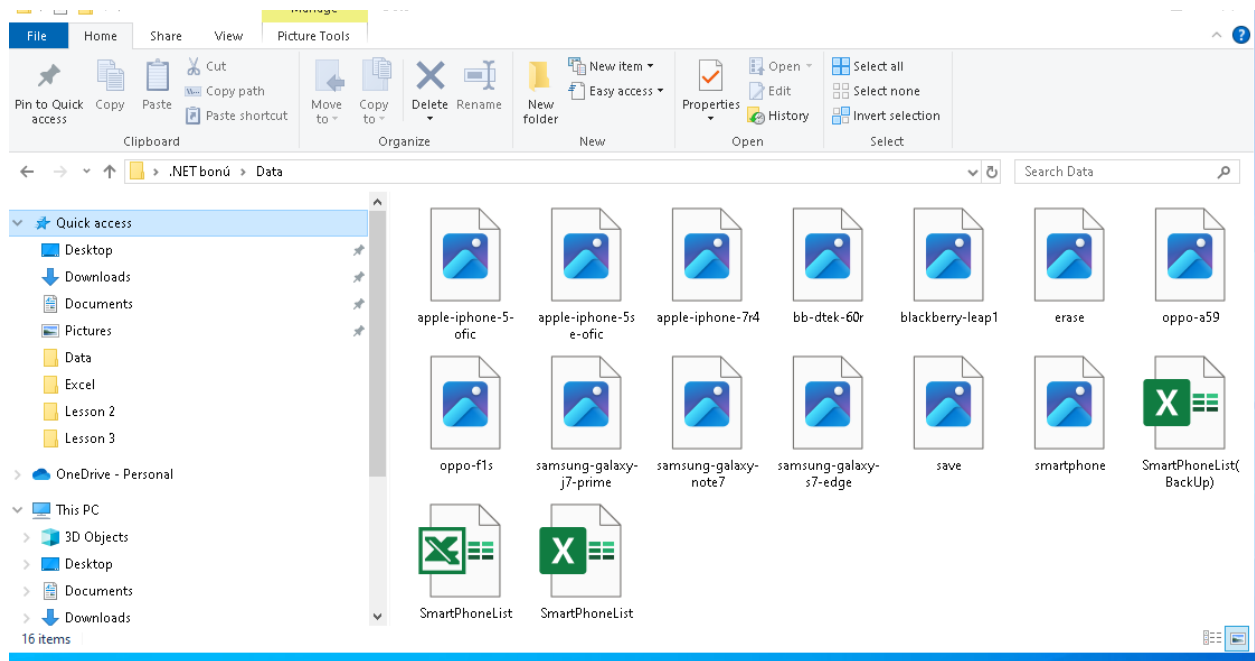


Họ và tên: Nguyễn Thanh Kiên

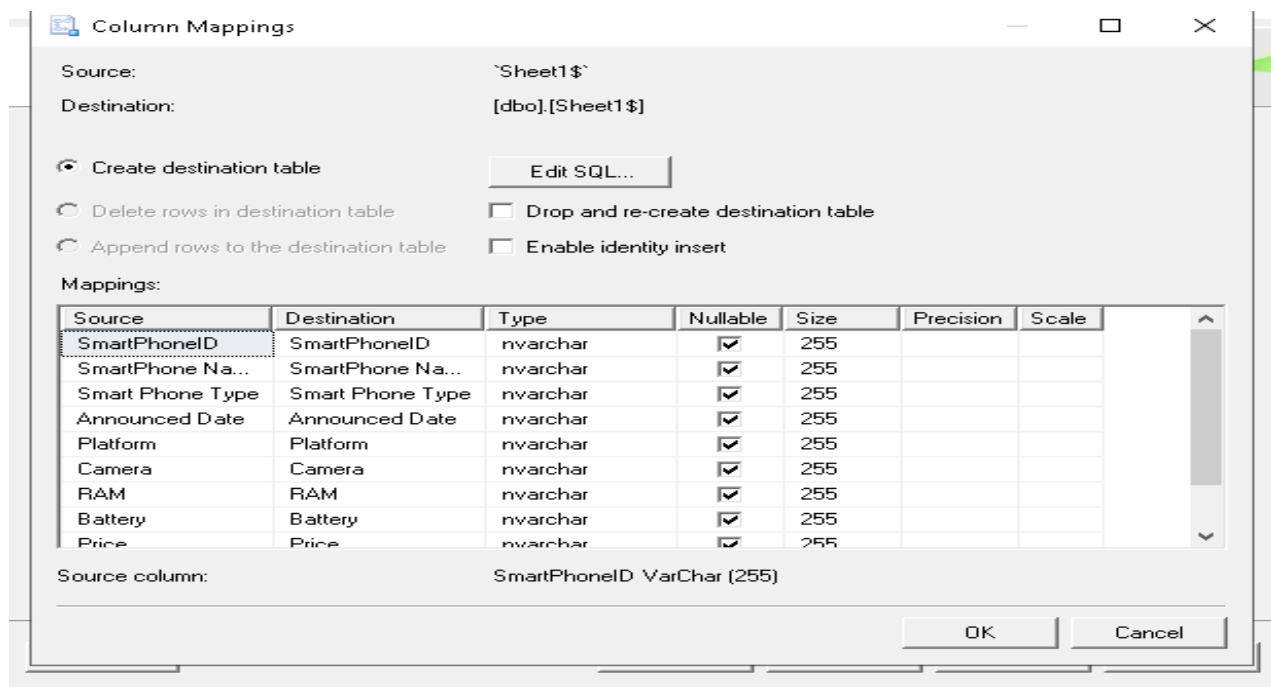
MSSV: 22110092

1. Tạo cơ sở dữ liệu SQL Server từ Excel File

File Excel và hình ảnh



Chỉnh lại đúng kiểu dữ liệu cho dữ liệu SQL bằng Edit Mapping

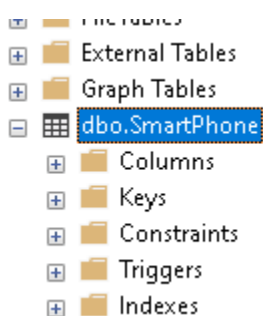


Sau khi chỉnh

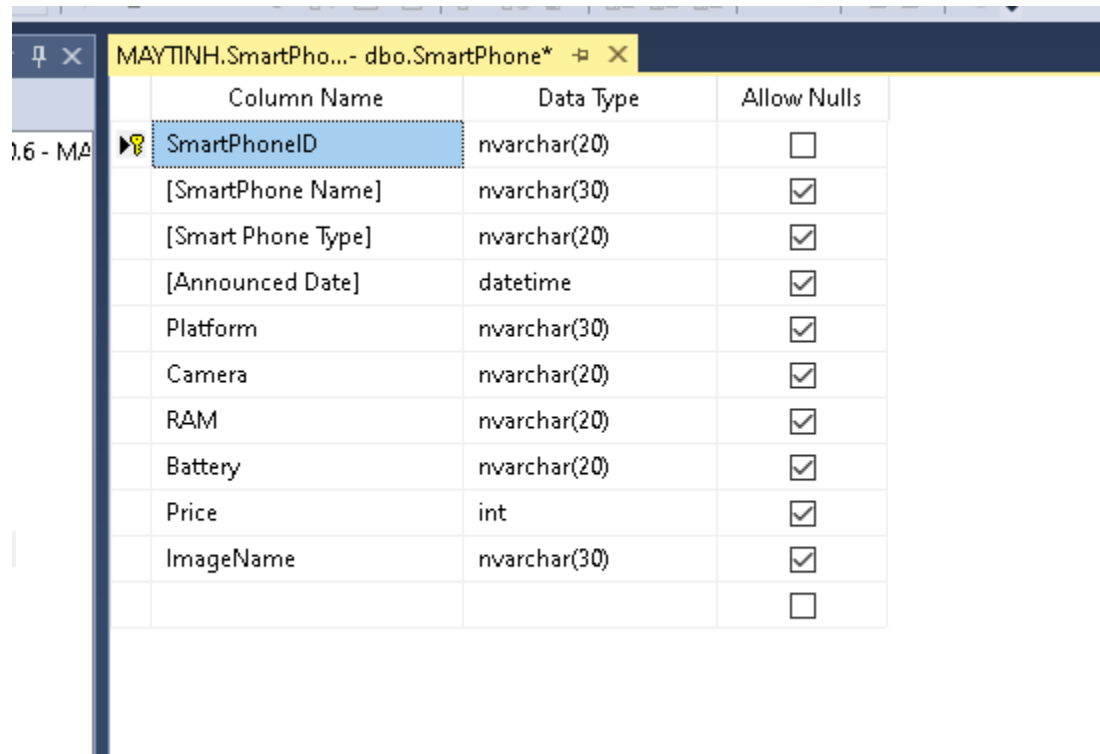
Source	Destination	Type	Nullable	Size	Precision	Scale
Smart Phone Type	Smart Phone Type	nvarchar	<input checked="" type="checkbox"/>	255		
Announced Date	Announced Date	datetime	<input checked="" type="checkbox"/>			
Platform	Platform	nvarchar	<input checked="" type="checkbox"/>	255		
Camera	Camera	nvarchar	<input checked="" type="checkbox"/>	255		
RAM	RAM	nvarchar	<input checked="" type="checkbox"/>	255		
Battery	Battery	nvarchar	<input checked="" type="checkbox"/>	255		
Price	Price	int	<input checked="" type="checkbox"/>			
ImageName	ImageName	nvarchar	<input checked="" type="checkbox"/>	255		

