



Chapter

8

Windows Form Application

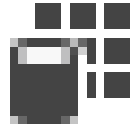
Part 4

Overview

- DataGridView
- Data Validation



DataGridView

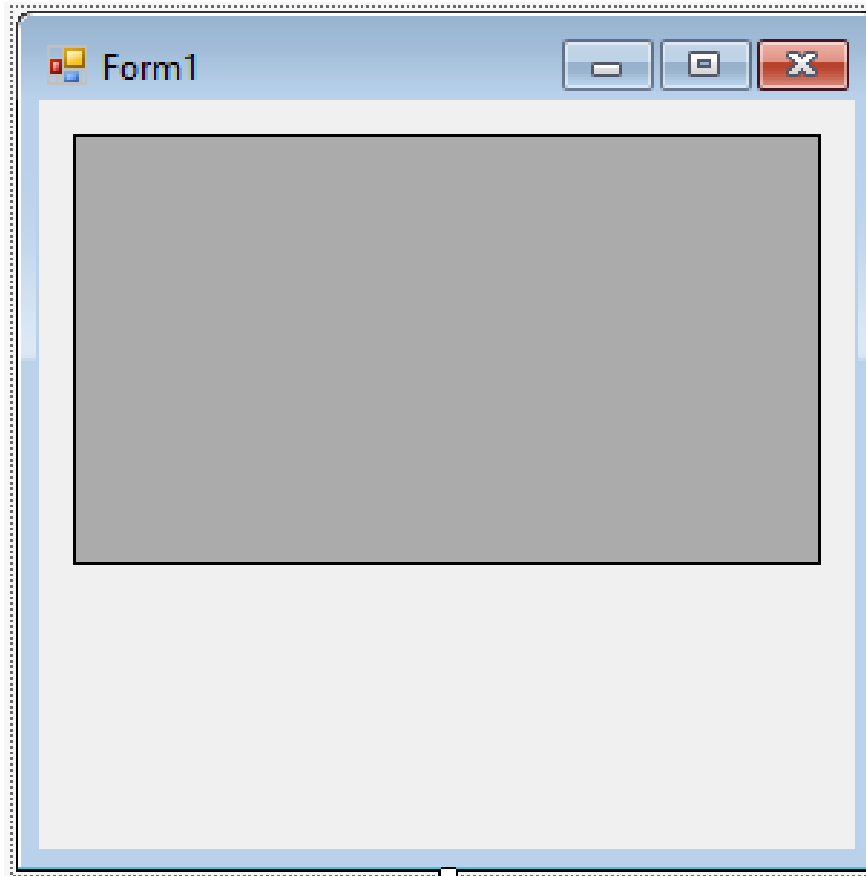


DataGridView



- แสดงข้อมูลจาก SQL และ DataTable
- มี Header ที่สามารถ sort ข้อมูลได้

DataGridView



DataGridView



- สร้าง method สำหรับสร้าง DataTable

```
DataTable data;
private void CreateDataTable()
{
    data = new DataTable();
    data.Columns.Add("emp_ID", typeof(string));
    data.Columns.Add("emp_Username", typeof(string));
    data.Columns.Add("emp_Password", typeof(string));
    data.Columns.Add("emp_Name", typeof(string));
    data.Columns.Add("emp_Surname", typeof(string));
    data.Columns.Add("emp_Salary", typeof(int));
    data.Rows.Add("em001", "User01", "Pass01", "Somsak", "Jaidee", 15000);
    data.Rows.Add("em002", "User02", "Pass02", "SomSee", "Deejai", 17000);
    data.Rows.Add("em003", "User03", "Pass03", "SomJai", "Mawai", 20000);
    data.Rows.Add("em004", "User04", "Pass04", "SomBoon", "Sukee", 32000);
}
```

