**Lab 4 – Web Application**

**Guide**

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# Create Data Transfer Layer (folder DTL)

There are the following classes:

* 1. Borrower
  2. Book
  3. Copy
  4. CirculatedCopy
  5. Reservation

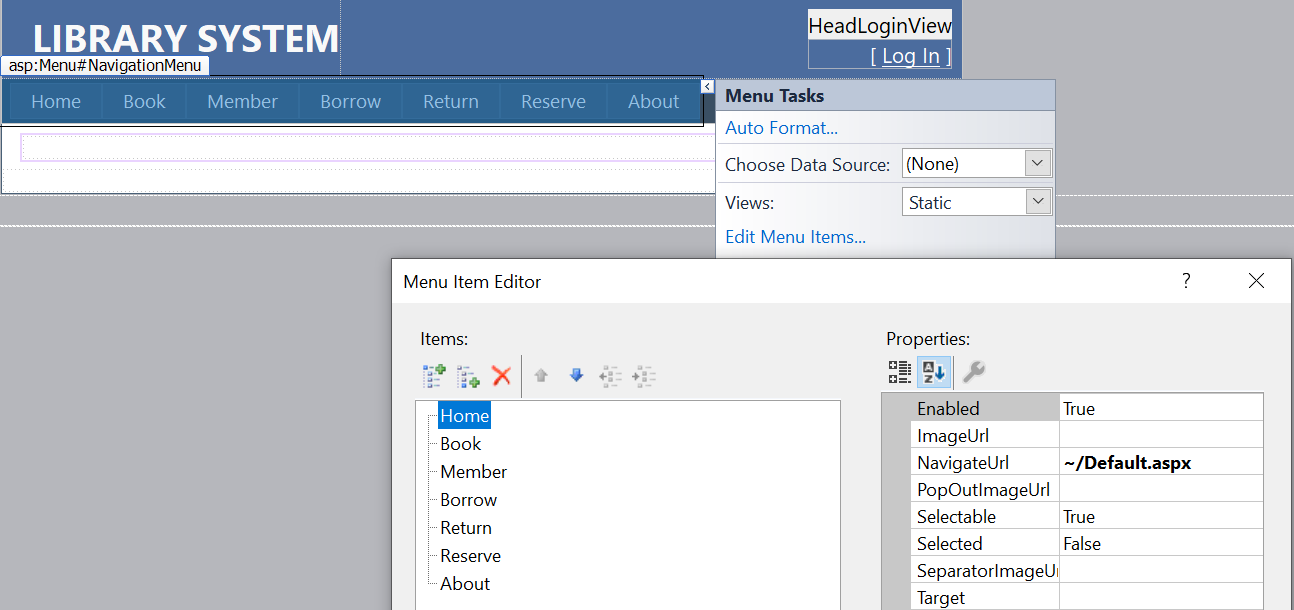
# Create Database Access Layer (folder DAL)

