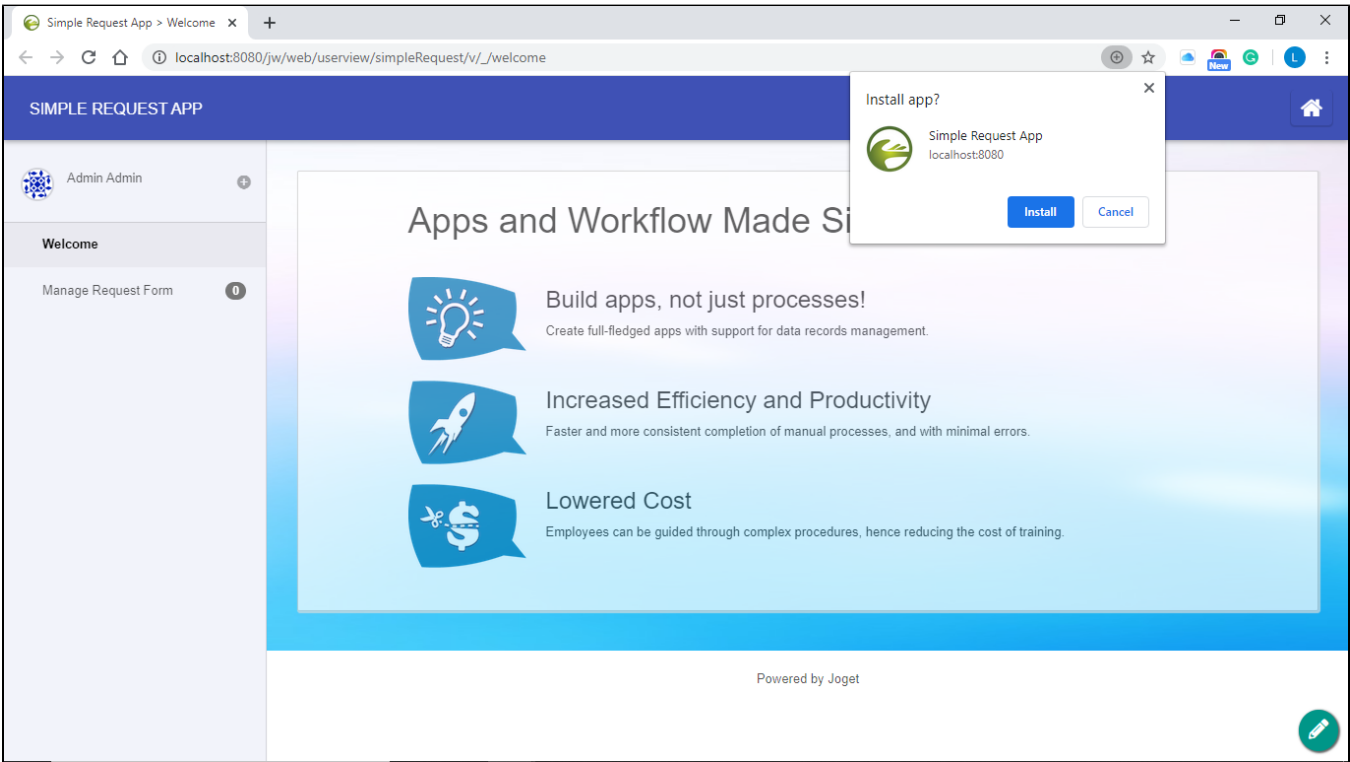# Progressive Web Application - PWA

Introduction

In layman's terms, **Progressive Web Application (PWA)** is a type of application software that is easily installable directly via the web browser, that offers a native-like app experience to end users regardless of device variants. PWA promises many key capabilities as compared to regular web applications, such as:

1. Works in any network conditions, including offline
2. Responsive web design
3. Compatible with any device and screen dimension
4. Background Sync
5. Smooth app interactions
6. Native-like app UI/UX
7. Web push notifications
8. and so much more...