DataGridView

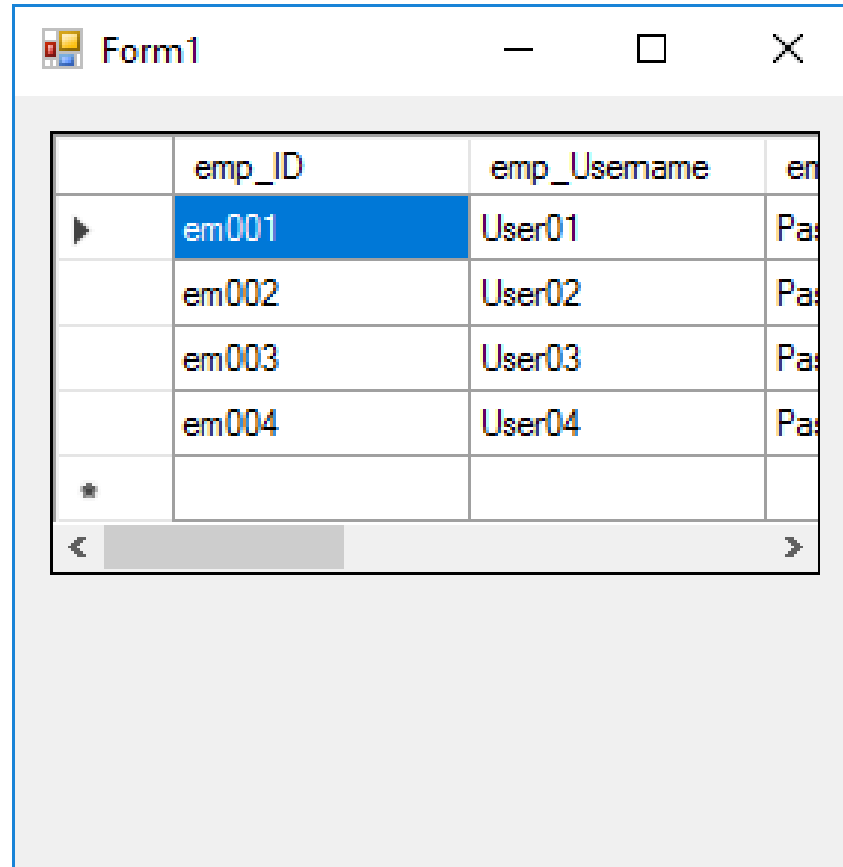


- กำหนด Code ตอนรันโปรแกรม

```
public Form1()  
{  
    InitializeComponent();  
    CreateDataTable();  
    dataGridView1.DataSource = data;  
}
```

DataGridView

- ทดสอบโปรแกรม



The screenshot shows a Windows Form titled "Form1" with a standard title bar (minimize, maximize, close buttons). Inside the form is a DataGridView control displaying a table of employee data. The table has four columns: an empty column, "emp_ID", "emp_Username", and "emp_Password". The first row is selected, showing "em001" in the "emp_ID" column, "User01" in the "emp_Username" column, and "Pas" in the "emp_Password" column. Below the table is a scrollbar with left and right arrow buttons.

	emp_ID	emp_Username	emp_Password
▶	em001	User01	Pas
	em002	User02	Pas
	em003	User03	Pas
	em004	User04	Pas
*			





DataGridView

- ปรับขนาด Form ให้เห็นครบทุก Column

The screenshot shows a Windows Form titled "Form1" with a standard Windows title bar (minimize, maximize, close buttons). Inside the form is a DataGridView control displaying a table of employee data. The first row is selected, highlighting the "em001" entry. The table has 7 columns: emp_ID, emp_Username, emp_Password, emp_Name, emp_Surname, and emp_Salary. There is a scroll bar at the bottom of the table, and a small asterisk icon in the bottom-left corner of the table area.

	emp_ID	emp_Username	emp_Password	emp_Name	emp_Surname	emp_Salary
▶	em001	User01	Pass01	Somsak	Jaidee	15000
	em002	User02	Pass02	SomSee	Deejai	17000
	em003	User03	Pass03	SomJai	Mawai	20000
	em004	User04	Pass04	SomBoon	Sukee	32000
*						



DataGridView

- Event ของ DataGridView
 - CellContentClick

```
private void dataGridView1_CellContentClick(object sender, DataGridViewCellEventArgs e)
{
    MessageBox.Show("CellContentClick");
}
```

- CellClick

```
private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
{
    MessageBox.Show("ContentClick");
}
```

DataGridView



- แสดง Row index ของ cell ที่ คลิก

```
private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
{
    MessageBox.Show(dataGridView1.SelectedCells[0].RowIndex.ToString()+" cell Click");
}
```

DataGridView



Form1

	emp_ID	emp_Username	emp_Password	emp_Name	emp_Salary
▶	em001	User01	Pass01	Somsak	15000
	em002	User02	Pass02	SomSee	17000
	em003	User03	Pass03	SomJai	20000
	em004	User04	Pass04	SomBoon	32000
*					

0 cell Click

OK

DataGridView

- ปรับหน้าจอดังนี้

A screenshot of a Windows application window titled "Form1". The window contains a large, empty DataGridView control. Below the DataGridView, there are several input fields and a button. The fields are labeled "ID:", "Username:", "Password:", "Name:", "Surname:", and "Salary:". The "Salary:" field is positioned to the right of the "Name:" and "Surname:" fields. A "Save" button is located at the bottom right of the form.

Form1

ID :

Username : Name : Salary :

Password : Surname :

Save

DataGridView



- ดึงข้อมูลทั้งแถวจาก cell ที่เลือก

```
private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
{
    //MessageBox.Show(dataGridView1.SelectedCells[0].RowIndex.ToString()+" cell Click");
    int Selectedindex = dataGridView1.SelectedCells[0].RowIndex;
    tb_ID.Text = data.Rows[Selectedindex]["emp_ID"].ToString();
    tb_Username.Text = data.Rows[Selectedindex]["emp_Username"].ToString();
    tb_Password.Text = data.Rows[Selectedindex]["emp_Password"].ToString();
    tb_Name.Text = data.Rows[Selectedindex]["emp_Name"].ToString();
    tb_Surname.Text = data.Rows[Selectedindex]["emp_Surname"].ToString();
    tb_Salary.Text = data.Rows[Selectedindex]["emp_Salary"].ToString();
}
```

