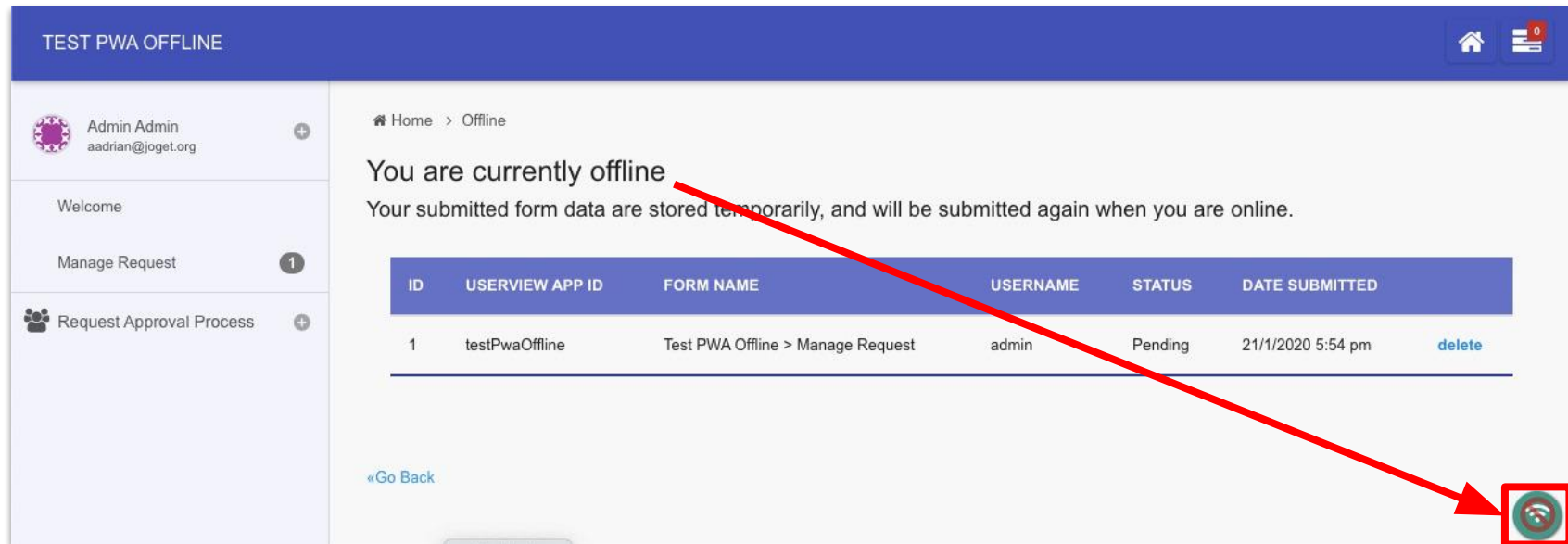
Exercise: Try Out PWA Offline Support

- Enable offline mode by making use of Developer Tools in your browser



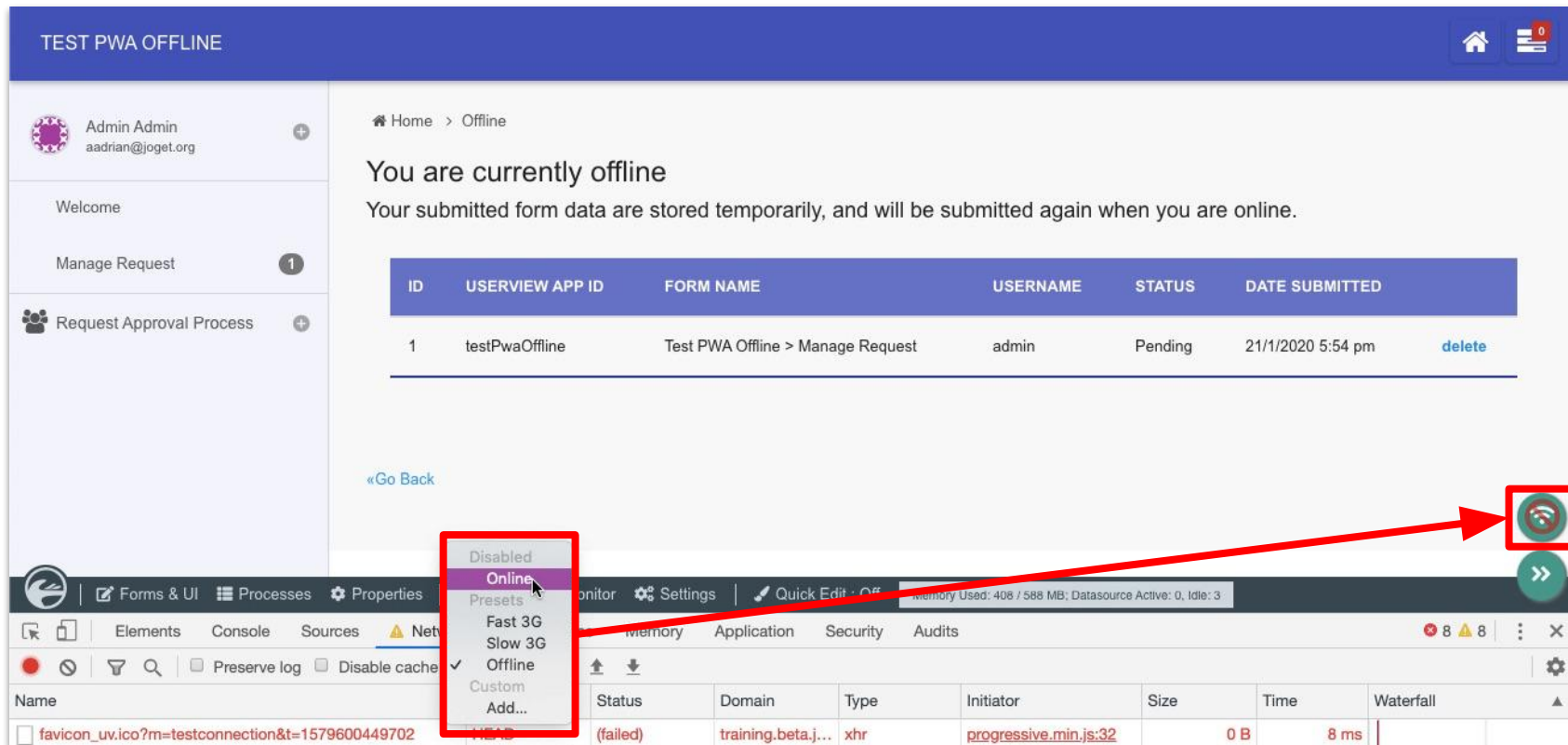
Exercise: Try Out PWA Offline Support

- Try again - saving submit a request or save data.
- You will be presented with this screen on submission.
- You can click on the Wifi icon on the bottom right anytime to view stored offline data.



Exercise: Try out PWA Offline support

- Get back online.
- Joget will now attempt to sync all the data saved to server online.



The screenshot shows a web application interface titled "TEST PWA OFFLINE". The user is logged in as "Admin Admin" (aadrian@joget.org). The main content area displays a message: "You are currently offline. Your submitted form data are stored temporarily, and will be submitted again when you are online." Below this is a table with one entry:

ID	USERVIEW APP ID	FORM NAME	USERNAME	STATUS	DATE SUBMITTED	
1	testPwaOffline	Test PWA Offline > Manage Request	admin	Pending	21/1/2020 5:54 pm	delete

At the bottom of the browser window, the Chrome DevTools network log is open, showing a failed request for "progressive_min.js:32". A red box highlights the "Offline" option in the network log's "Presets" menu. A red arrow points from this menu to a red box around the offline status icon in the top right corner of the application interface.

Chapter Review

We have learnt to:

1. Add app to homescreen on mobile.
2. Push Notification.
3. Offline Support.

Module Review

1. Introduction to Userview Builder
2. Designing Your First Userview
3. Introduction to PWA

Recommended Further Learning

- Hash Variables
- Permission Control

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