Source column: Price VarChar (255)

Đổi tên Sheet1 thành SmartPhone



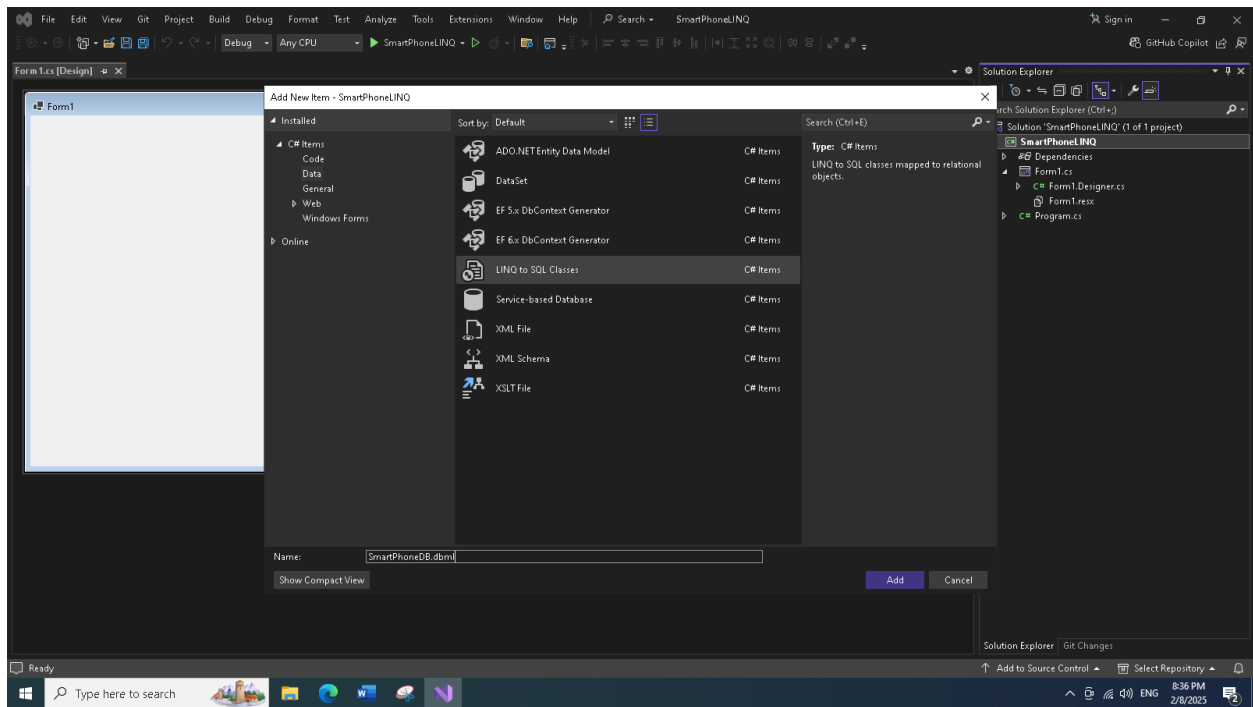
Chỉnh lại số lượng ký tự và set Primary Key cho hàng đầu tiên (SmartPhoneID)



