

# Lab Guide

## CreatorCon17 Hyderabad: Advanced Service Portal Widget techniques

Dave Slusher

Lab instance: <http://clabs.link/advanced-widget-hyd>

Default Login / Password:

admin / hyd-cc17

itil / hyd-cc17

employee / hyd-cc17

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Page  
Intentionally  
Left  
Blank

# Lab Goal

In this lab we will create a list widget and then we will modify it to load data client side.

## Lab 1.1 Create list widget

### Log on to Your Training Instance.

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials. Include periods at the end of your steps. Exclude the period if a step ends with text the student needs to copy and paste to prevent the period from being grabbed accidentally.

## Create List Widget

1. Navigate to Service Portal > Service Portal Configuration.
2. Select **Widget Editor**
3. Select **Create a new widget**

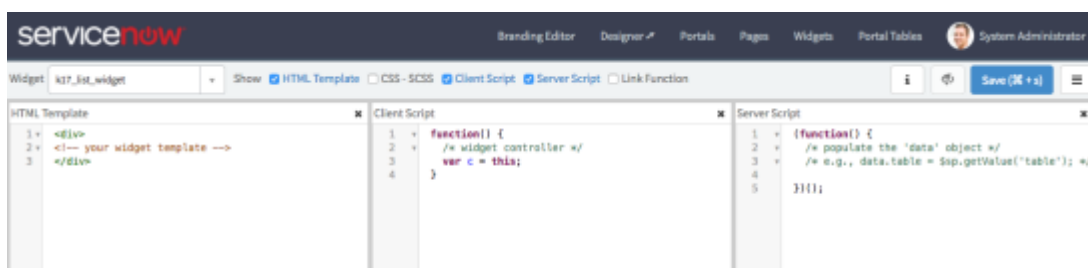


4. Enter the following information:

- Widget Name: k17\_list\_widget
- Widget ID: k17\_list\_widget
- Create Test Page: checked
- Page Id: k17\_list\_widget

5. Click the **Submit** button.

6. Your Screen should look like this



## Enter Widget Information

1. Enter the following information in the Server Script Window:

```
(function () {  
    /* populate the data object */  
    /* e.g., data table = $$.getVal ue('table'); */  
  
    //define the variable to hold our list  
    data list =[];  
  
    // Query the table  
    var gr = new GlideRecord('incident');  
    gr.addQuery('active', true);  
    gr.query()  
    while (gr.next()) {  
        // load values into object  
        var record_obj ={};  
        record_obj.number = gr.number.getDisplayVal ue();  
        record_obj.short_description = gr.short_description.getDisplayVal ue();  
        record_obj.priority = gr.priority.getDisplayVal ue();  
        record_obj.category = gr.category.getDisplayVal ue();  
        //add object to the list  
        data list.push(record_obj);  
    }  
})();
```

2. Enter the following information in the HTML template box

```
<div class="panel panel-default">  
<!-- your widget template -->  
    <div class="panel-heading">  
        K17 List Widget  
    </div>  
    <div class="panel-body">  
        <ul class="list-group">  
            <li class="list-group-item" ng-repeat="item in c.data list">{{item number}} - {{item short_description}} -  
            {{item priority}}</li>  
        </ul>  
    </div>  
</div>
```

3. Click Save

4. Navigate to [your instance] .service-now.com/sp\_config/?id=k17\_list\_widget and check your results

K17 List Widget	
INC0000002 - Unable to get to network file shares - 1 - Critical	
INC0000003 - Wireless access is down in my area - 1 - Critical	
INC0000007 - Need access to sales DB for the West - 1 - Critical	
INC0000015 - I can't launch my VPN client since the last software update - 1 - Critical	
INC0000016 - Rain is leaking on main DNS Server - 1 - Critical	
INC0000017 - How do I create a sub-folder - 1 - Critical	
INC0000018 - Sales forecast spreadsheet is READ ONLY - 1 - Critical	
INC0000019 - Can't launch 64-bit Windows 7 virtual machine - 2 - High	
INC0000020 - I need a replacement iPhone, please - 5 - Planning	
INC0000025 - I need more memory - 1 - Critical	
INC0000027 - Please remove the latest hotfix from my PC - 2 - High	
INC0000029 - I can't get my weather report - 5 - Planning	
INC0000031 - When can we get off Remedy? UI is killing us - 1 - Critical	
INC0000037 - Request for a new service - 3 - Moderate	
INC0000039 - Trouble getting to Oregon mail server - 5 - Planning	
INC0000040 - JavaScript error on hiring page of corporate website - 3 - Moderate	
INC0000041 - My desk phone does not work - 3 - Moderate	
INC0000044 - Can't log into SAP from my laptop today - 2 - High	
INC0000046 - Can't access SFA software - 3 - Moderate	