There are the following classes

1. BorrowerDAO
2. BookDAO
3. CopyDAO
4. CirculatedCopyDAO
5. ReservationDAO

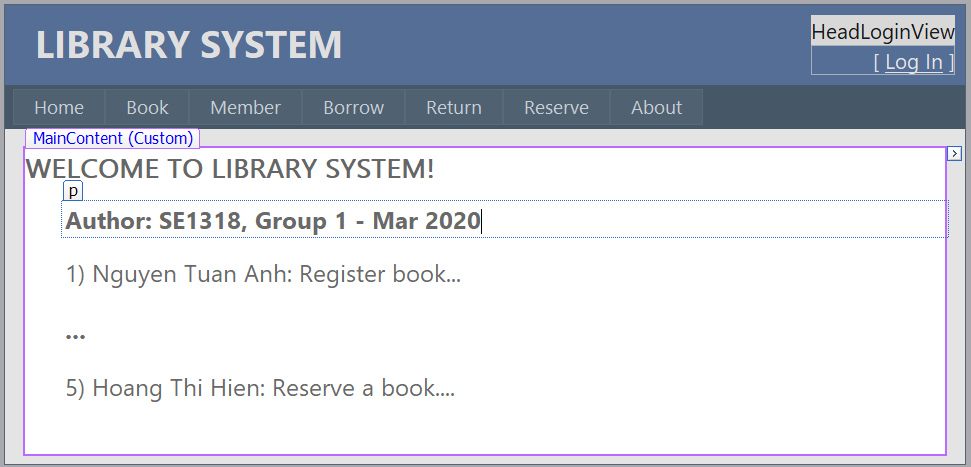
# Create Site.Master, Default page

## Site.Master



Requirement: Modify menu as above

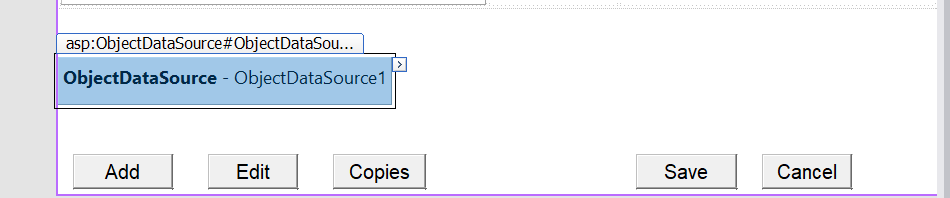
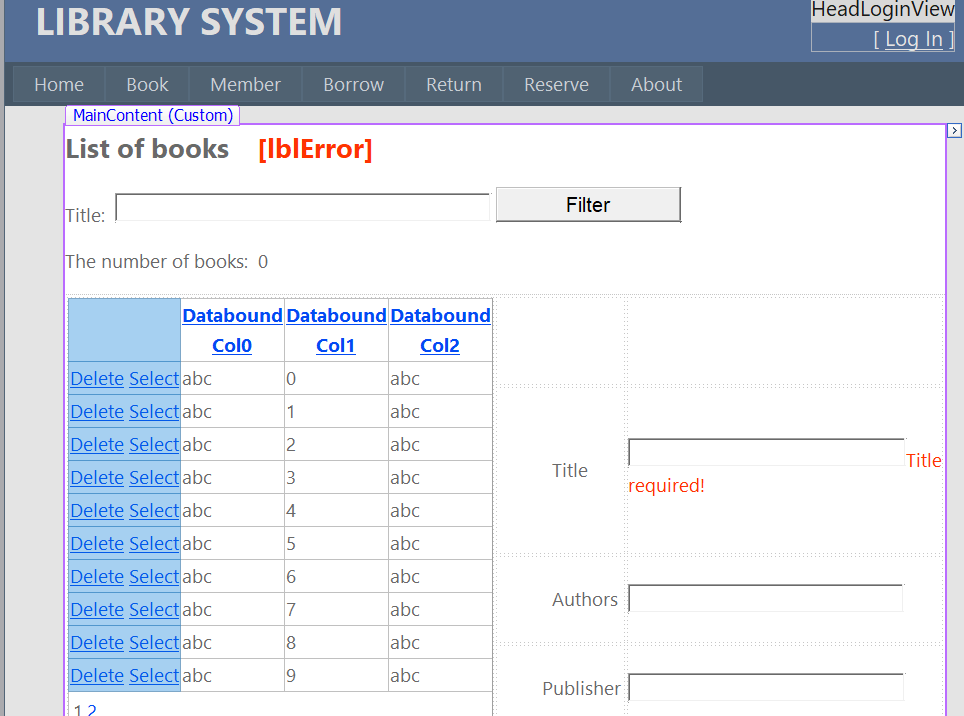
## Default page



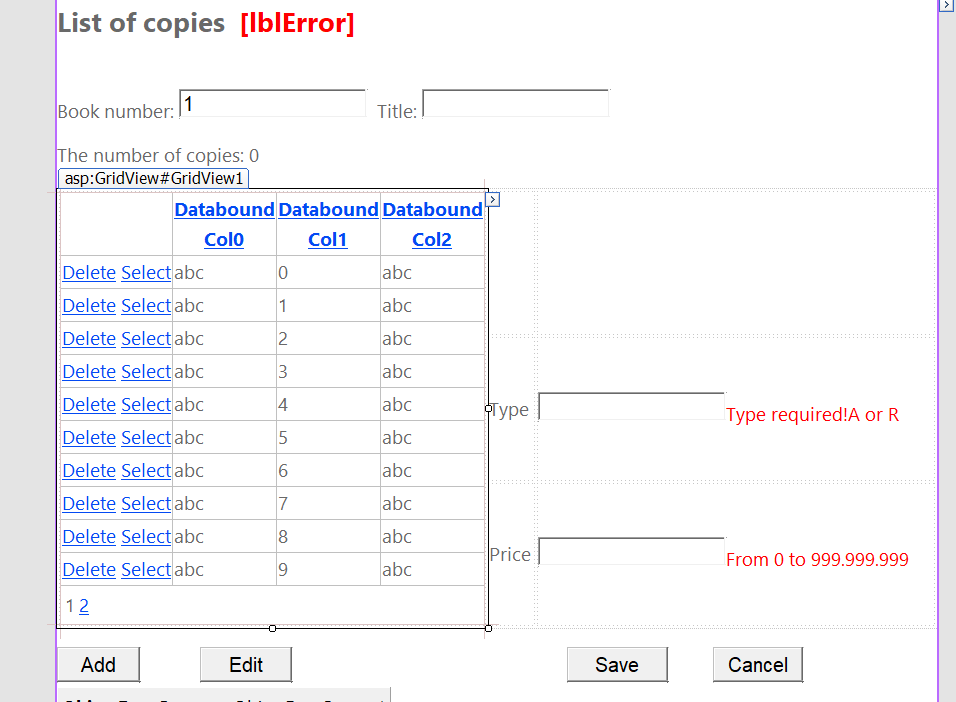
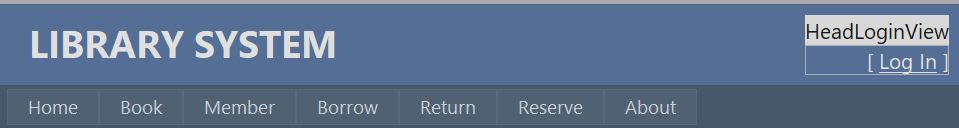
Requirement: Name of class, group number, and list of members with their function they made