DataGridView



Form1

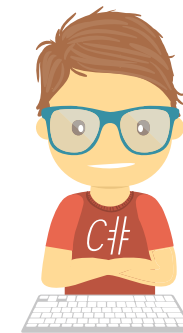
	emp_ID	emp_Username	emp_Password	emp_Name	emp_Surname	emp_Salary
	em001	User01	Pass01	Somsak	Jaidee	15000
	em002	User02	Pass02	SomSee	Deejai	17000
▶	em003	User03	Pass03	SomJai	Mawai	20000
	em004	User04	Pass04	SomBoon	Sukee	32000
*						

ID :

Username : Name : Salary :

Password : Surname :

DataGridView



- แก้ไขข้อมูลที่เลือก

```
private void bt_Click(object sender, EventArgs e)
{
    int Selectedindex = dataGridView1.SelectedCells[0].RowIndex;
    data.Rows[Selectedindex]["emp_ID"] = tb_ID.Text;
    data.Rows[Selectedindex]["emp_Username"] = tb_Username.Text;
    data.Rows[Selectedindex]["emp_Password"] = tb_Password.Text;
    data.Rows[Selectedindex]["emp_Name"] = tb_Name.Text;
    data.Rows[Selectedindex]["emp_Surname"] = tb_Surname.Text;
    data.Rows[Selectedindex]["emp_Salary"] = tb_Salary.Text;
    dataGridView1.DataSource = null;
    dataGridView1.DataSource = data;
}
```

DataGridView



Form1

	emp_ID	emp_Username	emp_Password	emp_Name	emp_Surname	emp_Salary
	em001	User01	Pass01	Somsak	Jaidee	15000
▶	asd	zxc	zxc	zxc	zxc	200
	em003	User03	Pass03	SomJai	Mawai	20000
	em004	User04	Pass04	SomBoon	Sukee	32000
*						

ID :

Username : Name : Salary :

Password : Surname :

DataGridView



Form1

	emp_ID	emp_Usemame	emp_Password	emp_Name	emp_Sumame	emp_Salary
▶	em001	User01	Pass01	Somsak	Jaidee	15000
	em002	User02	Pass02	SomSee	Deejai	17000
	em003	User03	Pass03	SomJai	Mawai	20000
	em004	User04	Pass04	SomBoon	Sukee	32000
*						

ID :

Username : Name :

Password : Sumame :

Salary :

Save

DataGridView



! ArgumentException was unhandled ×

An unhandled exception of type 'System.ArgumentException' occurred in System.Data.dll

Additional information: Input string was not in a correct format.Couldn't store <qwe> in emp_Salary Column. Expected type is Int32.

Troubleshooting tips:

[Get general help for this exception.](#)

[Search for more Help Online...](#)

Exception settings:

Break when this exception type is thrown

Actions:

[View Detail...](#)

[Copy exception detail to the clipboard](#)

[Open exception settings](#)

Data Validation

- เป็นการตรวจสอบค่าที่เป็นไปได้ในการกรอกข้อมูล
- เพื่อป้องกันข้อผิดพลาดที่เกิดขึ้นในการบันทึกข้อมูล



Data Validation



- ตรวจสอบตัวเลข

```
private bool chk_number(String input)
{
    int n;
    return int.TryParse(input, out n);
}
```

Data Validation

- ปรับ code ใน bt_Click



```
private void bt_Click(object sender, EventArgs e)
{
    if (chk_number(tb_Salary.Text))
    {
        int Selectedindex = dataGridView1.SelectedCells[0].RowIndex;
        data.Rows[Selectedindex]["emp_ID"] = tb_ID.Text;
        data.Rows[Selectedindex]["emp_Username"] = tb_Username.Text;
        data.Rows[Selectedindex]["emp_Password"] = tb_Password.Text;
        data.Rows[Selectedindex]["emp_Name"] = tb_Name.Text;
        data.Rows[Selectedindex]["emp_Surname"] = tb_Surname.Text;
        data.Rows[Selectedindex]["emp_Salary"] = tb_Salary.Text;
        dataGridView1.DataSource = null;
        dataGridView1.DataSource = data;
    }
    else
    {
        MessageBox.Show("Salary must integer");
    }
}
```

Data Validation



Form1

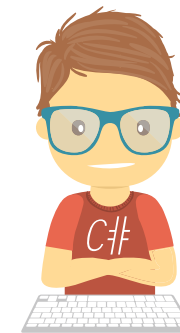
emp_ID	emp_Username	emp_Password	emp_Name	emp_Sumame	emp_Salary
em001	User01	Pass		Jaidee	15000
em002	User02	Pass		Deejai	17000
em003	User03	Pass		Mawai	20000
em004	User04	Pass		Sukee	32000
*					

ID :

Username : Name : Salary :

Password : Sumame :

Salary must integer



สรุป

แบบฝึกหัด



- จาก code ที่ได้เขียนมา ให้นักศึกษาปรับให้โปรแกรมสามารถ เพิ่ม และ ลบ ข้อมูลได้