



LABTASK WEEK-11 12

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: This database application demonstrates the use of ADO.Net classes using Access Database.

Steps:

1. For this example we have created MS-ACCESS database named Csharp1.mdb. The table structure for the bank table used in this example is show below:

The properties of the fields are as follows

a- AccountNo - Number - Long Integer

b-Name - string

c- BranchCode - int

d-AccountType - int

e- ATMReq - int

f-Balance - Number – Decimal

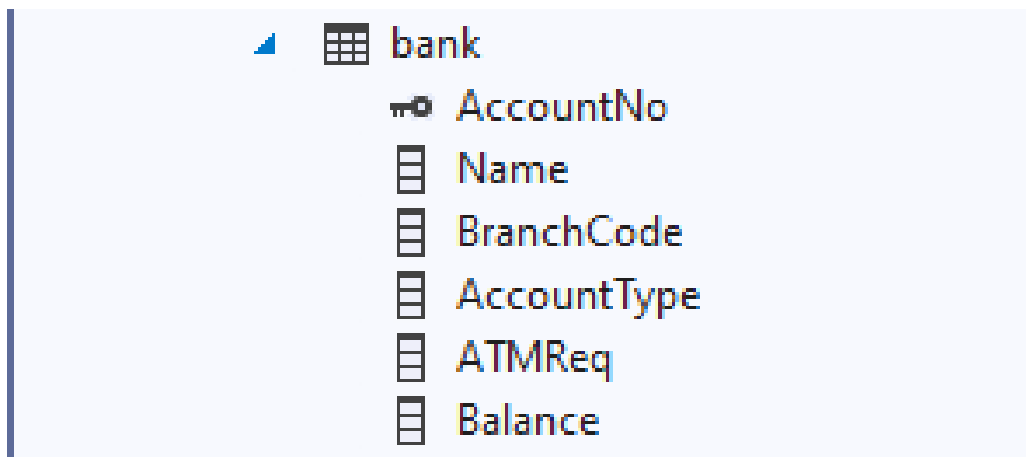
2. Create a new Windows Application project. From toolbox's Data tab, select OleDbDataAdapter component and configure it to establish connection with your database.

3. Design your GUI.

4. In this application, we will be working with individual data bound controls.

5. Select first Textbox control on your form.

6. Open DataBinding section on control's Properties window, locate the Text item, and expand its list of possible settings. Select the one you want to display in your control.



Form 1:

```
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;
using System.Data.OleDb;

namespace Lab11_Q2
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();

            OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
            OleDbDataAdapter adap = new OleDbDataAdapter("select* from
bank", @"Provider = Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
            DataSet d1 = new DataSet("bank");
            int counter = 0;

            private void button6_Click(object sender, EventArgs e)
            {
                textBox1.Text = "";
                textBox4.Text = "";
                comboBox1.Text = "";
                textBox2.Text = "";
            }

            private void Form1_Load(object sender, EventArgs e)
            {
                this.bankTableAdapter.Fill(this.database3DataSet.bank);
                con.Open();
                adap.Fill(d1, "bank");
            }
        }
    }
}
```

```

        if (d1.Tables["bank"].Rows[0]["AccountType"].ToString() ==
"saving")
        {
            checkBox1.Checked=true;
        }
        else
        {
            checkBox2.Checked = true;
        }
    }

    private void button1_Click(object sender, EventArgs e)
    {
        if (counter < d1.Tables["bank"].Rows.Count - 1)
        {
            counter = counter + 1;
            textBox1.Text =
d1.Tables["bank"].Rows[counter]["AccountNo"].ToString();
            textBox2.Text =
d1.Tables["bank"].Rows[counter]["Name"].ToString();
            textBox4.Text =
d1.Tables["bank"].Rows[counter]["Balance"].ToString();
            comboBox1.Text =
d1.Tables["bank"].Rows[counter]["Branch"].ToString();
        }
        else if(counter <= d1.Tables["bank"].Rows.Count - 1)
        {
            MessageBox.Show("You are already on last record");
        }
    }

    private void button2_Click(object sender, EventArgs e)
    {
        if (counter > 0)
        {
            counter = counter - 1;
            textBox1.Text =
d1.Tables["bank"].Rows[counter]["AccountNo"].ToString();
            textBox2.Text =
d1.Tables["bank"].Rows[counter]["Name"].ToString();
            textBox4.Text =
d1.Tables["bank"].Rows[counter]["Balance"].ToString();
            comboBox1.Text =
d1.Tables["bank"].Rows[counter]["Branch"].ToString();

