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## DHTMLX Grid

**Day 9 : Wednesday**

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- What is dhtmlx grid ?
- Initialization
- Control
- Data Manipulation
- Sample Examples

### **what is dhtmlx grid ?**

dhtmlxGrid is a flexible, smart, and easy to use JavaScript grid component allowing to create DHTML tables with rich in-cell editing, fixed multi-line headers and footers, resizable, sortable, and draggable columns, built-in filtering, searching, and grouping capabilities. dhtmlxGrid possesses advanced drag-and-drop, dynamical loading, customizable view, a set of predefined cell editors, and many other capabilities that make it fully-featured aid for developers. Complete JavaScript API is provided to help users to save time on configuring.

### **Initialization**

There are three ways to initialize the dhtmlx grid.

- Initialization by script
- Initialization from XML
- Initialization from HTML

#### **Initialization by script**

- Initialization of dhtmlxGrid
- Column Types/Editors , which Can Be Used in Grid
- Defining Header Structure
- Active Content in Header

#### **Initialization from XML**

- Configuration via XML

- Loading Hidden Data in Grid

## Initialization from HTML

- Initialization from HTML

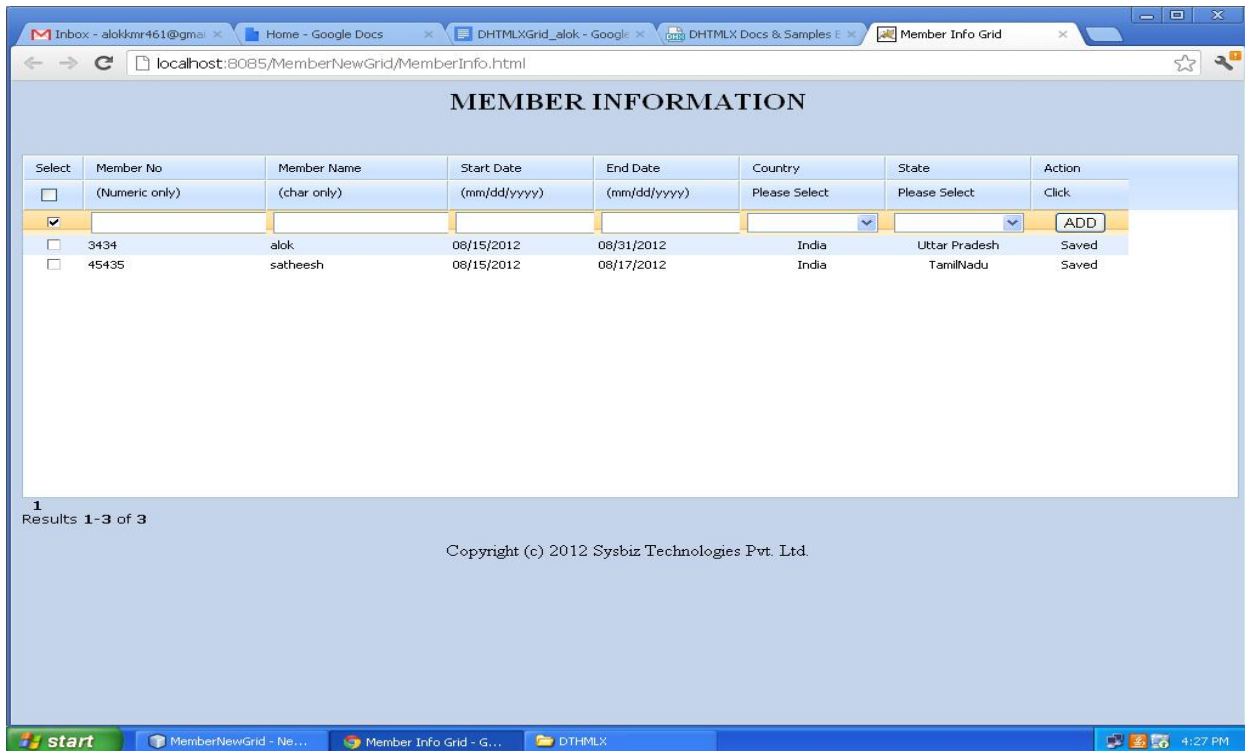
## Control

- Rows Manipulation
- Columns Manipulation
- Cells Manipulation
- Selection in Grid
- Navigation in Grid

## Data Manipulation

- In-Grid Sorting
- Filtering in Grid
- Searching
- Iterating through grid
- Drag-and-Drop
- Drag and Drop in-Deep