## Load data client side

1. Navigate back to the widget editor
2. Modify the Server Script to look like this

```
(function() {  
    /* populate the data object */  
    /* e.g., data table = $scope.getVal ue('table'); */  
  
    if(input){  
        //define the variable to hold our list  
        data list =[];  
  
        // Query the table  
        var gr = new GuideRecord('indent');  
        gr.addQuery('active', true);  
        gr.query()  
        while (gr.next()) {  
            //load values into object  
            var record_obj ={};  
            record_obj.number = gr.number.get DisplayVal ue();  
            record_obj.short_descri ption = gr.short_descri ption.get DisplayVal ue();  
            record_obj.priority = gr.priority.get DisplayVal ue();  
            record_obj.category = gr.category.get DisplayVal ue();  
  
            //add object to the list  
            data list.push(record_obj);  
        }  
    }  
})();
```

3. Enter the following information in the Client Script

```
function($scope) {  
    /* widget controller */  
    var c=this;  
    c.data loading =true;  
  
    $scope.server.update().then(function(){  
        c.data loading =false;  
    })  
}
```

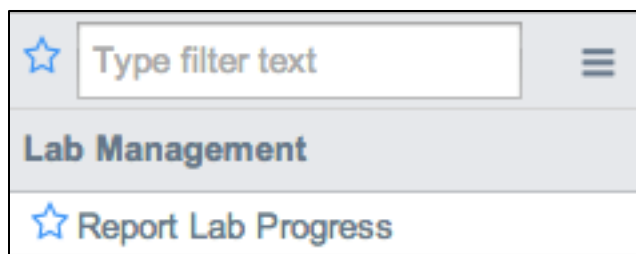
4. Modify the html template to look like this

```
<div class="panel panel-default">
<!-- your widget template -->
<div class="panel-heading">
  K17 List Widget
</div>
<div class="panel-body">
  <span ng-if="catalog.loaded"><i class="fa fa-spinner fa-spin fa-3x fa-fw"></i>
    <span class="sr-only">Loading... </span></span>
  <ul class="list-group">
    <li class="list-group-item" ng-repeat="item in catalog.items">{{item.number}} - {{item.short_description}} -
    {{item.priority}} </li>
  </ul>
</div>
</div>
```

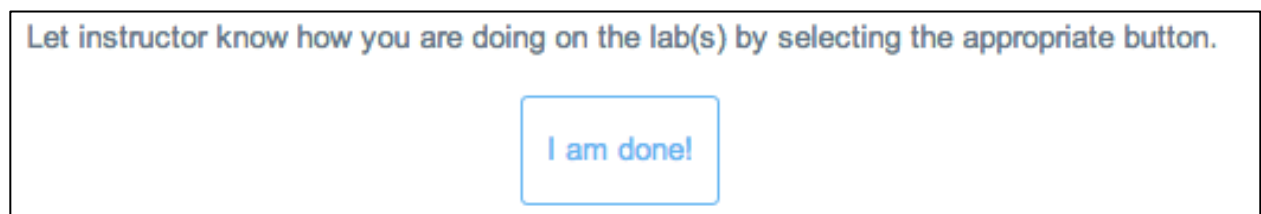
5. Click **Save**
6. Navigate to [your instance] .service-now.com/sp\_config/?id=k17\_list\_widget and check your results

## Progress Report

1. Navigate to Lab Management> Report Lab Progress.



2. Click I am done!





# Lab Goal

In this lab we will modify our list widget to make use of the REST API.