Read here for full details about PWA and its benefits: https://developers.google.com/web/updates/2015/12/getting-started-pwa

As a brand new feature of **Joget DX**, Joget apps support PWA features by default.

Installing an app

Joget allows users to easily install apps into mobile devices through compatible browsers.

Compatibility

Feature / Device	Chrome Browser on Android	Chrome Browser on iOS	Safari Browser on iOS	Joget Mobile App on Android	Joget Mobile App on iOS

PWA Offline Storage and Sync	Yes (15 May 2020, Android 9)	No (15 May 2020, iOS 13.1.2 iPhone X)	Yes (15 May 2020, iOS 13.1.2 iPhone X)	Yes	Not Supported
PWA Push Notification	Yes (15 May 2020, Android 9)	No (15 May 2020, iOS 13.1.2 iPhone X)	No (15 May 2020, iOS 13.1.2 iPhone X)	Not Applicable	Not Applicable
Native App Push Notification	Not Applicable	Not Applicable	Not Applicable	Yes	Yes

Send Notifications

If you require sending notifications to Joget PWA users, you can use these plugins to do so:

- Push Notification Tool Plugin as a Process Tool in the Joget Marketplace.
- User Notification Audit Trail Plugin in Plugin Default Properties in app properties.
- User Notification (Customizable) Audit Trail Plugin as Plugin Default Properties in the Joget Marketplace. (This plugin allows per-activity customization)
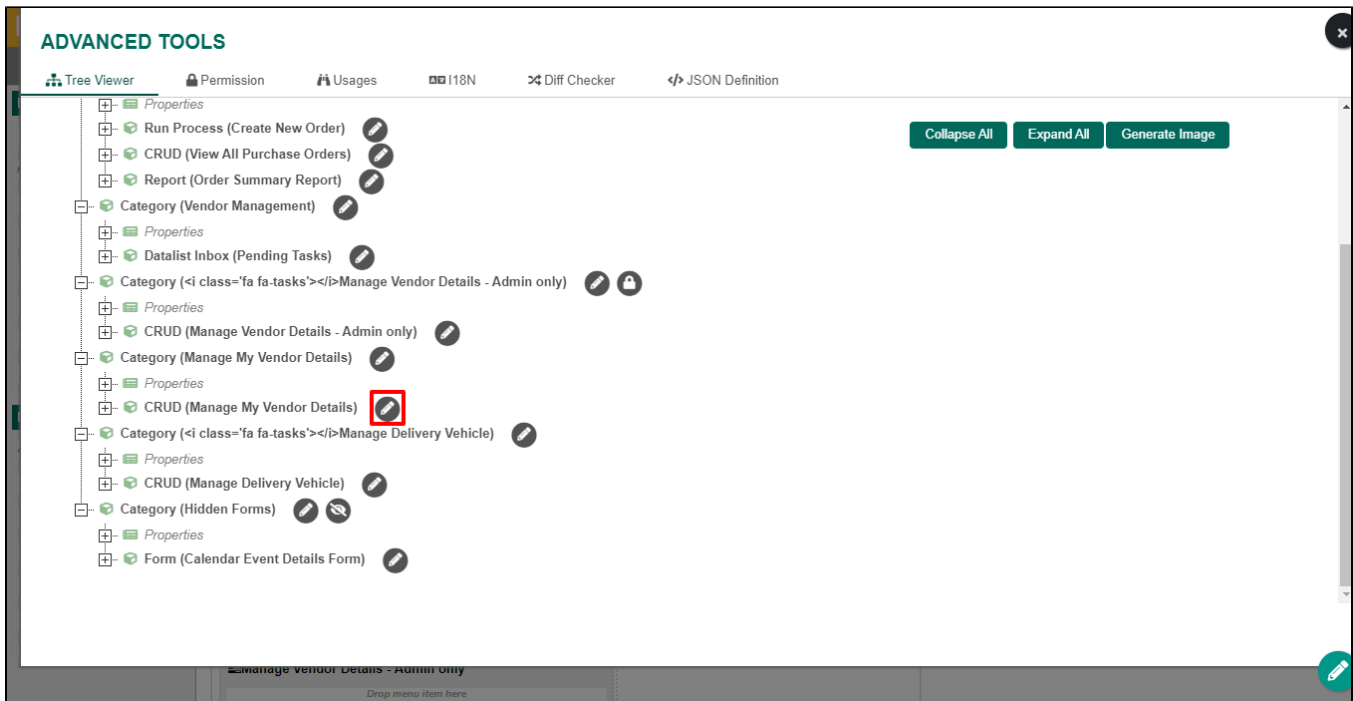
PWA Properties

