LAS VEGAS

regoUniversity 2025

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Pages and Portlets

Your Guides:
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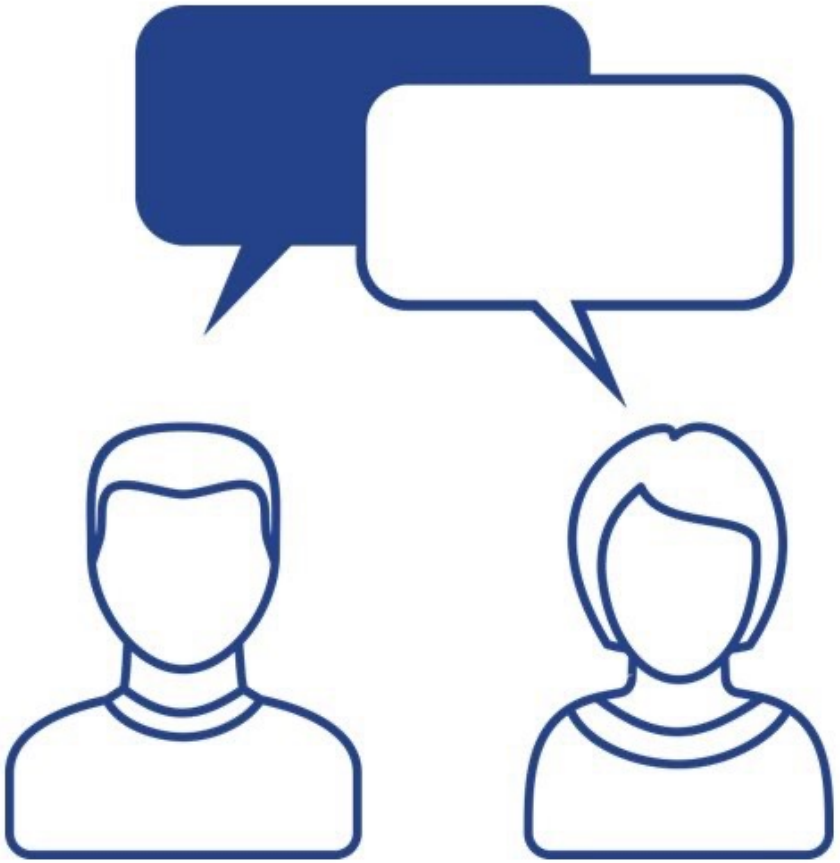
Gold Sponsor

aws

Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself



Agenda

- Portlets
  - Types of Portlets
- NSQL
- Pages
- Portlets in MUX

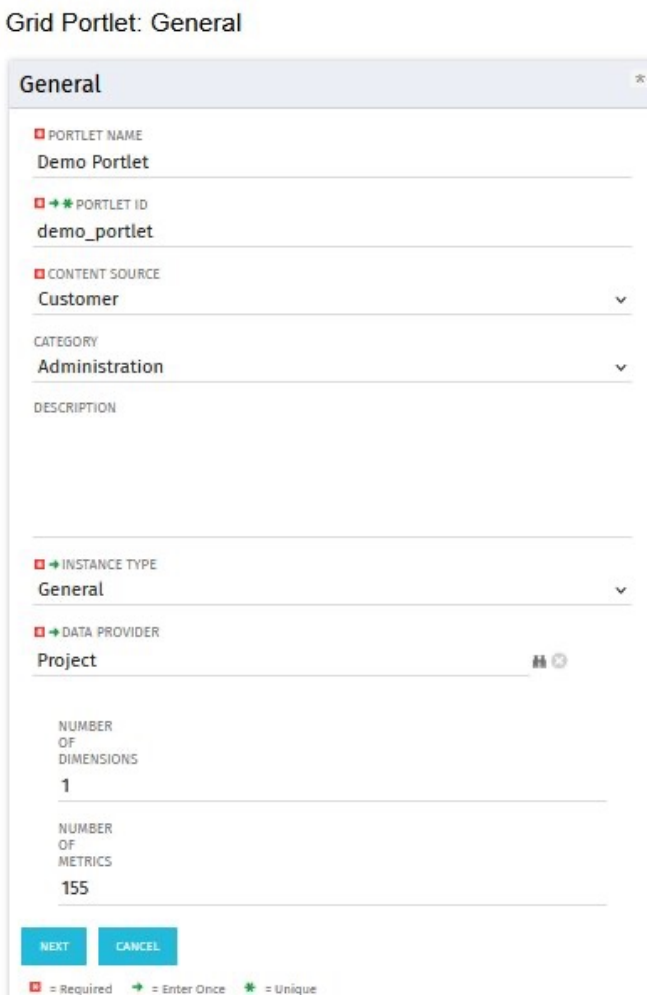
Portlets

Portlets

- What is a portlet?
- Why do I need to use portlets?
- What type of portlets are available?
  - Object Based
  - Grid
    - Multi-Dimensional
    - Hierarchical
  - Chart
  - Filter
  - HTML

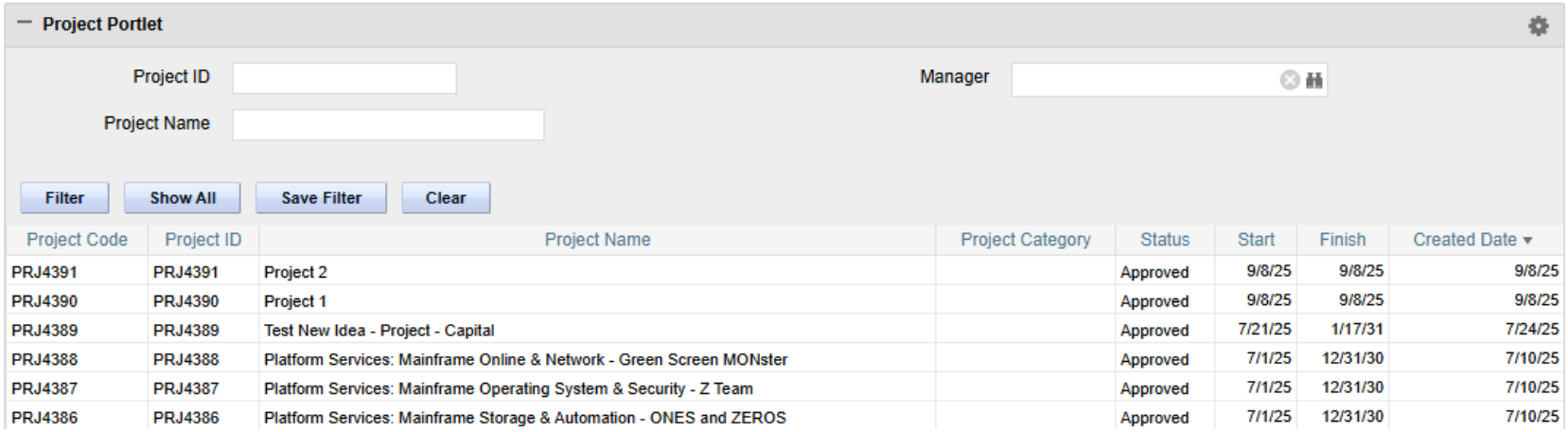
Portlets : Object Based

- What objects are available?
  - Almost all objects in the system (not CIT)
- Simple to build for Power Users
- Allow Grid Edit



Portlets : Grid

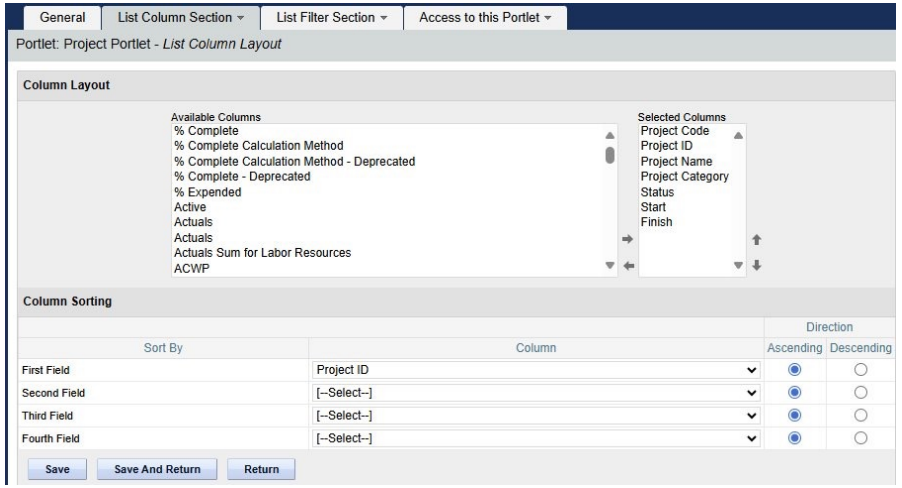
- One Dimension
- Multi-Dimensional
- Data Source
  - Object
  - NSQL

