
Joget DX

Introduction to Reporting

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Prerequisites

1. Basic understanding of reporting means.
2. Basic understanding of using SQL to generate report.
3. Jaspersoft Studio is optional for one of the chapters.

Content

1. Introduction
2. Chart
3. JasperReports
4. Dashboard
5. Report Builder



Chapter 1

Introduction

Introduction

- This module would introduce you to some of the basic reporting means available in Joget.
- We will be covering Chart, JasperReports, and Dashboard Userview Menus.

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

A horizontal line consisting of a black segment on the left and an orange segment on the right.

Chapter 2

Chart

Chart

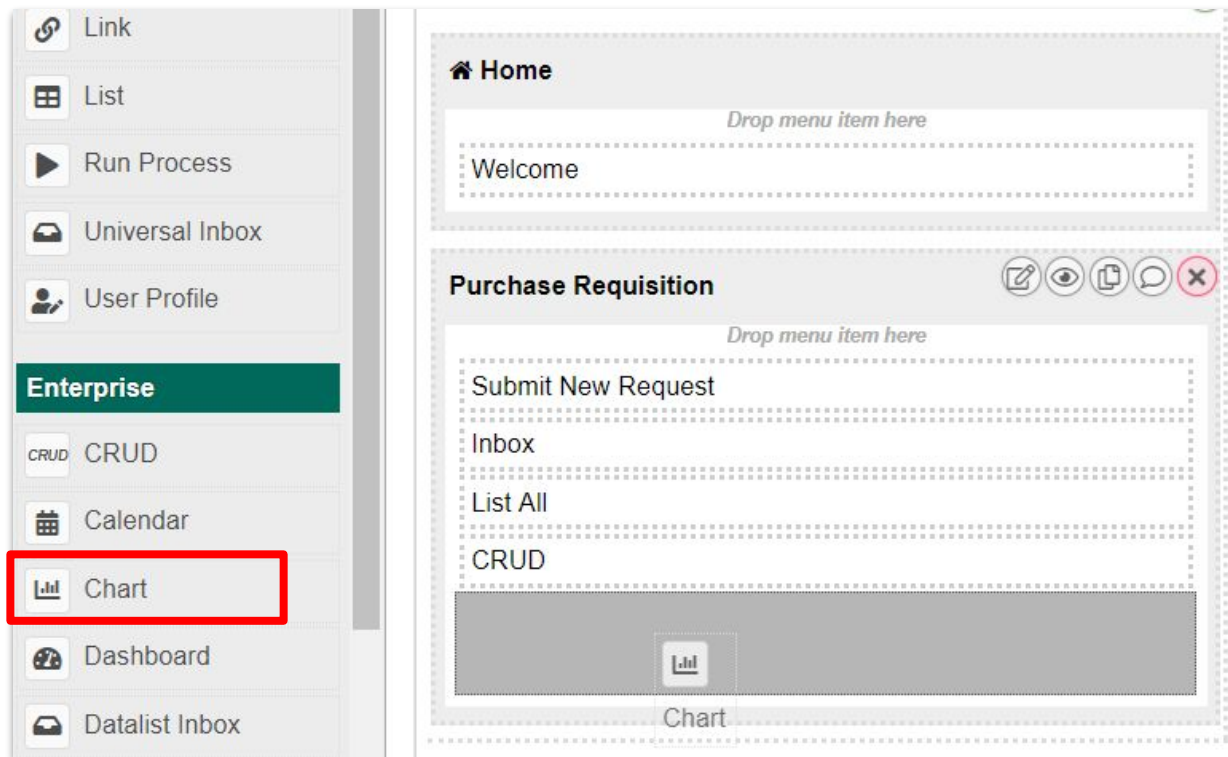
- Chart is a Userview Menu that generate graphs based on the defined data binder or datasource.

- Reference:

<http://dev.joget.org/community/display/DX7/SQL+Chart>

Exercise

- Import the base app, **13.jwa** into your Joget.
- Edit the Userview, add a Chart. Configure accordingly.



Edit Chart

Edit Chart > Datasource > Chart Options > Advanced > Performance & Offline

Custom ID

Label *

Request Approval Chart

Chart Type *

Bar Chart

Chart Title

Request Approval Chart

Datasource

Edit Chart > **Datasource** > Data Binder (Advanced Form Data Binder) > Data Binder & Chart Data Mapping > Chart Options > Advanced > Performance & Offline

Datasource 

Using Data Binder

Data Binder *

Advanced Form Data Binder

Configure Advanced Form Row Data Binder

Edit Chart > Datasource > **Configure Advanced Form Row Data Binder** > **Advanced** > Data Binder & Chart Data Mapping > Chart Options > Advanced > Performance & Offline


Form *

2-Approve / Reject Request

Joins Form Data Table





FORM DATA TABLE NAME *	FIELD	JOIN FIELD ID *
		


Aggregate Query

Group By 

category	>> > < <<	approval	^ v
createdBy			
createdByName			
dateCreated			
dateModified			
id			
items			
modifiedBy			

Aggregate Fields

FIELD *	FUNCTION *
approval  	Count  





Data Binder & Chart Data Mapping





Edit Chart > Datasource > Data Binder (Advanced Form Data Binder) > **Data Binder & Chart Data Mapping** > Chart Options > Advanced > Performance & Offline