# Create GUI layer (folder GUI)

## BookGUI page

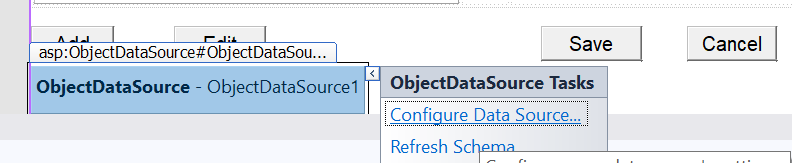


## CopyGUI page

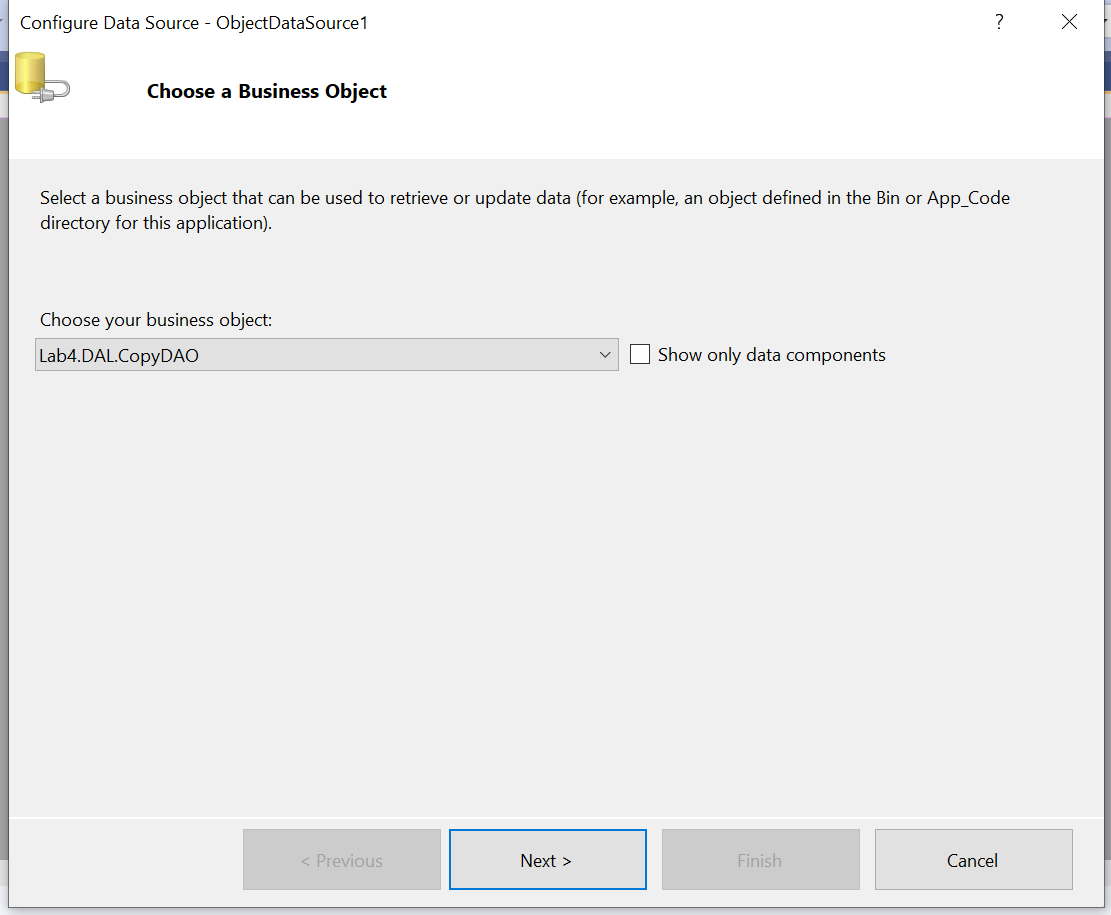


### Configure control ObjectDataSource

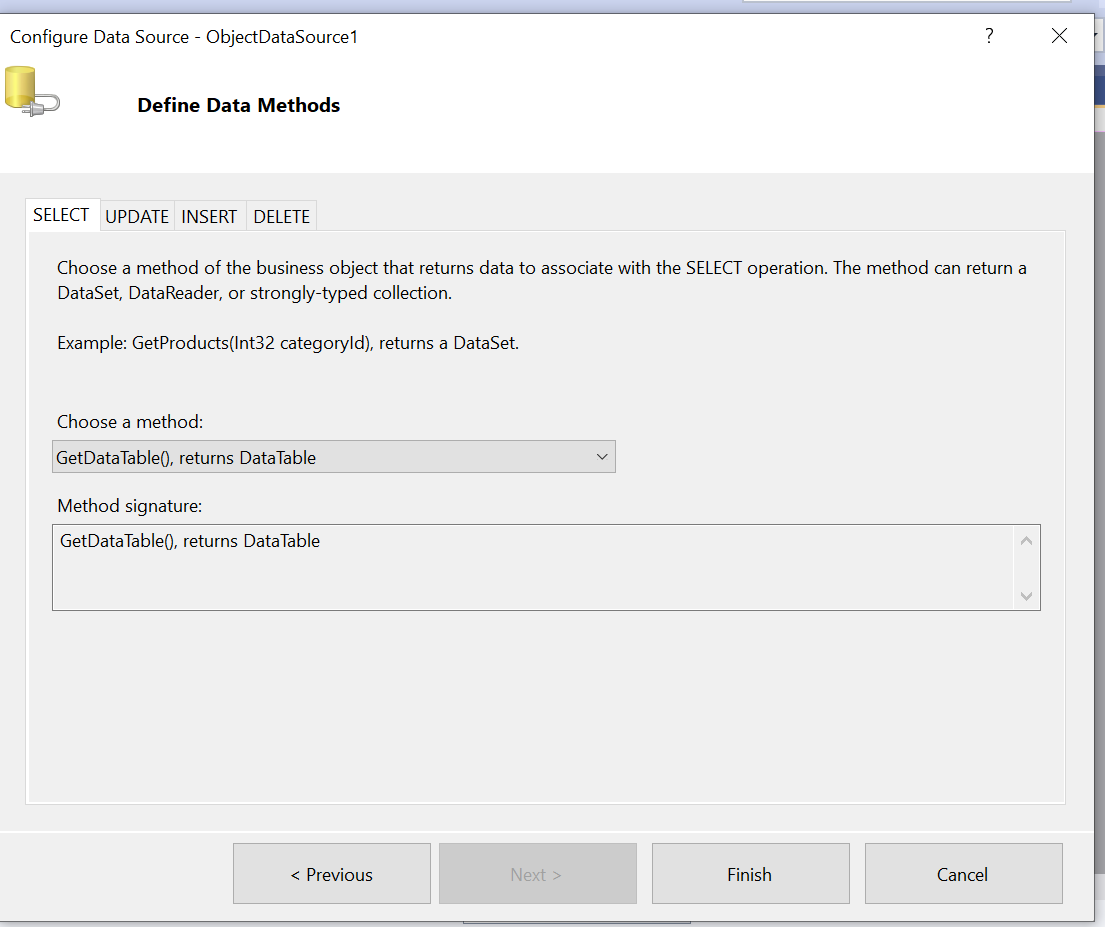
1. Open “ObjectDataSource Tasks” as bellow



