

Joget DX

Improving Your Form Design & Presentation

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Prerequisites

 Good understanding on the basic functionality of the Form Builder.



Content

- 1. Introduction
- 2. Grid
- 3. Form Grid
- 4. Multirow Form Binder
- 5. List Grid
- 6. CRUD
- 7. Custom HTML
- 8. Using Advanced Tool's Permission



Chapter 1

Introduction



Introduction

- Learning about more Joget plugins/elements to improve your form design and presentation.
- In this module, we will be covering the following elements.
 - 1. Grid (Form Element)
 - 2. Form Grid (Form Element)
 - 3. Multirow Form Binder (Form Binder)
 - 4. List Grid (Form Element)
 - 5. CRUD (Userview Menu)
 - 6. Custom HTML (Form Element)



List of Available Elements

- Check out
 - <u>https://dev.joget.org/community/display/DX7/Form+Builder</u> for the list of **Form** related elements (Form Element, Form Validator, Form Binder, Form Options Binder).
- Check out
 - <u>https://dev.joget.org/community/display/DX7/Userview+Builder</u> for the list of **Userview** related elements.



Chapter 2

Grid



Grid

• Grid is the most basic element available in the Form Builder in capturing multi-row data.

- Reference: <u>http://dev.joget.org/community/display/DX7/Grid</u>
- For your information: The other grid-like element available in Form Builder is Form Grid.



Refresh

- Refresh your memory on what you did back in module 5 -Designing your first Form
- Take a look at your "items" field element

			Auto save when close? 🗹 🛛 🗙
Edit Grid 😮			Ð
Edit Grid > UI & Validatio	on > Data Binder		
ID *	items		A
Label	Items		
Options	FIELD ID	LABEL	
	name	Name	◎ ♥ ₿
	quantity	Quantity	0 0 0
	price	Price	◎ ◎ ◎
	•		
< Prev Next	>		OK Cancel



Just In Case...

- You can download the base Purchase Requisition app **13.jwa** to start 'playing around' with it.
- Completed Form Definition for "1-Submit Request" can be obtained from **13.2.1.txt**.



Chapter Review

• Able to use the Grid element.



Chapter 3

Form Grid



Form Grid

- Form Grid works similarly like the basic Grid.
- Instead of editing data row inline, editing is done on a full fledged Form that opens up in a dialog.
- Able to reuse validation and formatting from the selected Form.

 Reference: <u>http://dev.joget.org/community/display/DX7/Form+Grid</u>



- Re-import the base app "**13.jwa**" into your copy of Joget, OR delete the "items" Grid element.
- Create a new Form with the following details.

CREATE NEW FORM	
FORM DETAILS	
Form ID	items
Form Name	Items
Table Name	app_fd_ purchase_items



- Add 3 text fields with the following details:-
 - ID: name, Label: Name
 - ID: quantity, Label: Quantity
 - ID: price, Label: Price

Items		
	Drag This Colu	ımn
Name		
Quantity		
Price		

• Save the form



- Edit the "1-Submit Request" form.
- Add a "Form Grid" wherever relevant.
- Configure accordingly.

dit Form Grid > UI > Validati	ion & Data Binder)
) *	items					
abel	Items					
orm *	Items		X v	ď		
olumns 😮	FIELD ID *	LABEL	FORMAT TYPE	FORMAT	WIDTH	
	name	Name	Text *			◎ ♥ ₿
	quantity	Quantity	Text *			000
	price	Price	Text *			◎ ◎ ◎
	0					



• This is how your form design should look like.

Request Details			
	Drag This Colun	in	
Name	#currentUser.firstName# #c		
Request Date *	MM/DD/YYYY		
Category	Stationery •		
Items			
Name	Quantity	Price	
0			
Remarks			



• This is how the form should look like in runtime.