Order By

Order

X-axis Value *  

Y-axis Values *

NUMBER VALUE *	LEGEND VALUE *
Approval (COUNT)  	Requests  




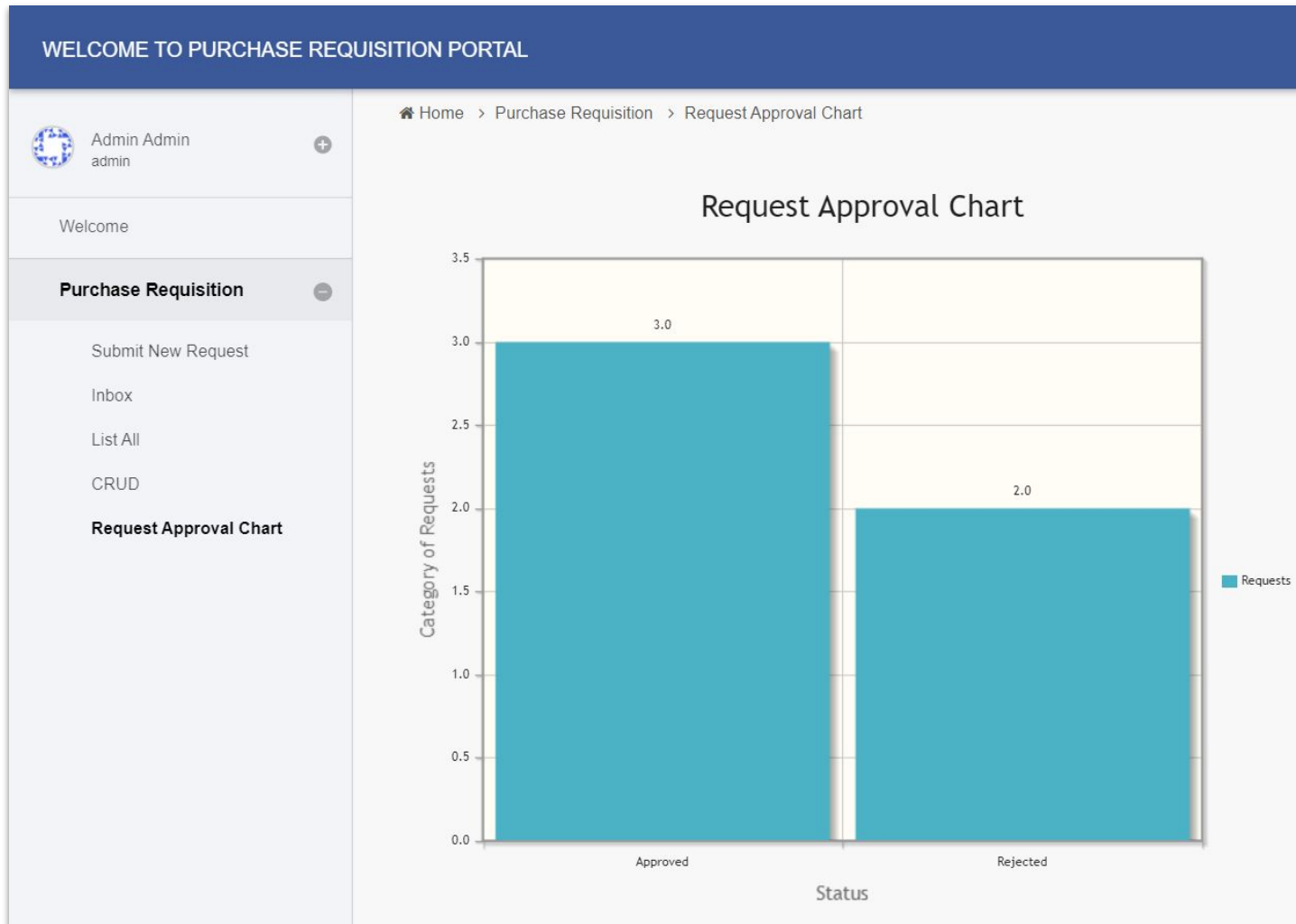


Chart Options

Edit Chart > Datasource > Data Binder (Advanced Form Data Binder) > Data Binder & Chart Data Mapping > **Chart Options** > Advanced > Performance & Offline

X-axis Label *	<input type="text" value="Status"/>
X-axis display as	<input type="text" value="Category"/>
Y-axis Label *	<input type="text" value="Category of Requests"/>
Y-axis Prefix	<input type="text"/>
Show Legend?	<input checked="" type="checkbox"/>
Show Value Label in Chart?	<input checked="" type="checkbox"/>
Stack Series?	<input type="checkbox"/>
Display as Horizontal Chart?	<input type="checkbox"/>
Width *	<input type="text" value="60%"/>
Height *	<input type="text" value="50%"/>

This Is How the Chart Should Look like in Runtime.



Materials

- “Purchase Requisition Portal” userview definition can be obtained at **14.2.1.txt**

Chapter Review

- Able to use the Chart.



Chapter 3

JasperReports

JasperReports

- JasperReports offers better reporting means through integration with JasperReports report definition.

- Reference:

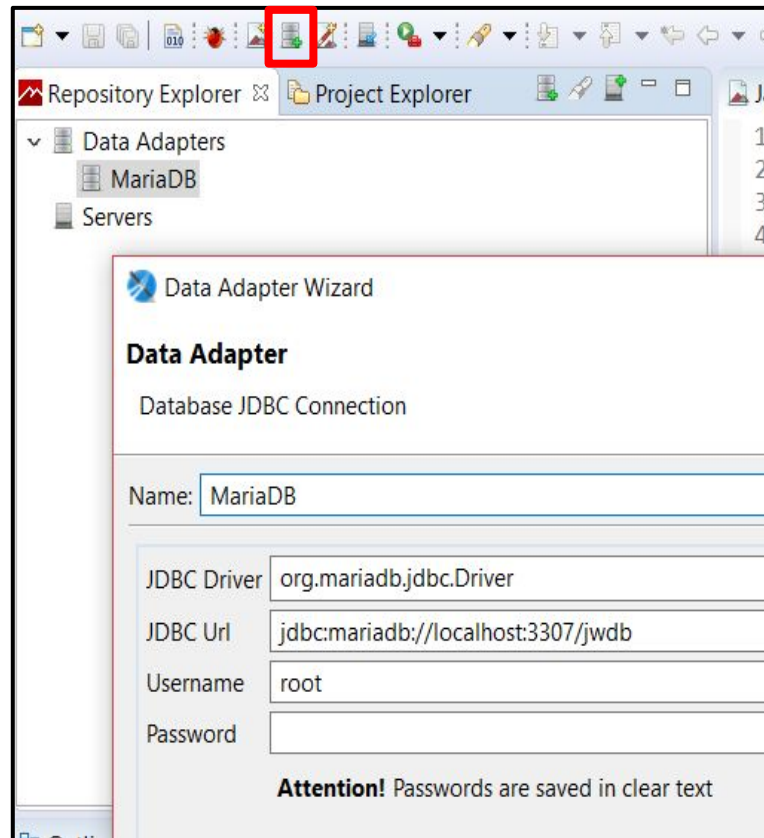
<http://dev.joget.org/community/display/DX7/JasperReports>

