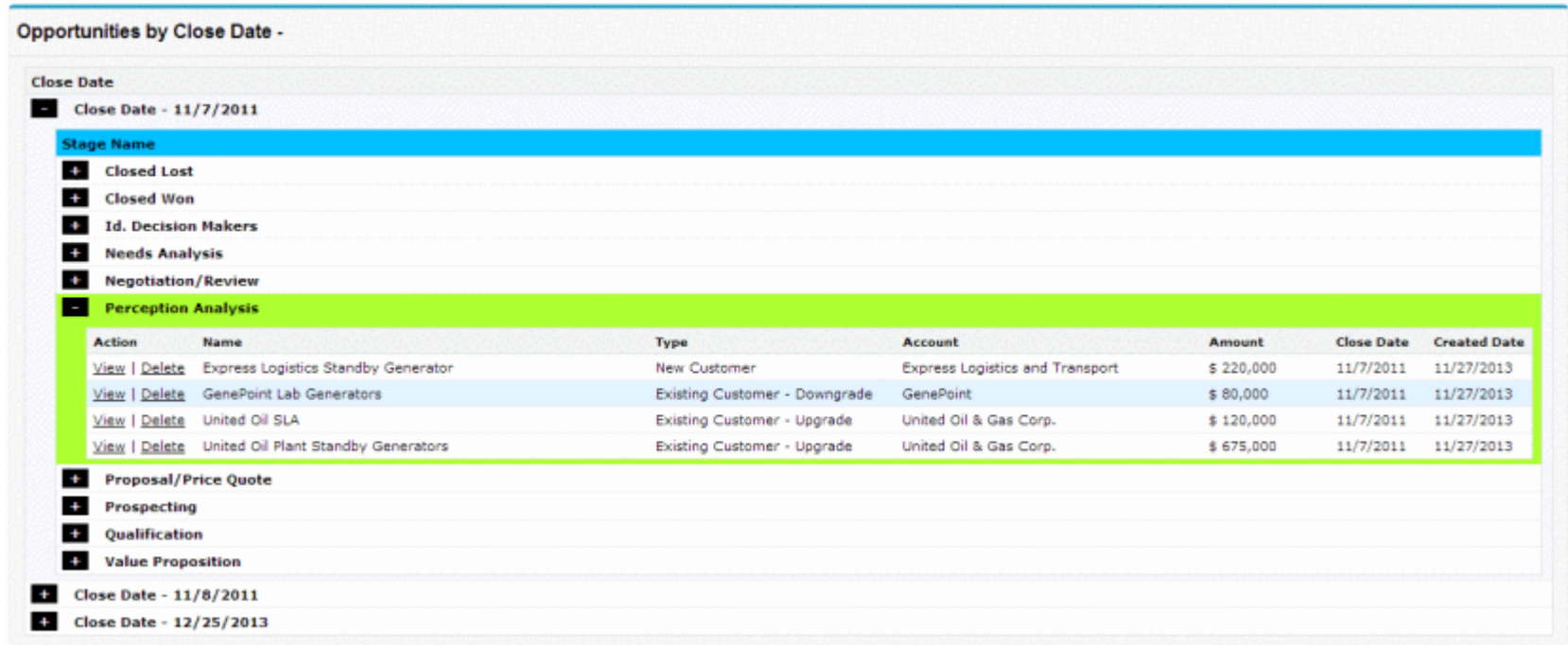# CREATING SIMPLE TREE VIEW IN VISUALFORCE



## PREFACE

Recently I had a requirement where one of my client wanted a Tree view for their data. For this I suggested them jQuery Tree plugins like jsTree, jQuery Treeview Plugin etc. But She wanted its look should be like and matching with Standard Salesforce View. So I created a tree view similar to this for her. Here I have shown a demo. You can view the **Live Demo here**.

## OVERVIEW

Here I have created a tree view with Opportunity records, Separated them by **Close Date** for First depth and than By their **Stage name** for second depth. For building this view I used Standard Salesforce <apex:pageBlockTable> component and Some Jquery to make it as Tree view and for some color effect there.