Most userview menus support offline caching.

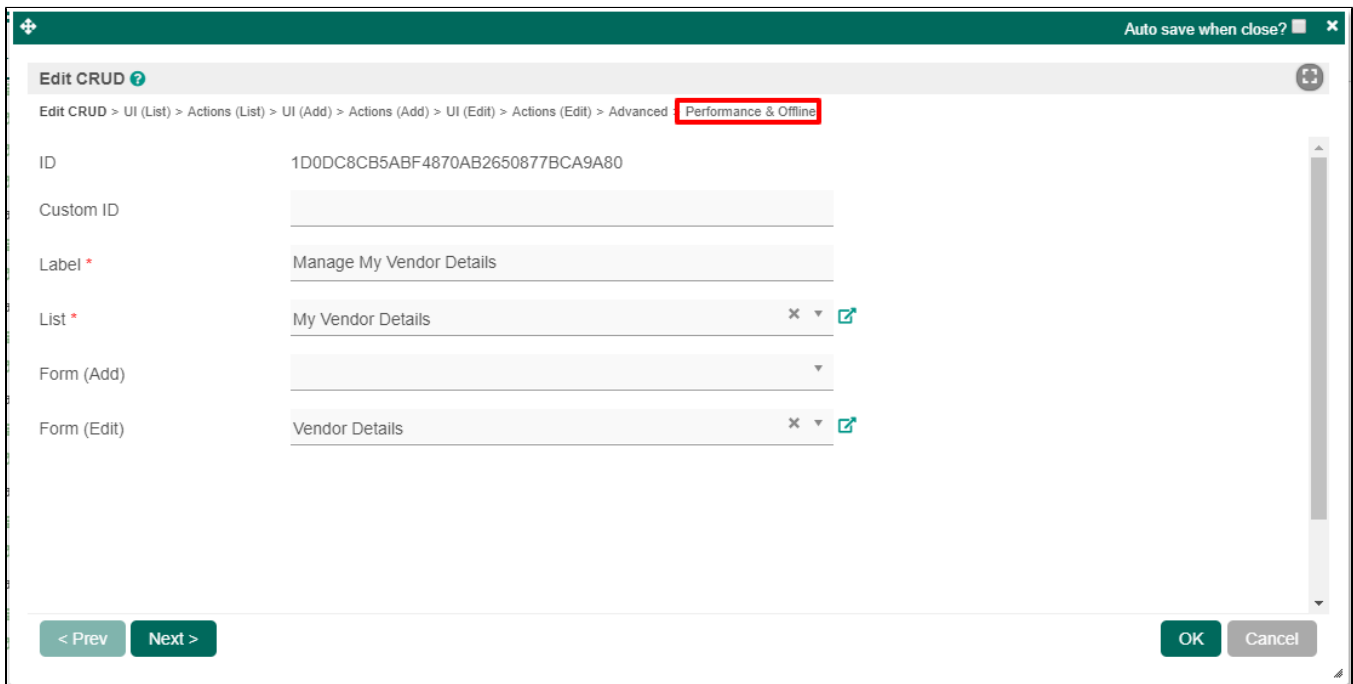To configure them, you can directly edit the userview menu, or via the Builder Advanced Tools in the userview builder.