## Sample Examples:



The screenshot displays a web browser window with the URL `localhost:8085/MemberNewGrid/MemberInfo.html`. The page title is "MEMBER INFORMATION". Below the title is a table with the following structure:

Select	Member No	Member Name	Start Date	End Date	Country	State	Action
<input type="checkbox"/>	(Numeric only)	(char only)	(mm/dd/yyyy)	(mm/dd/yyyy)	Please Select	Please Select	Click
<input checked="" type="checkbox"/>							ADD
<input type="checkbox"/>	3434	alok	08/15/2012	08/31/2012	India	Uttar Pradesh	Saved
<input type="checkbox"/>	45435	satheesh	08/15/2012	08/17/2012	India	TamilNadu	Saved

At the bottom of the grid, it shows "1 Results 1-3 of 3". Below the grid, there is a copyright notice: "Copyright (c) 2012 Sysbiz Technologies Pvt. Ltd." The browser's taskbar at the bottom shows the Windows start button and several open applications, including "MemberNewGrid - Ne...", "Member Info Grid - G...", and "DTHMLX". The system clock shows "4:27 PM".

## Source Code:

### MemberInfo.html

```

<html>
  <head>
    <title>Member Info Grid</title>
    <h2> <center>MEMBER INFORMATION</center></h2></br>
    <link rel="STYLESHEET" type="text/css" href="codebase/dhtmlxgrid.css">
      <link rel="stylesheet" type="text/css"
href="codebase/skins/dhtmlxgrid_dhx_skyblue.css">
      <link rel="STYLESHEET" type="text/css"
href="dhtmlxCombo/codebase/dhtmlxcombo.css">
      <link rel="stylesheet" type="text/css" href="codebase/skins/dhtmlxgrid_dhx_web.css">
      <link rel="stylesheet" type="text/css"
href="dhtmlxCalendar/codebase/dhtmlxcalendar.css">
      <link rel="stylesheet" type="text/css"
href="dhtmlxCalendar/codebase/skins/dhtmlxcalendar_dhx_skyblue.css">
      <script type="text/javascript"
src="dhtmlxCalendar/codebase/dhtmlxcalendar.js"></script>
      <script src="codebase/dhtmlxcommon.js"></script>
      <script src="codebase/dhtmlxgrid.js"></script>
      <script src="codebase/dhtmlxgridcell.js"></script>
      <script src="codebase/ext/dhtmlxgrid_filter.js" type="text/javascript"></script>
      <script src="dhtmlxCombo/codebase/dhtmlxcombo.js" type="text/javascript"></script>
      <script src="dhtmlxgrid_pgn.js" type="text/javascript"></script>
    <style>
      div.gridbox div.ftr td{
        text-align:right;
        background-color:#E5F2F8;
        border-right:0px solid gray;
      }
      div.gridbox_light table.hdr td {
        text-align:center;
      }
    </style>
    <script type="text/javascript">
      var mygrid;
      function dolnitGrid(){
        mygrid = new dhtmlXGridObject('gridbox');
        mygrid.setSkin("dhx_skyblue");
        mygrid.setImagePath("codebase/imgs/");
        mygrid.setHeader("Select,Member No,Member Name,Start Date,End

```

```

Date,Country,State,Action");
        mygrid.attachHeader("#master_checkbox,(Numeric only),(char
only),(mm/dd/yyyy),(mm/dd/yyyy),Please Select,Please Select,Click");
        mygrid.setInitWidths("50,150,150,120,120,120,120,80");
        mygrid.setColAlign("center,left,left,left,left,center,center,center");
        mygrid.setColTypes("ch,ed,ed,ed,ed,ed,ed,ed");
        //mygrid.enableAutoHeight(true);
        mygrid.init();
        mygrid.loadXML("member.xml");
        mygrid.enablePaging(true,3,3,pageid,true,pageid2);
        //mygrid.loadXML("combo.xml");
    }
    function configureDropDownLists(c1,c2) {
        var india = new Array('Uttar Pradesh', 'TamilNadu', 'Assam');
        var unitedStates = new Array('Columbia', 'NewYork', 'Wahington DC','California');

        switch (c1.value) {
            case 'India':
                document.getElementById(c2).options.length = 0;
                for (i = 0; i < india.length; i++) {
                    createOption(document.getElementById(c2), india[i], india[i]);
                }
                break;
            case 'United States':
                document.getElementById(c2).options.length = 0;
                for (i = 0; i < unitedStates.length; i++) {
                    createOption(document.getElementById(c2), unitedStates[i],
unitedStates[i]);
                }
                break;
            default:
                document.getElementById(c2).options.length = 0;
                break;
        }
    }

    function createOption(cl, text, value) {
        var opt = document.createElement('option');
        opt.value = value;
        opt.text = text;
        cl.options.add(opt);
    }