Exercise - Optional

- Continue to use the app from the previous chapter.
- Add a JasperReports element into the Userview.
- Configure the newly added element.
 - Label: JasperReports Request Approval Chart
 - JasperReport Definition (JRXML): (Obtain from file **14.3.1.txt**)
 - Datasource: Default Datasource

F.Y.I – For JasperSoft Studio beginners

1. When opening JasperSoft Studio for the first time, you will need to set up a Data Adapter. Select “Database JDBC Connection”, then key in the same datasource settings as your current Joget installation.

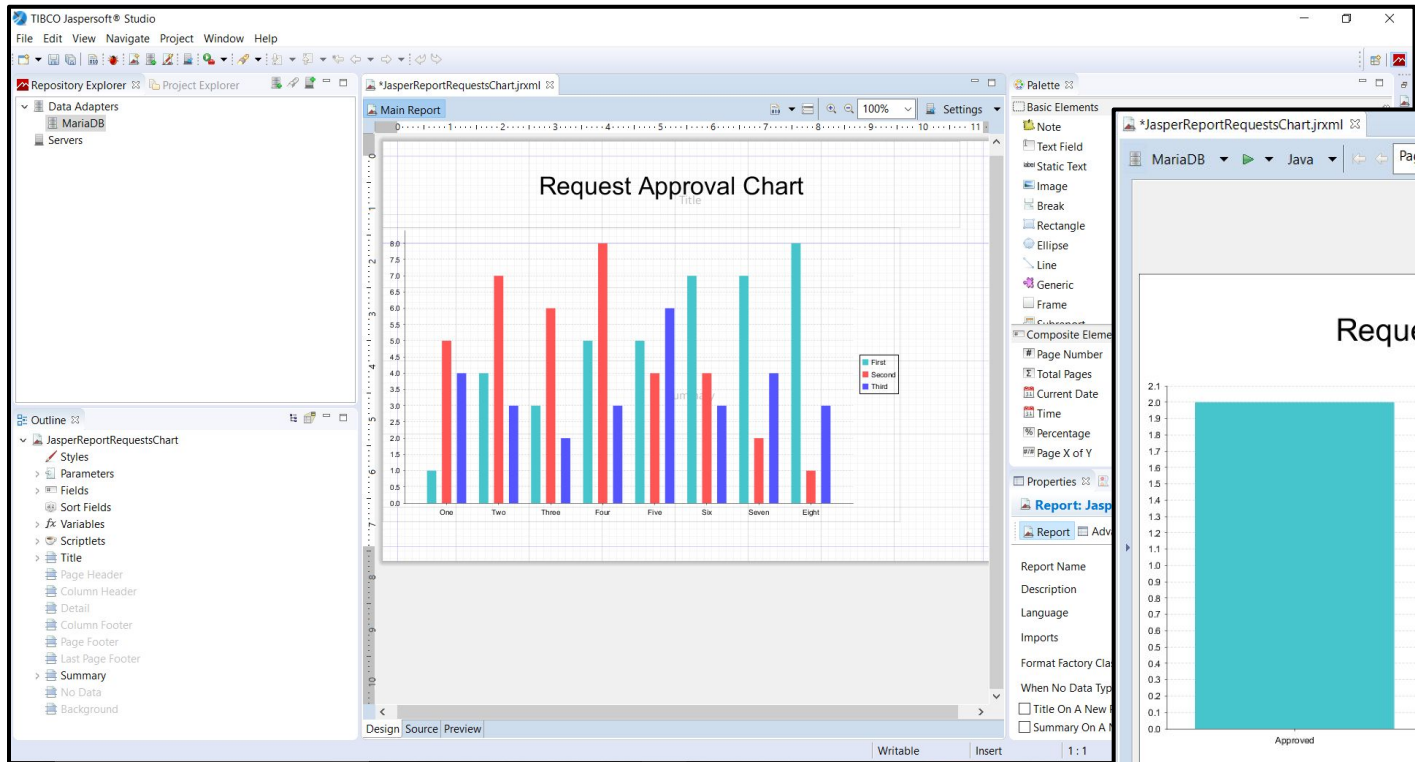


F.Y.I – For JasperSoft Studio beginners

2. Create a new JasperReport, select any template.
3. Click on Source view, copy and paste in the definition provided earlier.