## Lab 2.1 REST API

### Modify List Widget.

1. Navigate to the widget editor and open the k17\_list\_widget.
2. Modify the Server Script to look like this

```
(function() {  
    /* populate the data object */  
    /* e.g., data.table = $sp.getValue('table'); */  
  
})();
```

3. Modify the Client Script to look like this:

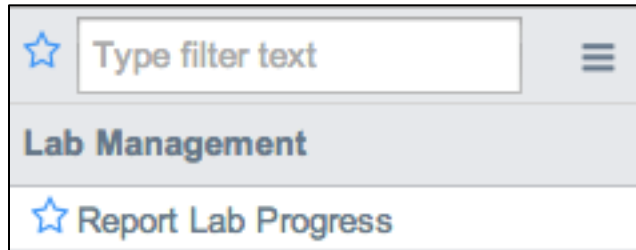
```
function($scope, $http) {  
    /* widget controller */  
    var c=this;  
    c.dataLoading = true;  
  
    $http.get('/api/now/table/indent?sysparm_query=active%3Dtrue').success(function(response){  
        c.dataLoading=false;  
        c.dataList = response.result;  
    })  
}
```

4. Click **Save**

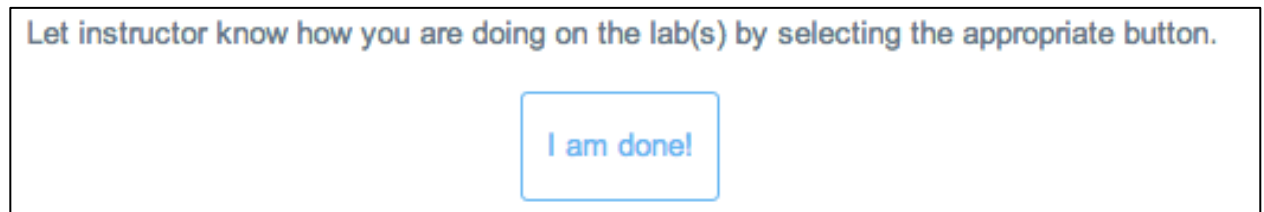
5. Navigate to [your instance] .service-now.com/sp\_config/?id=k17\_list\_widget and check your results

## Progress Report

1. Navigate to **Lab Management**> **Report Lab Progress**.



2. Click I am done!



# Lab Goal

In this lab we create 2 ng templates to be used by our widgets

## Lab 3.1 NG Template

### Create Templates.

1. Navigate to Service Portal > Widgets
2. Open the k17\_list\_widget.
3. Scroll to the bottom and select the Angular **ng-templates tab**
4. Click **New**
5. Enter the following information
  - ID: task-priority
  - Template:

```
<span>{{itemnumber}} - {{itemshort_description}} - {{itempriority}} </span>
```

6. Click Submit
7. Scroll to the bottom and select the Angular **ng-templates tab**
8. Click **New**

9. Enter the following information

- ID: task-category
- Template:

```
<span>{{itemnumber}} - {{itemshort_description}} - {{itemcategory}}</span>
```

10. Click **Submit**

## Update List widget

1. Open the k17\_list\_widget using the widget editor
2. Modify the HTML template to look like this

```
<div class="panel panel-default">
<!-- your widget template -->
<div class="panel-heading">
  K17 List Widget
</div>
<div class="panel-body">
  <span ng-if="catalogloading"><i class="fa fa-spinner fa-spin fa-3x fa-fw"></i>
    <span class="sr-only">Loading...</span></span>
  <ul class="list-group">
    <li class="list-group-item" ng-repeat="item in cataloglist" ng-include="task-category"></li>
  </ul>
</div>
</div>
```