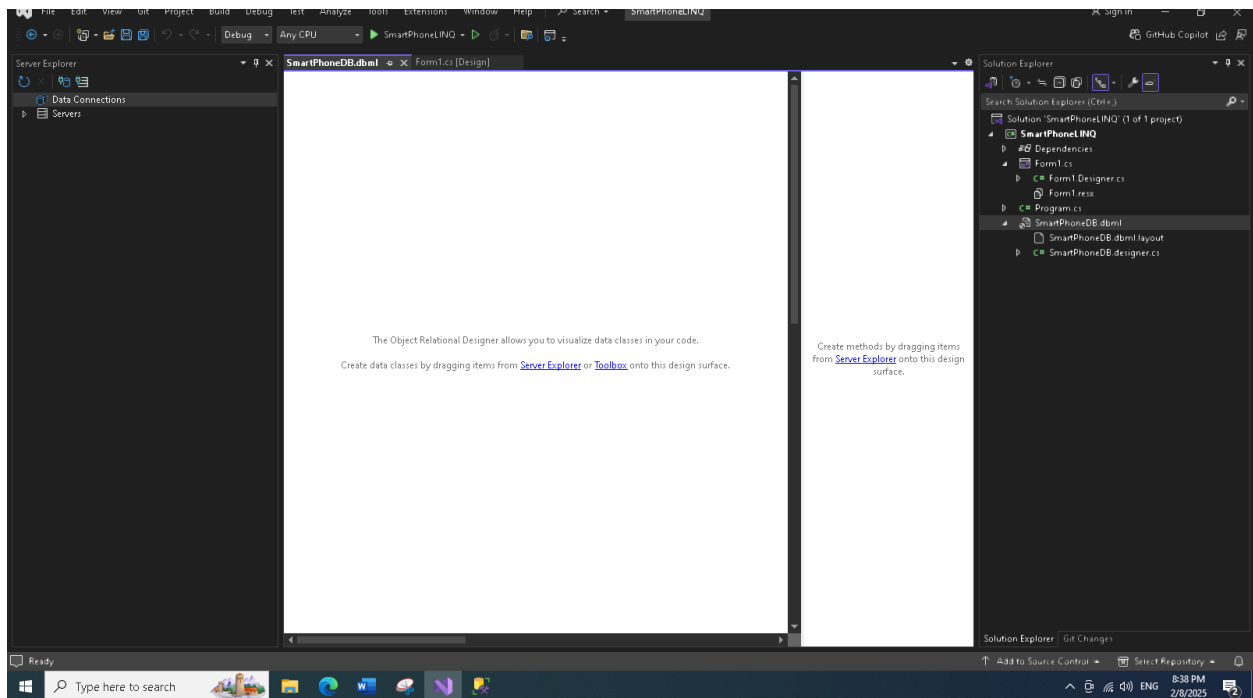
Column Name	Data Type	Allow Nulls
SmartPhoneID	nvarchar(20)	<input type="checkbox"/>
[SmartPhone Name]	nvarchar(30)	<input checked="" type="checkbox"/>
[Smart Phone Type]	nvarchar(20)	<input checked="" type="checkbox"/>
[Announced Date]	datetime	<input checked="" type="checkbox"/>
Platform	nvarchar(30)	<input checked="" type="checkbox"/>
Camera	nvarchar(20)	<input checked="" type="checkbox"/>
RAM	nvarchar(20)	<input checked="" type="checkbox"/>
Battery	nvarchar(20)	<input checked="" type="checkbox"/>
Price	int	<input checked="" type="checkbox"/>
ImageName	nvarchar(30)	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