```

```

    }
    else if(counter == 0)
    {
        MessageBox.Show("You are already on the first
record");
    }

}

private void button4_Click(object sender, EventArgs e)
{
    OleDbCommand com = new OleDbCommand("Update bank set
Balance='" + textBox4.Text + "' where AccountNo=@AccountNo",
con);
    com.Parameters.Add("AccountNo", OleDbType.Integer).Value =
textBox1.Text;
    com.ExecuteNonQuery();
    MessageBox.Show(" One record has been updated");
}

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

private void button3_Click(object sender, EventArgs e)
{
    OleDbCommand com1 = new OleDbCommand("Insert into
bank(AccountNo,Name, BranchCode, Balance) values('" + textBox1.Text
+ "',' ' + textBox2.Text + "',' ' + comboBox1.Text + "',' ' +
textBox4.Text + "')", con);
    com1.ExecuteNonQuery();
    MessageBox.Show(" One record has been added");
}
}
}
}

```

OUTPUT:

The screenshot shows a Windows Form with a light gray background. On the left side, there are four labels with corresponding input fields: 'Account Number:' with a text box containing '2', 'Account Holder Name' with a text box containing 'Ali', 'Select BRANCH' with a dropdown menu showing 'university branch', and 'Balance' with a text box containing '5000'. On the right side, under the heading 'Account Type', there are two radio buttons: 'Current' (which is selected) and 'Saving', and a checked checkbox labeled 'ATM'. At the bottom of the form, there are five buttons: 'Next', 'Previous', 'Add', 'Update', and 'Exit'.

: Create a teacher and student management system in C#. This simple application how to create database connectivity in C # application.