PURCHASE REQUES	T PROCESS - SUBMIT	TREQUEST		
Request Details		Here - Durchase Benuritor	Submit New Degunet	×
Name	Admin Admin	Items		
Request Date	* MM/DB/YYYY	Name		
Category	Stationery	Quantity		
ltems Name €	Quantity	Submit		
Remarks				
Save As Draft Complete				



• Run a new "Submit New Request" process, and submit the form to observe.



Materials

- "1-Submit Request" form definition can be obtained from 13.3.1.txt
- "Items" form definition can be obtained from 13.3.2.txt



Chapter Review

- Being able to use the Form Grid element.
- PS: Check out Advanced Grid (<u>http://dev.joget.org/community/display/DX7/Advanced+Grid</u>)
 Form Element that performs similarly as Form Grid.



Chapter 4

Multirow Form Binder



Multirow Form Binder

- Multirow Form Binder is a Store/Load Form Binder that is designed to treat multi-row data for grid form element.
- Rather than storing as traditional JSON data format in a single column cell, the Multirow Form Binder saves the data into its respective tables.
- This would make data retrieval easier for sorting, statistics, and indexing/performance purpose.
- Reference:

http://dev.joget.org/community/display/DX7/Multirow+Form+Binder



- Continue to use the application from the previous chapter OR import app from **13.4.1**.jwa.
- Edit the "Items" form.
- Add a Hidden Field to the form.
- Configure accordingly.

Edit Hidden Field 😮	
Edit Hidden Field > Advanced Options	
ID *	request_id
Default Value	



• This is how your "Items" form should look like.

	Drag This Column	
request_id		HIDDEN FIELD
Name		
Quantity		
Price		



- Edit the "1-Submit Request" form.
- Configure the Form Grid element to utilize the Multirow Form Binder in Data Binder.

Validation		
/alidator		
Jnique Column 😧		
Vin Number of Row Validation (Integer)		
Max Number of Row Validation (Integer)		
Error Message	Invalid number of rows	



- Click next to configure the Binder.
- Configure accordingly.

Configure Multirow Form Binder 😯					
Edit Form Grid > UI > Validation & Data Binder	Configure Multirow Form Binder > Store Binder (Multirow Form Binder)				
Form *	Items	×	٣	ď	
Foreign Key *	request_id	×	٣		

Configure Multirow Form Binder 📀					
Edit Form Grid > UI > Validation & Data Binder >	> Load Binder (Multirow Form Binder) > Configure Multirow Form Binder				
Form *	Items	×	٣	ď	
Foreign Key *	request_id	×	٣		



• Run a new "Submit New Request" process, and submit the form to observe.



Exercise - Optional

• Inspect the database table of "Items", you will notice that rows of data is now being saved into this table rather than the parent table as JSON.

jwdb.app_fd_purchase_requests: 1 ows total (approximately)				≫ Ne	ext	Show all	So So	rting	Co	lumns (13/13) 💌 I	Filter
F id a7380ecd-72eb-4eea-8560-a28aae74b	dateCreated 2019-12-27 15:	dateModified 03:43 2019-12-27		createdBy admin	createdByName Admin Admin	modifiedBy admin	modifiedByNa Admin Admi		_name Admin Admin	c_request_date 12/27/2019	c_items (NULL)
jwdb.app_fd_purchase_items 1 rows total (ap	proximately)				≫ Next	🔶 SI	now all	Sort	ting (1)	Columns (11/12)	▼ Filter
832103ee-df79-41ac-969a-2cb2870fd872	dateCreated 2019-12-27 15:03:43	dateModified 2019-12-27 15:03:43	createdBy admin	createdByName Admin Admin		modifiedByName Admin Admin	c_quantity 5	c_price 20	c_name Pencil	c_request_id a7380ecd-72eb-4eea-1	8560-a28aae74ba6e



Materials

- "1-Submit Request" form definition is available at 13.4.2.txt
- "Items" form definition is available at **13.4.3**.txt
- Complete app is available at 13.4.4.jwa



Chapter Review

• Understand the use case of the Multirow Form Binder and its benefits.