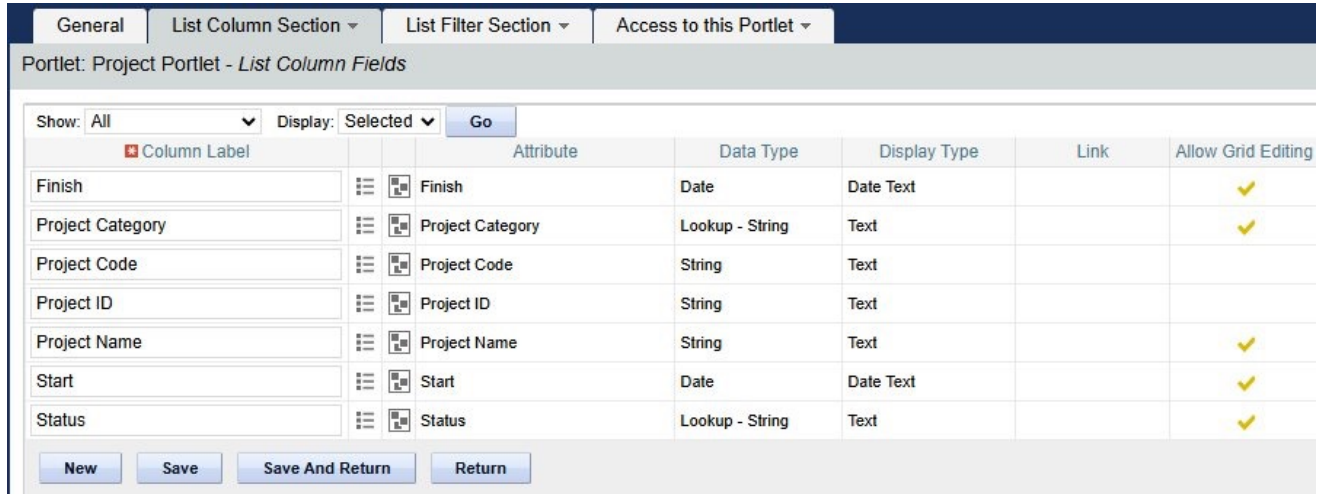


Project Code	Project ID	Project Name	Project Category	Status	Start	Finish	Created Date
PRJ4391	PRJ4391	Project 2		Approved	9/8/25	9/8/25	9/8/25
PRJ4390	PRJ4390	Project 1		Approved	9/8/25	9/8/25	9/8/25
PRJ4389	PRJ4389	Test New Idea - Project - Capital		Approved	7/21/25	1/17/31	7/24/25
PRJ4388	PRJ4388	Platform Services: Mainframe Online & Network - Green Screen MONster		Approved	7/1/25	12/31/30	7/10/25
PRJ4387	PRJ4387	Platform Services: Mainframe Operating System & Security - Z Team		Approved	7/1/25	12/31/30	7/10/25
PRJ4386	PRJ4386	Platform Services: Mainframe Storage & Automation - ONES and ZEROS		Approved	7/1/25	12/31/30	7/10/25

Portlets: Grid

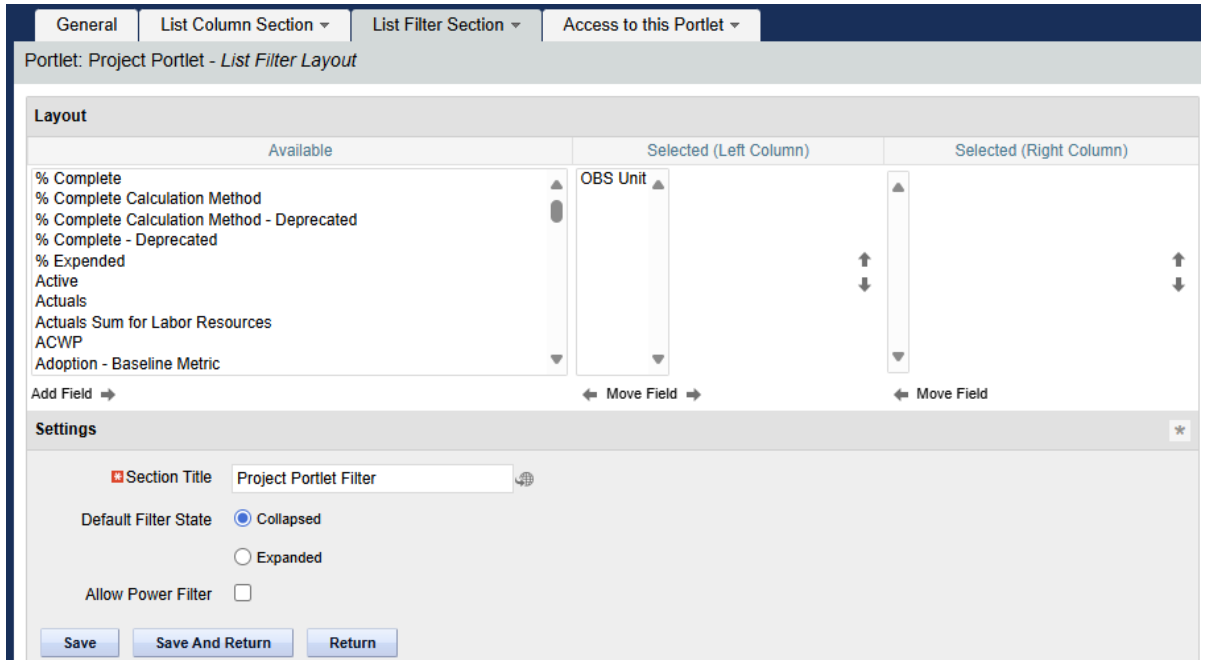
- Columns Layout
- Fields Labels

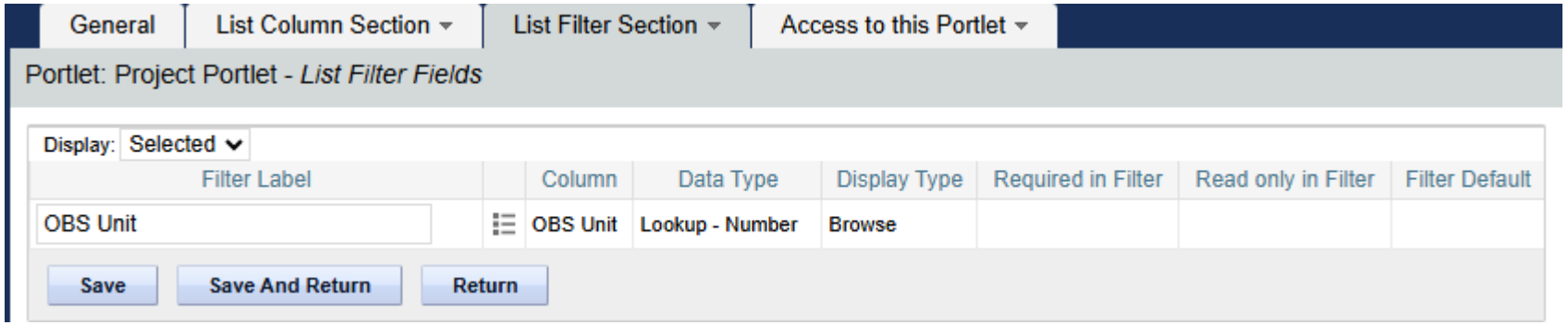




Portlets: Grid

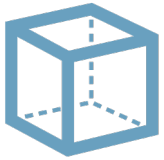
- Filter Layout
- Filter Labels
- Set Defaults
- Required





Portlets: Multi-Dimensional

- What does multi-dimensional look like?



Single Dimension

Dimension 1

Sample Single Dimension Portlet

Project	Resource	Task	Slice Date	Cost	Hours
Project 1	Resource 1	Task 1	1/1/15	100	2
Project 1	Resource 1	Task 2	1/1/15	150	3
Project 1	Resource 1	Task 3	1/1/15	200	4
Project 1	Resource 2	Task 1	1/1/15	150	3
Project 1	Resource 2	Task 2	1/1/15	200	4
Project 1	Resource 2	Task 3	1/1/15	250	5
Project 1	Resource 3	Task 1	1/1/15	200	4
Project 1	Resource 3	Task 2	1/1/15	250	5
Project 1	Resource 3	Task 3	1/1/15	300	6
Project 2	Resource 1	Task 1	1/1/15	100	2

Two Dimensions

Dimension 2

Dimension 1

Sample Multi-Dimensional Portlet

			Jan 2015		Feb 2015		Mar 2015		Apr 2015		May 2015		Jun 2015		Jul 2015	
Project	Resource	Task	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Project 1	Resource 1	Task 1	2	100	2	100	2	100	2	100	2	100	2	100	2	100
Project 1	Resource 1	Task 2	3	150	3	150	3	150	3	150	3	150	3	150	3	150
Project 1	Resource 1	Task 3	4	200	4	200	4	200	4	200	4	200	4	200	4	200
Project 1	Resource 2	Task 1	3	150	3	150	3	150	3	150	3	150	3	150	3	150
Project 1	Resource 2	Task 2	4	200	4	200	4	200	4	200	4	200	4	200	4	200
Project 1	Resource 2	Task 3	5	250	5	250	5	250	5	250	5	250	5	250	5	250
Project 1	Resource 3	Task 1	4	200	4	200	4	200	4	200	4	200	4	200	4	200
Project 1	Resource 3	Task 2	5	250	5	250	5	250	5	250	5	250	5	250	5	250
Project 1	Resource 3	Task 3	6	300	6	300	6	300	6	300	6	300	6	300	6	300
Project 2	Resource 1	Task 1	2	100	2	100	2	100	2	100	2	100	2	100	2	100

Portlets: Multi-Dimensional

- NSQL Syntax

Dimension Name

Single Dimension

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:  ASSIGNMENT :A.PRID:ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:  ASSIGNMENT :INVI.ID:PROJECT_ID@
```

Adding Second Dimension

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:ASSIGNMENT:A.PRID:ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:INVI.ID:PROJECT_ID@
, @SELECT:DIM:USER_DEF:IMPLIED:TIMEPERIOD:ETC.SLICE_DATE:SLICE_DATE_ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:TIMEPERIOD:TO_CHAR(ETC.SLICE_DATE, 'YYYY-MM-DD'):SLICE_DATE@
, @SELECT:METRIC:USER_DEF:IMPLIED:ETC.SLICE:ETC@
```

- Dimension Column
- Dimension Property

Y-Axis

	DIM2	DIM2	DIM2
DIM1	METRIC	METRIC	
DIM1	METRIC		METRIC
DIM1		METRIC	
DIM1	METRIC		METRIC

X-Axis

DIM1 = ASSIGNMENT
DIM2 = TIMEPERIOD (timescaled)
METRIC = ETC

Portlets: Multi-Dimensional

- Example Multi-Dimensional Query

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:ASSIGNMENT:A.PRID:ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:INVI.CODE:PROJECT_CODE@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:INVI.NAME:PROJECT_NAME@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:T.PRNAME:TASK_NAME@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:SRMR.FULL_NAME:RESOURCE_NAME@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:A.PRSTART:ASSIGNMENT_START@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:A.PRFINISH:ASSIGNMENT_FINISH@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:SUM(ETC.SLICE) OVER (PARTITION BY A.PRID):ETC_TOTAL@

