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using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using Caissa.Classes;
using Caissa.Persistence;

public partial class Pages_AddAssessmentItem : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            BindDropDownLists();
            ClearFields();
        }
    }

    protected double CalculateLocalCoverage(double diversity, double count)
    {
        double local_coverage = 0.0;

        if ((local_coverage = diversity / count) >= 1.0)
            return 1.0;
        else
            return local_coverage;
    }

    protected double CalculateDiversity(double value)
    {
        int i, j, max_dim = 6;
        int[] lista = new int[6];

        double[,] grafo =
        {
            { 0.0, 0.5, 0.2, 0.6, 0.7, 0.9 },
            { 0.0, 0.0, 0.9, 0.7, 0.6, 0.8 },
            { 0.0, 0.0, 0.0, 0.4, 0.2, 0.6 },
            { 0.0, 0.0, 0.0, 0.0, 0.5, 0.2 },
            { 0.0, 0.0, 0.0, 0.0, 0.0, 0.8 },
            { 0.0, 0.0, 0.0, 0.0, 0.0, 0.0 },
        };

        for (i = 0; i < max_dim; i++)
        {
            if (lista[i] == 1)
            {
                for (j = 0; j < max_dim; j++)
                {
                    if (grafo[i,j] > 0.0 && lista[j] == 1)
                    {
                        value = value + grafo[i,j];
                    }
                }
            }
        }
    }
}
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    }
    }
    return value;
}

protected void BindDropDownLists()
{
    SourceDB souDB = new SourceDB();
    ddlSource.DataSource = souDB.Select().Tables[0].DefaultView;
    ddlSource.DataValueField = "sou_id";
    ddlSource.DataTextField = "sou_title";
    ddlSource.DataBind();
    ddlSource.Items.Insert(0, "Select");
}

protected void ClearFields()
{
    txtIdentifier.Text = string.Empty;
    txtTitle.Text = string.Empty;
    txtExpectedResult.Text = string.Empty;
    txtDivDM.Text = string.Empty;
    txtDivPP.Text = string.Empty;
    txtCovLoc.Text = string.Empty;
    txtProcedure.Text = string.Empty;
    txtDescription.Text = string.Empty;
    ddlSource.SelectedIndex = 0;
    lblMessage.Visible = false;
}

protected void btnInsert_Click(object sender, EventArgs e)
{
    AssessmentItem ass = new AssessmentItem
    {
        Initials = txtIdentifier.Text,
        Title = txtTitle.Text,
        ExpectedResult = txtExpectedResult.Text,
        Source = Convert.ToInt32(ddlSource.SelectedValue),
        DivDM = Convert.ToDouble(txtDivDM.Text),
        DivPP = Convert.ToDouble(txtDivPP.Text),
        CovLoc = Convert.ToDouble(txtDivPP.Text),
        Procedure = txtProcedure.Text,
        Description = txtDescription.Text
    };

    AssessmentItemDB assDB = new AssessmentItemDB();
    assDB.Insert(ass);

    Response.Redirect("EvaluationItems.aspx");
}

protected void btnCancel_Click(object sender, EventArgs e)
{
    Response.Redirect("EvaluationItems.aspx");
}
}
```