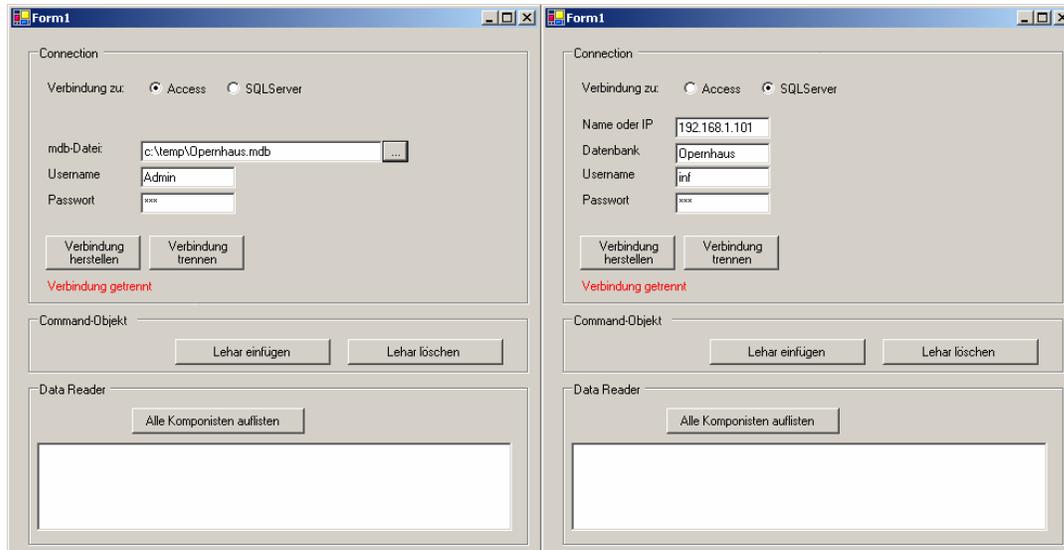


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# C# Datenbank-Programmierung

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### Usings

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

```
public class Form1 : System.Windows.Forms.Form
{
    private OleDbConnection cnn_OleDb;
    ...;
}

public Form1()
{
    InitializeComponent();
    cnn_OleDb= new OleDbConnection();
}
```



### Verbindung herstellen SQL und Acces

```
private void OnConnect_Click(object sender, System.EventArgs e)
{
    try
    {
        if (cnn_OleDb.State == ConnectionState.Open)
            cnn_OleDb.Close();
        String sTemp="";
        if (this.rdBtnAccess.Checked == true)
        {
            cnn_OleDb.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;";
            cnn_OleDb.ConnectionString += "Data Source=" + txtAccessPfad.Text;
            cnn_OleDb.ConnectionString += ";User ID=" + txtUserName.Text; //BenutzerName
            cnn_OleDb.ConnectionString += ";PASSWORD=" + txtPasswort.Text; //BenutzerPasswort
            cnn_OleDb.ConnectionString += ";Jet OLEDB:Database Password=bbzs"; //DatenbankPasswort
            //cnn_Access.ConnectionString += ";Jet OLEDB:System Database="; //eigenes Benutzerdef-File
            sTemp = "Access über OLEDB";
        }
        else if(this.rdBtnSQLServer.Checked == true)
        {
            cnn_OleDb.ConnectionString = "Provider=SQLOLEDB"; //SQL-Server über OLEDB
            cnn_OleDb.ConnectionString += ";Data Source=" + txtSqlIPAdresse.Text; //Name oder IP
            //BenutzerName
            //BenutzerPasswort
            cnn_OleDb.ConnectionString += ";User ID=" + txtUserName.Text;
            cnn_OleDb.ConnectionString += ";PASSWORD=" + txtPasswort.Text;
            cnn_OleDb.ConnectionString += ";Initial Catalog=" +txtSqlDatenbank.Text; //Datenbank
        }
    }
}
```

```

        sTemp = "SQL-Server über OLEDB";
    }
    cnn_OleDb.Open();
    if (cnn_OleDb.State == ConnectionState.Open)
    {
        lblVerbindungsStatus.Text = "Verbindung zu " + sTemp + " geöffnet";
        lblVerbindungsStatus.ForeColor = System.Drawing.Color.Green;
    }
}
catch (OleDbException ex)
{
    string errorMessages = "";
    for (int i=0; i < ex.Errors.Count; i++)
        errorMessages += "Message: " + ex.Errors[i].Message + "\n";
    MessageBox.Show(errorMessages);
}
}

```

Verbindung  
trennen

#### Verbindung schliessen SQL und Acces

```

private void OnDisconnect_Click(object sender, System.EventArgs e)
{
    try
    {
        if (cnn_OleDb.State == ConnectionState.Open)
        {
            cnn_OleDb.Close();
            lblVerbindungsStatus.Text = "Verbindung getrennt";
            lblVerbindungsStatus.ForeColor = System.Drawing.Color.Red;
        }
    }
    catch (OleDbException ex)
    {
        string errorMessages = "";
        for (int i=0; i < ex.Errors.Count; i++)
            errorMessages += "Message: " + ex.Errors[i].Message + "\n";
        MessageBox.Show(errorMessages);
    }
}