Form 1:

```
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;
using System.Data.OleDb;
```

```
namespace Lab11_Q1
{
```

```

public partial class Form1 : Form
{
    public Form1()
    {
        InitializeComponent();
    }
    OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0; Data Source = C:\Users\
Documents\Database3.mdb");

    private void button4_Click(object sender, EventArgs e)
    {
        OleDbDataAdapter adap = new OleDbDataAdapter("select* from
student", @"Provider = Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\ Documents\Database3.mdb");
        DataSet d1 = new DataSet("student");
        MessageBox.Show("Connection built");
        adap.Fill(d1);
        dataGrid1.DataSource = d1;
    }

    private void button2_Click(object sender, EventArgs e)
    {
        Form3 f3 = new Form3();
        f3.Show();
    }

    private void button1_Click(object sender, EventArgs e)
    {
        Form2 f2 = new Form2();
        f2.Show();
    }

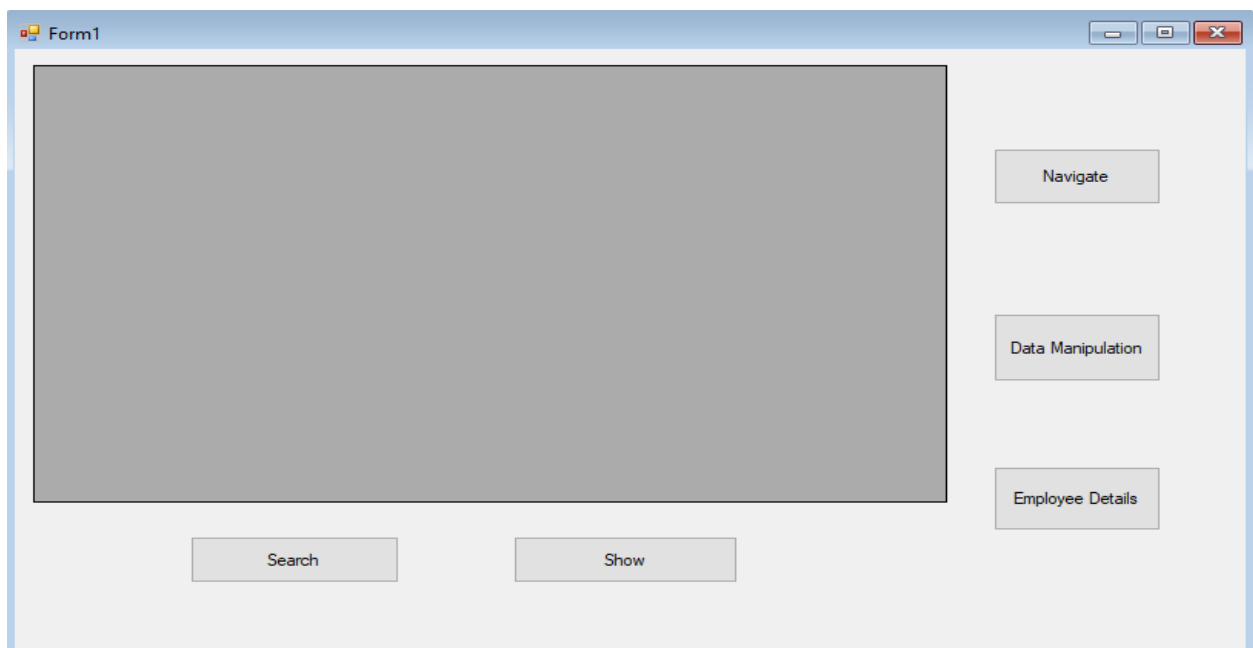
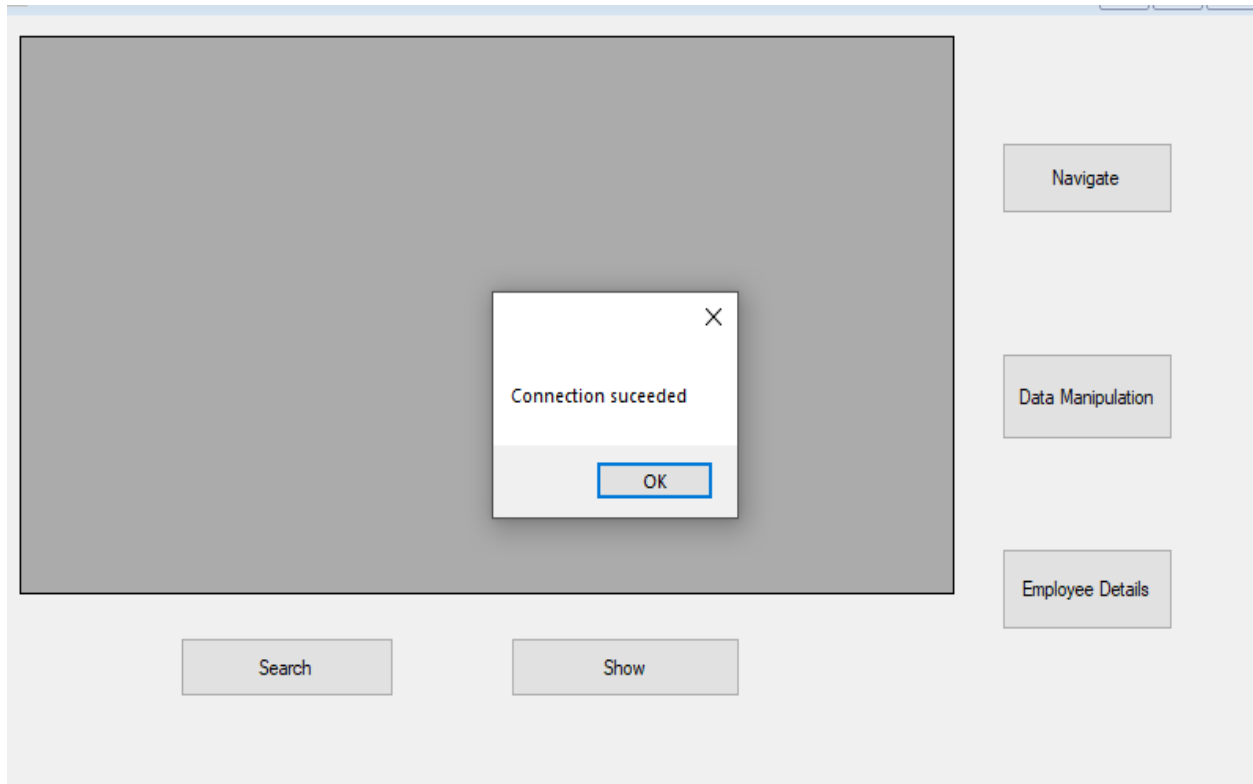
    private void button5_Click(object sender, EventArgs e)
    {
        Form4 f4 = new Form4();
        f4.Show();
    }

    private void button3_Click(object sender, EventArgs e)
    {
        Form5 f5 = new Form5();
    }
}

