Angular JS Custom Directive for Button

(Reusable component for all the projects)

VERSION CONTROL

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VERSION HISTORY

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5/11/2015	0.1	Kumar Sahoo, Srikant	Initial Draft Version
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1. INTRODUCTION TO ANGULAR JS CUSTOM DIRECTIVE FOR BUTTON

1 INTRODUCTION

Custom directives are used in AngularJS to extend the functionality of HTML. Custom directives are defined using "directive" function. A custom directive simply replaces the element for which it is activated.

AngularJS application during bootstrap finds the matching elements and do one time activity using its compile () method of the custom directive then process the element using link () method of the custom directive based on the scope of the directive.

Directives are markers on a DOM element (such as an attribute, element name, comment or CSS class) that tell AngularJS's HTML compiler ($compile) to attach a specified behaviour to that DOM element (e.g. via event listeners), or even to transform the DOM element and its children.

- ProjectNamebutton is a custom directive used to do specific action in page.

1.1 PURPOSE

- The projectNamebutton is mostly used for submit form action and for navigation to pages.

1.2 SUPPORTING ELEMENTS BY ANGULAR JS TO CREATE DIRECTIVE FOR GRID

- **Element directives** − Directive activates when a matching element is encountered.
- **Attribute** − Directive activates when a matching attribute is encountered.
- **CSS** − Directive activates when a matching css style is encountered.
- **Comment** − Directive activates when a matching comment is encountered.

1.3 INTENDED AUDIENCE

- General Users who use the application:
  - ✓ General users will use the projectNameButton to do specific action in page.
- UI Developers:
  - ✓ UI Developers who want to work on refining or adding new functionalities to the directive will be able to understand the basic logic and mechanisms very swiftly upon referring this document.

1.4 DEFINING A DIRECTIVE

This section lists simple steps to define a custom directive in an AngularJS module. First, we need to define an Angular app.

var myApp = angular.module('myApp', []);

Now, define a directive.

```
myApp.directive('myDirective', function() {
   return {
      restrict: 'E',
template: '<h1>I made a directive!</h1>'
   };
});
```

This defines a directive. restrict: 'E' means "restrict the usage of this directive to only Elements." Thus we embed this directive in the HTML page as

```
<body ng-app="myApp">
   <my-directive></my-directive>
</body>
```

This code piece is equivalent to

```
<body ng-app="myApp">
   <h1>I made a directive!</h1>
</body>
```

Note that AngularJS maps the naming conventions from HTML's **my-directive** to JavaScript"s **myDirective**

1.5 SAMPLE CODE

1.5.1 ANGULAR DIRECTIVE CODE

```
(function () {
    angular.module('projecctNameUI.common.<projectName>Form').directive('<projectName>DynamicAttrButton', <projectName>DynamicAttrButton);
    /* @ngInject */
    function <projectName>DynamicAttrButton($compile){

        //var template = '<button ng-class="itemInfo.class" ng-disabled="{{condition}}||btnDisabled" ng-model="dataJSON[itemInfo.name]">


        var directive =     {
            restrict: 'E',
            templateUrl:'<projectName>Button.html',
            scope:{
                configJSON:'=configjson',
                click:'&',
                disabledfield:'@',
                show: '@',
            },
            require: ['?^form','?^<projectName>DynamicAttrGridUi'],
            link:function(scope,element,attrs,ctrl) {
            };
        return directive;
    }
})();
```

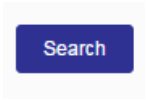
1.5.2 HTML VIEW CODE

```
<button ng-class="itemInfo.class" name="{{attrName}}" ng-disabled="condition" ng-model="model[itemInfo.name]"
        tooltip-enable="{{itemInfo.tooltip.showTooltip}}"
        uib-tooltip="{{displayTooltip}}"
        tooltip-trigger="mouseenter"
        tooltip-placement="{{itemInfo.tooltip.placement}}"
        ng-click="clickFunc()" ng-show="definedButtonShow">{{itemInfo.label}}
</button>
<span class="help-block" ng-if="itemInfo.desc">{{itemInfo.desc}}</span>
```

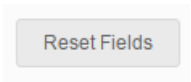
2. BUTTON DIRECTIVE INFORMATION USING ANGULAR JS

2.1 VIEW

Primary Button



Secondary Button



2.2 GENERAL INFORMATION ABOUT THE DIRECTIVE

- **Directive Name:**
  projectName-dynamic-attr-button

- **Directive Type:**
  Button Level Directive

- **Attributes:**

  Mandatory Attributes:
  Add configjson="configJSON" click="functionName" this at the time of directive implementation
  Example:

  <projectName-dynamic-attr-button field="Submit" configjson="configJSON" click="$eval(configJSON['Submit'].link)">

  Or

  <projectName-dynamic-attr-button field="Submit" configjson="configJSON" click="Submit()" />

  Optional Attributes:

1. **disabledfield** :- Need to implement **when the requirement is to Enable the button after the form becomes dirty** . (disabledfield=true) .

Ex:- <**projectName-dynamic-attr-button** field=”Submit” configjson="configJSON" click="$eval(configJSON['Submit'].link)" disabledfield=”true” />

2. **show**:-Need to implement **When to show and hide the button depending on the value in the controller**.(show=valueInController).
   Ex:- <**projectName-dynamic-attr-button** field=”Submit” configjson="configJSON" click="$eval(configJSON['Submit'].link)" disabledfield=”true” show=”{{showButton}}” />

3. **Model**:-Need to implement **when model is required to implement**.
   Ex:- <**projectName-dynamic-attr-button** field=”Submit” configjson="configJSON" click="$eval(configJSON['Submit'].link)" disabledfield=”true” show=”{{showButton}}” model=”ModelName” />

2.3 DB JSON OBJECT STRUCTURE

```
"Submit" : {
        "type" : "button",
        "label" : "Submit",
        "name" : "Submit",
        "class" : "btn_primary",
        "show" : true,
        "link" : "submit()"
    },
```

2.4 JSON OBJECT VARIABLE DETAILS

Variable Name	Accepts type	Explanation
type	button	Directive Type "projectNamebutton"
label	String	
name	String	Used in view page
Class	String	Primary or secondary
show	Boolean	Display or hide
Link	String	Function name

2.5 CURRENT ISSUES AND ADDRESSES

- All Console.log ( ) usages have been removed from the directive.
- HTML view and the Directive have been separated.
- Unused scope variables have been removed.