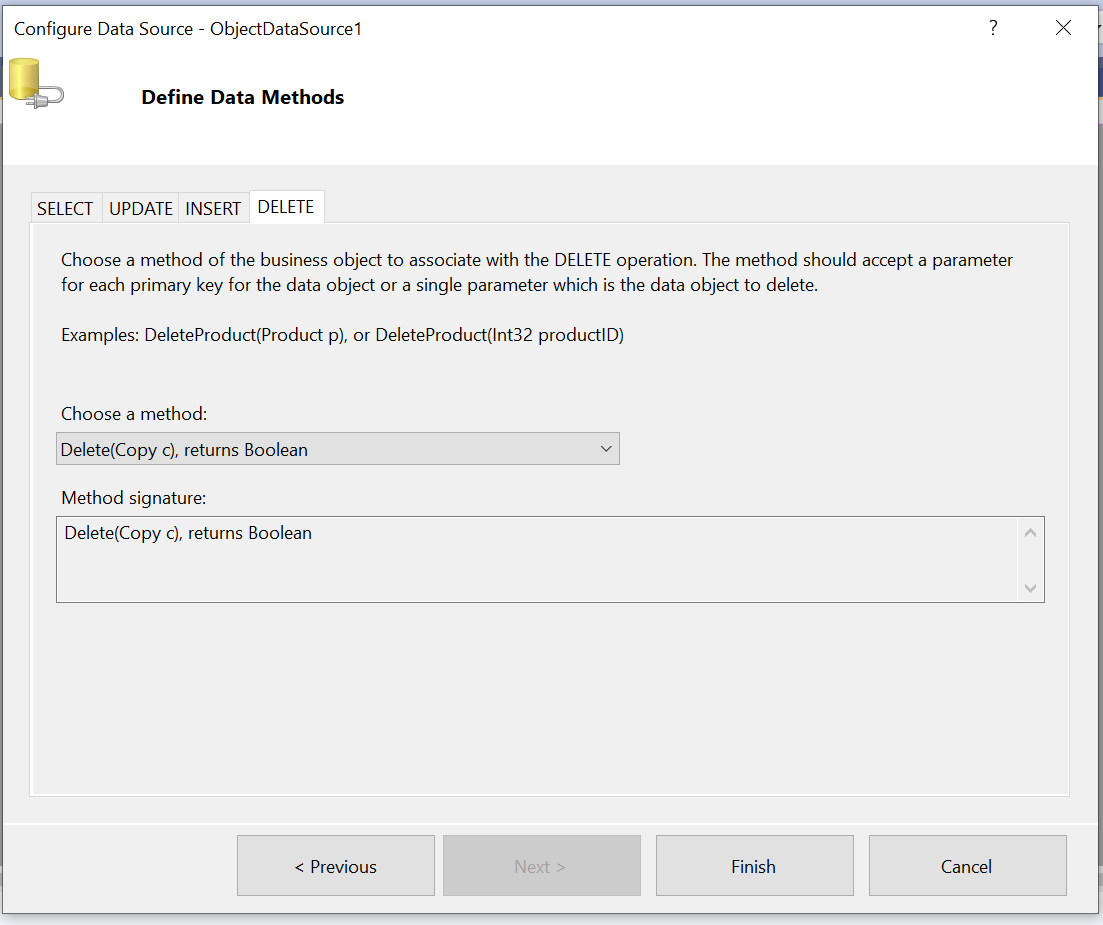
1. Open a window “Choose a Business Object”, then choose CopyDAO for Business object as bellow