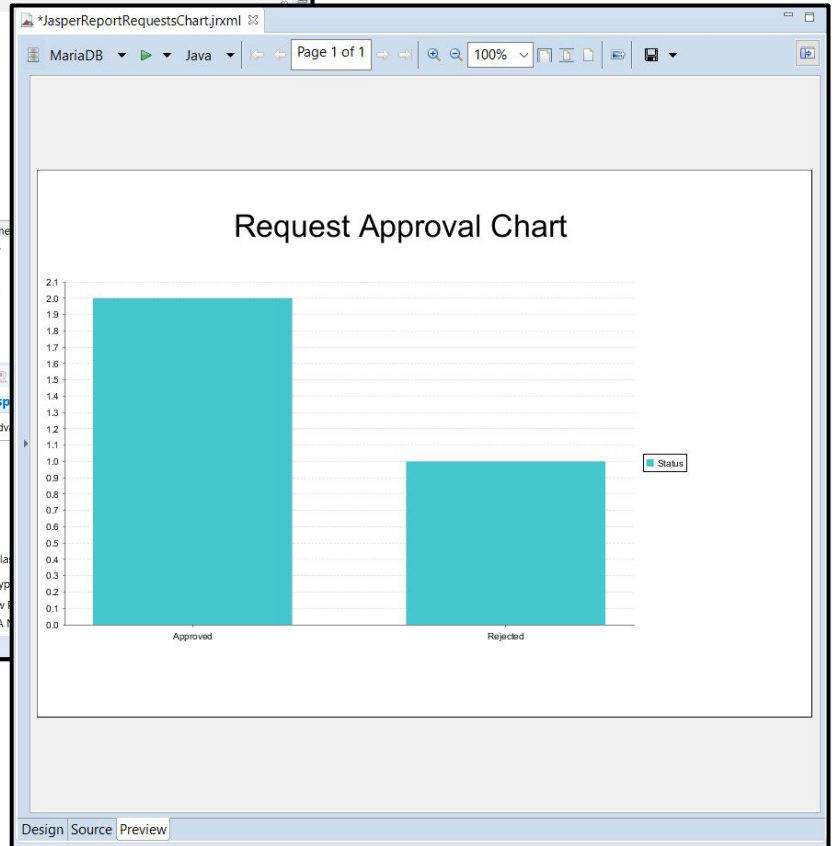
Exercise

- This is how your report should look like in Studio.



The screenshot shows the TIBCO JasperSoft Studio interface. The main window displays a report titled "Request Approval Chart" in Design mode. The report features a grouped bar chart with three data series: "First" (red bars), "Second" (teal bars), and "Third" (blue bars). The x-axis is labeled "One" through "Eight" and the y-axis ranges from 0.0 to 8.0. The report title is "Request Approval Chart".

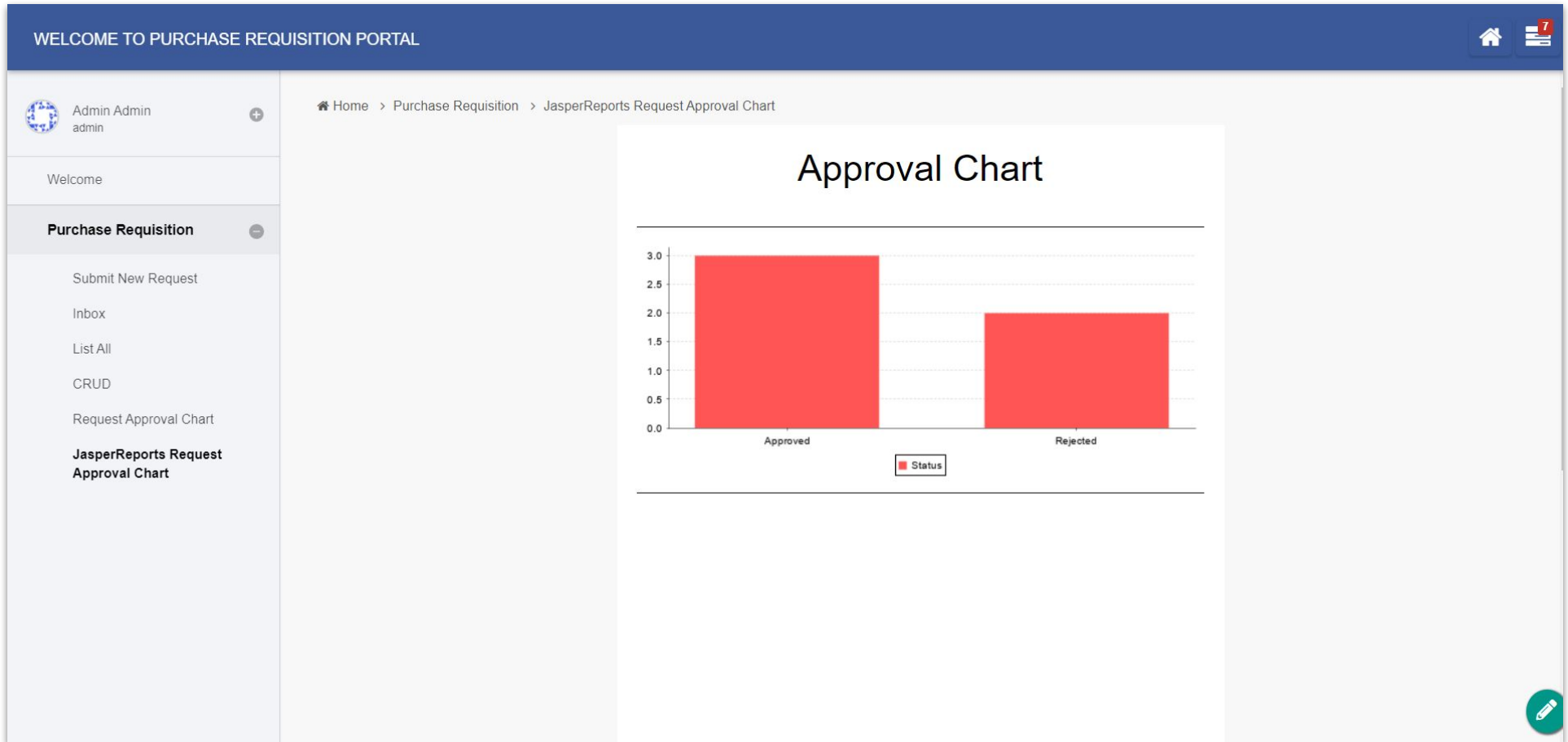
The interface includes a Repository Explorer on the left showing "Data Adapters" (MariaDB) and "Servers". The Outline pane shows the report structure, including "Styles", "Parameters", "Fields", "Sort Fields", "Variables", "Scriptlets", "Title", "Page Header", "Column Header", "Detail", "Column Footer", "Page Footer", "Last Page Footer", "Summary", "No Data", and "Background". The Properties pane on the right shows the "Report: Jasper" properties, including "Report Name", "Description", "Language", "Imports", "Format Factory Class", "When No Data Type", "Title On A New Page", and "Summary On A New Page".