, @SELECT:DIM:USER_DEF:IMPLIED:TIMEPERIOD:ETC.SLICE_DATE:SLICE_DATE_ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:TIMEPERIOD:TO CHAR(ETC.SLICE_DATE, 'YYYY-MM-DD'):SLICE_DATE@
, @SELECT:METRIC:USER_DEF:IMPLIED:ETC.SLICE:ETC@
FROM INV_INVESTMENTS INVI
JOIN PRTASK T ON INVI.ID = T.PRPROJECTID
JOIN PRASSIGNMENT A ON T.PRID = A.PRTASKID
JOIN SRM_RESOURCES SRMR ON A.PRRESOURCEID = SRMR.ID
JOIN PRJ_BLB_SLICES ETC ON A.PRID = ETC.PRJ_OBJECT_ID
WHERE 1=1
AND ETC.SLICE_REQUEST_ID = (SELECT SR.ID FROM PRJ_BLB_SLICEREQUESTS SR WHERE SR.REQUEST_NAME= @WHERE:PARAM:USER_DEF:STRING:SLICE_BY_STRING@ || 'RESOURCEESTCURVE')
AND ETC.SLICE_DATE BETWEEN @WHERE:PARAM:USER_DEF:DATE:START_DATE@ AND @WHERE:PARAM:USER_DEF:DATE:FINISH_DATE@
AND @FILTER@
```

Portlets: Multi-Dimensional

The Goal !

We are going to build a portlet that displays ETC by Tasks over time (timescaled)

Overview: Rahul Test Tab

ETC by Tasks Over Time

Start Date 1/1/2017

Finish Date 6/30/2017

Time Scaled Value Monthly

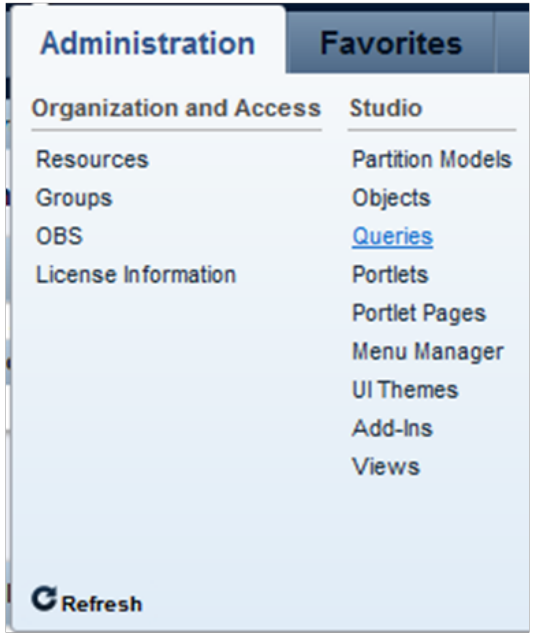
Filter | Save Filter | Clear

							2017-01-01	2017-02-01	2017-03-01	2017-04-01	2017-05-01	2017
Project Code	Project Name	Resource	Task	Assignment Finish	Assignment Start	ETC Total	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC
APP01	Bat Signal	Alfred, Al	Bat Signal	12/29/17	2/29/16	910	154	140	161	140	161	
APP01	Bat Signal	Dolak, Jerry	Bat Signal	12/29/17	10/5/15	1,040	176	160	184	160	184	
APP01	Bat Signal	Wuenstel, Chris	Bat Signal	12/29/17	2/23/15	1,040	176	160	184	160	184	
ID1015	RA Test Idea	Agrawal, Rahul	RA Test Idea	12/29/17	1/1/16	520	88	80	92	80	92	
ID1015	RA Test Idea	Almeida, Joe	RA Test Idea	12/29/17	1/1/16	208	35.2	32	36.8	32	36.8	
ID1015	RA Test Idea	America, Captain	RA Test Idea	12/29/17	1/1/16	832	140.8	128	147.2	128	147.2	

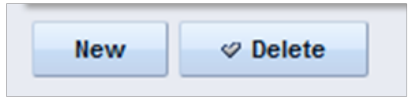
Portlets: Multi-Dimensional

- Create Query

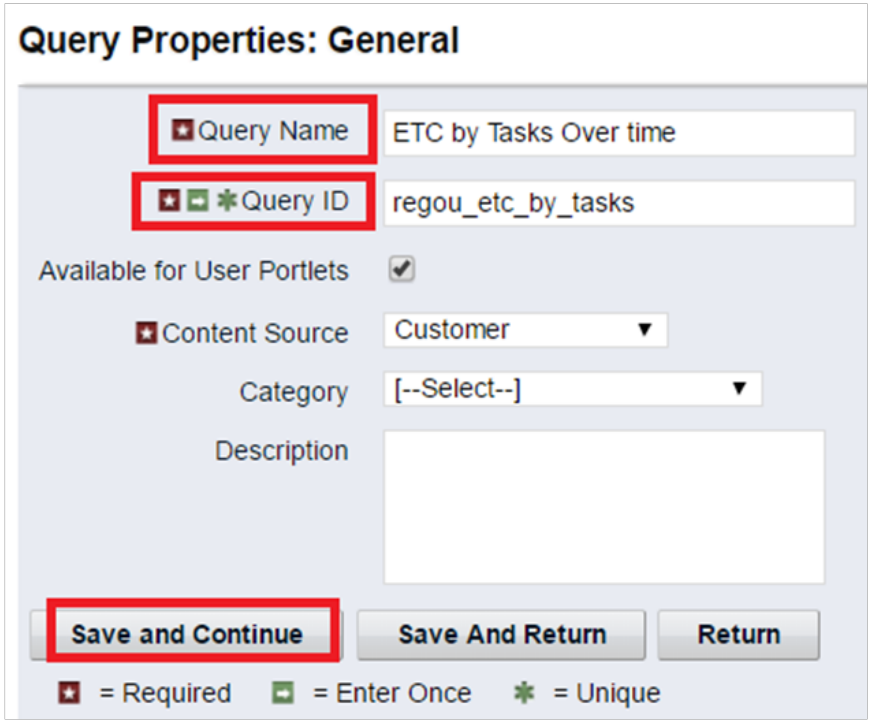
1) Administration -> Queries



2) Click New



3) Enter Query Name and Query ID, click Save and Continue



Portlets: Multi-Dimensional

- Populate NSQL

4) Remove the default query and paste your query. Click Save and Continue

Query: ETC by Tasks Over Time - *NSQL*

Use this template to create your Niku SQL statement.

NSQL

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:ASSIGNMENT:A.PRID:ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:INVI.CODE:PROJECT_CODE@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:INVI.NAME:PROJECT_NAME@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:T.PRNAME:TASK_NAME@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:SRMR.FULL_NAME:RESOURCE_NAME@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:A.PRSTART:ASSIGNMENT_START@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:A.PRFINISH:ASSIGNMENT_FINISH@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:ASSIGNMENT:SUM(ETC.SLICE) OVER (PARTITION BY A.PRID):ETC_TOTAL@
, @SELECT:DIM:USER_DEF:IMPLIED:TIMEPERIOD:ETC.SLICE_DATE:SLICE_DATE_ID@
, @SELECT:DIM_PROP:USER_DEF:IMPLIED:TIMEPERIOD:TO_CHAR(ETC.SLICE_DATE, 'YYYY-MM-DD'):SLICE_DATE@
, @SELECT:METRIC:USER_DEF:IMPLIED:ETC.SLICE:ETC@
FROM INV_INVESTMENTS INVI
JOIN PRTASK T ON INVI.ID = T.PRPROJECTID
JOIN PRASSIGNMENT A ON T.PRID = A.PRTASKID
JOIN SRM_RESOURCES SRMR ON A.PRRESOURCEID = SRMR.ID
JOIN PRJ_BLB_SLICES ETC ON A.PRID = ETC.PRJ_OBJECT_ID
WHERE 1=1
AND ETC.SLICE_REQUEST_ID = (SELECT SR.ID FROM PRJ_BLB_SLICEREQUESTS SR WHERE SR.REQUEST_NAME= @WHERE:PA
AND ETC.SLICE_DATE BETWEEN @WHERE:PARAM:USER_DEF:DATE:START_DATE@ AND @WHERE:PARAM:USER_DEF:DATE:FINISH
AND @FILTER@
```

Preview | Save and Continue | Save And Return | Return

= Required

Portlets: Multi-Dimensional

- Review Attributes

Metric →
2nd Dimension →
1st Dimension →

General | NSQL | Attributes | Linking

Query: ETC by Tasks Over Time - *Attributes*

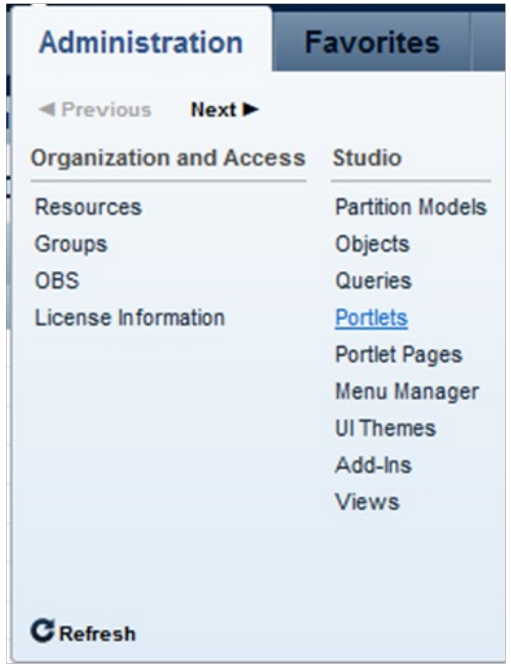
Attributes

Name	ID	Attribute Class	Data Type	Extended Data Type	Required	Lookup
etc	etc	Metric	Numeric	Numeric		
TIMEPERIOD						
↳ slice_date_id	slice_date_id	Dimension Key	Date	Date		
↳ slice_date	slice_date	Dimension Property	String	String		
ASSIGNMENT						
↳ id	id	Dimension Key	Numeric	Numeric		
↳ project_code	project_code	Dimension Property	String	String		
↳ project_name	project_name	Dimension Property	String	String		
↳ task_name	task_name	Dimension Property	String	String		
↳ resource_name	resource_name	Dimension Property	String	String		
↳ assignment_start	assignment_start	Dimension Property	Date	Date		
↳ assignment_finish	assignment_finish	Dimension Property	Date	Date		
↳ etc_total	etc_total	Dimension Property	Numeric	Numeric		

