

بسم الله الرحمن الرحيم

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واجب المحاضرة التاسعة

البرنامج الاول

فورم التنفيذ

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace lect9
{
    public partial class Form1 : Form
    {
        private void SyncListBoxes(object sender, EventArgs e)
        {
            ListBox selectedListBox = sender as ListBox;
            int selectedIndex = selectedListBox.SelectedIndex;

            listBox1.SelectedIndex = selectedIndex;
            listBox2.SelectedIndex = selectedIndex;
            listBox3.SelectedIndex = selectedIndex;
            listBox4.SelectedIndex = selectedIndex;
        }
    }
}
```

```

public Form1()
{
    InitializeComponent();

    listBox1.SelectedIndexChanged += SyncListBoxes;
    listBox2.SelectedIndexChanged += SyncListBoxes;
    listBox3.SelectedIndexChanged += SyncListBoxes;
    listBox4.SelectedIndexChanged += SyncListBoxes;
}

private void Form1_Load(object sender, EventArgs e)
{
    listBox1.Items.Add("124");
    listBox2.Items.Add("احمد صالح");
    listBox3.Items.Add("20");
    listBox4.Items.Add("ذكر");

    listBox1.Items.Add("245");
    listBox2.Items.Add("ناجي خالد");
    listBox3.Items.Add("40");
    listBox4.Items.Add("ذكر");

    listBox1.Items.Add("124");
    listBox2.Items.Add("سلما احمد");
    listBox3.Items.Add("22");
    listBox4.Items.Add("انثى");
}

private void button5_Click(object sender, EventArgs e)
{
    this.Close();
}

private void button1_Click(object sender, EventArgs e)
{
    if(string.IsNullOrEmpty(textBox1.Text) ||
        string.IsNullOrEmpty(textBox2.Text) ||
        string.IsNullOrEmpty(textBox3.Text))
    {
        MessageBox.Show("يرجى ملء جميع الحقول");
        return;
    }

    int inputNumber;
    if(!int.TryParse(textBox1.Text, out inputNumber))
    {
        MessageBox.Show("يرجى إدخال رقم صحيح في الحقل الأول");
        return;
    }

    int age;
    if(!int.TryParse(textBox3.Text, out age))
    {
        MessageBox.Show("يرجى إدخال عمر صحيح في الحقل الثالث");
        return;
    }
}

```

```

        listBox1.Items.Add(inputNumber.ToString());
        listBox2.Items.Add(textBox2.Text);
        listBox3.Items.Add(age.ToString());
        listBox4.Items.Add radioButton1.Checked ? "ذكر" : "أنثى");

        textBox1.Clear();
        textBox2.Clear();
        textBox3.Clear();
        radioButton1.Checked = false;
        radioButton2.Checked = false;
    }

    private void button4_Click(object sender, EventArgs e)
    {
        int selectedIndex = listBox1.SelectedIndex;
        if(selectedIndex != -1)
        {
            Form2 f = new Form2();
            f.Item1 = listBox1.Items[selectedIndex].ToString();
            f.Item2 = listBox2.Items[selectedIndex].ToString();
            f.Item3 = listBox3.Items[selectedIndex].ToString();
            f.Gender = listBox4.Items[selectedIndex].ToString();

            if(f.ShowDialog() == DialogResult.OK)
            {
                listBox1.Items[selectedIndex] = f.Item1;
                listBox2.Items[selectedIndex] = f.Item2;
                listBox3.Items[selectedIndex] = f.Item3;
                listBox4.Items[selectedIndex] = f.Gender;
            }
        }
        else
        {
            MessageBox.Show("يرجى اختيار عنصر للتعديل عليه");
        }
    }

    private void button3_Click(object sender, EventArgs e)
    {
        DialogResult result = MessageBox.Show("هل أنت متأكد أنك تريد مسح جميع العناصر؟", "تأكيد", MessageBoxButtons.YesNo, MessageBoxIcon.Warning);
        if(result == DialogResult.Yes)
        {
            listBox1.Items.Clear();
            listBox2.Items.Clear();
            listBox3.Items.Clear();
            listBox4.Items.Clear();
        }
    }

    private void button2_Click(object sender, EventArgs e)
    {
        if(listBox1.SelectedItem != null)
        {
            DialogResult result = MessageBox.Show("هل أنت متأكد أنك تريد حذف هذا العنصر؟", "تأكيد حذف عنصر", MessageBoxButtons.YesNo, MessageBoxIcon.Warning);
            if(result == DialogResult.Yes)

```