2. Tạo Project và Add LINQ cơ sở dữ liệu SmartPhoneDB

Tạo LinQ Server

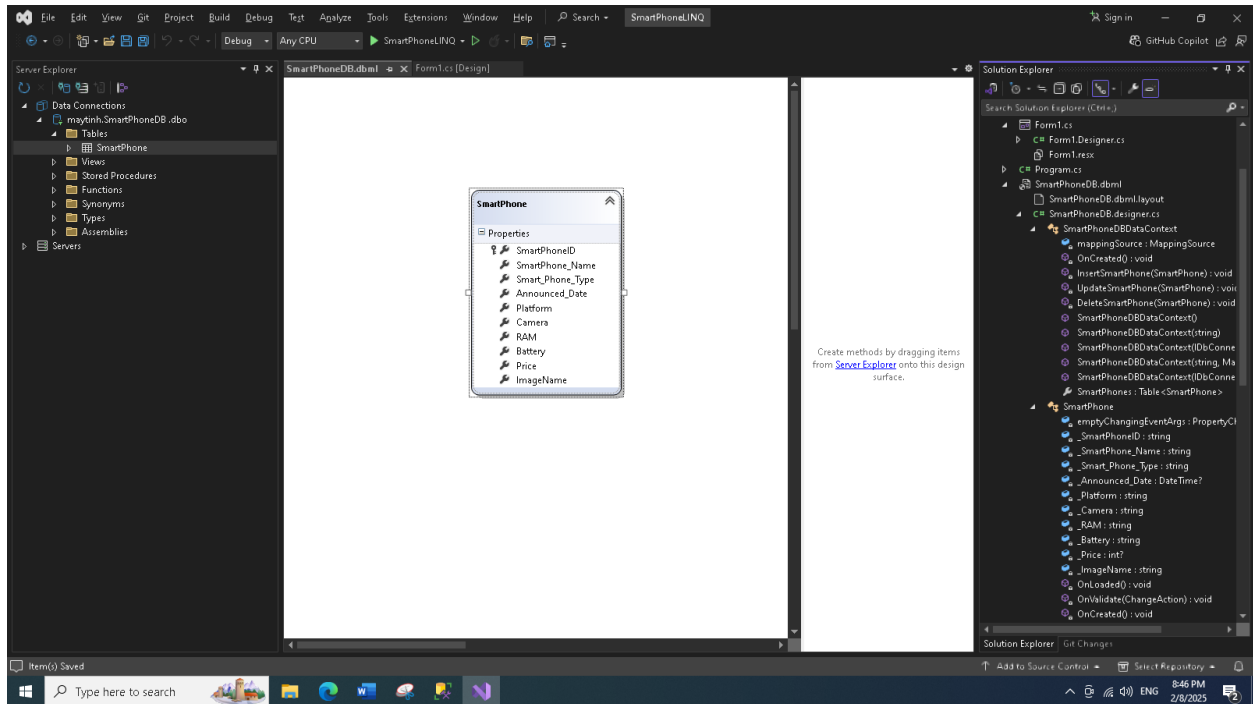


Thực hiện kết nối đến SQL Server



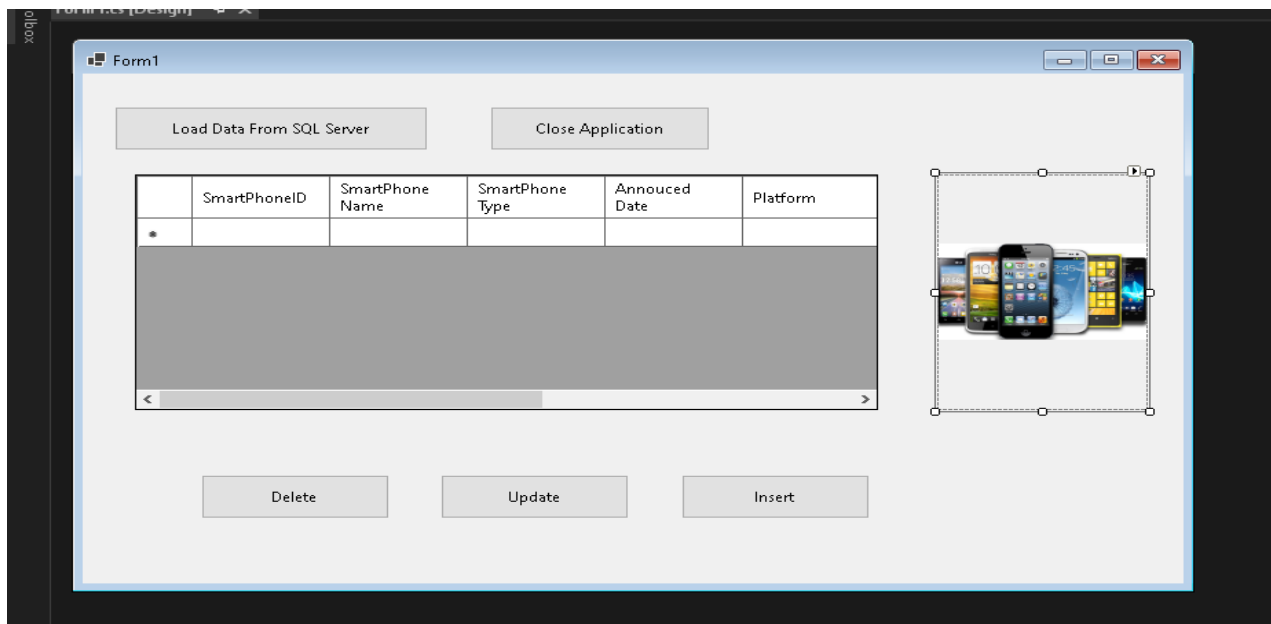
Kéo thả SmartPhone Database

0

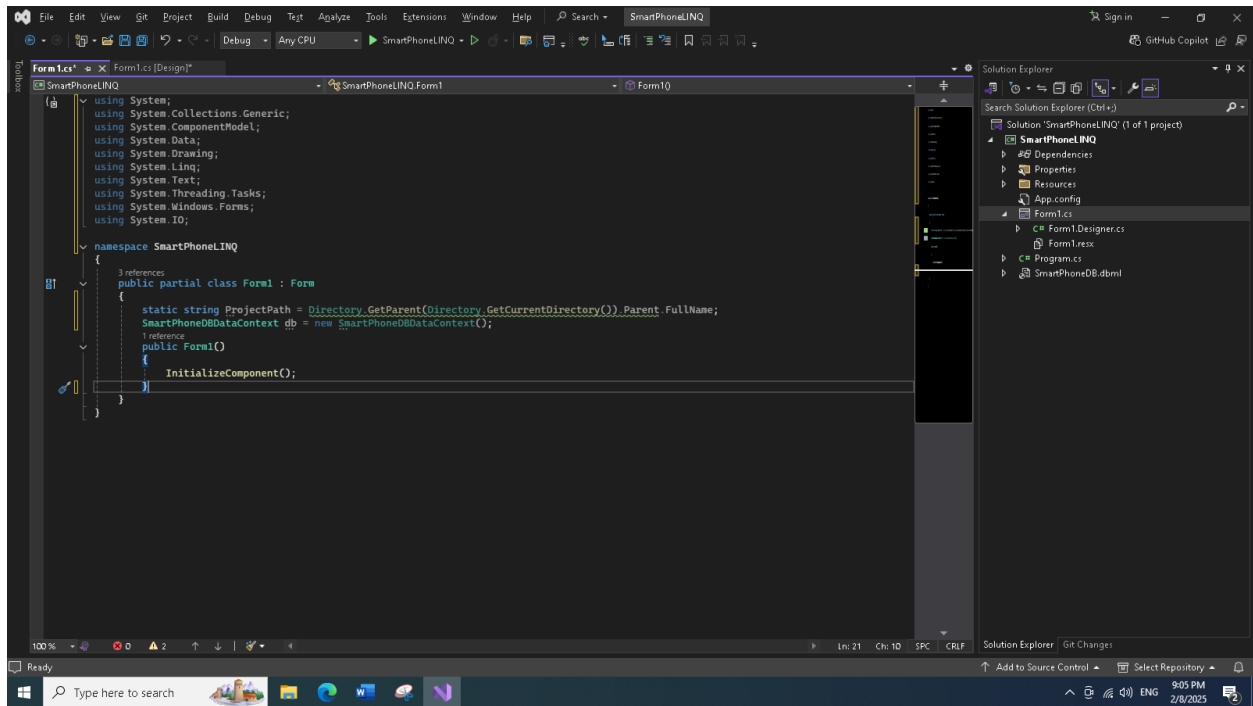


3. Viết ứng dụng quản lý SmartPhone với các chức năng cơ bản

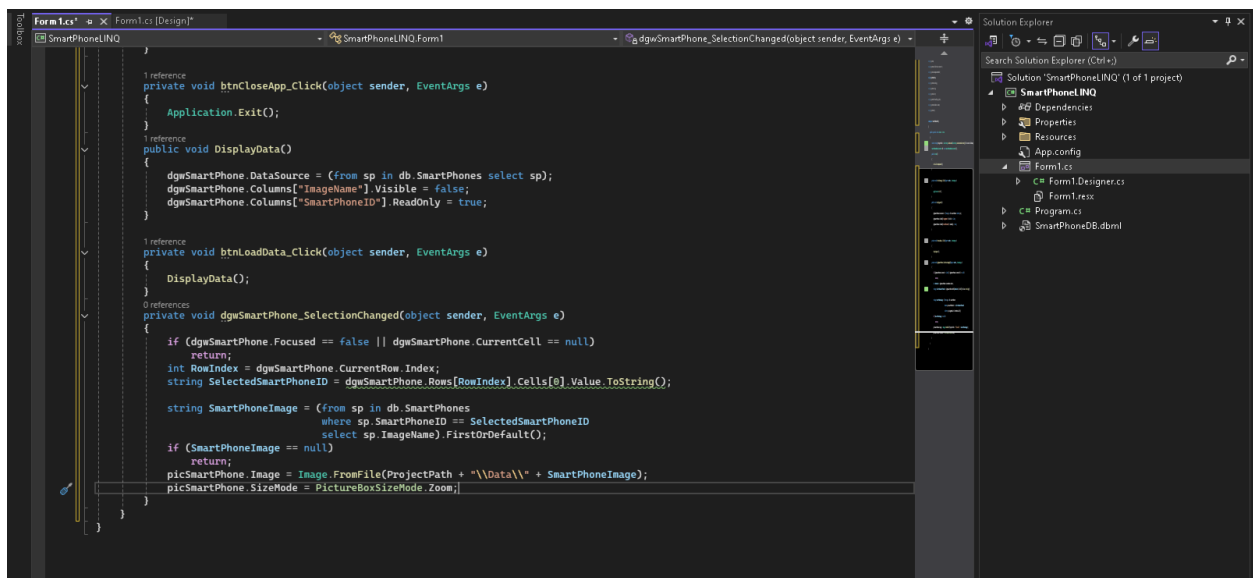
Design cho ứng dụng



Vì Form đã có dữ liệu của PictureBox nên ta không thực hiện From1_Load



Sự kiện đóng app, load data và selection changed



Nút Delete

```

1 reference
private void btnDelete_Click(object sender, EventArgs e)
{
    // Delete in Database
    int RowIndex = dgwSmartPhone.CurrentRow.Index;
    string SelectedSmartPhoneID = dgwSmartPhone.Rows[RowIndex].Cells[0].Value.ToString();

    SmartPhone deletedSP = (from sp in db.SmartPhones
                            where sp.SmartPhoneID == SelectedSmartPhoneID
                            select sp).SingleOrDefault();
    db.SmartPhones.DeleteOnSubmit(deletedSP);
    db.SubmitChanges();
    DisplayData();

    MessageBox.Show("SmartPhone: " + deletedSP.SmartPhoneID + "is deleted");
}
}

```

Nút Update

```

1 reference
private void btnUpdate_Click(object sender, EventArgs e)
{
    int RowIndex = dgwSmartPhone.CurrentRow.Index;