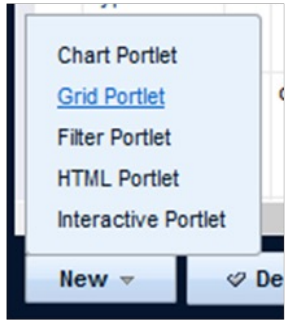
Portlets: Multi-Dimensional

- Create Portlet

1) Administration -> Portlets

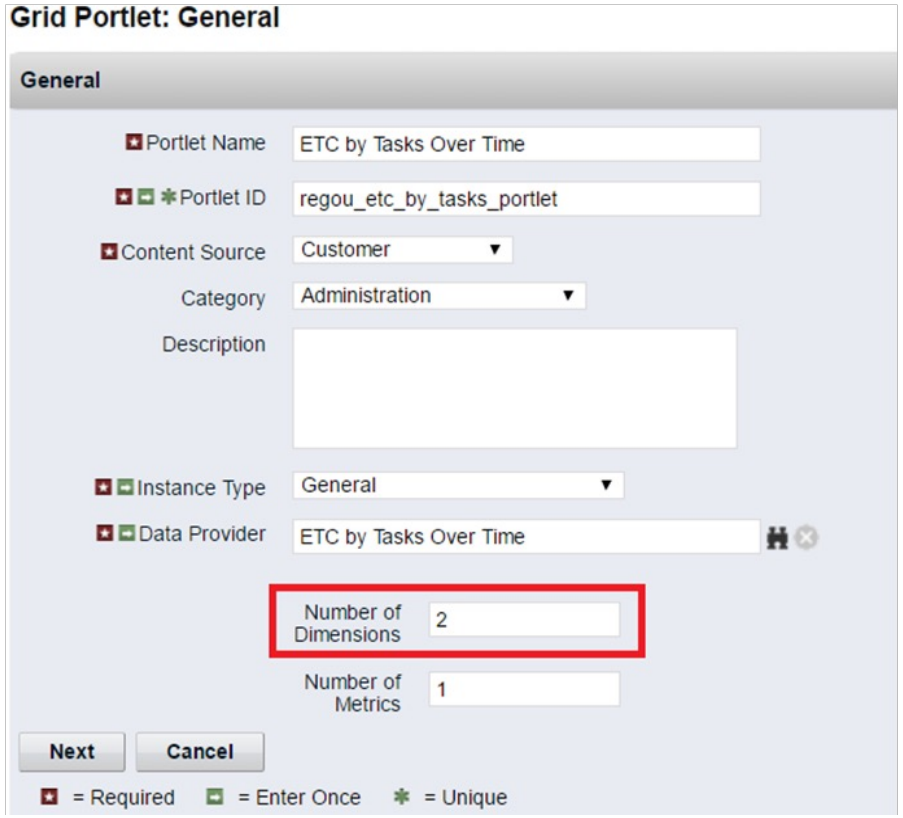


2) New -> Grid Portlet



3) Enter Portlet Name and ID, browse for NSQL Query as Data Provider

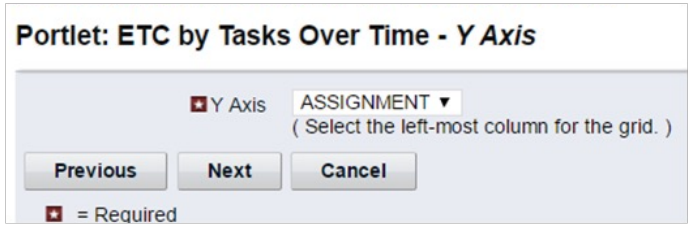
4) Click Next



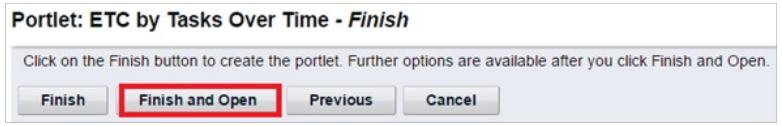
Portlets: Multi-Dimensional

- Configure Portlet

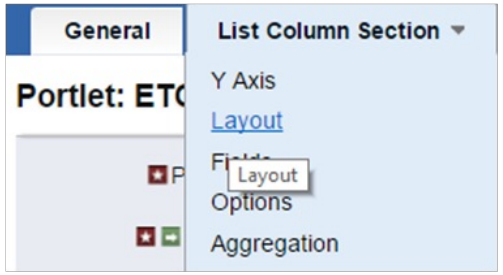
1) Select Dimension for the Y Axis



2) Click Finish and Open



3) Click on Layout

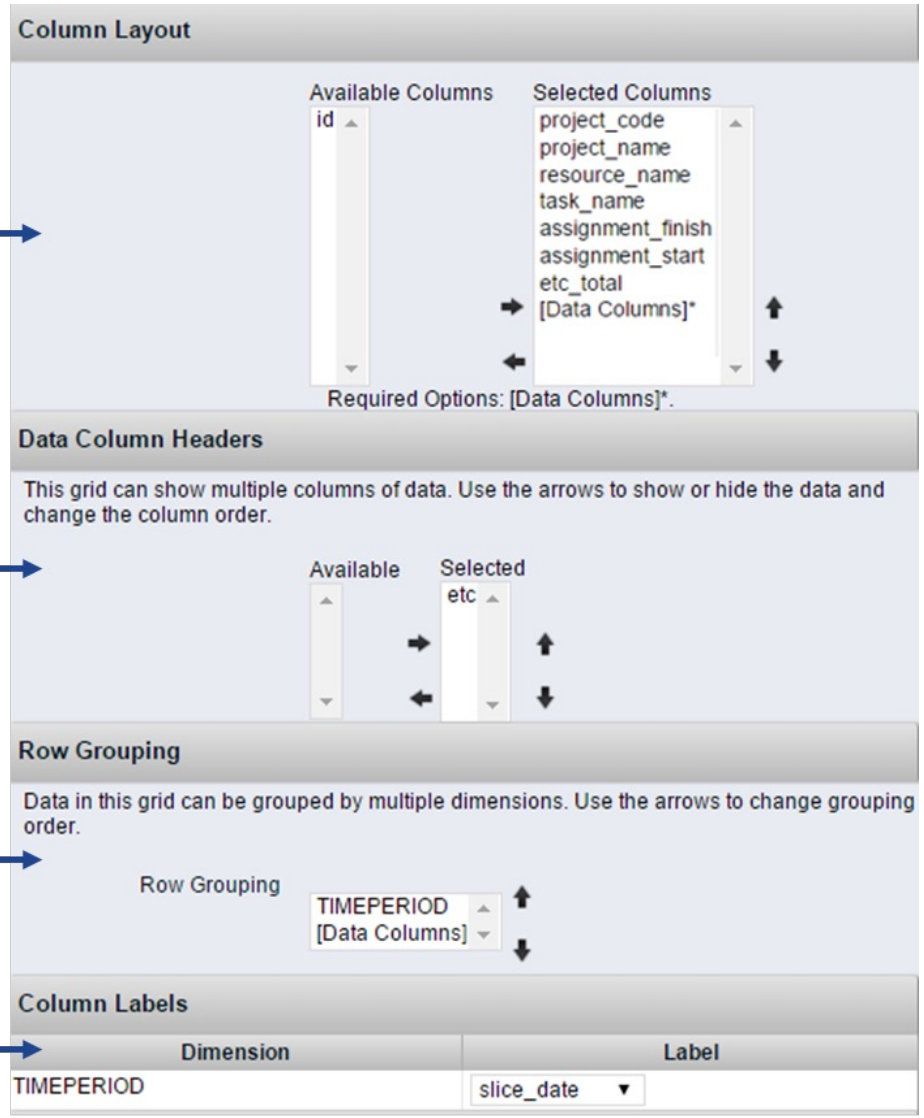


The selected fields will appear on Y-Axis

Select Metric(s)

X-Axis column grouping

Select the field to be displayed as header



Portlets: Multi-Dimensional

- Configure Portlet
  - Select the columns to use for sorting

Always sort on Date first

Use slice_date_id, NOT slice_date(label)

Column Sorting

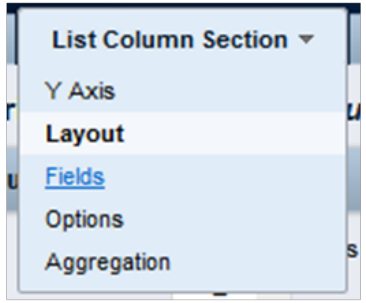
Sort By	Column	Direction: Ascending	Direction: Descending
First Field	slice_date_id	●	○
Second Field	project_name	●	○
Third Field	resource_name	●	○
Fourth Field	task_name	●	○