```

        {
            int selectedIndex = listBox1.SelectedIndex;
            listBox1.Items.RemoveAt(selectedIndex);
            listBox2.Items.RemoveAt(selectedIndex);
            listBox3.Items.RemoveAt(selectedIndex);
            listBox4.Items.RemoveAt(selectedIndex);
        }
    }
    else
    {
        MessageBox.Show("يرجى تحديد عنصر لحذف");
    }
}

private void Form1_MouseDown(object sender, MouseEventArgs e)
{
    listBox1.ClearSelected();
    listBox2.ClearSelected();
    listBox3.ClearSelected();
    listBox4.ClearSelected();
    this.ActiveControl = null;
    radioButton1.Checked = false;
    radioButton2.Checked = false;
}
}
}

```

فورم التعديل

```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

```

```

namespace lect9
{
    public partial class Form2 : Form
    {
        public string Item1
        {
            get; set;
        }
        public string Item2
        {
            get; set;
        }
        public string Item3
        {
            get; set;
        }
        public string Gender
        {
            get; set;
        }

        public Form2()
        {
            InitializeComponent();
        }

        private void Form2_Load(object sender, EventArgs e)
        {
            textBox1.Text = Item1;
            textBox2.Text = Item2;
            textBox3.Text = Item3;
            if(Gender == "ذكر")
                radioButton1.Checked = true;
            else
                radioButton2.Checked = true;
        }

        private void btnSave_Click(object sender, EventArgs e)
        {
            int number1;
            if(string.IsNullOrEmpty(textBox1.Text) || !int.TryParse(textBox1.Text,
out number1))
            {
                MessageBox.Show("يرجى إدخال رقم صحيح في الحقل الأول.");
                textBox1.Focus();
                return;
            }

            if(string.IsNullOrEmpty(textBox2.Text))
            {
                MessageBox.Show("يرجى إدخال قيمة في الحقل الثاني.");
                textBox2.Focus();
                return;
            }
        }
    }
}

```

```
int age;
if(string.IsNullOrEmpty(textBox3.Text) || !int.TryParse(textBox3.Text,
out age))
{
    MessageBox.Show("يرجى إدخال رقم صحيح في الحقل الثالث.");
    textBox3.Focus();
    return;
}

if(!radioButton1.Checked && !radioButton2.Checked)
{
    MessageBox.Show("يرجى تحديد الجنس.");
    return;
}

Item1 = textBox1.Text;
Item2 = textBox2.Text;
Item3 = textBox3.Text;
Gender = radioButton1.Checked ? "أنثى" : "ذكر";

this.DialogResult = DialogResult.OK;
this.Close();
}

private void btnCancel_Click(object sender, EventArgs e)
{
    this.DialogResult = DialogResult.Cancel;
    this.Close();
}
}
```

البرنامج الثاني

فورم التنفيذ

The screenshot shows a Windows Form titled "Form3" with a calculator-like interface. At the top, there are four input fields: "العدد الاول" (First Number) with value 30, "العملية" (Operation) with a dropdown showing "-", "العدد الثاني" (Second Number) with value 40, and "النتيجة" (Result) with value -10. Below these fields are four list boxes. The first list box contains numbers 14, 9, 40, 0, and -10 (selected). The second list box contains numbers 7, 10, 2, 35, and 40 (selected). The third list box contains operators +, -, *, /, and = (selected). The fourth list box contains numbers 7, 90, 20, 35, and 30 (selected). To the right of the list boxes are three buttons: "حذف" (Delete), "حذف الكل" (Delete All), and "تعديل" (Edit). At the bottom left is a button labeled "اغلق" (Close). In the center, there are two buttons: "تنظيف الصناديق" (Clear Boxes) and "حساب" (Calculate).