    string SelectedSmartPhoneID = dgwSmartPhone.Rows[RowIndex].Cells[0].Value.ToString();

    SmartPhone updatedSP = (from sp in db.SmartPhones
                            where sp.SmartPhoneID == SelectedSmartPhoneID
                            select sp).SingleOrDefault();

    updatedSP.SmartPhoneID = dgwSmartPhone.Rows[RowIndex].Cells[0].Value.ToString();
    updatedSP.SmartPhone_Name = dgwSmartPhone.Rows[RowIndex].Cells[1].Value.ToString();
    updatedSP.Smart_Phone_Type = dgwSmartPhone.Rows[RowIndex].Cells[2].Value.ToString();
    updatedSP.Announced_Date = DateTime.Parse(dgwSmartPhone.Rows[RowIndex].Cells[3].Value.ToString());
    updatedSP.Platform = dgwSmartPhone.Rows[RowIndex].Cells[4].Value.ToString();
    updatedSP.Camera = dgwSmartPhone.Rows[RowIndex].Cells[5].Value.ToString();
    updatedSP.RAM = dgwSmartPhone.Rows[RowIndex].Cells[6].Value.ToString();
    updatedSP.Battery = dgwSmartPhone.Rows[RowIndex].Cells[7].Value.ToString();
    updatedSP.Price = Convert.ToInt32(dgwSmartPhone.Rows[RowIndex].Cells[8].Value.ToString());
    updatedSP.ImageName = "smartphone.jpg";

    db.SubmitChanges();
    DisplayData();
    MessageBox.Show("SmartPhone:" + updatedSP.SmartPhoneID + "is updated");
}
}
}

```