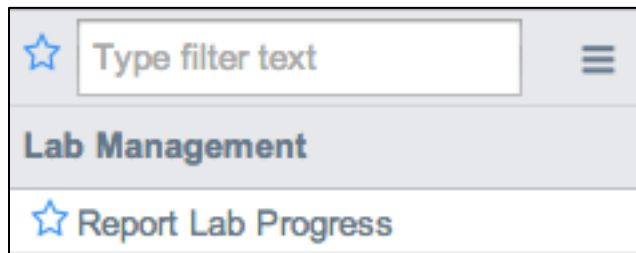
3. Click **Save**

4. Navigate to [your instance] .service-now.com/sp\_config/?id=k17\_list\_widget and check your results

K17 List Widget	
INC0000002	Unable to get to network file shares - network
INC0000003	Wireless access is down in my area - network
INC0000007	Need access to sales DB for the West - database
INC0000015	Can't connect to my VPN client since the last software update - software
INC0000016	Rain is leaking on main DNS Server - hardware
INC0000017	How do I create a sub-folder - inquiry
INC0000018	Sales forecast spreadsheet is READ ONLY -
INC0000019	Can't launch 64-bit Windows 7 virtual machine - software
INC0000020	I need a replacement iPhone, please - inquiry
INC0000025	I need more memory - hardware
INC0000027	Please remove the latest hotfix from my PC - software
INC0000029	I can't get my weather report - inquiry

## Progress Report

1. Navigate to **Lab Management> Report Lab Progress**.



2. Click I am done!

Let instructor know how you are doing on the lab(s) by selecting the appropriate button.

# Lab Goal

In this lab we will define options for our widget

## Lab 4.1 Widget Options


### Add out of box options

1. Navigate to Service Portal > Widgets
2. Open the k17\_list\_widget.
3. Click on the lock icon next the **Fields** field
4. Add the following fields:
  - Title
  - Bootstrap Color
5. Click **Update**

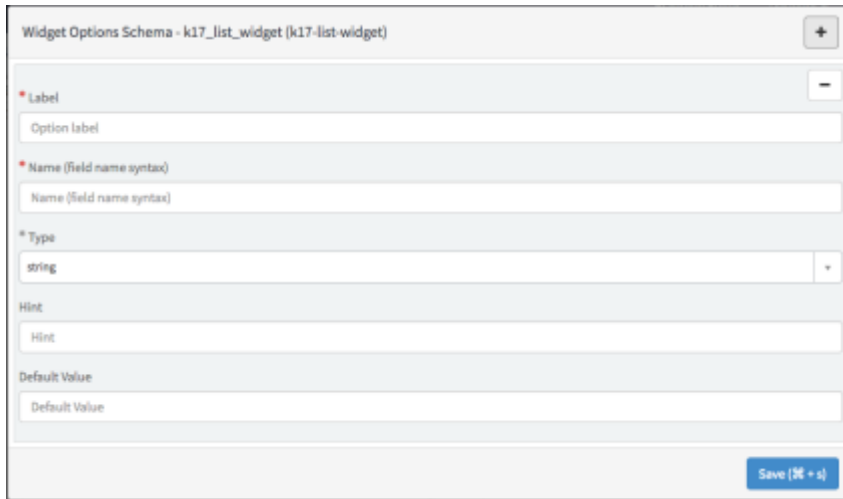
### Modify list widget

1. Open the k17\_list\_widget using the widget editor.  
NOTE: If you had the editor open, refresh it before continuing.




2. Click on the  icon in the top right corner
3. Select Edit Option Schema

4. Click on the  icon in the top right corner on of the modal window




5. Enter the following information

- Label: Table
- Name: table
- Type: String
- Default Value: incident

6. Click on the  icon in the top right corner on of the modal window

7. Enter the following information

- Label: Query
- Name: query
- Type:string
- Default Value: leave empty

8. Click on the  icon in the top right corner on of the modal window

9. Enter the following information

- Label: Template
- Name: template
- Type:string
- Default Value: leave empty

10. Click **Save**

11. Modify Client Script to look like this

```
function($scope,$http) {  
  /* widget controller */  
  var c=this;  
  c.dataLoading=true;  
  c.dataTable=c.options.table||"indent";  
  c.dataQuery=c.options.query||"";  
  c.dataTemplate=c.options.template||"task-category";  
  $http.get('/api/now/table'+c.dataTable+'?sysparm_query='+c.dataQuery).success(function(response){  
    c.dataLoading=false;  
    c.dataList=response.result;  
  })  
}
```