Chapter 5

List Grid



List Grid

- List Grid is a grid table that populates its data from a Datalist.
- It behaves similarly like a Grid (Chapter 2) but new rows are added from a specified Datalist instead.
- It also behaves similarly like a Form Grid that allows one to open up a Form for editing.

• Reference: http://dev.joget.org/community/display/DX7/List+Grid



Sample Use Case

Leave Application Details		Add Entry			[clos
Name *	Admin Admin				10 - Show
Start Date *			name		contact_no
			Julia	123	
End Date *			Jude	124	
Reason *		Insert			1
Emergency Contacts Contact Name			Contact No		
0					



Chapter Review

- Understand the List Grid element and be able to think of use cases of it.
- Able to differentiate Grid, Form Grid, and List Grid.



Chapter 6

CRUD



CRUD

- CRUD is a Userview Menu allows one to easily achieve the functionality of Create, Retrieve, Update, and Delete on a data entity.
- In short, manipulate records on a specified table.

• Reference: <u>http://dev.joget.org/community/display/DX7/CRUD</u>



What Is Needed For CRUD To run?

- A Form entity
- A List of the same data entity as the form
- A Userview



Refresh

- You've already done it! Refresh what you did back in Module 8 - Designing your first Userview
- If you do not have the CRUD for "Request List", ask your colleague how to, or raise hand...



How CRUD Looks Like...

• This is how the CRUD element would look like in runtime.

WELCOME TO PURCHAS	WELCOME TO PURCHASE REQUISITION PORTAL								∦ ≝
Admin Admin admin	0	A Home	> Purchase Requisition >	CRUD					
Welcome							10 🗸 App	proval	Show
Purchase Requisition	0		NAME	REQUEST DATE	CATEGORY	REMARKS			
Submit New Request			Admin Admin	12/27/2019	stationery		Se	earch	Edit
List All			Admin Admin	12/28/2019	stationery	More used this month	S	earch	Edit
CRUD									ound, displaying all items.
		New	Delete						



Chapter Review

• Able to use CRUD and understand the linkages.



Chapter 7

Custom HTML



Custom HTML

Custom HTML in Form Builder can be used to achieve advanced form design by putting in any valid -

• HTML

E.g: this text is in bold

• JavaScript (jQuery is supported)

Remember to put in <script type="text/javascript"></script> block

• CSS

Don't forget to put in <style type="text/css"></style> block

Reference:

http://dev.joget.org/community/display/DX7/Custom+HTML



Exercise - CSS (Optional)

- Customize the look and feel of how the form is rendered by modifying its CSS.
 - Add a Custom HTML form element into the bottom of the form.
 - Edit it, add the following code into Custom HTML property.

```
<style type="text/css">
.form-cell .label,
.subform-cell .label{
   width: 100%;
}
</style>
```

Request Details		
	Drag This Co	olumn
Name		
#currentUser.firstName	e# #c	
Request Date *		
MM/DD/YYYY		
Category		
Stationery •		
Items	1	
Name	Quantity	Price
0		
Remarks		



Exercise - Tooltip

• Make use of Advanced Tool's Tooltip to add hints into existing form "Submit Request" using Custom HTML also.

Request Details	
Name 🗊 < Key in your full name	
Request Date *	MM/DD/YYYY
Category	Stationery •
Items	
Name	Quantity
0	
Remarks	



Exercise - Color Picker (Optional)

- Create a text field "Color Code" with ID "color_code"
- Create a Custom HTML. Make use of color picker library to turn text field into a color picker.