```
using System;
using System.Windows.Forms;

namespace lect9
{
    public partial class Form3 : Form
    {
        public Form3()
        {
            InitializeComponent();
        }

        public void UpdateData(int index, string num1, string operation, string num2,
            string result)
        {
            if(index >= 0 && index < listBox1.Items.Count)
            {
                listBox1.Items[index] = num1;
                listBox2.Items[index] = operation;
                listBox3.Items[index] = num2;
                listBox4.Items[index] = result;
            }
        }

        private void SyncListBoxes(object sender, EventArgs e)
        {
            ListBox selectedListBox = sender as ListBox;
            int selectedIndex = selectedListBox.SelectedIndex;

            listBox1.SelectedIndex = selectedIndex;
            listBox2.SelectedIndex = selectedIndex;
            listBox3.SelectedIndex = selectedIndex;
            listBox4.SelectedIndex = selectedIndex;
        }
    }
}
```

```

private void Form3_Load(object sender, EventArgs e)
{
    comboBox1.Items.Add("+");
    comboBox1.Items.Add("-");
    comboBox1.Items.Add("*");
    comboBox1.Items.Add("/");
    textBox4.ReadOnly = true;
    listBox1.SelectedIndexChanged += SyncListBoxes;
    listBox2.SelectedIndexChanged += SyncListBoxes;
    listBox3.SelectedIndexChanged += SyncListBoxes;
    listBox4.SelectedIndexChanged += SyncListBoxes;

    listBox1.Items.Add("7");
    listBox2.Items.Add("+");
    listBox3.Items.Add("7");
    listBox4.Items.Add("14");
    listBox1.Items.Add("90");
    listBox2.Items.Add("/");
    listBox3.Items.Add("10");
    listBox4.Items.Add("9");

    listBox1.Items.Add("20");
    listBox2.Items.Add("*");
    listBox3.Items.Add("2");
    listBox4.Items.Add("40");

    listBox1.Items.Add("35");
    listBox2.Items.Add("-");
    listBox3.Items.Add("35");
    listBox4.Items.Add("0");
}

private void button4_Click(object sender, EventArgs e)
{
    int selectedIndex = listBox1.SelectedIndex;

    if(selectedIndex != -1)
    {
        Form4 form4 = new Form4
        {
            Num1 = listBox1.Items[selectedIndex].ToString(),
            Operation = listBox2.Items[selectedIndex].ToString(),
            Num2 = listBox3.Items[selectedIndex].ToString(),
            Result = listBox4.Items[selectedIndex].ToString(),
            SelectedIndex = selectedIndex,
        };

        form4.ShowDialog();
        if(form4.IsUpdated)
        {
            UpdateData(selectedIndex, form4.Num1, form4.Operation, form4.Num2,
form4.Result);
        }
    }
    else
    {

```



```

        MessageBox.Show("يرجى اختيار عنصر للتعديل عليه");
    }
}
private void button1_Click(object sender, EventArgs e)
{
    this.Close();
}

private void button2_Click(object sender, EventArgs e)
{
    if(listBox1.SelectedItem != null)
    {
        DialogResult result = MessageBox.Show("هل أنت متأكد أنك تريد حذف هذا العنصر؟", "تأكيد حذف عنصر", MessageBoxButtons.YesNo, MessageBoxIcon.Warning);
        if(result == DialogResult.Yes)
        {
            int selectedIndex = listBox1.SelectedIndex;
            listBox1.Items.RemoveAt(selectedIndex);
            listBox2.Items.RemoveAt(selectedIndex);
            listBox3.Items.RemoveAt(selectedIndex);
            listBox4.Items.RemoveAt(selectedIndex);
        }
    }
    else
    {
        MessageBox.Show("يرجى تحديد عنصر لحذفه");
    }
}

private void button3_Click(object sender, EventArgs e)
{
    DialogResult result = MessageBox.Show("هل أنت متأكد أنك تريد مسح جميع العناصر؟", "تأكيد حذف الكل", MessageBoxButtons.YesNo, MessageBoxIcon.Warning);
    if(result == DialogResult.Yes)
    {
        listBox1.Items.Clear();
        listBox2.Items.Clear();
        listBox3.Items.Clear();
        listBox4.Items.Clear();
    }
}

private void buttonCalculate_Click(object sender, EventArgs e)
{
    if(string.IsNullOrEmpty(textBox1.Text) ||
        string.IsNullOrEmpty(comboBox1.Text) ||
        string.IsNullOrEmpty(textBox3.Text))
    {
        MessageBox.Show("يرجى ملء جميع الحقول");
        return;
    }

    float num1;
    if(!float.TryParse(textBox1.Text, out num1))
    {
        MessageBox.Show("يرجى إدخال رقم صحيح في الحقل الأول");
        return;
    }
}

```