12. Modify HTML Template to look like this

```
<div class="panel panel-{{c.options.color}}">  
<!-- your widget template -->  
  <div class="panel-heading">  
    {{c.options.title}}  
  </div>  
  <div class="panel-body">  
    <span ng-if="c.dataLoading"><div class="fa fa-spinner fa-spin fa-3x fa-fw"></div>  
    <span class="sr-only">Loading... </span></span></div>  
    <ul class="list-group">  
      <li class="list-group-item" ng-repeat="item in c.dataList" ng-include="c.dataTemplate"></li>  
    </ul>  
  </div>  
</div>
```

13. Click **Save**

14. Navigate to [your instance].service-now.com/sp\_config/?id=k17\_list\_widget


15. Press **“Control” right click** on top of your widget


16. Select Instance Options



'k17\_list\_widget' generated in : 0.003

Instance Options

Instance in Page Editor 

Page in Designer 


---

Edit Container Background

---

Widget Options Schema

Widget in Form Modal

Widget in Editor 

---

Log to console: \$scope.data

Log to console: \$scope

17. Enter the following information

K17 List Widget

Title

K17 List Widget

Bootstrap color

Primary

Table

change\_request

Query

priority=1

template

Save (36 + 4)

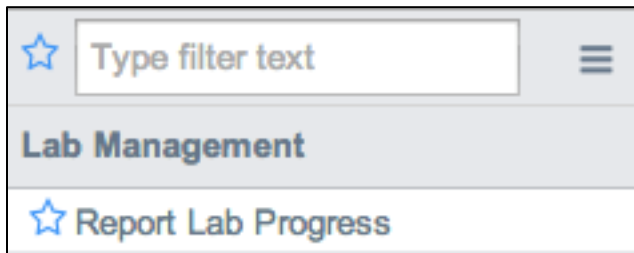
18. Click **Save**

19. Check your results

K17 List Widget	
CHG0000003 - Roll back Windows SP2 patch - Software	
CHG0000008 - Install new Cisco - Hardware	
CHG0000009 - Apply patches 10.2.0.1 to 10.2.0.3 - Software	
CHG0001007 - Physical breach of office - Other	
CHG0001012 - unauthorized data export - Other	
CHG0001023 - Possible "Deep Panda" IOC - Other	
CHG0001025 - Active attack on vulnerability - Other	

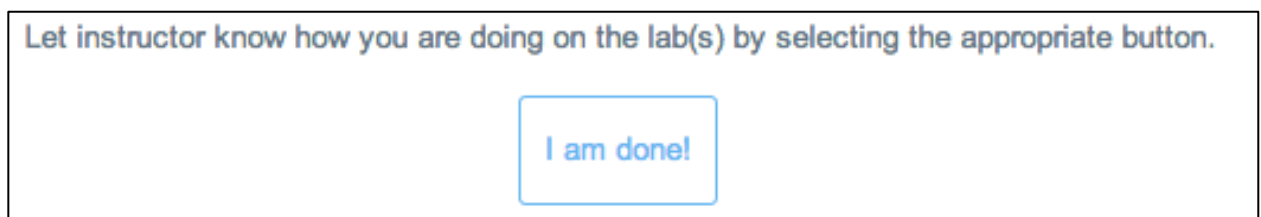
## Progress Report

1. Navigate to **Lab Management**> **Report Lab Progress**.



A screenshot of a navigation menu. At the top is a search bar with a blue star icon on the left, the placeholder text "Type filter text" in the center, and a blue hamburger menu icon on the right. Below the search bar is a grey bar with the text "Lab Management" in bold. Below that is a white bar with a blue star icon and the text "Report Lab Progress".

2. Click I am done!



A screenshot of a form titled "Report Lab Progress". At the top, it says "Let instructor know how you are doing on the lab(s) by selecting the appropriate button." Below this text is a large, empty rectangular box. In the bottom right corner of this box is a blue button with the text "I am done!" in white.