The screenshot shows the TIBCO JasperSoft Studio interface in Preview mode. The main window displays a report titled "Request Approval Chart". The report features a grouped bar chart with two data series: "Approved" (teal bars) and "Rejected" (blue bars). The x-axis is labeled "Approved" and "Rejected" and the y-axis ranges from 0.0 to 2.1. The report title is "Request Approval Chart".

The interface includes a Repository Explorer on the left showing "Data Adapters" (MariaDB) and "Servers". The Outline pane shows the report structure, including "Styles", "Parameters", "Fields", "Sort Fields", "Variables", "Scriptlets", "Title", "Page Header", "Column Header", "Detail", "Column Footer", "Page Footer", "Last Page Footer", "Summary", "No Data", and "Background". The Properties pane on the right shows the "Report: Jasper" properties, including "Report Name", "Description", "Language", "Imports", "Format Factory Class", "When No Data Type", "Title On A New Page", and "Summary On A New Page".

This Is How the Chart Should Look like in the Runtime.



Chapter Review

- Able to add a JasperReports element into a Joget app.



Chapter 4

Dashboard

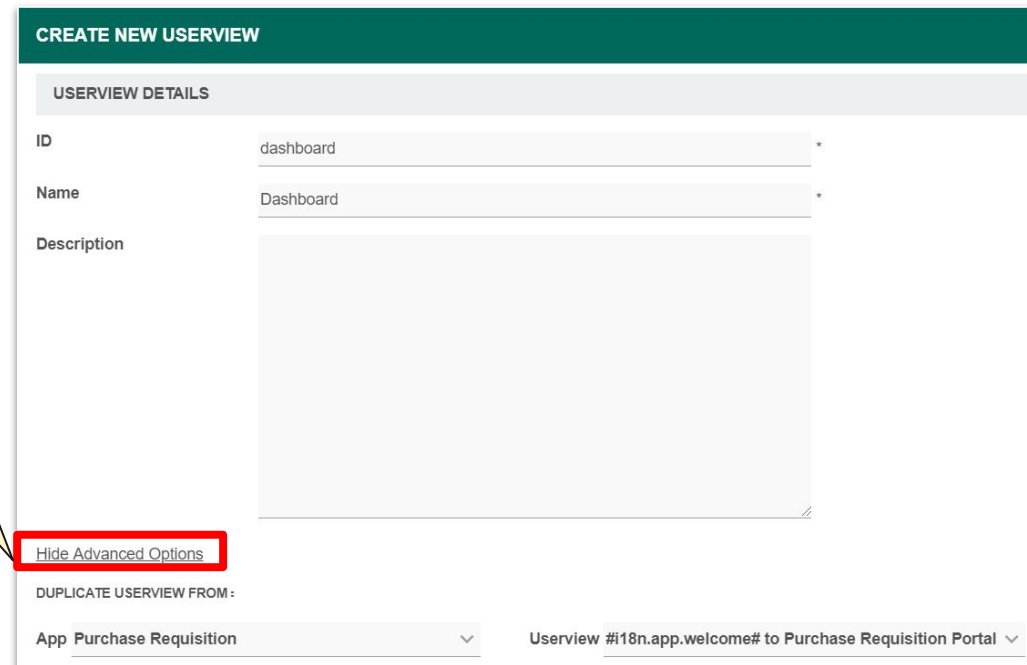
Dashboard

- Dashboard menu displays multiple menu items from a selected Userview in a resizable grid layout.
 - See important information from various userview elements in a single glance.
 - Able to edit some information on the same page!
-
- Reference:
<https://dev.joget.org/community/display/DX7/Dashboard>

Exercise

- Continue to use the app from the previous chapters.
- Dashboard element works by reading the elements available in a selected Userview, so let's create a new Userview with the details below:

Remember to click on this! You can use this feature to duplicate from another Userview.



CREATE NEW USERVIEW

USERVIEW DETAILS

ID dashboard

Name Dashboard

Description

Hide Advanced Options

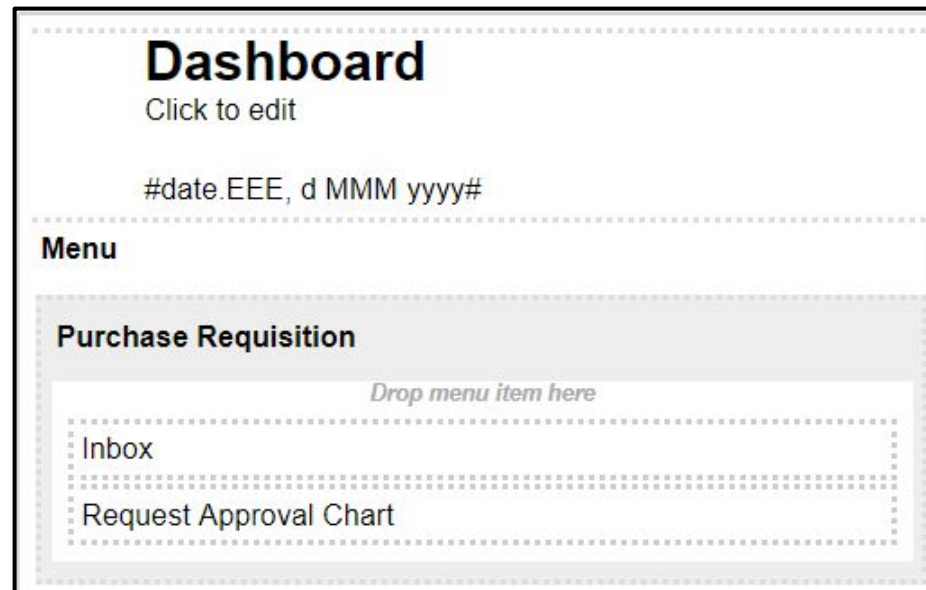
DUPLICATE USERVIEW FROM:

App Purchase Requisition

Userview #18n.app.welcome# to Purchase Requisition Portal

Exercise

- Remove all other userview elements until only these elements remain.