1. Select **Advanced Tools** in the userview builder.

2. Edit the userview menu you wish to configure PWA settings for.

3. Select the "**Performance & Offline**" tab, and you can configure PWA offline settings here.

Edit PWA Offline Settings

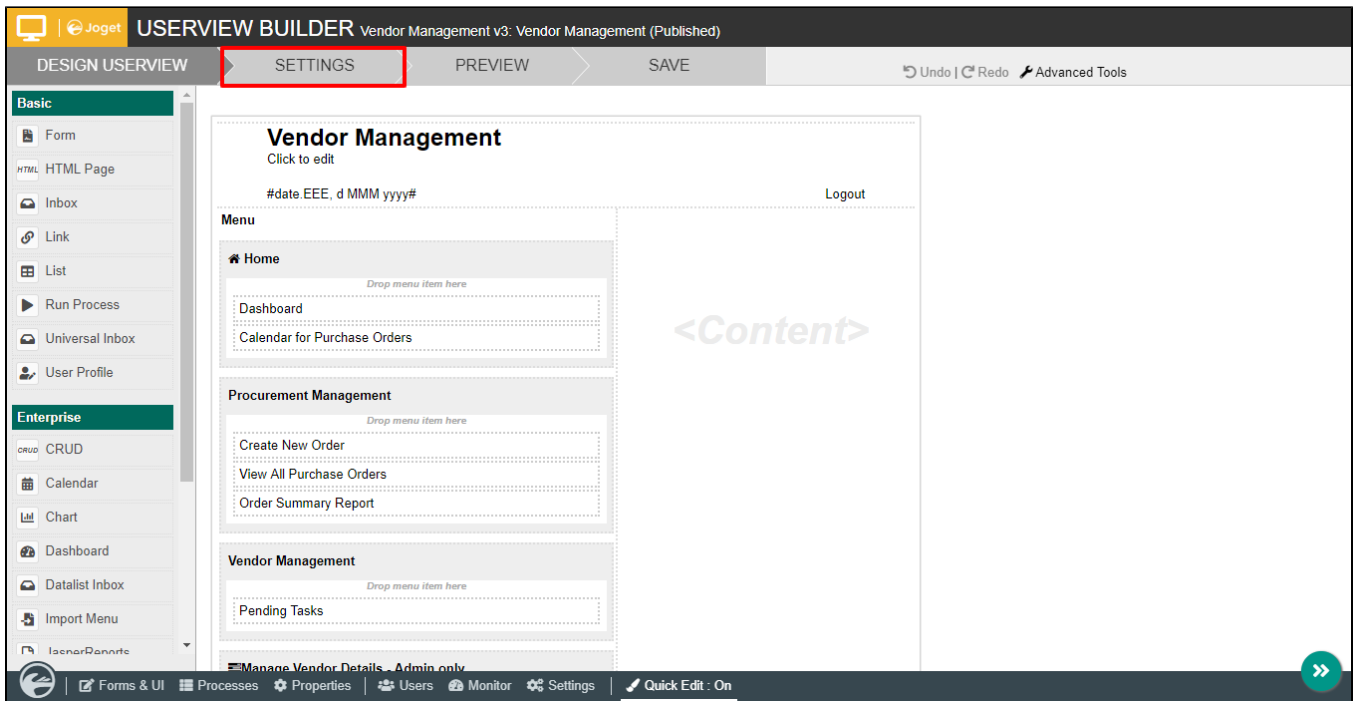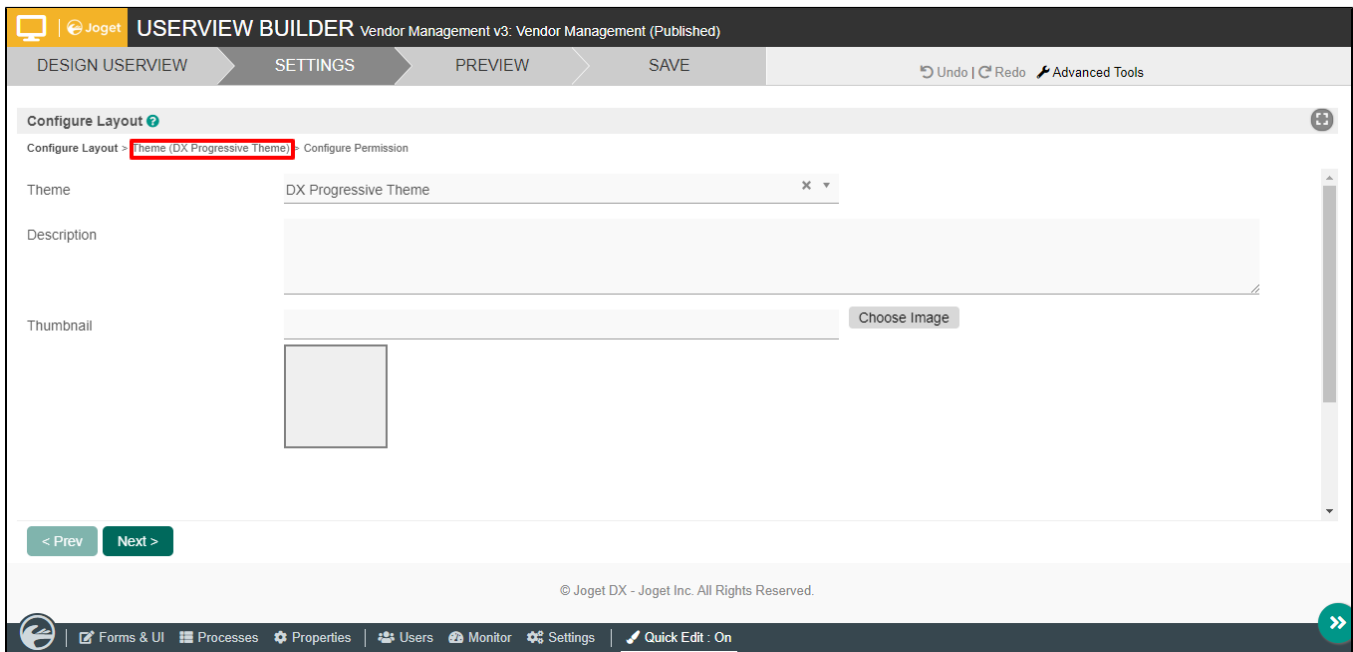| Name	Description
Enable cache for offline support	This option allows users to cache for offline support for userview elements. Scope: Available in all Userview Menu
Cache list actions (Non POST action)	This option allows users to cache datalist actions but it does not include any POST actions. Scope: Only available in Userview Menu that makes use of Datalist such as CRUD, List, Datalist Inbox Example of what will be cached: 1. New Button in CRUD Example of what will NOT be cached: 1. Delete Button in CRUD 2. JDBC Datalist Action in List / CRUD
Cache all datalist links in first page	This option allows users to cache all links found on the first page of the datalist links when they are offline. (i.e. Hyperlink Datalist Action) Scope: Only available in Userview Menu that makes use of Datalist such as CRUD, List, Datalist Inbox Example of what will be cached: 1. Hyperlink Datalist Action in List / CRUD

> **How to Check What is Being Cached?**
>
> If your runtime URL is http://localhost:8080/jw/web/userview/leaveApp/v/_/welcome, you can change "welcome" to "cacheUrls" in order to see the list of URLs that will be cached.

Progressive Web App (PWA) Settings

Users can access this setting by going through the "Settings" tab in the userview builder.

1. Click on **Settings**.

2. Click on **Theme** and then click on **Progressive Web app (PWA) Settings**.

Progressive Web App (PWA) Settings

Name	Description
Disable Progressive Web App (PWA) Support	If checked, this will disable PWA support for the current app.
Disable Web Push Notifications	If checked, this will disable Web Push Notifications.
Additional URLs to Cache	This option allows users to cache additional URL(s) that is relative to the Context Root.