# Lab Goal

In this lab we will create a record watcher so our widget is automatically updated without having to refresh the page

## Lab 5.1 Record Watchers

### Set up record watcher

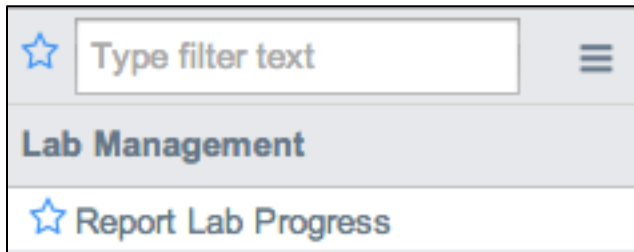
1. Open the k17\_list\_widget using the widget editor.
2. Modify the Client Script to look like this:

```
function($scope,$http,snRecordWatcher) {  
    /* widget controller */  
    var c=this;  
    c.dataLoading=true;  
    c.dataTable=c.options.table||"incident";  
    c.dataQuery=c.options.query||"";  
    c.dataTemplate=c.options.template||"task-category";  
    function getDat() {  
        $http.get('/api/now/table/'+c.dataTable+'?sysparm_query='+c.dataQuery).success(function(response){  
            c.dataLoading=false;  
            c.dataList=response.result;  
        })  
    }  
    getDat();  
  
    snRecordWatcher.initList(c.dataTable,c.dataQuery);  
    $scope.$on('record updated',function(name, data) {  
        getDat();  
    });  
}
```

3. Click **Save**
4. Navigate to [your instance].service-now.com/sp\_config/?id=k17\_list\_widget
5. How Many Changes are displayed?
6. Open a new window and open a new critical priority change request.
7. Go back to your widget window, is the new change request now showing?

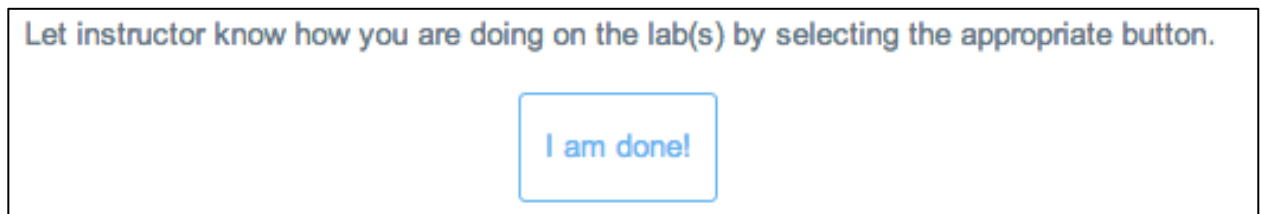
## Progress Report

1. Navigate to **Lab Management> Report Lab Progress**.



A screenshot of a navigation menu. At the top, there is a search bar with a blue star icon on the left, the placeholder text "Type filter text" in the center, and a blue hamburger menu icon on the right. Below the search bar, the menu is divided into two sections. The first section has a grey background and contains the text "Lab Management" in bold. The second section has a white background and contains a blue star icon followed by the text "Report Lab Progress".

2. Click I am done!



A screenshot of a form area. At the top, there is a blue instruction text: "Let instructor know how you are doing on the lab(s) by selecting the appropriate button." Below this text, centered, is a blue button with the text "I am done!" in white.

# Lab Goal

In this lab we will modify our widget to broadcast an event and have another widget receive that event.

## Lab 6.1 Broadcast events

### Set up event

1. Open the k17\_list\_widget using the widget editor.
2. Modify the Client Script to look like this:

```
function($scope,$http,$rootScope,$rootScope) {  
  /* widget controller */  
  var c=this;  
  c.dataLoading=true;  
  c.dataTable=c.options.table||"indent";  
  c.dataQuery=c.options.query||"";  
  c.dataTemplate=c.options.template||"task-category";  
  function getDat a(){  
    $http.get('/api/now/table'+c.dataTable+'?sysparm_query='+c.dataQuery).success(function(response){  
      c.dataLoading=false;  
      c.dataList=response.result;  
      $rootScope.$broadcast("K17ListWidgetUpdated",c.dataList);  
    })  
  }  
  getDat a();  
  
  $rootScope.$on('recordUpdated',function(name,data){  
    getDat a();  
  });  
}
```