- To make our Dashboard more informative, go ahead and **add in** another **Chart** element! Configure accordingly.

Edit Chart ?

Edit Chart > Datasource > Data Binder (Advanced Form Data Binder) > Data Binder & Chart Data Mapping > Chart Options > Advanced > Performance & Offline

Custom ID	<input type="text"/>
Label *	<input type="text" value="Category Demand Chart"/>
Chart Type *	<input type="text" value="Bar Chart"/>
Chart Title	<input type="text" value="Category Demand Chart"/>



Datasource

Edit Chart > **Datasource** > Data Binder (Advanced Form Data Binder) > Data Binder &

Datasource ?	<input type="text" value="Using Data Binder"/>
Data Binder *	<input type="text" value="Advanced Form Data Binder"/>



Configure Advanced Form Row Data Binder ?

Edit Chart > Datasource > **Configure Advanced Form Row Data Binder** > Advanced >

Form *	<input type="text" value="3-Acknowledge Approved"/>
--------	---

Aggregate Query

Group By [?](#)

approval	>> > < <<	category
createdBy		
createdByName		
dateCreated		
dateModified		
id		
items		
modifiedBy		

Aggregate Fields

FIELD *	FUNCTION *
category ✕	Count ⬆ ⬇ ✖

+

Data Binder & Chart Data Mapping

Edit Chart > Datasource > Data Binder (Advanced Form Data Binder) > **Data Binder & Chart Data Mapping** > Chart Options > Advanced > Performance & Offline

Order By ▾

Order ASC ▾

X-axis Value * Category ✕ ▾

Y-axis Values *

NUMBER VALUE *	LEGEND VALUE *
Category (COUNT) ✕ ▾	Demand ⬆ ⬇ ✖

+

Chart Options

Edit Chart > Datasource > Data Binder (Advanced Form Data Binder) > Data Binder & Chart Data Mapping > **Chart Options** > Advanced >

X-axis Label *

Category

X-axis display as

Category ▼

Y-axis Label *

Amount

Y-axis Prefix

Show Legend?



Show Value Label in Chart?



Stack Series?



Display as Horizontal Chart?



Width *

60%




Height *

50%

- By now, you should have just 1 inbox and 2 chart elements. Save the Userview.
- Now go to the Userview Builder of **Purchase Requisition Portal**. **Remove** the “Welcome” menu and replace with a Dashboard menu. Configure accordingly. Remember to save your changes!



Configure Dashboard


Configure Dashboard > UI > Advanced > Performance & Offline

Custom ID	<input type="text"/>
Label *	<input type="text" value="Dashboard"/>
Configuration Mode	<input type="text" value="Using Userview"/>
Userview *	<input type="text" value="Dashboard"/>   

This Is How the Dashboard Should Look Like in Runtime.

WELCOME TO PURCHASE REQUISITION PORTAL



Admin Admin
admin

+

Dashboard


Purchase Requisition +

Home > Dashboard
Reset to default layout

Inbox

Category Demand Chart

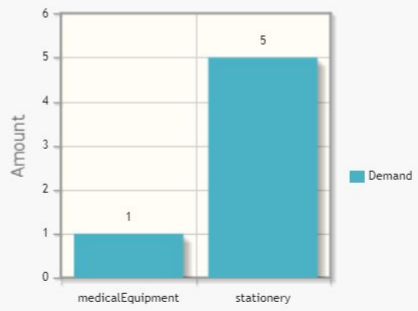
Request Approval Chart

+ Show All Details
- Hide All Details
Search 

ACTIVITY NAME

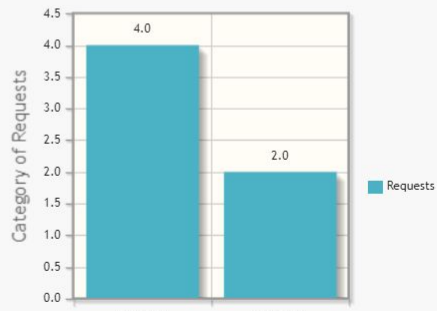
- + Acknowledge Approved
- + Submit Request
- + Approval by Manager
- + Submit Request
- + Submit Request
- + Approval by Manager
- + Approval by Manager

Category Demand Chart




Category	Amount
medicalEquipment	1
stationery	5

Request Approval Chart



Status	Category of Requests
Approved	4.0
Rejected	2.0



Materials

- Completed App from previous chapters' exercises can be obtained at **14.jwa**.

Chapter Review

- Able to configure Dashboard for Joget apps.