```



#### File open Dialog

```

private void btnAccessFile_Click(object sender, System.EventArgs e)
{
    this.openFileDialog1.ShowDialog(this);
    this.txtAccessPfad.Text = openFileDialog1.FileName;
}

```

Lehar einfügen

#### Lehar einfügen

```

private void btnLehareinfuegen_Click(object sender, System.EventArgs e)
{
    try
    {
        OleDbCommand cmd = new OleDbCommand();
        cmd.CommandText = "insert into Komponisten values (11, 'Lehar','Franz', 1870, 1948)";
        cmd.Connection = cnn_OleDb;
        cmd.ExecuteNonQuery();
    }
    catch (OleDbException ex)
    {
        string errorMessages = "";
        for (int i=0; i < ex.Errors.Count; i++)
        {
            errorMessages += "Message: " + ex.Errors[i].Message + "\n";
        }
        MessageBox.Show(errorMessages);
    }
}

```

Lehar löschen

#### Lehar löschen

```
private void btnLeharloeschen_Click(object sender, System.EventArgs e)
{
    try
    {
        OleDbCommand cmd = new OleDbCommand();
        cmd.CommandText = "delete from Komponisten where Name = 'Lehar'";
        cmd.Connection = cnn_OleDb;
        cmd.ExecuteNonQuery();
    }
    catch (OleDbException ex)
    {
        string errorMessages = "";
        for (int i=0; i < ex.Errors.Count; i++)
        {
            errorMessages += "Message: " + ex.Errors[i].Message + "\n";
        }
        MessageBox.Show(errorMessages);
    }
}
```

Access  SQLServer

#### Radio Button SQL & Access

```
private void OnVerbindungChanged(object sender, System.EventArgs e)
{
    if (this.rdBtnAccess.Checked == true)
    {
        this.panelAccess.Visible = true;
        this.panelSQLServer.Visible = false;
        this.txtUserName.Text = "Admin";
    }
    else if (this.rdBtnSQLServer.Checked == true)
    {
        this.panelSQLServer.Visible = true;
        this.panelAccess.Visible = false;
        this.txtUserName.Text = "in";
    }
}
```

Alle Komponisten auflisten

#### Anzeigen (alle Komponisten auflisten)

```
private void btnAlleKomponisten_Click(object sender, System.EventArgs e)
{
    OleDbCommand cmd = new OleDbCommand();
    cmd.CommandText = "Select * From Komponisten";
    cmd.Connection = cnn_OleDb;
    try
    {
        OleDbDataReader myReader = cmd.ExecuteReader();
        listBoxAnswer.Items.Clear();
        while(myReader.Read())
        {
            listBoxAnswer.Items.Add(myReader.GetValue(0).ToString() + " " + myReader.GetString(1) + " " +
myReader.GetString(2));
        }
        myReader.Close();
    }
    catch (OleDbException ex)
    {
        string errorMessages = "";
        for (int i=0; i < ex.Errors.Count; i++)
        {
            errorMessages += "Message: " + ex.Errors[i].Message + "\n";
        }
        MessageBox.Show(errorMessages);
    }
}
```

**Übertragen**

```

try
{
    SqlConnection conSQL = new SqlConnection();
    conSQL.ConnectionString = "Server="+txtSQLServer.Text;
    conSQL.ConnectionString += ";uid="+txtSQLBenutzer.Text;
    conSQL.ConnectionString += ";pwd="+txtSQLPasswort.Text;
    conSQL.ConnectionString += ";database="+txtSQLDatenbank.Text;
    conSQL.Open();

    OleDbConnection conAcc = new OleDbConnection();
    conAcc.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;";
    conAcc.ConnectionString += "Data Source=" + txtAccessPfad.Text;
    conAcc.ConnectionString += ";User ID=" + txtAccessBenutzer.Text; //BenutzerName
    conAcc.ConnectionString += ";PASSWORD=" + txtAccessPasswort.Text;
    OleDbCommand cmdAcc = new OleDbCommand("select * from " + txtTable.Text + " where
klasse="+txtExKlasse.Text+"", conAcc);

    conAcc.Open();

    try
    {
        OleDbDataReader myReader = cmdAcc.ExecuteReader();

        SqlCommand cmdSQL = new SqlCommand();
        cmdSQL.Connection = conSQL;
        while(myReader.Read())
        {
            cmdSQL.CommandText = "insert into "+txtTable.Text+"(name,vorname,klasse) values("
                + myReader.GetString(0) + ","
                + myReader.GetString(1) + ","
                + myReader.GetString(2) + ")";
            cmdSQL.ExecuteNonQuery();
        }
        myReader.Close();
        conSQL.Close();
    }
    catch(System.Data.OleDb.OleDbException ex)
    {
        MessageBox.Show(ex.Message);
    }
}
catch(InvalidOperationException e2)
{
    MessageBox.Show(e2.Message);
}

```