Nút Insert

```

1 reference
private void btnInsert_Click(object sender, EventArgs e)
{
    SmartPhone checkedSP;
    List<SmartPhone> SPList = (from sp in db.SmartPhones
                               where sp.SmartPhoneID.Contains("NEW")
                               select sp).ToList();

    string NewID = "NEW";
    if (SPList.Count == 0)
        NewID = NewID + "001";
    else
    {
        checkedSP = SPList.Last();
        NewID = NewID + NextId(checkedSP.SmartPhoneID.Substring(checkedSP.SmartPhoneID.Length - 3));

        SmartPhone insertedSP = new SmartPhone();
        insertedSP.SmartPhoneID = NewID;
        insertedSP.SmartPhone_Name = "Not Assigned";
        insertedSP.Smart_Phone_Type = "Not Assigned";
        insertedSP.Announced_Date = DateTime.Now;
        insertedSP.Platform = "Not Assigned";
        insertedSP.Camera = "Not Assigned";
        insertedSP.RAM = "Not Assigned";
        insertedSP.Battery = "Not Assigned";
        insertedSP.Price = 0;
        insertedSP.ImageName = "smartphone.jpg";

        db.SmartPhones.InsertOnSubmit(insertedSP);
        db.SubmitChanges();
        DisplayData();
        MessageBox.Show("New SmartPhone is inserted! Please update data and press button Update");
    }
}
1 reference