Color Code	
Save Back	DEFAULT PALETTE:
	RECENT:



Exercise - Color Picker - Materials

Do import these JS and CSS libraries into the app's resource from the materials folder:

- colorPick.min.css
- colorPick.min.js



Exercise - Color Picker

```
<script src="#appResource.colorPick.min.js#"></script>
<link rel="stylesheet" href="#appResource.colorPick.min.css#">
<script type="text/javascript">
  $(function(){
     initialColor = FormUtil.getField("color_code").val();
     //console.log("initial " + initialColor);
     FormUtil.getField("color_code").colorPick({
       'initialColor' : initialColor,
       'onColorSelected': function() {
          //console.log("The user has selected the color: " + this.color);
          FormUtil.getField("color_code").val(this.color);
          this.element.css({'backgroundColor': this.color, 'color': this.color});
       }
    });
  });
</script>
```



Chapter 8

Using Advanced Tool's Permission



Permission Control

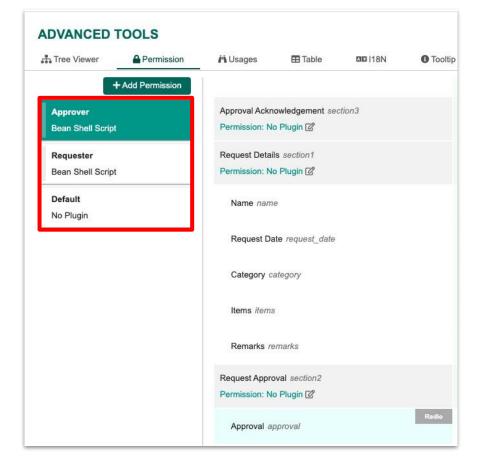
• The Permission in Advanced Tools allows fine grain control up to field level.

Tree Viewer	ion 🐴 Usages 🖽 Table 🔤 118N	Tooltip	X Diff Checker	>JSON	Definition	
+ Add Permiss	on		AUTHORIZ	ED	UNAUTHO	ORIZED
Acknowledge Approval Activity	Approval Acknowledgement section3 Permission: No Plugin		VISIBLE READON	LY HIDDEN		
Bean Shell Script Submit Request Activity	Request Details section1 Permission: No Plugin		VISIBLE READON	LY HIDDEN		
Bean Shell Script Approval Activity	Name name		VISIBLE READON	HIDDEN		
Bean Shell Script	Request Date request_date	Request Date request_date				
Default No Plugin	Category category		VISIBLE READON	LY HIDDEN		
	Items items		VISIBLE READON	LY HIDDEN		
	Remarks remarks		VISIBLE READON	LY HIDDEN		
	Request Approval section2 Permission: No Plugin 🗭		VISIBLE READON	LY HIDDEN		
	Approval approval					



Permission Control

• Typically, one would control **based on User Role** most of the time to show/hide fields.





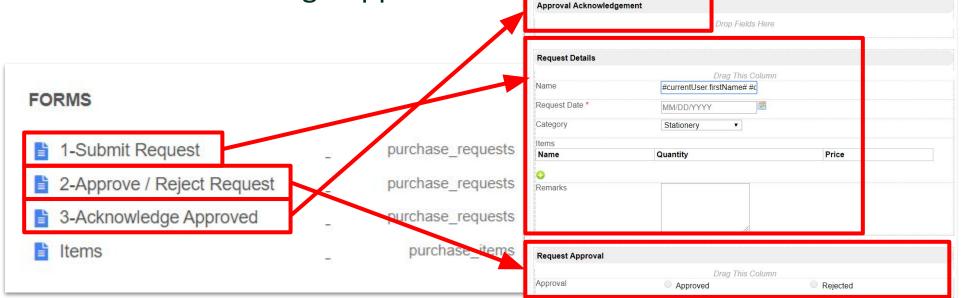
Permission Control

• If the form is used part of a process flow, it is also possible to exert permission **based on activity**, rather than user role.