3. Click **Save**

4. Click 

5. Select Create New Widget

6. Enter the following information:

- Widget Name: k17\_count\_display\_widget
- Widget ID: k17\_count\_display\_widget

7. Click Submit

8. Enter the following code in the HTML Template Field:

```
<div>
<!-- your widget template -->
<h2 class="jumbotron">
  Total Records: {{c.data.count}}
</h2>
</div>
```

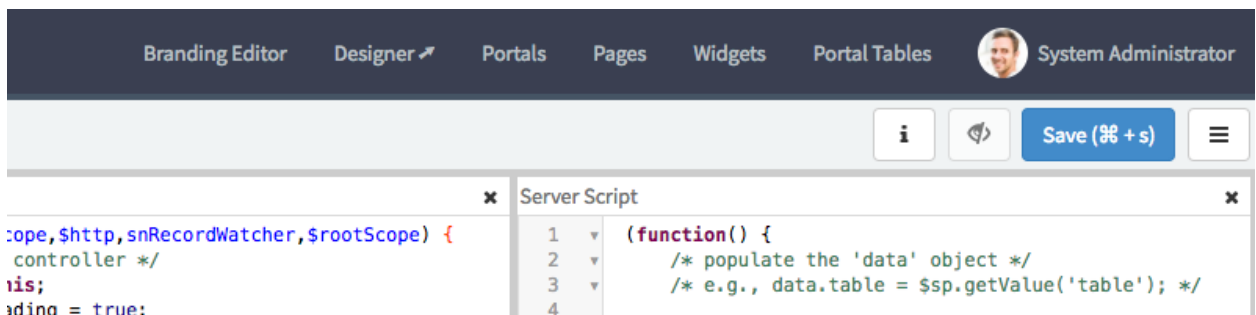
9. Enter the following code in the Client Script field:

```
function($scope) {
  /* widget controller */
  var c=this;
  c.data.count = 0;

  $scope.$on("K17ListWidgetUpdated",function(evt,results){
    console.log(results);
    c.data.count =results.length;
  })
}
```

10. Click **Save**

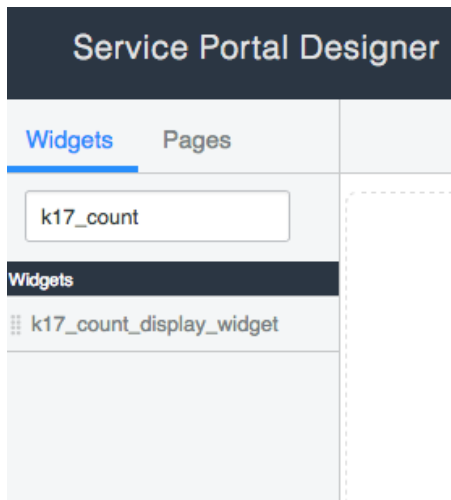
11. Click on the **Designer** Option in widget header menu



12. Use the filter to look for k17\_list\_widget Test Page

13. Select the Page

14. Use the filter to search for k17\_count\_display\_widget



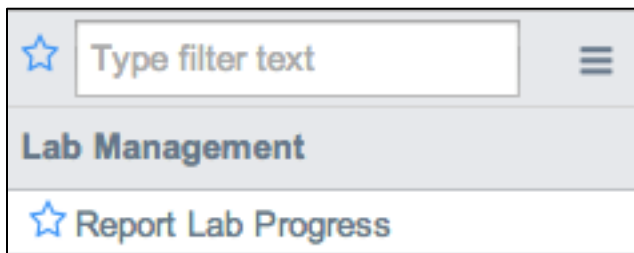
15. Drag and drop k17\_count\_display\_widget above the k17 List Widget

16. Navigate to [your instance] .service-now.com/sp\_config/?id=k17\_list\_widget

17. Is the count of records populating?

## Progress Report

1. Navigate to **Lab Management**> **Report Lab Progress**.



2. Click I am done!