```

```
}  
function dateLoad1() {  
    t = new dhtmlXCalendarObject("sdate");  
    t.setDateFormat("%m/%d/%Y");  
}  
function dateLoad2() {  
    t = new dhtmlXCalendarObject("edate");  
    t.setDateFormat("%m/%d/%Y");  
}  
  
function Validate(){  
    var memNum=document.getElementById("t1").value;  
    var letterNumber = /^[a-zA-Z $*#]+$/;  
    var memName=document.getElementById("t2").value;  
    var startDate=document.getElementById("sdate").value;  
    var endDate=document.getElementById("edate").value;  
    if(memNum==""){  
        alert("Member No.Required !");  
        document.getElementById("t1").value="";  
        document.getElementById("t1").focus();  
        return false;  
    }  
    if(memNum.trim()=="|| memNum==null)  
    {  
        alert("Member No.Required !");  
        document.getElementById("t1").value="";  
        document.getElementById("t1").focus();  
        return false;  
    }  
    if(!(parseFloat(memNum) == parseInt(memNum))){  
        alert("Member No. should contain numeric values only !");  
        document.getElementById("t1").value="";  
        document.getElementById("t1").focus();  
        return false;  
    }  
    if((isNaN(memNum))){  
        alert("Member No. should contain only numeric values !");  
        document.getElementById("t1").value="";  
        document.getElementById("t1").focus();  
        return false;  
    }  
}
```

```
if(memNum.length>8){
    alert("Member No.cannot be more than 8 characters !");
    document.getElementById("t1").value="";
    document.getElementById("t1").focus();
    return false;
}
if(memName.trim()=="")
{
    alert("Member Name Required !");
    document.getElementById("t2").value="";
    document.getElementById("t2").focus();
    return false;
}
if(memName.trim()==" " || memName==null)
{
    alert("Member Name Required !");
    document.getElementById("t2").value="";
    document.getElementById("t2").focus();
    return false;
}
if(!(memName.match(/letterNumber/))){
    alert("Member Name should have only alphabets");
    document.getElementById("t2").value="";
    document.getElementById("t2").focus();
    return false;
}
if(startDate.trim()==" " || startDate==null)
{
    alert("Start Date Required !");
    document.getElementById("sdate").value="";
    document.getElementById("sdate").focus();
    return false;
}
if(endDatetrim()==" " || endDate==null)
{
    alert("End Date Required !");
    document.getElementById("edate").value="";
    document.getElementById("edate").focus();
    return false;
}
if (Date.parse(startDate) > Date.parse(endDate)) {
    alert("Invalid Date Range!\nStart Date cannot be after End Date!");
}
```

```

    document.getElementById("edate").value="";
    document.getElementById("edate").focus();
    return false;
  }
  if (document.getElementById("c1").value== "")
  {
    alert("Please Select Country Name");
    document.getElementById("c1").value="";
    document.getElementById("c1").focus();
    return false;
  }
  if (document.getElementById("c2").value== "")
  {
    alert("Please Select State Name");
    document.getElementById("c2").value="";
    document.getElementById("c2").focus();
    return false;
  }
}
var id=1;
//var position=0;
function AddDataToGrid(){
  var memNum=document.getElementById("t1").value;
  var letterNumber = /^[a-zA-Z\ $*#]+$/;
  var memName=document.getElementById("t2").value;
  var startDate=document.getElementById("sdate").value;
  var endDate=document.getElementById("edate").value;
  if(memNum==""){
    alert("Member No.Required !");
    document.getElementById("t1").value="";
    document.getElementById("t1").focus();
    return false;
  }
  if(memNum.trim()=="|| memNum==null)
  {
    alert("Member No.Required !");
    document.getElementById("t1").value="";
    document.getElementById("t1").focus();
    return false;
  }
  if(!(parseFloat(memNum) == parseInt(memNum))){