Tree Viewer	Permission	M Usages	🖽 Table	00 118N	Tooltip	> \$ D	liff Checker	>JSON	Definition	
	+ Add Permission						AUTHORIZED		UNAUTHO	RIZED
Acknowledge Approval Activity		Approval Ackno Permission: No	owledgement se Plugin 🖉	ction3		VISIBLE	READONLY	HIDDEN		
Bean Shell Script Submit Request Bean Shell Script	t Activity	Request Detail Permission: No				VISIBLE	READONLY	HIDDEN		
Approval Activity Bean Shell Script Default		Name name Request Date request_date				VISIBLE	READONLY	HIDDEN		
						VISIBLE	READONLY	HIDDEN		
No Plugin		Category ca				VISIBLE	READONLY	HIDDEN		
		Items items				VISIBLE	READONLY	HIDDEN		
		Request Appro Permission: No	val section2			VISIBLE	READONLY	HIDDEN		
		Approval ap	inroval							



- One Master Form Concept Try combining the 3 forms in Purchase Requisition into a single form by using the Form Builder's Advance Tool Permission Tab:
 - 1-Submit Request
 - 2-Approve / Reject Request
 - 3-Acknowledge Approved





• The same form will be used in all activities.

DESIGN FORM	PROPERTIES	PREVIEW	SAVE	🕑 Design App:	Submit Request ID : submitRequest			
Basic				Purchase Requisition	Form Name	Request Form		
S Currency Field				Version 2 Published	i onin ridinio	Remove Mapping		
Ridden Field	Approval Acknowledgement Drop Fields Here					Remove Save as Draft Button		
Text Field				🕑 Forms & UI		Show The Next Assignment When Completed		
* Password Field	Request Details			E Processes	More Settings			
A Text Area	Drag This Column Name #currentUser.firstName#			Properties & Export	·			
Select Box	Request Date *	MM/DD/YYYY			Approve / Reject Request for #performer.runProcess.firstNat			
Check Box	Category	*			0.00 0			
 Radio 	Items Name Quantity Price			💥 Addon Builders	Form Name	Request Form		
Date Picker				Performance		Remove Mapping		
t. File Upload	Remarks			📜 Logs		Remove Save as Draft Button		
Shared Form						Show The Next Assignment When Completed More Settings		
Subform				G All Apps		More Settings		
Custom	Request Approval				Acknowledge Approved			
# Flat Date Picker	Approval	Drag This C	Column		ID : acknowledgeApp	roved		
Grid Grid					Form Name	Request Form		
Subform Repeater						Remove Mapping		
						Remove Save as Draft Button		
						Show The Next Assignment When Completed		



• In the Permission tab, we can control on what to show based on current activity.

ADVANCED TOOLS		Auto save when close?				
Tree Viewer	🛱 Usages 🖪 Table 🔤 I1		Permission (Submit Request Activity) > Permission (Bean Shell Script)			
+ Add Permission		Permission (Sub	bmit Request Activity)			
Acknowledge Approval Activity Bean Shell Script	Approval Acknowledgement section3	Name *	Submit Request Activity			
	Request Details section1 Permission: No Plugin 2	Permission	Bean Shell Script × *			
Submit Request Activity						
Bean Shell Script	Name name					
Approval Activity Bean Shell Script	Request Date request_date					
Default		Permission ((Bean Shell Script)			
No Plugin	Category category	Configure Bean	Shell Permission 📀			
	Items items	Script *	<pre>1 return ("#assignment.activityDefId#".equalsIgnoreCase("submitRequest"));</pre>			

return ("#assignment.activityDefId#".equalsIgnoreCase("submitRequest"));



• Once you are done setting up, try to run through the whole flow and check if the form is showing up correctly as per the activity.



Materials

• Complete app is available at **13.8.1**.jwa



Module Review

- 1. Introduction
- 2. Grid
- 3. Form Grid
- 4. Multirow Form Binder
- 5. List Grid
- 6. CRUD
- 7. Custom HTML
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Learn More...

- Check out
 - <u>https://dev.joget.org/community/display/DX7/Form+Buil</u> <u>der</u> for the list of **Form** related elements (Form Element, Form Validator, Form Binder, Form Options Binder).
- Check out

<u>https://dev.joget.org/community/display/DX7/Userview+</u> <u>Builder</u> for the list of **Userview** related elements.



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