

Yêu cầu 1:

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Threading.Tasks;
9  using System.Windows.Forms;
10 using System.IO;
11
12 namespace LaptopLINQ
13 {
14     public partial class Form1 : Form
15     {
16         static string ProjectPath = Directory.GetParent(Directory.GetCurrentDirectory()).Parent.FullName;
17         LaptopDBDataContext db = new LaptopDBDataContext();
18
19         public Form1()
20         {
21             InitializeComponent();
22         }
23
24         private void Form1_Load(object sender, EventArgs e)
25         {
26             picLaptop.Image = Image.FromFile(ProjectPath + "\\Data\\laptop.jpg");
27             picLaptop.SizeMode = PictureBoxSizeMode.StretchImage;
28         }
29
30         private void btnCloseApp_Click(object sender, EventArgs e)
31         {
32             Application.Exit();
33         }
34
35         public void DisplayData()
36         {
37             dgwLaptop.DataSource = (from sp in db.Laptops select sp);
38             dgwLaptop.Columns["ImageName"].Visible = false;
39             dgwLaptop.Columns["collLaptopID"].ReadOnly = true;
40         }
41
42         private void btnLoadData_Click(object sender, EventArgs e)
43         {
44             DisplayData();
45         }
46
47         private void dgwLaptop_SelectionChanged(object sender, EventArgs e)
48         {
49             if (dgwLaptop.Focused == false || dgwLaptop.CurrentCell == null)
50                 return;
51             int RowIndex = dgwLaptop.CurrentRow.Index;
52             string SelectedLaptopID = dgwLaptop.Rows[RowIndex].Cells[0].Value.ToString();
53
54             string LaptopImage = (from sp in db.Laptops
55                                 where sp.LaptopID == SelectedLaptopID
56                                 select sp.ImageName).FirstOrDefault();
57             if (LaptopImage == null)
58                 return;
59             picLaptop.Image = Image.FromFile(ProjectPath + "\\Data\\" + LaptopImage);
60             picLaptop.SizeMode = PictureBoxSizeMode.StretchImage;
61         }
62
63         private void btnDelete_Click(object sender, EventArgs e)
64         {
65             int RowIndex = dgwLaptop.CurrentRow.Index;
66             string SelectedLaptopID = dgwLaptop.Rows[RowIndex].Cells[0].Value.ToString();
67         }
```

```

68     Laptop deletedSP = (from sp in db.Laptops
69                          where sp.LaptopID == SelectedLaptopID
70                          select sp).SingleOrDefault();
71     db.Laptops.DeleteOnSubmit(deletedSP);
72     db.SubmitChanges();
73     DisplayData();
74
75     MessageBox.Show("Laptop :" + deletedSP.LaptopID + "is deleted!");
76 }
77
78 private void btnUpdate_Click(object sender, EventArgs e)
79 {
80     int RowIndex = dgwLaptop.CurrentRow.Index;
81     string SelectedLaptopID = dgwLaptop.Rows[RowIndex].Cells[0].Value.ToString();
82
83     Laptop updateSP = (from sp in db.Laptops
84                        where sp.LaptopID == SelectedLaptopID
85                        select sp).SingleOrDefault();
86
87     updateSP.LaptopID = dgwLaptop.Rows[RowIndex].Cells[0].Value.ToString();
88     updateSP.LaptopName = dgwLaptop.Rows[RowIndex].Cells[1].Value.ToString();
89     updateSP.LaptopType = dgwLaptop.Rows[RowIndex].Cells[2].Value.ToString();
90     updateSP.ProductDate = DateTime.Parse(dgwLaptop.Rows[RowIndex].Cells[3].Value.ToString());
91     updateSP.Processor = dgwLaptop.Rows[RowIndex].Cells[4].Value.ToString();
92     updateSP.HDD = dgwLaptop.Rows[RowIndex].Cells[5].Value.ToString();
93     updateSP.RAM = dgwLaptop.Rows[RowIndex].Cells[6].Value.ToString();
94     updateSP.Price = Convert.ToInt32(dgwLaptop.Rows[RowIndex].Cells[7].Value.ToString());
95     updateSP.ImageName = "laptop.jpg";
96
97     db.SubmitChanges();
98     DisplayData();
99     MessageBox.Show("Laptop :" + updateSP.LaptopID + " is updated");
100 }

```

```

101
102 private void btnInsert_Click(object sender, EventArgs e)
103 {
104     Laptop checkedSP;
105     List<Laptop> SPList = (from sp in db.Laptops
106                          where sp.LaptopID.Contains("NEW")
107                          select sp).ToList();
108     string NewID = "NEW";
109     if (SPList.Count == 0)
110         NewID = NewID + "001";
111     else
112     {
113         checkedSP = SPList.Last();
114         NewID = NewID + NextId(checkedSP.LaptopID.Substring(checkedSP.LaptopID.Length - 3));
115     }
116
117     Laptop insertedSP = new Laptop();
118     insertedSP.LaptopID = NewID;
119     insertedSP.LaptopName = "Not Assigned";
120     insertedSP.LaptopType = "Not Assigned";
121     insertedSP.ProductDate = DateTime.Now;
122     insertedSP.Processor = "Not Assigned";
123     insertedSP.HDD = "Not Assigned";
124     insertedSP.RAM = "Not Assigned";
125     insertedSP.Price = 0;
126     insertedSP.ImageName = "laptop.jpg";
127
128     db.Laptops.InsertOnSubmit(insertedSP);
129     db.SubmitChanges();
130     DisplayData();
131     MessageBox.Show("New laptop is inserted! Please update data and press button Update");
132 }
133

```