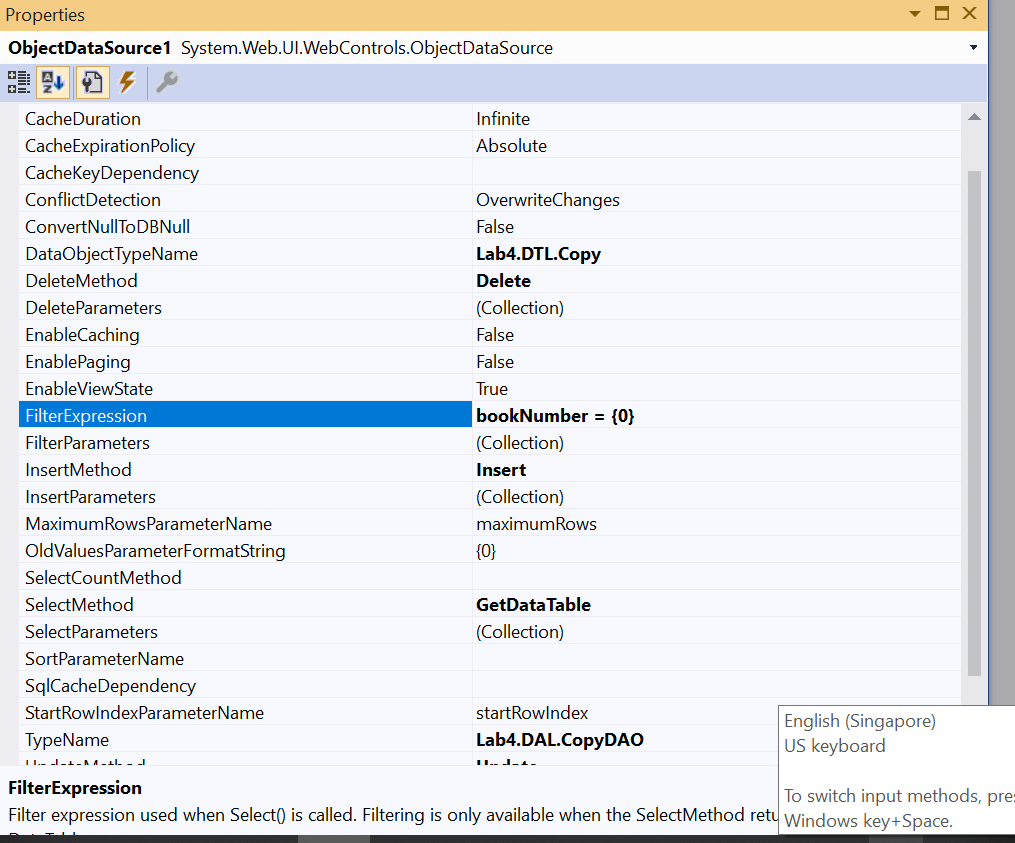


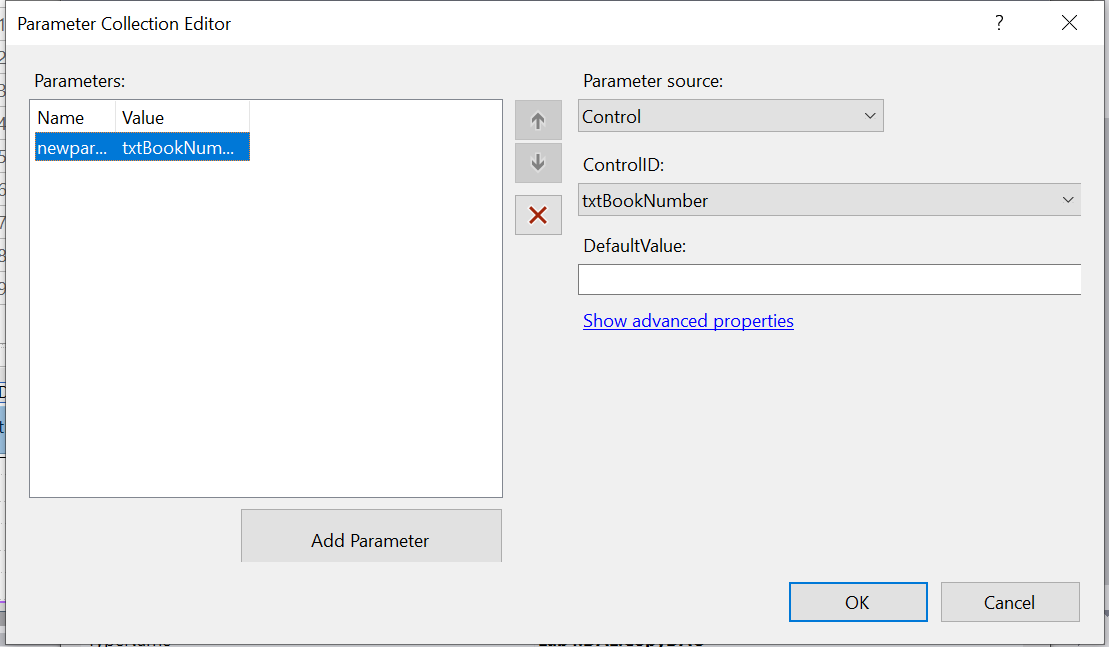
1. In the window “Define Data methods”, in the Tab “SELECT” choose method GetDataTable() as bellow