```

float num2;
if(!float.TryParse(textBox3.Text, out num2))
{
    MessageBox.Show("يرجى إدخال رقم صحيح في الحقل الثالث.");
    return;
}

float result = 0;
switch(comboBox1.Text)
{
    case "+":
        result = num1 + num2;
        break;
    case "-":
        result = num1 - num2;
        break;
    case "*":
        result = num1 * num2;
        break;
    case "/":
        if(num2 != 0)
        {
            result = num1 / num2;
        }
        else
        {
            MessageBox.Show("لا يمكن القسمة على صفر.");
            return;
        }
        break;
    default:
        MessageBox.Show("يرجى اختيار عملية صحيحة.");
        return;
}

textBox4.Text = result.ToString();

listBox1.Items.Add(num1.ToString());
listBox2.Items.Add(comboBox1.Text);
listBox3.Items.Add(num2.ToString());
listBox4.Items.Add(textBox4.Text);

}

private void button6_Click(object sender, EventArgs e)
{
    textBox1.Clear();
    textBox3.Clear();
    textBox4.Clear();
    comboBox1.SelectedIndex = -1;
}
}
}

```

فورم التعديل

```
using System;
using System.Windows.Forms;

namespace lect9
{
    public partial class Form4 : Form
    {
        public string Num1
        {
            get; set;
        }
        public string Operation
        {
            get; set;
        }
        public string Num2
        {
            get; set;
        }
        public string Result
        {
            get; set;
        }
        public int SelectedIndex
        {
            get; set;
        }
        public bool IsUpdated
        {
            get; set;
        }

        public Form4()
        {
            InitializeComponent();
        }

        private void Form4_Load(object sender, EventArgs e)
        {
            textBox1.Text = Num1;
            comboBox1.Text = Operation;
            textBox3.Text = Num2;
```

```

        textBox4.Text = Result;
        textBox4.ReadOnly = true;

        comboBox1.Items.Add("+");
        comboBox1.Items.Add("-");
        comboBox1.Items.Add("*");
        comboBox1.Items.Add("/");
        comboBox1.SelectedIndexChanged += ComboBox1_SelectedIndexChanged;
    }

    private void buttonCancel_Click(object sender, EventArgs e)
    {
        this.Close();
    }

    private void buttonSave_Click(object sender, EventArgs e)
    {
        if(string.IsNullOrEmpty(textBox1.Text) ||
           string.IsNullOrEmpty(comboBox1.Text) ||
           string.IsNullOrEmpty(textBox3.Text))
        {
            MessageBox.Show("يرجى ملء جميع الحقول.");
            return;
        }

        Num1 = textBox1.Text;
        Num2 = textBox3.Text;
        Operation = comboBox1.Text;

        IsUpdated = true;
        this.Close();
    }

    private void ComboBox1_SelectedIndexChanged(object sender, EventArgs e)
    {
        if(!string.IsNullOrEmpty(textBox1.Text) &&
            !string.IsNullOrEmpty(textBox3.Text))
        {
            Num1 = textBox1.Text;
            Num2 = textBox3.Text;
            Operation = comboBox1.Text;

            Result = CalculateResult();
            textBox4.Text = Result;
        }
    }

    private string CalculateResult()
    {
        float num1 = float.Parse(Num1);
        float num2 = float.Parse(Num2);

        switch(Operation)
        {
            case "+":
                return (num1 + num2).ToString();
            case "-":
                return (num1 - num2).ToString();
        }
    }

```

```
case "*":
    return (num1 * num2).ToString();
case "/":
    if(num2 != 0)
    {
        return (num1 / num2).ToString();
    }
    else
    {
        MessageBox.Show("لا يمكن القسمة على الصفر.");
        return "خطأ";
    }
default:
    MessageBox.Show("يرجى اختيار عملية صحيحة.");
    return "خطأ";
}
}
}
```