```

134 public string NextId(string currentId)
135 {
136     int i = 0;
137     if (int.TryParse(currentId, out i))
138     {
139         i++;
140         return (i.ToString().PadLeft(3, '0'));
141     }
142     throw new System.ArgumentException("Non-numeric string passed as argument");
143 }


```

Form1

Load Data From SQL Server Close Application

	LaptopID	LaptopName	Laptop Type	ProductDate	f ^
▶	A002	ASUS D515DA	Asus	11/20/2019	A
	A003	Asus ROG Flow ...	Asus	10/15/2021	A
	D001	Dell Alienware M...	Dell	11/29/2017	lr
	D002	Dell G15	Dell	10/18/2023	lr
	D003	Dell Inspiron 15	Dell	12/19/2018	lr
	M001	MacBook Air 13	Apple	10/20/2019	lr
	M002	MacBook Air M1	Apple	12/25/2020	lr
	M003	MacBook Pro 13	Apple	10/22/2021	lr

Delete Update Insert



Laptop :NEW001 is updated


OK

Form1

Load Data From SQL Server Close Application

	LaptopID	LaptopName	Laptop Type	ProductDate	f ^
	A002	ASUS D515DA	Asus	11/20/2019	A
	A003	Asus ROG Flow ...	Asus	10/15/2021	A
	D001	Dell Alienware M...	Dell	11/29/2017	lr
	D002	Dell G15	Dell	10/18/2023	lr
	D003	Dell Inspiron 15	Dell	12/19/2018	lr
▶	M001	MacBook Air 13	Apple	10/20/2019	lr
	M002	MacBook Air M1	Apple	12/25/2020	lr
	M003	MacBook Pro 13	Apple	10/22/2021	lr

Delete Update Insert



[illegible]

Yêu cầu 2:

```
19 public Form1()
20 {
21     InitializeComponent();
22 }
23
24 private void coffeeBindingNavigatorSaveItem_Click(object sender, EventArgs e)
25 {
26     this.Validate();
27     this.coffeeBindingSource.EndEdit();
28     this.tableAdapterManager.UpdateAll(this.coffeeDBDataSet);
29     MessageBox.Show("Update Data Complete!");
30 }
31
32 private void Form1_Load(object sender, EventArgs e)
33 {
34     // TODO: This line of code loads data into the 'coffeeDBDataSet.Coffee' table. You can move, or remove it, as needed.
35     this.coffeeTableAdapter.Fill(this.coffeeDBDataSet.Coffee);
36 }
37
38
39 private void bindingNavigatorDeleteItem_Click(object sender, EventArgs e)
40 {
41     MessageBox.Show("Delete Data Complete!");
42 }
43
44 }
```

Form1

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Coffee ID: Coffee Type: Price:

Coffee Name: Product Date:

	CoffeeID	CoffeeName	Coffee Type	ProductDate	Price
	N002	Gold Latte	Nescafe	12/19/2021	50000
	P001	Moka	Phúc Long	10/17/2019	70000
	T001	Trung Nguyên I	Trung Nguyên	10/20/2018	60000
	V001	Vinacoffe Gold	Vinacafe	12/28/2020	30000
▶	đás	dsadasd	đás	12/13/2021	34445
*					

Update Data Complete!
OK

Form1

4 of 4

Coffee ID: Coffe Type: Price:

Coffee Name: Product Date:

	CoffeeID	CoffeeName	CoffeType	ProductDate	Price
	N002	Gold Latte	Nescafe	12/19/2021	50000
	P001	Moka	Phúc Long	10/17/2019	70000
	T001	Trung Nguyên I	Trung Nguyên	10/20/2018	60000
▶	V001	Vinacoffe Gold	Vinacafe	12/28/2020	30000
*					

Delete Data Complete!

OK

	CoffeeID	CoffeeName	CoffeType	ProductDate	Price	ImageName
▶	đās	dsadasd	đās	2021-12-13 00:00:00	34445	NULL
	N002	Gold Latte	Nescafe	2021-12-19 00:00:00	50000	Gold-Latte.jpg
	P001	Moka	Phúc Long	2019-10-17 00:00:00	70000	Moka.jpg
	T001	Trung Nguyên I	Trung Nguyên	2018-10-20 00:00:00	60000	I.jpg
	V001	Vinacoffe Gold	Vinacafe	2020-12-28 00:00:00	30000	Vina-Gold.jpg
*	NULL	NULL	NULL	NULL	NULL	NULL