1. In the window “Define Data methods”, in the Tab “DELETE” choose method Delete(Copy c) as bellow

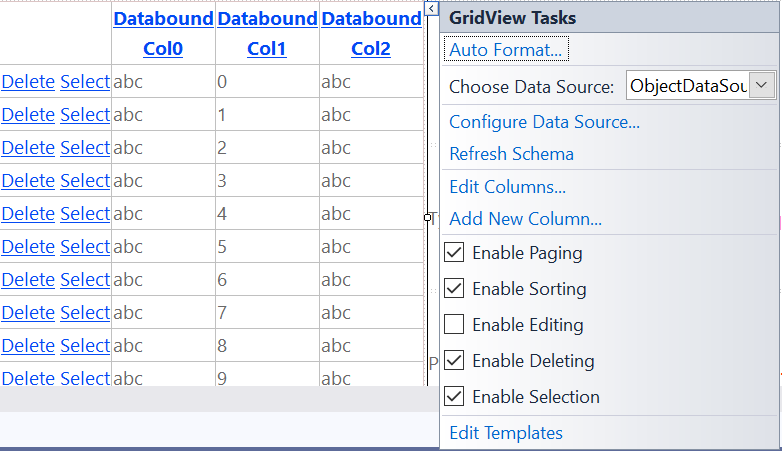


1. Open window “property” of ObjectDataSouce1,then set bookNumber = {0} for FilterExpression as below
2. 
3. Click FilterParameters to open a window “Parameter Collection Editor”, add a new parameter, choose Control for Parameter source, and choose txtBookNumber for ControlID as bellow

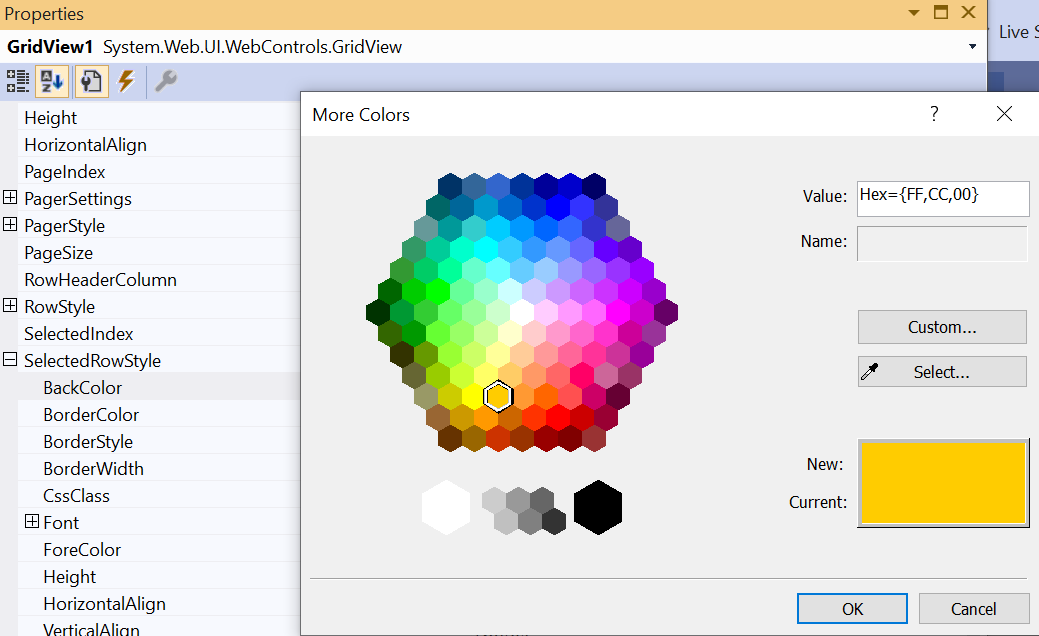


### Configure control GridView

* 1. Open window “GridView Tasks”, Choose “ObjectDataSourse1” for Data Source, and check “Enable Paging”, “Enable Sorting”, “Enable Deleting” and “Enable Selection” as below



* 1. Open window “Properties” of GridView1, set “CopyNumber” for DataKeyNames, and choose color “Yellow” for BackColor under SelectedRowStyle as below



### Code of Page

namespace Lab4.GUI

{

public partial class CopyGUI : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

if (!IsPostBack && Session["book"] != null)

{

GridViewRow vrow = (GridViewRow) Session["book"];

txtBookNumber.Text = vrow.Cells[1].Text;

txtTiitle.Text = vrow.Cells[2].Text;

displayButtons(1);

}

}

private void displayButtons(int state)

{

switch (state)

{

// View

case 1:

txtType.Enabled = false;

txtPrice.Enabled = false;

btnAdd.Enabled = true;

btnEdit.Enabled = true;

btnSave.Enabled = false;

btnCancel.Enabled = false;

break;

// Adding or editing

case 2:

txtType.Enabled = true;

txtPrice.Enabled = true;

txtType.Focus();

btnAdd.Enabled = false;

btnEdit.Enabled = false;

btnSave.Enabled = true;

btnCancel.Enabled = true;

break;

}

}

protected void btnAdd\_Click(object sender, EventArgs e)

{

Session["add"] = 1;

displayButtons(2);

}

protected void GridView1\_DataBound(object sender, EventArgs e)

{

lblNoRows.Text = GridView1.Rows.Count.ToString();

}

protected void btnEdit\_Click(object sender, EventArgs e)

{

if (GridView1.SelectedRow == null)

{

lblError.Text = "Error: No a copy is selected!";

return;

}

Session["add"] = 2;

displayButtons(2);

}

protected void btnSave\_Click(object sender, EventArgs e)

{

int add = (int)Session["add"];

Copy c = new Copy();

c.BookNumber = int.Parse(txtBookNumber.Text);

c.SequenceNumber = CopyDAO.GetSequenceNumberMax(c.BookNumber) + 1;

c.Type = txtType.Text[0];

if (txtPrice.Text == "") c.Price = 0;

else

c.Price = int.Parse(txtPrice.Text);

if (add == 1)