```

```
        f5.Show();  
    }  
}
```

OUTPUT:



	StudentID	stdName	Phone	Address	deptid	Pid
▶	1	Rafi	9986420	Lahore	200	2
	2	Faizan	5374890	Brazil	300	3
	3	Hassan	3647839	New York	100	6
	4	Areeb	3983744	Karachi	200	4
	5	Haris	3457942	Lahore	300	5
	6	Sead	4457832	Faisalabad	234	6
	7	Mikahil	6373830	Badin	100	3
	8	Ali	8748303	Sukkur	200	4
	9	Mohsin	2346075	Thatta	300	2
	10	Ashhad	3479012	Mirpurkhas	100	5
	11	Hamza	3849327	Quetta	100	6

Buttons: Navigate, Data Manipulation, Employee Details, Search, Show

Form 2:

```

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;
using System.Data.OleDb;

namespace Lab11_Q1
{
    public partial class Form2 : Form
    {
        public Form2()
    }
}

```

```

    {
        InitializeComponent();
    }
    OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
    OleDbDataAdapter adap = new OleDbDataAdapter("select* from
student", @"Provider = Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\ Documents\Database3.mdb");
    DataSet d1 = new DataSet("student");
    int counter = 0;

private void Form2_Load(object sender, EventArgs e)
{
    con.Open();
    adap.Fill(d1, "student");

    textBox1.Text =
d1.Tables["student"].Rows[0]["StudentID"].ToString();
    textBox2.Text =
d1.Tables["student"].Rows[0]["stdName"].ToString();
    textBox3.Text =
d1.Tables["student"].Rows[0]["Phone"].ToString();
    textBox4.Text =
d1.Tables["student"].Rows[0]["Address"].ToString();
    textBox5.Text =
d1.Tables["student"].Rows[0]["deptid"].ToString();

}

private void button1_Click(object sender, EventArgs e)
{
    if (counter > 0)
    {
        counter = 0;
        textBox1.Text =
d1.Tables["student"].Rows[0]["StudentID"].ToString();
        textBox2.Text =
d1.Tables["student"].Rows[0]["stdName"].ToString();
        textBox3.Text =
d1.Tables["student"].Rows[0]["Phone"].ToString();
        textBox4.Text =
d1.Tables["student"].Rows[0]["Address"].ToString();
        textBox5.Text =
d1.Tables["student"].Rows[0]["deptid"].ToString();
    }
}

```

```

    }
    else
    {
        MessageBox.Show("U are already on the first record");
    }
}

private void button2_Click(object sender, EventArgs e)
{
    if (counter < d1.Tables["student"].Rows.Count - 1)
    {
        counter = counter + 1;

        textBox1.Text =
d1.Tables["student"].Rows[counter]["StudentID"].ToString();
        textBox2.Text =
d1.Tables["student"].Rows[counter]["stdName"].ToString();
        textBox3.Text =
d1.Tables["student"].Rows[counter]["Phone"].ToString();
        textBox4.Text =
d1.Tables["student"].Rows[counter]["Address"].ToString();
        textBox5.Text =
d1.Tables["student"].Rows[counter]["deptid"].ToString();
    }
    else if(counter <= d1.Tables["student"].Rows.Count - 1)
    {

        textBox1.Text =
d1.Tables["student"].Rows[0]["StudentID"].ToString();
        textBox2.Text =
d1.Tables["student"].Rows[0]["stdName"].ToString();
        textBox3.Text =
d1.Tables["student"].Rows[0]["Phone"].ToString();
        textBox4.Text =
d1.Tables["student"].Rows[0]["Address"].ToString();
        textBox5.Text =
d1.Tables["student"].Rows[0]["deptid"].ToString();
        counter = 0;
    }
}

private void button4_Click(object sender, EventArgs e)
{
    if (counter > 0)
    {