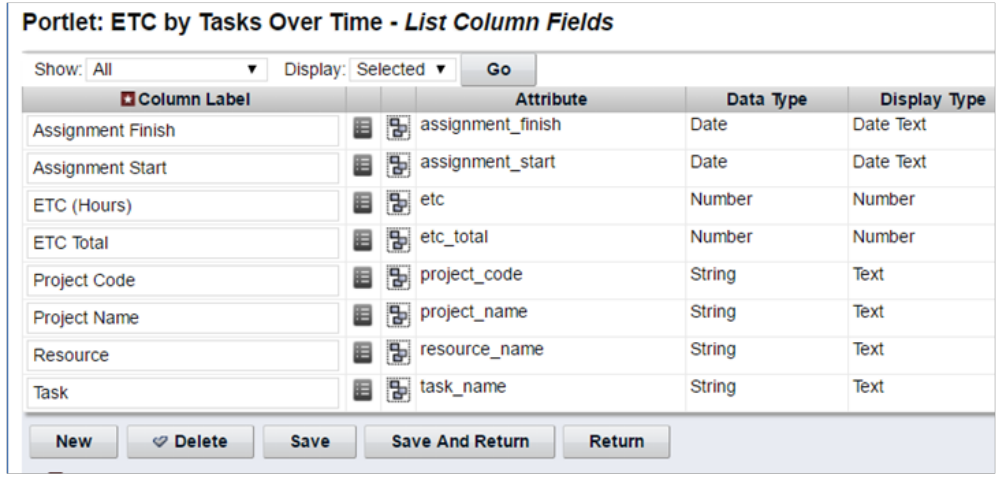
* = required

Portlets: Multi-Dimensional

- Configure Portlet

1) Click on Fields and update labels





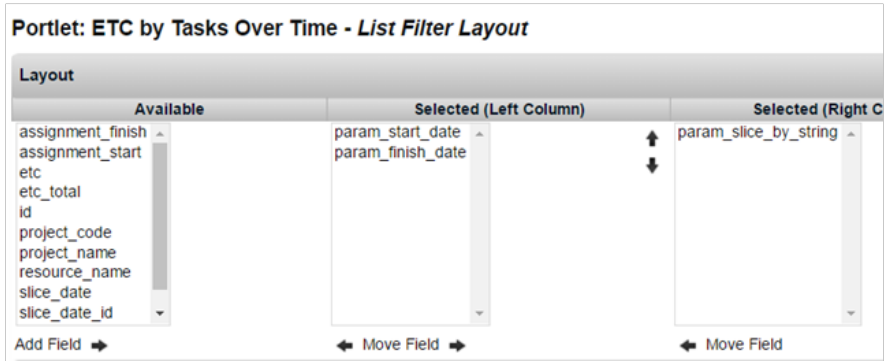
Portlet: ETC by Tasks Over Time - *List Column Fields*

Show: All | Display: Selected | Go

Column Label	Attribute	Data Type	Display Type
Assignment Finish	assignment_finish	Date	Date Text
Assignment Start	assignment_start	Date	Date Text
ETC (Hours)	etc	Number	Number
ETC Total	etc_total	Number	Number
Project Code	project_code	String	Text
Project Name	project_name	String	Text
Resource	resource_name	String	Text
Task	task_name	String	Text

New | Delete | Save | Save And Return | Return

2) Click on Filter Layout and select filters



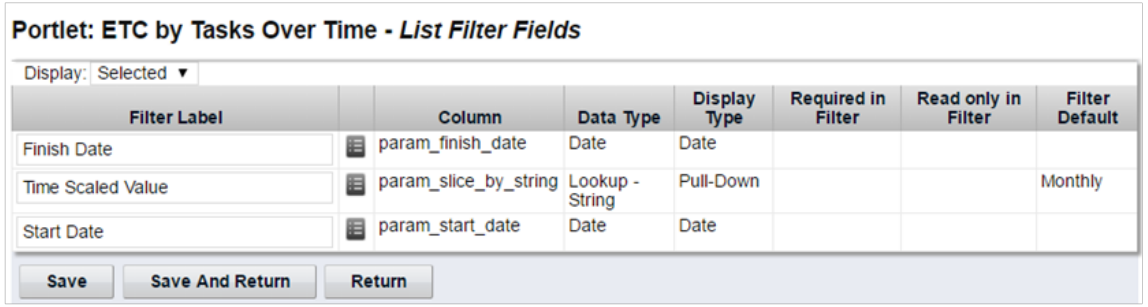
Portlet: ETC by Tasks Over Time - *List Filter Layout*

Layout

Available	Selected (Left Column)	Selected (Right C
assignment_finish	param_start_date	param_slice_by_string
assignment_start	param_finish_date	
etc		
etc_total		
id		
project_code		
project_name		
resource_name		
slice_date		
slice_date_id		

Add Field → | ← Move Field → | ← Move Field

3) Click on Filter Fields and update labels



Portlet: ETC by Tasks Over Time - *List Filter Fields*

Display: Selected

Filter Label	Column	Data Type	Display Type	Required in Filter	Read only in Filter	Filter Default
Finish Date	param_finish_date	Date	Date			
Time Scaled Value	param_slice_by_string	Lookup - String	Pull-Down			Monthly
Start Date	param_start_date	Date	Date			

Save | Save And Return | Return

Portlets: Multi-Dimensional

- Set Filter Defaults

Portlet: ETC by Tasks Over Time - *List Filter Field*

Display: Selected

Filter Label	Column
Finish Date	param_finish_date
Time Scaled Value	param_slice_by_string
Start Date	param_start_date

Portlet: ETC by Tasks Over Time - *Filter Field Properties*

Attribute: param_finish_date
Filter Label: Finish Date
Data Type: Date
Display Type: Date
Filter Default: Rolling Date End of Next Quarter / Specific Date
Required in Filter: ☑
Hidden in Filter: ☐ (In order to make a filter field hidden a Filter Default must be selected
Read-Only in Filter: ☐ (In order to make a filter field read only a Filter Default must be select
Hint:
Tooltip:
Save | Save And Return | Return
= Required

Portlet: ETC by Tasks Over Time - *Filter Field Properties*

Attribute: param_start_date
Filter Label: Start Date
Data Type: Date
Display Type: Date
Filter Default: Rolling Date Start of Current Quarter / Specific Date
Required in Filter: ☑
Hidden in Filter: ☐ (In order to make a filter field hidden a Filter Default must
Read-Only in Filter: ☐ (In order to make a filter field read only a Filter Default mu
Hint:
Tooltip:
Save | Save And Return | Return

Portlet: ETC by Tasks Over Time - *Filter Field Properties*

Attribute: param_slice_by_string
Filter Label: Time Scaled Value
Data Type: Lookup - String
Display Type: Pull-Down
Lookup: Slice By (String)
Filter Default: Monthly
Required in Filter: ☐
Hidden in Filter: ☐ (In order to make a filter field hidden a Filter Default
Read-Only in Filter: ☐ (In order to make a filter field read only a Filter Defau
Hint:
Tooltip:
Save | Save And Return | Return
= Required

Portlet is now ready but don't forget to add to a page.

Portlets: Multi-Dimensional

- Final Result

Overview: Rahul Test Tab

ETC by Tasks Over Time

Start Date 1/1/2017

Finish Date 6/30/2017

Time Scaled Value Monthly

Filter | Save Filter | Clear

							2017-01-01	2017-02-01	2017-03-01	2017-04-01	2017-05-01	2017
Project Code	Project Name	Resource	Task	Assignment Finish	Assignment Start	ETC Total	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC
APP01	Bat Signal	Alfred, Al	Bat Signal	12/29/17	2/29/16	910	154	140	161	140	161	
APP01	Bat Signal	Dolak, Jerry	Bat Signal	12/29/17	10/5/15	1,040	176	160	184	160	184	
APP01	Bat Signal	Wuenstel, Chris	Bat Signal	12/29/17	2/23/15	1,040	176	160	184	160	184	
ID1015	RA Test Idea	Agrawal, Rahul	RA Test Idea	12/29/17	1/1/16	520	88	80	92	80	92	
ID1015	RA Test Idea	Almeida, Joe	RA Test Idea	12/29/17	1/1/16	208	35.2	32	36.8	32	36.8	
ID1015	RA Test Idea	America, Captain	RA Test Idea	12/29/17	1/1/16	832	140.8	128	147.2	128	147.2	

Portlets: Multi-Dimensional

- Portlet with additional dimension

Dimension 2 (Months)

Dimension 3 (Charge Code)

Sample 3 Dimensional Portlet

			Jan 2015				Feb 2015				Mar 2015			
			Cap		Exp		Cap		Exp		Cap		Exp	
Project	Resource	Task	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Project 1	Resource 1	Task 2	3	150	3	150	3	150	3	150	3	150	3	150
Project 1	Resource 1	Task 1	2	100	2	100	2	100	2	100	2	100	2	100
Project 1	Resource 1	Task 3	4	200	4	200	4	200	4	200	4	200	4	200
Project 1	Resource 2	Task 1	3	150	3	150	3	150	3	150	3	150	3	150
Project 1	Resource 2	Task 2	4	200	4	200	4	200	4	200	4	200	4	200
Project 1	Resource 2	Task 3	5	250	5	250	5	250	5	250	5	250	5	250
Project 1	Resource 3	Task 2	5	250	5	250	5	250	5	250	5	250	5	250
Project 1	Resource 3	Task 1	4	200	4	200	4	200	4	200	4	200	4	200
Project 1	Resource 3	Task 3	6	300	6	300	6	300	6	300	6	300	6	300
Project 2	Resource 1	Task 1	2	100	2	100	2	100	2	100	2	100	2	100
Project 2	Resource 1	Task 2	3	150	3	150	3	150	3	150	3	150	3	150
Project 2	Resource 1	Task 3	4	200	4	200	4	200	4	200	4	200	4	200
Project 2	Resource 2	Task 1	3	150	3	150	3	150	3	150	3	150	3	150
Project 2	Resource 2	Task 2	4	200	4	200	4	200	4	200	4	200	4	200
Project 2	Resource 2	Task 3	5	250	5	250	5	250	5	250	5	250	5	250
Project 2	Resource 3	Task 1	4	200	4	200	4	200	4	200	4	200	4	200
Project 2	Resource 3	Task 2	5	250	5	250	5	250	5	250	5	250	5	250
Project 2	Resource 3	Task 3	6	300	6	300	6	300	6	300	6	300	6	300
Project 3	Resource 1	Task 1	2	100	2	100	2	100	2	100	2	100	2	100
Project 3	Resource 1	Task 2	3	150	3	150	3	150	3	150	3	150	3	150

Portlets: Multi-Dimensional

- Limitations
  - Row Limit Governor – 50,000 rows
    - 10 rows of projects with 12 months of data = 120 rows

ETC by Tasks Over Time

ALERT: You have exceeded your maximum row limit. To see your results, please filter for the specific rows you would like to view.