CopyDAO.Insert(c);

else

{

c.CopyNumber = (int)Session["copyNumber"];

CopyDAO.Update(c);

}

ObjectDataSource1.Select();

GridView1.DataBind();

}

protected void GridView1\_SelectedIndexChanged(object sender, EventArgs e)

{

Session["copyNumber"] = int.Parse(GridView1.SelectedRow.Cells[1].Text);

txtType.Text = Server.HtmlDecode(GridView1.SelectedRow.Cells[4].Text);

txtPrice.Text = Server.HtmlDecode(GridView1.SelectedRow.Cells[5].Text);

}

protected void GridView1\_DataBound1(object sender, EventArgs e)

{

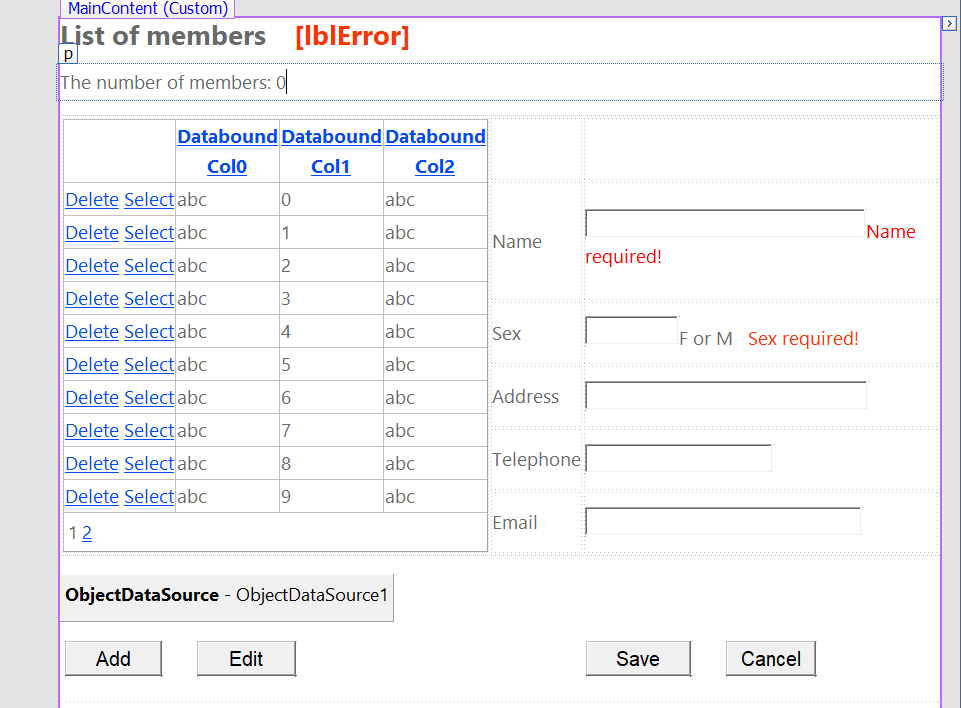
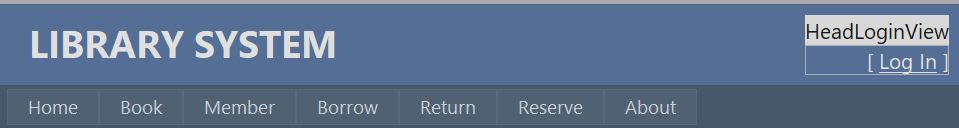
lblNoRows.Text = GridView1.Rows.Count.ToString();