Chapter 5

Report Builder

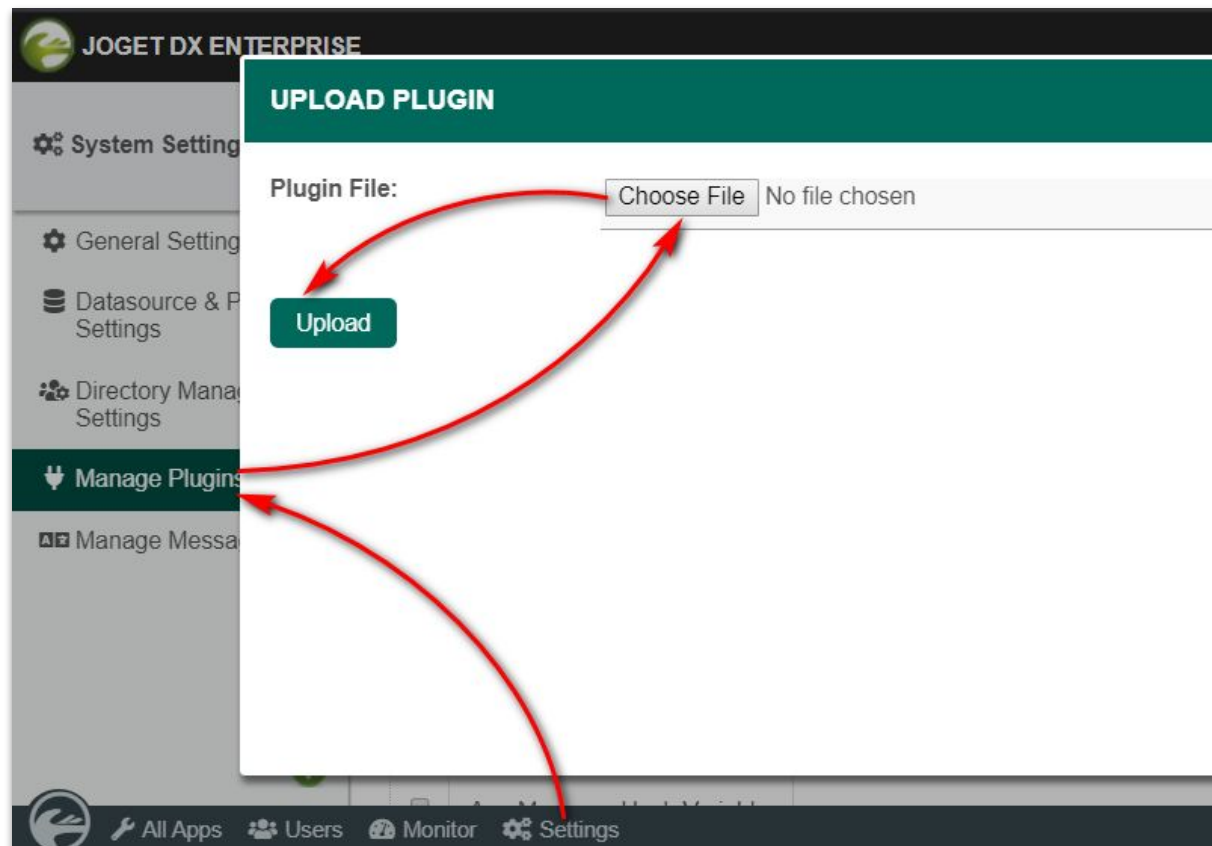
Report Builder

- Report Builder belongs to a new plugin type called Custom Builder.
- Allows one to create your own customized report.

- Reference:
<https://dev.joget.org/community/display/marketplace/Report+Builder>

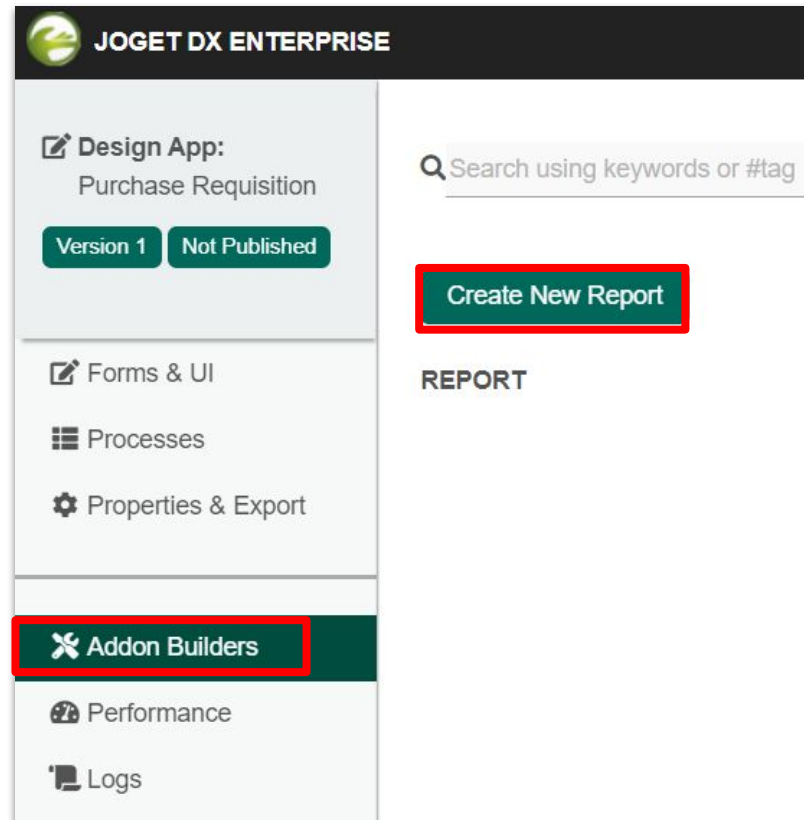
Installing Report Builder

- Download the plugin from Joget Marketplace and import it into your Joget platform via Manage Plugin.