  - Sorting Limitations
    - Sort on the Date first

ETC by Tasks Over Time

							2017-02-01	2017-01-01	2017-05-01	2017-04-01
Project Code	Project Name	Resource	Task	Assignment Finish	Assignment Start	ETC Total	ETC (Hours)	ETC (Hours)	ETC (Hours)	ETC (Hours)
PRJ0009	Save the World	Alfred, Al	Save the World	9/28/17	2/29/16	1,664.251206	256.0	281.6	294.4	256.0
ID1015	RA Test Idea	Almeida, Joe	RA Test Idea	12/29/17	1/1/16	208	32.0	35.2	36.8	32.0
ID1015	RA Test Idea	America, Captain	RA Test Idea	12/29/17	1/1/16	832	128.0	140.8	147.2	128.0

Portlets: Multi-Dimensional

- Common Errors Seen
  - Duplicate Dimensional Data

Query: ETC by Tasks Over Time - *NSQL*

ERROR NPT-217: This query produced duplicate dimensional data. The results shown here may be invalid or incomplete.

  - Null Dimensional Key

Query: ETC by Tasks Over Time - *NSQL*

ERROR:

  - ERROR

Query: ETC by Tasks Over Time - *NSQL*

ERROR NPT-0103: Error when trying to execute the query. Native message: [CA Clarity][Oracle JDBC Driver][Oracle]ORA-00936: missing expression SQL Text: SELECT A.PRID ID , INVI.CODE PROJEC
ASSIGNMENT_START , A.PRFINISH ASSIGNMENT_FINISH , SUM(ETC.SLICE) OVER (PARTITION BY A.PRID) ETC_TOTAL , ETC.SLICE_DATE SLICE_DATE_ID , TO_CHAR(ETC.SLICE_DATE, 'YYYY-MM-
PRASSIGNMENT A ON T.PRID = A.PRTASKID JOIN SRM_RESOURCES SRMR ON A.PRRESOURCEID = SRMR.ID JOIN PRJ_BLB_SLICES ETC ON A.PRID = ETC.PRJ_OBJECT_ID WHERE 1=1 AND ETC
'RESOURCEESTCURVE') AND ETC.SLICE_DATE BETWEEN ? AND ? AND 1=? and 1=1 and 2 = 2 .

Possible causes:

- A field listed in the SELECT or WHERE clause does not specify the table name. Because the field name appears in multiple tables, the table name must precede the field name.
- A comma after the last @SELECT statement.
- A comma after the last table listed in the FROM clause.
- Incorrect table name

Portlets: Multi-Dimensional

- Limit number of dimensions
  - Use additional metrics if possible
- Always sort on dates first
- Return rows for each cell
- Use Export to Excel (Data Only)
- Keep the [Data Columns] as the last field in the column layout
- Format Fields to specify column widths or disallow word wrapping to alleviate formatting issues

Portlets: Chart

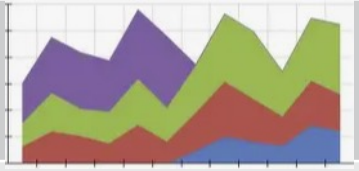
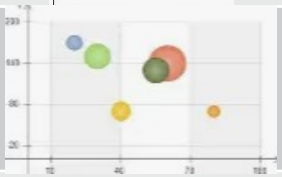
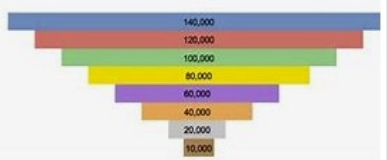
When to use charts

- Displaying data containing multiple dimensions / metrics
- Dashboards
- Summarizing data

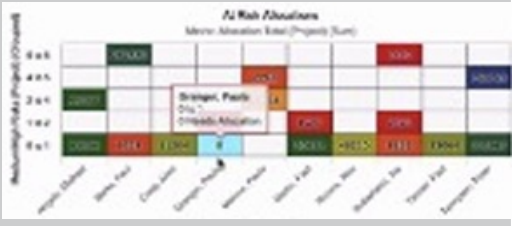
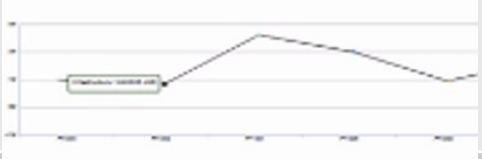
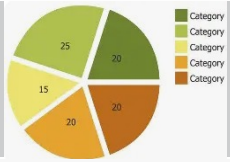
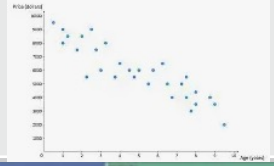
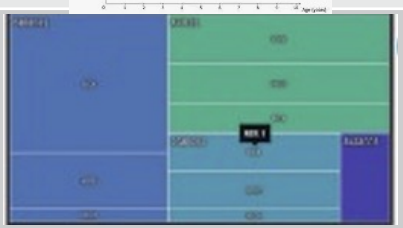
What type of chart to use

- 11 different chart types
- Choose a chart that best suits the data you want to visualize
- Ensure that your data provider contains the minimum number of metrics for the chart type

Portlets: Chart

Chart Type	Description	Example
Area	Displays data points that are connected by lines along the axes. Displays different colors to fill in the area below the line.	
Bar	Displays each dimension of the data in a horizontal bar.	
Bubble	Displays metrics on the horizontal and vertical axes. The size of each bubble represents a third metric.	
Column	Displays each dimension of the data in a vertical bar.	
Donut	Displays the data dimension objects in proportional segments, like a pie chart.	
Funnel	Displays the data dimension objects in proportional rows in a funnel shape like a pie chart.	

Portlets: Chart

Chart Type	Description	
Heat Map	Displays a primary attribute or metric in a two-dimensional grid with values along the X-axis and Y axis. The primary attribute values are represented using colors or shades of the same color.	
Line	Displays data points connected by lines along the axes.	
Pie	Displays the data dimension objects in proportional slices.	
Scatter	Displays metrics across the X-axis and Y-axis.	
Tree Map	Displays data in a hierarchical tree with branched nodes. Chart values appear in different colors and can include clickable shapes that show the relative size of each subgroup.	

Portlets: Chart

Limitations

- Take into account metric and dimensional limits.
- Consistent Colors can be used, but it’s a system general setting and is limited.
  - Improved in 15.1 by allowing RGB colors, transparency and improved borders.
- Other limitations to portlets apply like the NSQL governors.
- Order in which the data is sorted, and missing series will impact how data is rendered

NSQL

NSQL

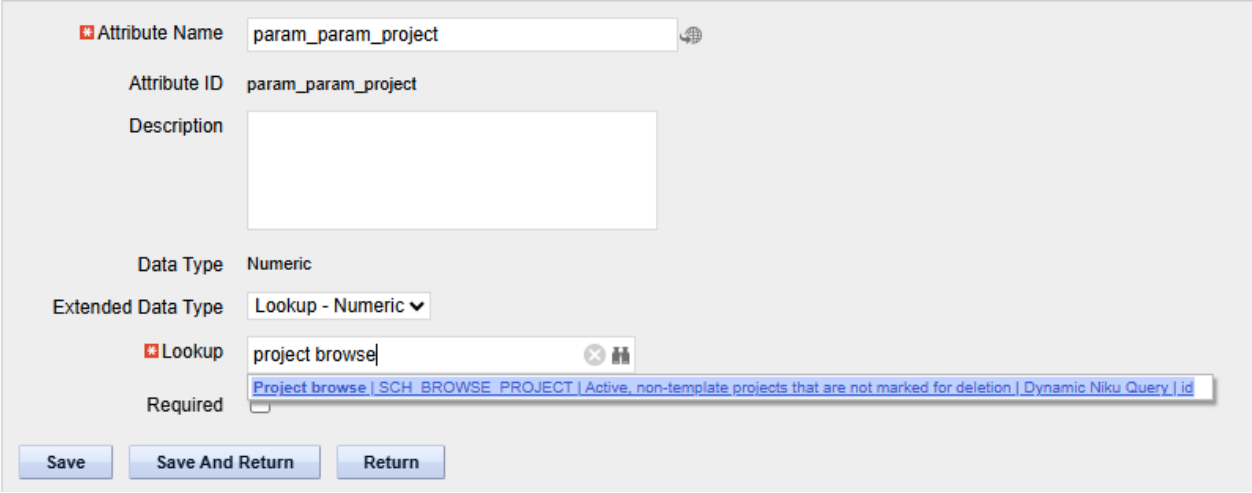
- NSQL is a wrapper for SQL

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:RESOURCE:R.FULL_NAME:RSRC@,
       @SELECT:DIM_PROP:USER_DEF:IMPLIED:RESOURCE:MR.FULL_NAME:MANAGER@,
       @SELECT:METRIC:USER_DEF:IMPLIED:COUNT(*):PROJECT_COUNT:AGG@
FROM INV_INVESTMENTS I, SRM_RESOURCES R, SRM_RESOURCES MR, CMN_SEC_USERS U
WHERE I.CREATED_BY = U.ID
   AND U.ID = R.USER_ID
   AND R.MANAGER_ID = MR.USER_ID
  AND @FILTER@
GROUP BY R.FULL_NAME,
            MR.FULL_NAME HAVING
 @HAVING_FILTER@
```

NSQL: Other Constructs

- PARAM
  - Types: IMPLIED, INTEGER, STRING, DATE, BOOLEAN

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:TASKS:T.PRID:TSK_ID@,
    @SELECT:DIM_PROP:USER_DEF:IMPLIED:TASKS:I.CODE:Project_CODE@,
    @SELECT:DIM_PROP:USER_DEF:IMPLIED:TASKS:I.NAME:Project_NAME@,
    @SELECT:DIM_PROP:USER_DEF:IMPLIED:TASKS:T.PRNAME:TASK_NAME@
FROM INV_INVESTMENTS I
INNER JOIN PRTASK T ON T.PRPROJECTID = I.ID
WHERE @WHERE:PARAM:USER_DEF:INTEGER:I.ID:PARAM_PROJECT@
AND @FILTER@
```



NSQL: Other Constructs

- **XPATH**
  - Allow XPATH navigation from URL

```
SELECT @SELECT:DIM:USER_DEF:IMPLIED:TASKS:T.PRID:TSK_ID@,
    @SELECT:DIM_PROP:USER_DEF:IMPLIED:TASKS:I.CODE:Project_CODE@,
    @SELECT:DIM_PROP:USER_DEF:IMPLIED:TASKS:I.NAME:Project_NAME@,
    @SELECT:DIM_PROP:USER_DEF:IMPLIED:TASKS:T.PRNAME:TASK_NAME@
FROM INV_INVESTMENTS I
INNER JOIN PRTASK T ON T.PRPROJECTID = I.ID
WHERE I.ID = @where:param:xml:integer:/data/id/@value@
AND @FILTER@
```

- **Security**
  - Enforce instance-level security for certain objects (Resource/Project)

```
@WHERE:SECURITY:PROJECT:SRM.PROJECTS.ID@
```

Pages

Pages

- What is a page?
- When do I need pages?
- How do pages organize?