```

```

        counter = counter - 1;
        textBox1.Text =
d1.Tables["student"].Rows[counter]["StudentID"].ToString();
        textBox2.Text =
d1.Tables["student"].Rows[counter]["stdName"].ToString();
        textBox3.Text =
d1.Tables["student"].Rows[counter]["Phone"].ToString();
        textBox4.Text =
d1.Tables["student"].Rows[counter]["Address"].ToString();
        textBox5.Text =
d1.Tables["student"].Rows[counter]["deptid"].ToString();
    }
    else
    {
        MessageBox.Show("U are already on the first record");
    }

}

private void button3_Click(object sender, EventArgs e)
{
    if (counter != d1.Tables["student"].Rows.Count - 1)
    {
        counter = d1.Tables["student"].Rows.Count - 1;
        textBox1.Text =
d1.Tables["student"].Rows[counter]["StudentID"].ToString();
        textBox2.Text =
d1.Tables["student"].Rows[counter]["stdName"].ToString();
        textBox3.Text =
d1.Tables["student"].Rows[counter]["Phone"].ToString();
        textBox4.Text =
d1.Tables["student"].Rows[counter]["Address"].ToString();
        textBox5.Text =
d1.Tables["student"].Rows[counter]["deptid"].ToString();
    }
    else if(counter >= d1.Tables["student"].Rows.Count - 1)
    {
        MessageBox.Show("ALready on Last record");
    }

}

private void button5_Click(object sender, EventArgs e)
{
    Form1 f1 = new Form1();
    f1.Show();
}

```

```

    }
}

```

OUTPUT:

Form 3:

```

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;
using System.Data.OleDb;

namespace Lab11_Q1
{
    public partial class Form3 : Form
    {
        public Form3()

```

```

    {
        InitializeComponent();
    }
    OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
    OleDbDataAdapter adap = new OleDbDataAdapter("select* from
student", @"Provider = Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
    DataSet d1 = new DataSet("student");

    private void Form3_Load(object sender, EventArgs e)
    {
        con.Open();
        adap.Fill(d1, "student");
        textBox1.Text =
d1.Tables["student"].Rows[0]["StudentID"].ToString();
        textBox2.Text =
d1.Tables["student"].Rows[0]["stdName"].ToString();
        textBox3.Text =
d1.Tables["student"].Rows[0]["Phone"].ToString();
        textBox4.Text =
d1.Tables["student"].Rows[0]["Address"].ToString();
        textBox5.Text =
d1.Tables["student"].Rows[0]["deptid"].ToString();
        con.Close();
    }

    private void button1_Click(object sender, EventArgs e)
    {
        con.Open();

        OleDbCommand com = new OleDbCommand("Update student set
Address = '" + textBox4.Text + "' where stdName =
'" + textBox2.Text + "'", con);
        com.ExecuteNonQuery();
        MessageBox.Show("Record has been updated");
        con.Close();
    }

    private void button3_Click(object sender, EventArgs e)
    {
        con.Open();

