

Bài 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 }
```

```
35 public void DisplayData()
36 {
37     dgwLaptop.DataSource = (from sp in db.Laptops select sp);
38     dgwLaptop.Columns["ImageName"].Visible = false;
39     dgwLaptop.Columns["colLaptopID"].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 }
```

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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
109         string NewID = "NEW";
110         if (SPList.Count == 0)
111             NewID = NewID + "001";
112         else
113         {
114             checkedSP = SPList.Last();
115             NewID = NewID + NextId(checkedSP.LaptopID.Substring(checkedSP.LaptopID.Length - 3));
116         }
117
118         Laptop insertedSP = new Laptop();
119         insertedSP.LaptopID = NewID;
120         insertedSP.LaptopName = "Not Assigned";
121         insertedSP.LaptopType = "Not Assigned";
122         insertedSP.ProductDate = DateTime.Now;
123         insertedSP.Processor = "Not Assigned";
124         insertedSP.HDD = "Not Assigned";
125         insertedSP.RAM = "Not Assigned";
126         insertedSP.Price = 0;
127         insertedSP.ImageName = "laptop.jpg";
128
129         db.Laptops.InsertOnSubmit(insertedSP);
130         db.SubmitChanges();
131         DisplayData();
132         MessageBox.Show("New laptop is inserted! Please update data and press button Update");
133     }

```

```

118 Laptop insertedSP = new Laptop();
119 insertedSP.LaptopID = NewID;
120 insertedSP.LaptopName = "Not Assigned";
121 insertedSP.LaptopType = "Not Assigned";
122 insertedSP.ProductDate = DateTime.Now;
123 insertedSP.Processor = "Not Assigned";
124 insertedSP.HDD = "Not Assigned";
125 insertedSP.RAM = "Not Assigned";
126 insertedSP.Price = 0;
127 insertedSP.ImageName = "laptop.jpg";
128
129 db.Laptops.InsertOnSubmit(insertedSP);
130 db.SubmitChanges();
131 DisplayData();
132 MessageBox.Show("New laptop is inserted! Please update data and press button Update");
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	LaptopType	ProductDate	
	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	Ir
	D002	Dell G15	Dell	10/18/2023	Ir
	D003	Dell Inspiron 15	Dell	12/19/2018	Ir
▶	M001	MacBook Air 13	Apple	10/20/2019	Ir
	M002	MacBook Air M1	Apple	12/25/2020	Ir
	M003	MacBook Pro 13	Apple	10/22/2021	Ir

Delete

Update

Insert



Load Data From SQL Server

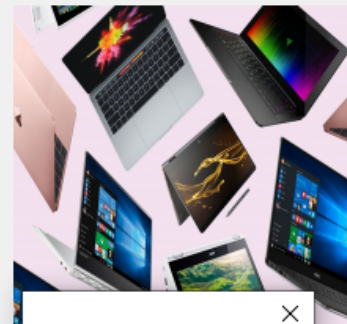
Close Application

	LaptopID	LaptopName	LaptopType	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	Ir
	D002	Dell G15	Dell	10/18/2023	Ir
	D003	Dell Inspiron 15	Dell	12/19/2018	Ir
	M001	MacBook Air 13	Apple	10/20/2019	Ir
	M002	MacBook Air M1	Apple	12/25/2020	Ir
	M003	MacBook Pro 13	Apple	10/22/2021	Ir

Delete

Update

Insert



Laptop :NEW001 is updated

OK

Bài 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
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: 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
▶	đás	dsadasd	đás	12/13/2021	34445
*					

Update Data Complete!

OK

Form1

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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
▶	đäs	dsadasd	đäs	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	l.jpg
	V001	Vinacoffe Gold	Vinacafe	2020-12-28 00:00:00	30000	Vina-Gold.jpg
*	NULL	NULL	NULL	NULL	NULL	NULL