Pages

- Pages with Tabs
- Pages without Tabs
- Layout

Three Column 25-50-25

Three Column 33-33-33

Two Column 50-50

Two Column 66-34

Row Layout

Pages

- Content

PROPERTIES | LINK PARAMETERS | CONTENT | PAGE FILTERS | LAYOUT | ACCESS TO THIS PAGE

Page: Demo Page - *Content*

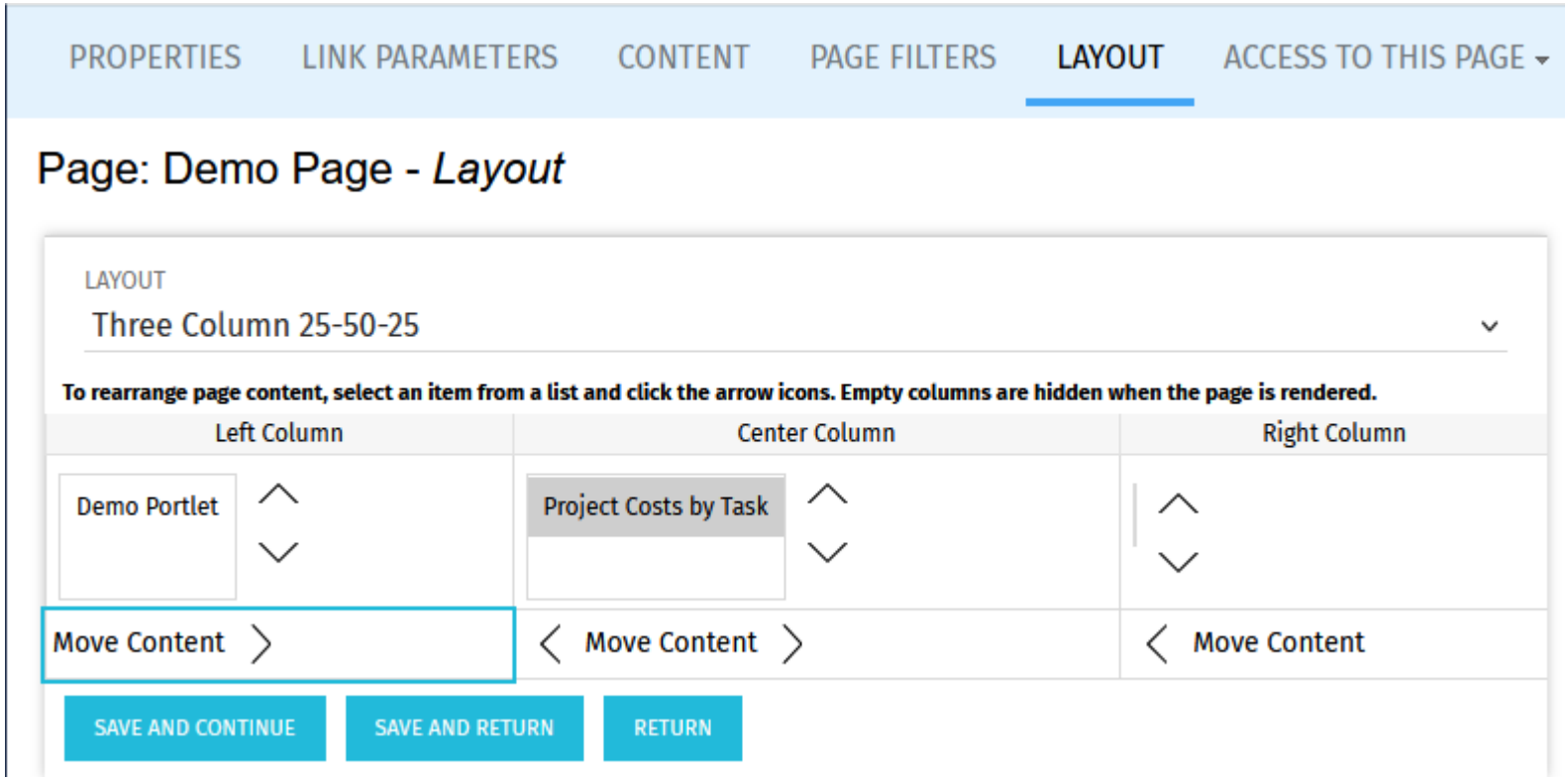
	Content		Category	Description	Maximized	Active
	No Maximized Portlet				◉	
☐	Demo Portlet		Administration		○	✓
☐	Project Costs by Task		Productivity	Project Costs by Task displays cost performance amounts and variances by task	○	✓

Displaying 1 - 2 of 2

ADD | ✓ REMOVE | SAVE AND CONTINUE | SAVE AND RETURN | RETURN

Pages

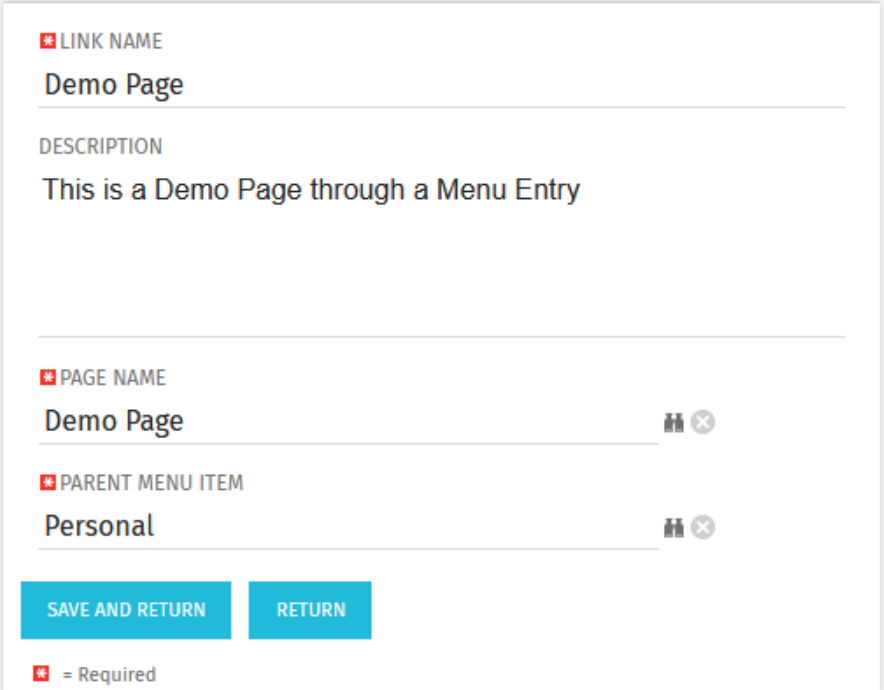
- Layout

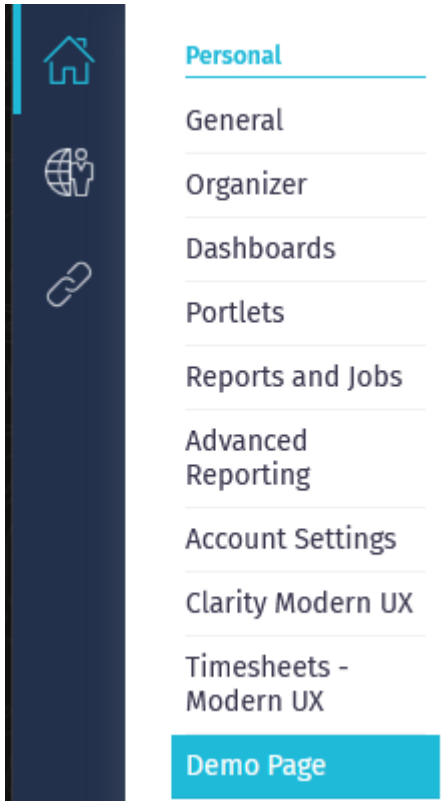


Pages

- Pages can be accessed through MENU
  - ADMIN > Studio > Menu Manager > Application Menu