```

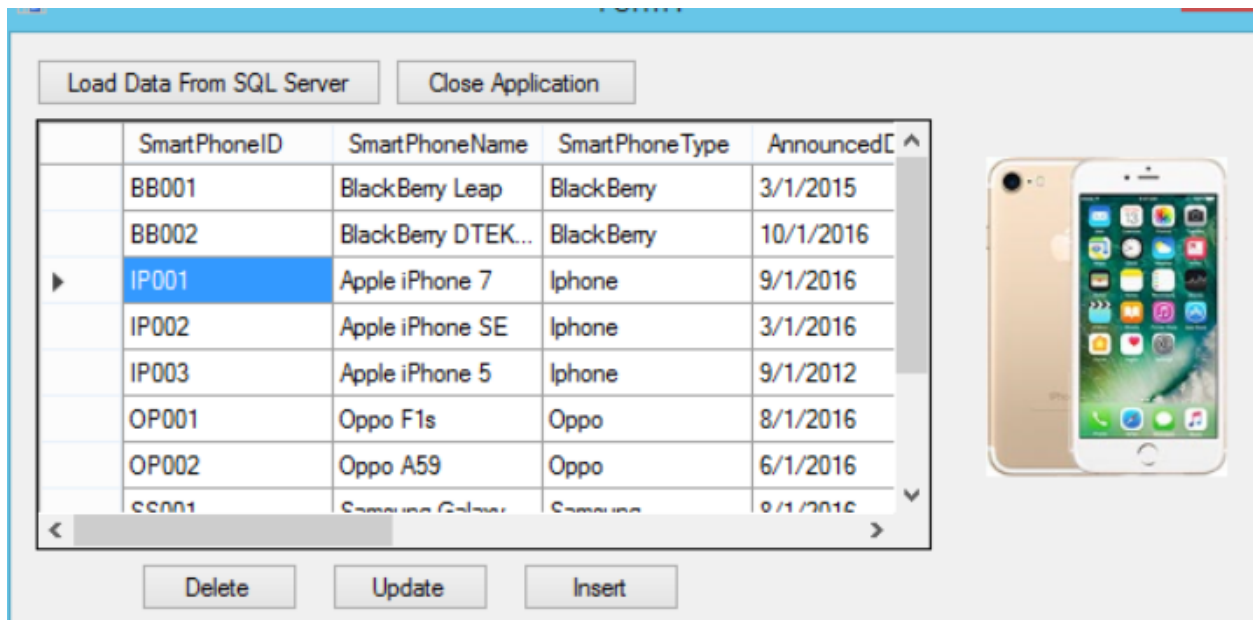
Tạo biến Next ID

```

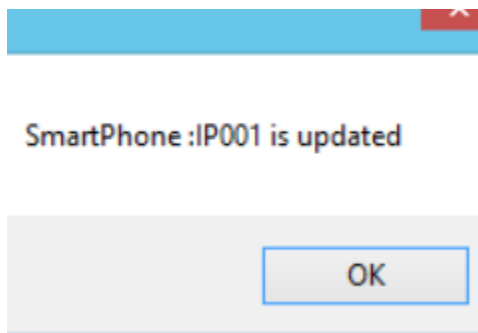
}
1 reference
public string NextId(string currentId)
{
    int i = 0;
    if(int.TryParse(currentId, out i))
    {
        i++;
        return (i.ToString().PadLeft(3, '0'));
    }
    throw new System.ArgumentException("Non-numeric string passed as argument");
}
}

```

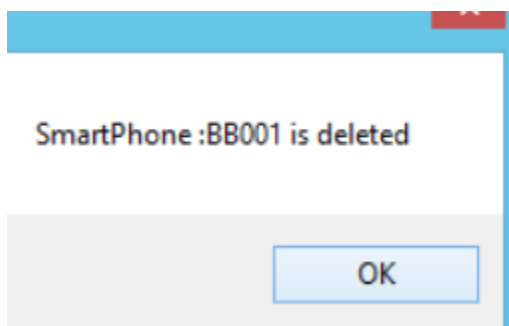
Kết quả sau khi chạy



Nút Update



Nút delete



Nút Insert

New SmartPhone is inserted! Please update data and press button Update

OK

Load Data From SQL Server

Close Application

	SmartPhoneID	SmartPhoneName	SmartPhoneType	AnnouncedC	^
▶	BB002	BlackBerry DTEK...	BlackBerry	10/1/2016	
	IP001	Apple iPhone 7a	Iphone	9/1/2016	
	IP002	Apple iPhone SE	Iphone	3/1/2016	
	IP003	Apple iPhone 5	Iphone	9/1/2012	
	NEW001	Not Assigned	Not Assigned	12/1/2016 2:	
	NEW002	Not Assigned	Not Assigned	12/1/2016 2:	
	NEW003	Not Assigned	Not Assigned	12/1/2016 2:	
	OP001	OnePlus 5	OnePlus	9/1/2016	▼



Delete

Update

Insert