}

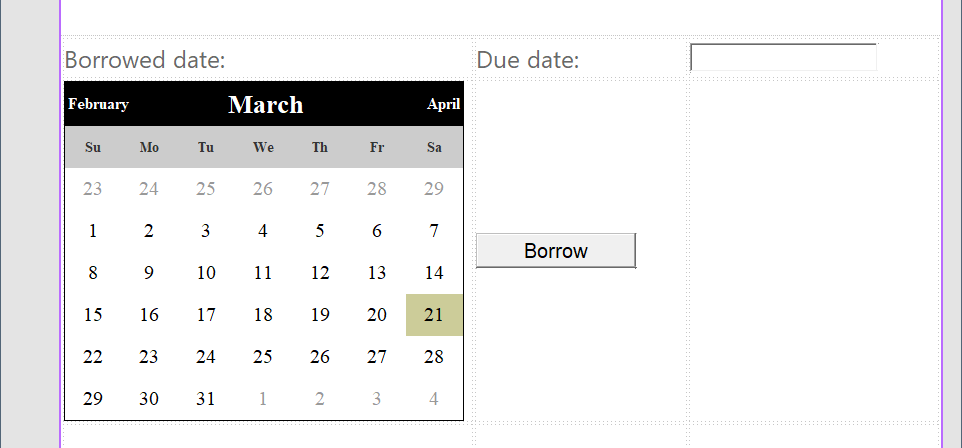
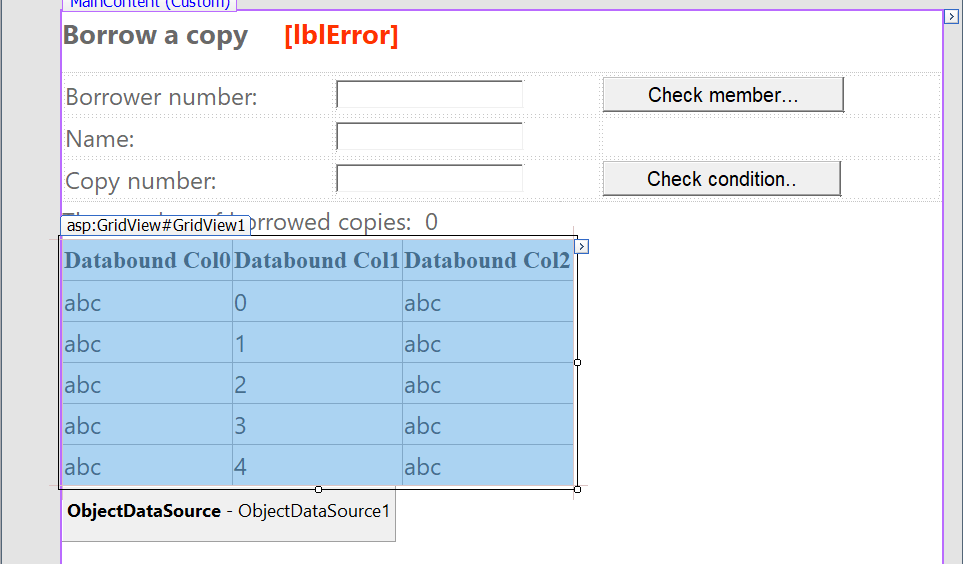
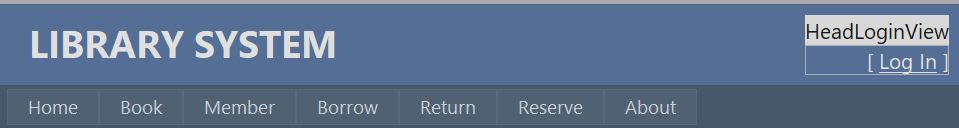
}

}

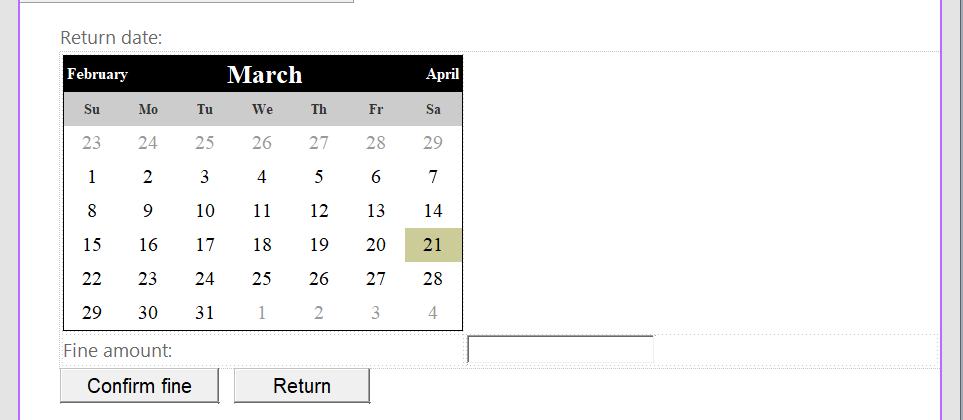
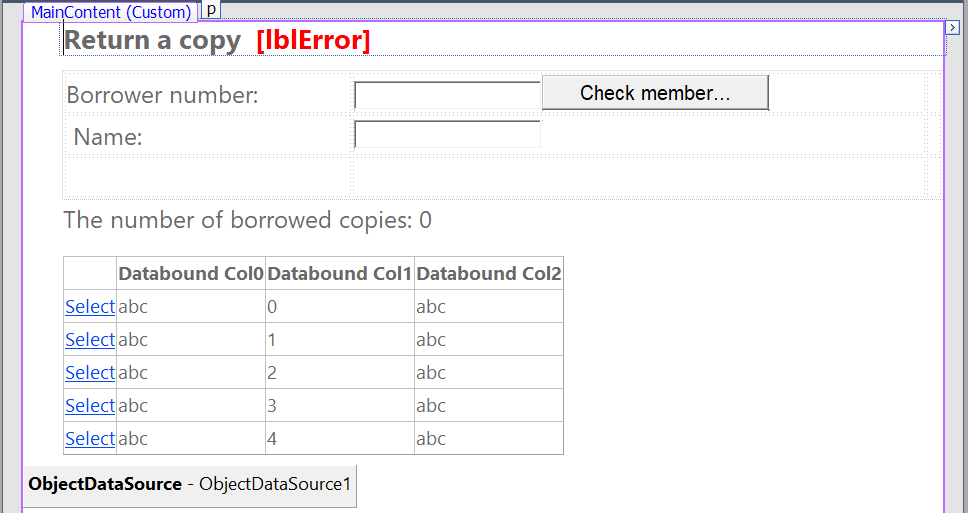
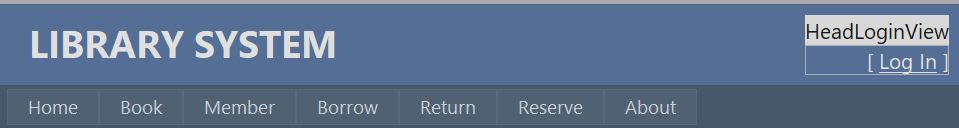
## BorrowerGUI page



## BorrowGUI page



## ReturnGUI page



## ReserveGUI page