```

```
    alert("Member No. should contain numeric values only !");
    document.getElementById("t1").value="";
    document.getElementById("t1").focus();
    return false;
}
if((isNaN(memNum))){
    alert("Member No. should contain only numeric values !");
    document.getElementById("t1").value="";
    document.getElementById("t1").focus();
    return false;
}
if(memNum.length>8){
    alert("Member No.cannot be more than 8 characters !");
    document.getElementById("t1").value="";
    document.getElementById("t1").focus();
    return false;
}
if(memName.trim()=="")
{
    alert("Member Name Required !");
    document.getElementById("t2").value="";
    document.getElementById("t2").focus();
    return false;
}
if(memName.trim()==" " || memName==null)
{
    alert("Member Name Required !");
    document.getElementById("t2").value="";
    document.getElementById("t2").focus();
    return false;
}
if(!(memName.match(letterNumber))){
    alert("Member Name should have only alphabets");
    document.getElementById("t2").value="";
    document.getElementById("t2").focus();
    return false;
}
if(startDate.trim()==" " || startDate==null)
{
    alert("Start Date Required !");
    document.getElementById("sdate").value="";
    document.getElementById("sdate").focus();
}
```



```

    return false;
  }
  if(endDate.trim() == " || endDate==null)
  {
    alert("End Date Required !");
    document.getElementById("edate").value="";
    document.getElementById("edate").focus();
    return false;
  }
  if (Date.parse(startDate) > Date.parse(endDate)) {
    alert("Invalid Date Range!\nStart Date cannot be after End Date!");
    document.getElementById("edate").value="";
    document.getElementById("edate").focus();
    return false;
  }
  if (document.getElementById("c1").value == "")
  {
    alert("Please Select Country Name");
    document.getElementById("c1").value="";
    document.getElementById("c1").focus();
    return false;
  }
  if (document.getElementById("c2").value == "")
  {
    alert("Please Select State Name");
    document.getElementById("c2").value="";
    document.getElementById("c2").focus();
    return false;
  }
}

```

```

mygrid.addRow(id,[0,document.getElementById("t1").value,document.getElementById("t2").value,document.getElementById("sdate").value,document.getElementById("edate").value,document.getElementById("c1").value,document.getElementById("c2").value,"Save d"]);

```

```

    document.getElementById("t1").value="";
    document.getElementById("t2").value="";
    document.getElementById("sdate").value="";
    document.getElementById("edate").value="";
    document.getElementById("c1").value="";
    document.getElementById("c2").value="";
    id=id+1;

```

```

    //position=position+1;
  }
</script>
</head>
<body onload="doInitGrid()" bgcolor="#c3d4eb">
  <div id="gridbox" style="width: 1000px; height: 350px; background-color:white;"></div>
  <div name="pageid" id="pageid" ></div>
  <div name="pageid2" id="pageid2" ></div>
  <div id=footer>
    <center>
      <p>Copyright (c) 2012
        Sysbiz Technologies Pvt. Ltd.
      </p>
    </center>
  </div>
</body>
</html>

```

### member.xml

```

<?xml version="1.0" encoding="UTF-8"?>

<!--
  Document   : member.xml
  Created on : August 27, 2012, 8:21 PM
  Author    : alokkumar
  Description:
    Purpose of the document follows.
-->
<rows>
  <row id="1">
    <cell><![CDATA[<input type='checkbox' name='val0' id='ch1' value="0"/>]]>
    </cell>
    <cell><![CDATA[<input type='text' name='val1' id='t1' onchange="Validate();" />]]>
    </cell>
    <cell><![CDATA[<input type='text' name='val2' id='t2' onchange="Validate();" />]]>
    </cell>
    <cell><![CDATA[<input type='text' name='val3' id='sdate' onfocus="dateLoad1();"
  />]]>
    </cell>
    <cell><![CDATA[<input type='text' name='val4' id='edate' onfocus="dateLoad2();"
  onchange="Validate();" />]]>
    </cell>

```

```

                                <cell><![CDATA[<select      name='s1'id='c1'
onchange="configureDropDownLists(this,'c2')" onchange="Validate();">
    <option>Please Select</option>
    <option value="India">India</option>
    <option value="United States">United States</option>
    </select>]]>
</cell>
<cell><![CDATA[<select name='s2'id='c2'>
    </select>]]>
</cell>
    <cell><![CDATA[<input type='submit' name='Submit' onclick="AddDataToGrid();"
value="ADD" />]]>
    </cell>
</row>
</rows>

```

### **Web References:**

<http://docs.dhtmlx.com/doku.php?id=dhtmlxgrid:toc>

<http://www.dhtmlx.com/docs/products/dhtmlxGrid/samples/>