Menu: Application Menu - *Menu Item Properties*

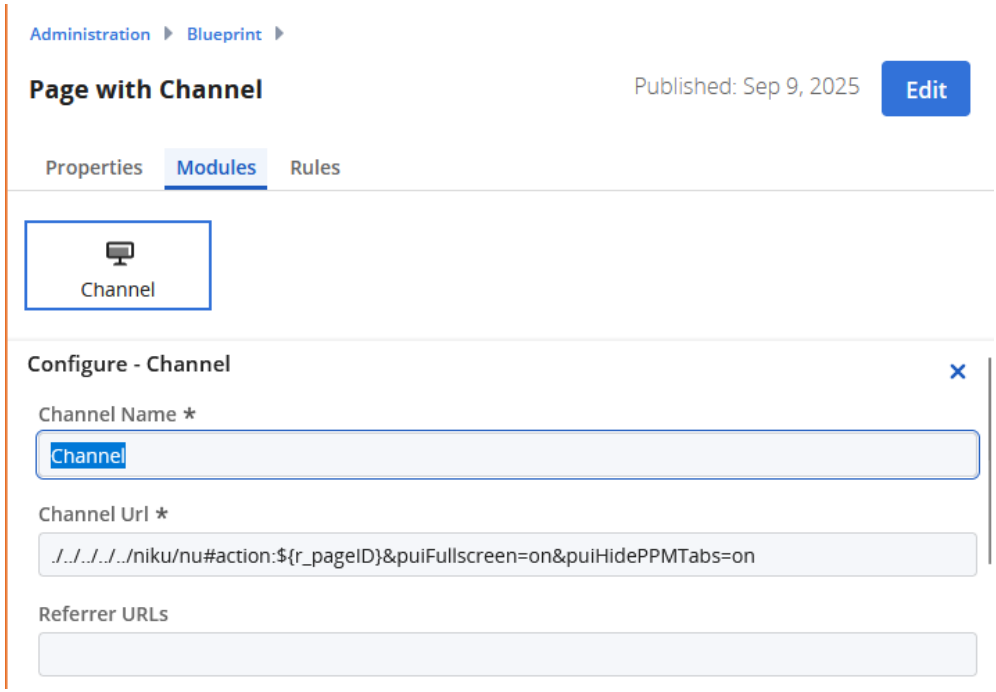


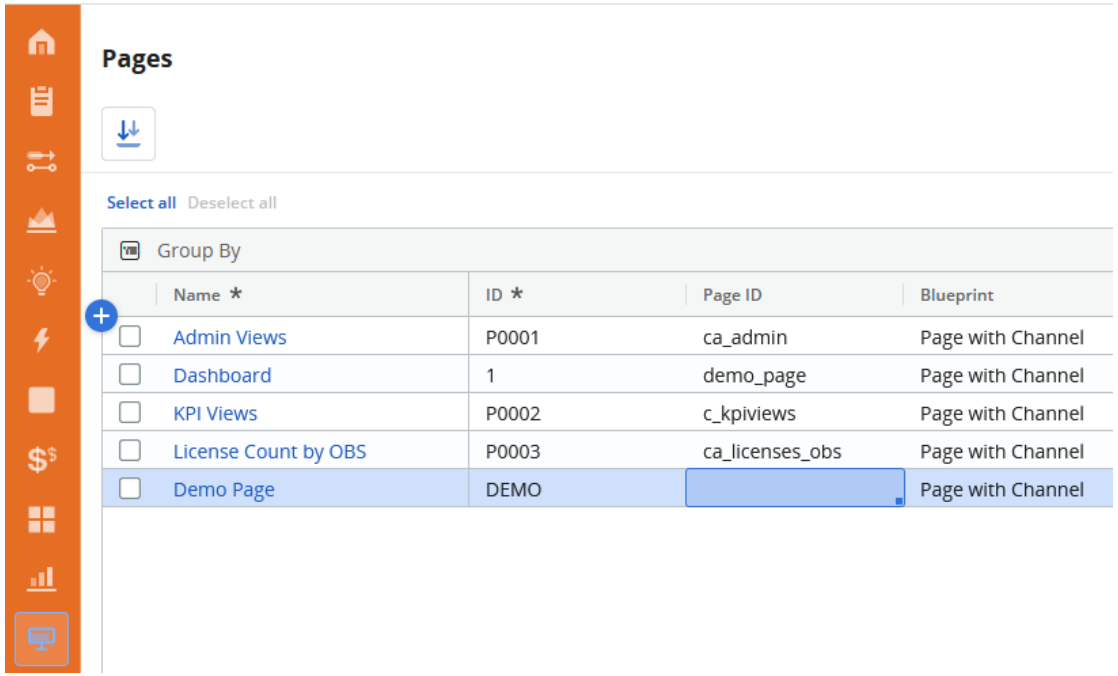


Portlets in MUX

Portlets in MUX: Modules

- Pages can be accessed in MUX through Channels on Blueprints (Pages)

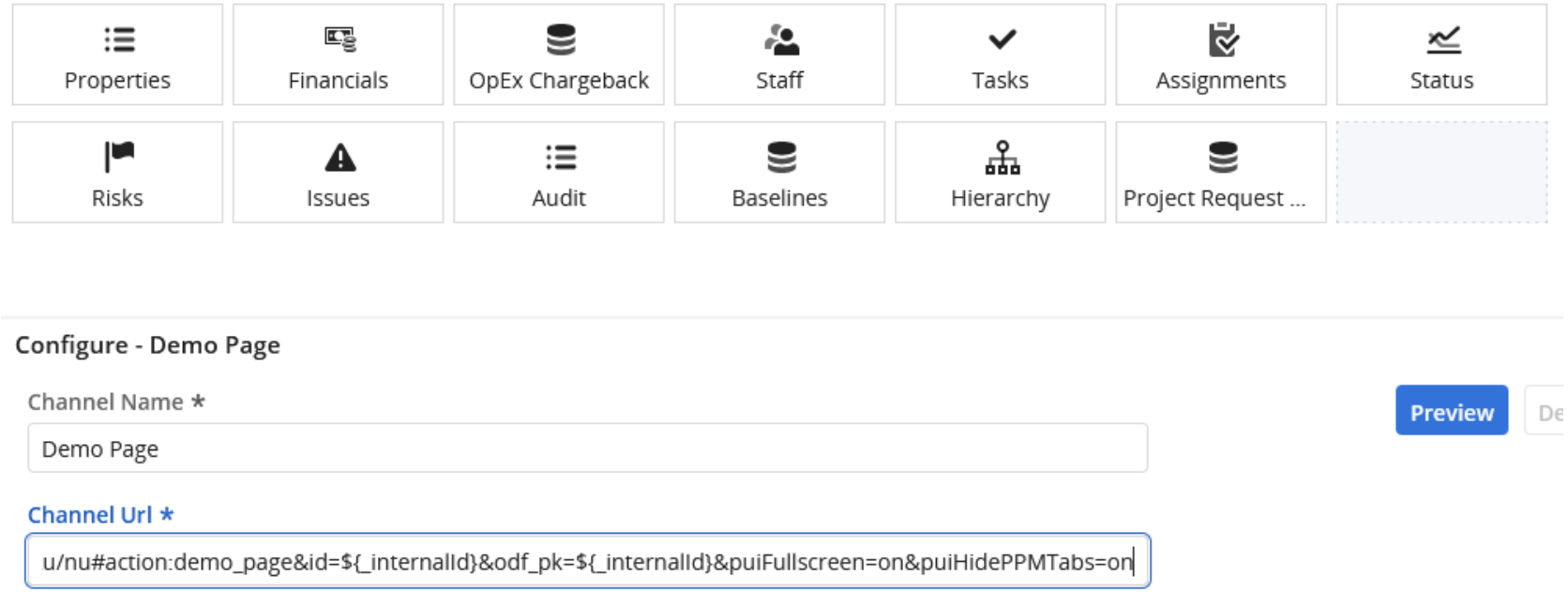




/niku/nu#action:**${page_id}**&puiFullscreen=on&puiHidePPMTabs=on

Portlets in MUX: Modules

- Pages can be accessed in MUX through Channels on Blueprints. On your Object's blueprint (Project)



/niku/nu#action:**demo_page**&id=${_internalId}&odf_pk=${_internalId}&puiFullscreen=on&puiHidePPMTabs=on

Modules

Projects

JF Test PR002275

Demo Page | Properties | Financials | OpEx Chargeback | Staff | Tasks | Assignments | Status | Risks

Demo Page

Demo Portlet

Project Code	Progress	Project ID
PR002275	Started	PR002275
PR002274	Started	PR002274
PR002273	Started	PR002273
PR002272	Started	PR002272
PR002270	Started	PR002270
PR002269	Started	PR002269
PR002268	Started	PR002268
PR002267	Started	PR002267
PR002265	Started	PR002265
PR002263	Started	PR002263
PR002261	Started	PR002261
PR002260	Started	PR002260
PR002259	Started	PR002259
PR002258	Started	PR002258
PR002257	Started	PR002257
PR002255	Started	PR002255
PR002253	Started	PR002253
PR002251	Started	PR002251
PR002250	Started	PR002250
PR002248	Started	PR002248

Page 1 of 102 — Displaying 1 - 20 of 2032

SAVE

Project Costs by Task

There are no items to display

Questions?

regoUniversity

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- **Eligibility**: Open to all Rego University attendees

Important Reminder:

To have your certification **credits tracked**, ensure you **complete the class surveys in the app** after each session. This step is critical for certification progress.

Surveys

Please take a few moments to fill out the class survey.
Your feedback is extremely important for future events.

Thank You for Attending Rego University

Instructions for PMI credits

- Access your account at pmi.org
- Click on **Certifications**
- Click on **Maintain My Certification**
- Click on **Visit CCR's** button under the **Report PDU's**
- Click on **Report PDU's**
- Click on **Course or Training**
- Class Provider = **Rego Consulting**
- Class Name = **regoUniversity**
- Course **Description**
- Date Started = **Today's Date**
- Date Completed = **Today's Date**
- Hours Completed = **1 PDU per hour of class time**
- Training classes = **Technical**
- Click on **I agree** and **Submit**

Let us know how we can improve!
Don't forget to fill out the class survey.

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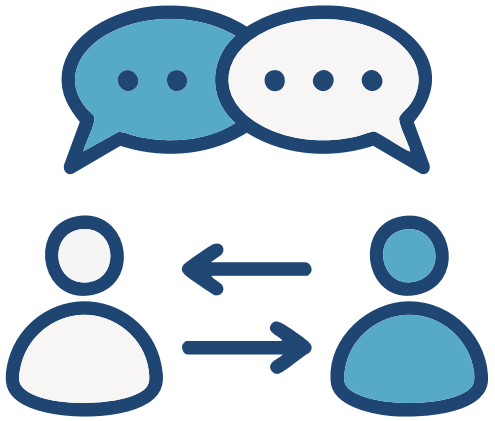
Continue to Get Resources and Stay Connected

1. Use RegoXchange.com for instructions and how-tos.
2. Talk with your account managers and your Rego consultants.
3. Connect with each other and Clarity experts at RegoGroups.com.
4. Sign up for webinars and join in-person Rego groups near you through at RegoConsulting.com
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