```

```

        OleDbCommand com2 = new OleDbCommand("delete from student
where StudentID = " + textBox1.Text + "", con);
        com2.ExecuteNonQuery();
        MessageBox.Show("One record has been deleted");
        con.Close();

    }

    private void button2_Click(object sender, EventArgs e)
    {
        con.Open();
        OleDbCommand com1 = new OleDbCommand("Insert into
student(StudentID, stdName, Phone, Address, deptid) values('" +
textBox1.Text + "',' + textBox2.Text + "',' + textBox3.Text + "',' +
+ textBox4.Text + "',' + textBox5.Text + ''')", con);
        com1.ExecuteNonQuery();
        MessageBox.Show(" One record has been added");
        con.Close();

    }

    private void button4_Click(object sender, EventArgs e)
    {
        textBox1.Text = "";
        textBox2.Text = "";
        textBox3.Text = "";
        textBox4.Text = "";
        textBox5.Text = "";

    }

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

```

OUTPUT:

Form 4:

```

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;
using System.Data.OleDb;

namespace Lab11_Q1
{
    public partial class Form4 : Form
    {
        public Form4()
        {
            InitializeComponent();
        }
        OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");

```



```

        OleDbDataAdapter adap = new OleDbDataAdapter("select* from
student", @"Provider = Microsoft.Jet.OLEDB.4.0; Data Source = C:\Users
\Documents\Database3.mdb");
        DataSet d1 = new DataSet("student");

        private void Form4_Load(object sender, EventArgs e)
        {
            con.Open();
            comboBox1.DropDownStyle = ComboBoxStyle.DropDownList;
            OleDbCommand com = new OleDbCommand("select stdName from
student", con);
            OleDbDataReader d1 = com.ExecuteReader();
            while (d1.Read())
            {
                string b = d1["stdName"].ToString();
                comboBox1.Items.Add(b);
            }
        }

        private void button2_Click(object sender, EventArgs e)
        {
            dataGrid1.DataSource = null;
        }

        private void button1_Click(object sender, EventArgs e)
        {
            string b =
comboBox1.Items[comboBox1.SelectedIndex].ToString();
            OleDbDataAdapter adap = new OleDbDataAdapter("select
student.stdName,Courses.CourseName from Courses inner join student on
Courses.Cid=student.Cid where stdName='" + b + "'", con);
            DataTable d2 = new DataTable("Courses");
            adap.Fill(d2);
            dataGrid1.DataSource = d2;
        }

        private void button3_Click(object sender, EventArgs e)
        {
            this.Hide();
        }
    }
}

```

OUTPUT:

SEARCH FOR STUDENT INFORMATION

Mohsin

Submit DELETE

	stdName	CourseName
▶	Mohsin	EE
*		

BACK

Form 5:

```

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;
using System.Data.OleDb;
namespace Lab11_Q1
{
    public partial class Form5 : Form
    {
        public Form5()
        {
            InitializeComponent();
        }
    }
}

```

```

        OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
        OleDbDataAdapter adap = new OleDbDataAdapter("select* from
student", @"Provider = Microsoft.Jet.OLEDB.4.0; Data Source =
C:\Users\Documents\Database3.mdb");
        DataSet d1 = new DataSet("student");
        private void Form5_Load(object sender, EventArgs e)
        {
            con.Open();
            comboBox1.DropDownStyle = ComboBoxStyle.DropDownList;
            OleDbCommand com = new OleDbCommand("select ename from
emp", con);
            OleDbDataReader d1 = com.ExecuteReader();
            while (d1.Read())
            {
                string b = d1["ename"].ToString();
                comboBox1.Items.Add(b);
            }
        }

        private void comboBox1_SelectedIndexChanged(object sender,
EventArgs e)
        {
            string c =
comboBox1.Items[comboBox1.SelectedIndex].ToString();
            OleDbDataAdapter adap = new OleDbDataAdapter("select
emp.ename,Courses.CourseName from Courses inner join emp on
Courses.empno=emp.empno where ename='" + c + "'", con);
            DataTable d2 = new DataTable("Courses");
            adap.Fill(d2);
            dataGrid1.DataSource = d2;
        }

        private void button1_Click(object sender, EventArgs e)
        {
            this.Hide();
        }
    }
}

```

OUTPUT :

Form5

SEARCH FOR TEACHER INFORMATION REGARDING THEIR SUBJECTS

Afra

Submit DELETE

	ename	CourseName
▶	Afra	Calculus
	Afra	Ist
*		

BACK