Here is the code for Apex Controller class to get Opportunity records:

OpportunityTreeViewController.cls

```
1   /*
2   *    Name    : OpportunityTreeViewController.cls
3   *    Author  : Govind Thathera
4   */
5
6   public class OpportunityTreeViewController{
7
8       public Map<String, Map<String, List<Opportunity>>> mapOpportunities{get;set;}
9
10      // Get opportunity records - Calling it a page action attribute.
11      public void fetchOpportunites(){
12
13          mapOpportunities = new Map<String, Map<String, List<Opportunity>>>();
14
15          for(Opportunity oppRecord : [Select o.Type, o.StageName, o.OwnerId, o.Name, o.IsWon, o.IsClosed, o.Id, o.Description,
16                              o.CreatedDate, o.CreatedById, o.CloseDate, o.Amount, o.AccountId, o.Account.Name
17                              From Opportunity o
18                              WHERE StageName in:getOpportunityStages() order by o.CloseDate Desc]){
19
20              String closeDate = oppRecord.CloseDate.format();
21              if(mapOpportunities.get(closeDate) != null){
22                  if(mapOpportunities.get(closeDate).get(oppRecord.StageName) != null)
23                      mapOpportunities.get(closeDate).get(oppRecord.StageName).add(oppRecord);
24                  else
25                      mapOpportunities.get(closeDate).put(oppRecord.StageName, new List<Opportunity>{oppRecord});
26              }
27              else{
28                  mapOpportunities.put(closeDate, new Map<String, List<Opportunity>>{oppRecord.StageName => new List<Opportunity>{oppRecord}});
29              }
30          }
31      }
32
33      // Get List of Stage names of Opportunity.
34      private static List<String> getOpportunityStages(){
35          List<String> stages = new List<String>();
36          // Get DescribeFieldResult for Opportunity StageName picklist.
37          Schema.DescribeFieldResult fieldResult = Opportunity.StageName.getDescribe();
38          List<Schema.PicklistEntry> ple = fieldResult.getPicklistValues();
39
40          for( Schema.PicklistEntry f : ple){
41              stages.add(f.getLabel()); // Add Stage Name to list.
42          }
43          return stages; // Return all Stages.
44      }
45  }
```

Here is the code for Visualforce page where I'm iterating this Map using <apex:pageBlockTable> component and applied some jquery there:

OpportunityTreeView.page

```
1   <apex:page controller="OpportunityTreeViewController" action="{!fetchOpportunites}" id="pg">
2       <style>
3           .sign-class{
4               font-size: 12px;
5               font-weight: 700;
6               padding: 0px 5px;
7               margin-right: 10px;
8               border: 1px solid black;
9               background: black;
```

```
10              color: whitesmoke;
11              margin-bottom:10px;
12              cursor:pointer;
13          }
14          .pbBody table.list tr.dataRow td {
15              font-family: verdana;
16              font-weight: normal;
17          }
18      </style>
19
20      <apex:form id="frm">
21          <apex:pageBlock id="pb1" title="Opportunities by Close Date -">
22              <apex:variable value="{!0}" var="dateIndex"/>
23              <apex:pageBlockTable value="{!mapOpportunities}" var="dateKey" id="dateTable">
24                  <apex:column style="color: #000;font-size: 11px;font-family:verdana;font-weight: bold;">
25                      <apex:facet name="header">
26                          <span style="color: #000;font-size: 11px;font-family:verdana;font-weight: bold;">
27                              Close Date
28                          </span>
29                      </apex:facet>
30                      <span id="date-sign-{!dateIndex}" class="sign-class" onclick="toggleDateTable('{!dateIndex}');">+</span>
31                      <span style="color: #000;font-size: 11px;font-family:verdana;font-weight: bold;">
32                          Close Date - {!dateKey}
33                      </span>
34                      <apex:variable value="{!0}" var="stageIndex"/>
35                      <apex:pageBlockTable value="{!mapOpportunities[dateKey]}" var="stageKey" id="stageTable" style="display:none;margin-top:10px;margin-left:20px;width:98%;">
36                          <apex:column style="color: #000;font-size: 11px;font-family:verdana;font-weight: bold;">
37                              <apex:facet name="header">
38                                  <span style="color: #000;font-size: 11px;font-family:verdana;font-weight: bold;">
39                                      Stage Name
40                                  </span>
41                              </apex:facet>
42                              <span id="stage-sign-{!dateIndex}-{!stageIndex}" class="sign-class" onclick="toggleStagesTable('{!dateIndex}','{!stageIndex}');">+</span>
43                              <span style="color: #000;font-size: 11px;font-family:verdana;font-weight: bold;">
44                                  {!stageKey}
45                              </span>
46                              <apex:variable value="{!0}" var="recordIndex"/>
47                              <apex:pageBlockTable value="{!mapOpportunities[dateKey][stageKey]}" var="oppRecord" id="opportunityTable" style="margin-top:10px;margin-left:20px;width:98%;display:none;">
48                                  <apex:column headerValue="Action" style="width: 85px;">
49                                      <apex:outputLink value="javascript:void(0);" target="_Blank">View</apex:outputLink> | 
50                                      <apex:outputLink value="javascript:void(0);" target="_Blank">Delete</apex:outputLink>
51                                  </apex:column>
52                                  <apex:column headerValue="Name" value="{!oppRecord.Name}"/>
53                                  <apex:column headerValue="Type" value="{!oppRecord.Type}" style="width: 200px;"/>
54                                  <apex:column headerValue="Account" value="{!oppRecord.Account.Name}" style="width: 250px;"/>
55                                  <apex:column headerValue="Amount" style="width: 100px;">
56                                      <apex:outputText value="$ {0, number,###,###,###}">
57                                          <apex:param value="{!oppRecord.Amount}"/>
58                                      </apex:outputText>
59                                  </apex:column>
60                                  <apex:column headerValue="Close Date" value="{!oppRecord.CloseDate}" style="width: 75px;"/>
61                                  <apex:column headerValue="Created Date" style="width:80px">
62                                      <apex:outputText value="{0, date,MM/dd/yyyy}">
63                                          <apex:param value="{!oppRecord.CreatedDate}"/>
64                                      </apex:outputText>
65                                      <apex:variable value="{!recordIndex+1}" var="recordIndex"/>
66                                  </apex:column>
67                              </apex:pageBlockTable>
68                              <apex:variable value="{!stageIndex+1}" var="stageIndex"/>
69                          </apex:column>
70                      </apex:pageBlockTable>
71                      <apex:variable value="{!dateIndex+1}" var="dateIndex"/>
72                  </apex:column>
73              </apex:pageBlockTable>
74          </apex:pageBlock>
75      </apex:form>
76
77      <!-- Script Part -->
78      <script src="//code.jquery.com/jquery-1.10.2.min.js"/>
79      <script>
80          $(document).ready(function(){
81              $(esc('pg:frm:pb1:dateTable:tb')+" > tr").attr("onmouseover","");
82              $("[id$='stageTable:tb'] > tr").attr("onmouseover","");
83              $(esc('pg:frm:pb1:dateTable:tb')+" > tr > td").hover(function(){$(this).css("background-color","ghostwhite");}, function(){$(this).css("background-color","white");});
84              $("[id$='stageTable:tb'] > tr > td").hover(function(){$(this).css("background-color","greenyellow");}, function(){$(this).css("background-color","white");});
85              $("[id$='stageTable'] > thead .headerRow").css("background-color","deepskyblue");
86          });
87
88          function toggleDateTable(index){
89              var signtext = $("#date-sign-"+index).text();
90              var tableId = 'pg:frm:pb1:dateTable:'+index+':stageTable';
91              if(signtext == '+'){
92                  $("#date-sign-"+index).text('-').css("padding", " 0px 7px");
93                  $(esc(tableId)).show();
94              }
95              else{
96                  $("#date-sign-"+index).text('+').css("padding", " 0px 5px");
97                  $(esc(tableId)).hide();
```

```
 98                   }
 99              }
100
101         function toggleStagesTable(rootindex, childindex){
102             var signtext = $("#stage-sign-"+rootindex+"-"+childindex).text();  //address-sign-index-addIndex
103             var tableId = 'pg:frm:pb1:dateTable:'+rootindex+':stageTable:'+childindex+':opportunityTable';
104             if(signtext == '+'){
105                 $("#stage-sign-"+rootindex+"-"+childindex).text('-').css("padding", " 0px 7px");
106                 $(esc(tableId)).show();
107             }
108             else{
109                 $("#stage-sign-"+rootindex+"-"+childindex).text('+').css("padding", " 0px 5px");
110                 $(esc(tableId)).hide();
111             }
112         }
113
114         function esc(myid) {
115             return '#' + myid.replace(/(:|\.)/g,'\\\$1');
116         }
117
118     </script>
119 </apex:page>
```