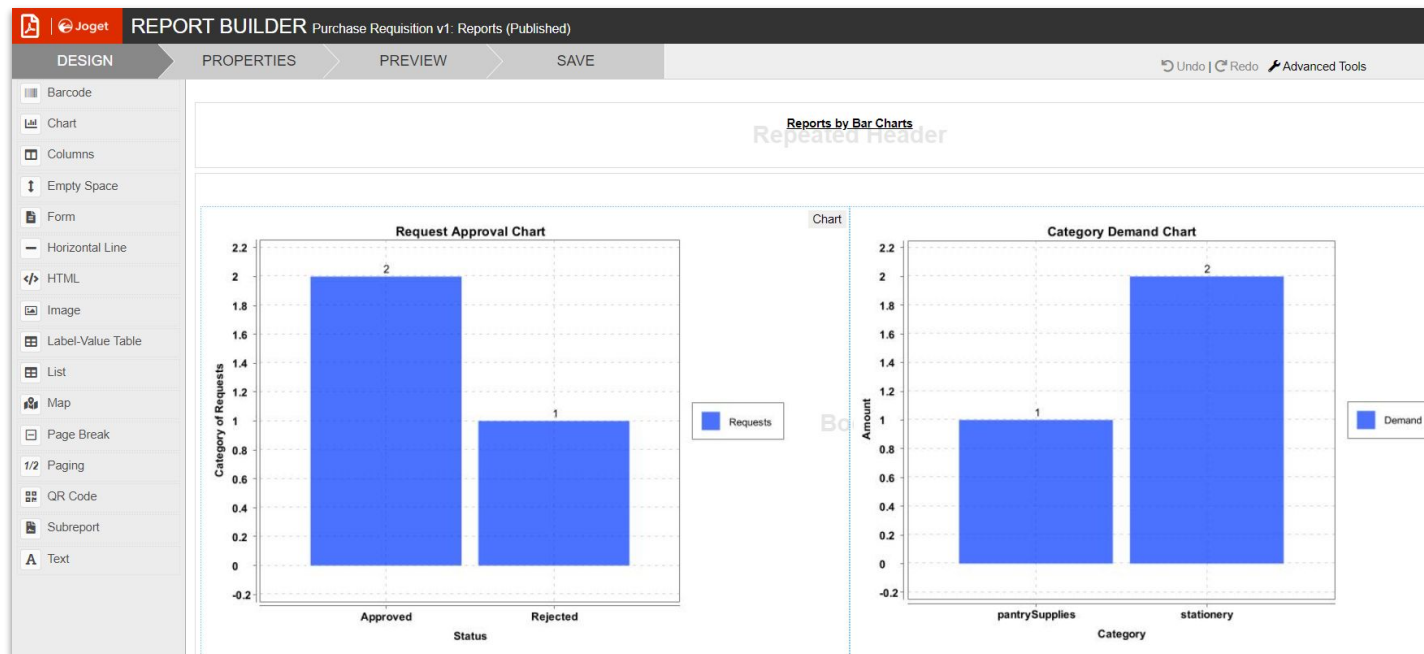
Exercise

- Continue to use the app from the previous chapters.
- Click on the new menu Addon Builders and click on Create Report.



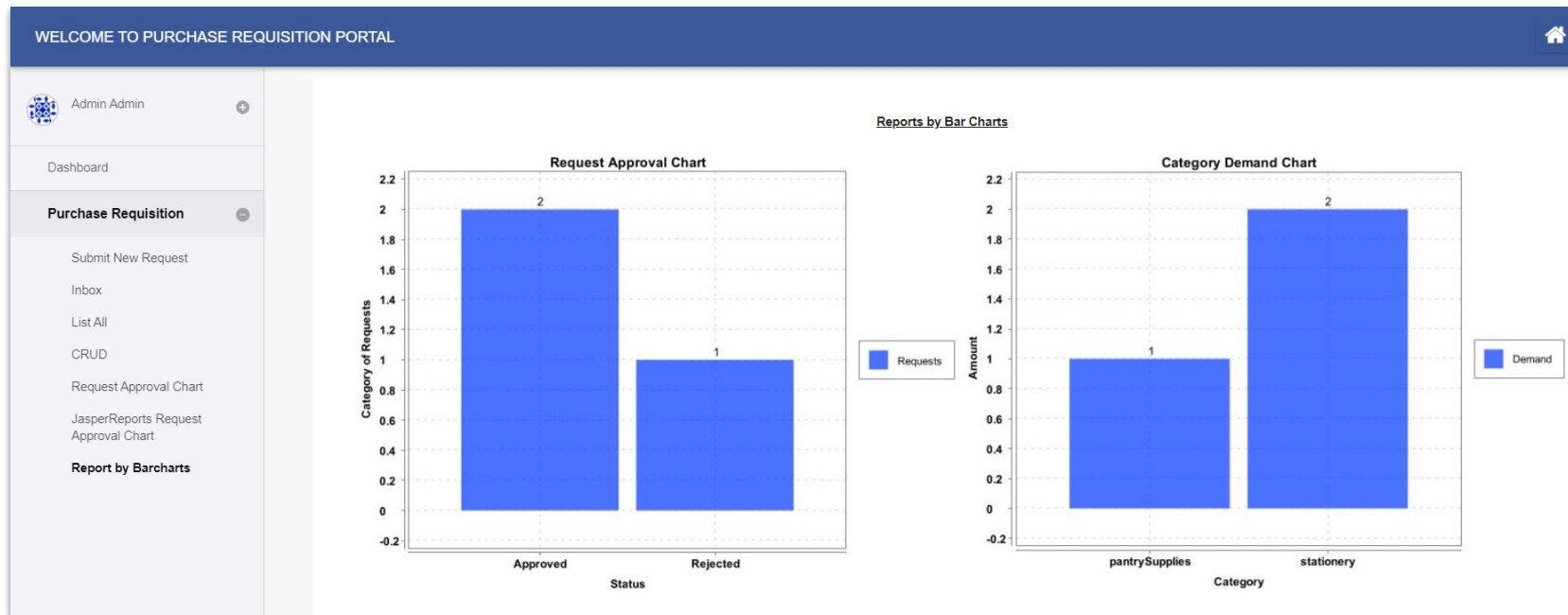
Exercise

- Create 2 columns and create 2 charts side by side.
- Use the previous 2 charts:
 - Request Approval Chart
 - Category Demand Chart



Exercise

- Now go to the Userview Builder of **Purchase Requisition Portal**. Add the **Report** element and configure accordingly. Remember to save your changes!



Materials

- Completed App from all the chapters' exercises can be obtained at **14b.jwa**.

Chapter Review

- Able to create a report by using the Report Builder for Joget apps.

Module Review

1. Introduction
2. Chart
3. JasperReports
4. Dashboard
5. Report Builder

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