

```
1 using System;
2 using System.Collections.Generic;
3 using System.Windows.Forms;
4
5 namespace Week07Homework
6 {
7     public partial class Form1 : Form
8     {
9         List<Product> products;
10        Product searchProduct;
11
12        public Form1()
13        {
14            InitializeComponent();
15
16            products = new List<Product>();
17        }
18
19        private void btnInput_Click(object sender, EventArgs e)
20        {
21            if (string.IsNullOrEmpty(tbxInputProductName.Text.Trim())) {
22                tbxInputProductName.Focus();
23                return;
24            }
25
26
27            if (string.IsNullOrEmpty(tbxInputProductPrice.Text)) {
28                tbxInputProductPrice.Focus();
29                return;
30            }
31
32
33            if (string.IsNullOrEmpty(tbxInputProductStock.Text)) {
34                tbxInputProductStock.Focus();
35                return;
36            }
37
38            if (false == int.TryParse(tbxInputProductPrice.Text, out int price)) {
39                tbxInputProductPrice.Focus();
40                return;
41            } else {
42                if (price < 0) {
43                    tbxInputProductPrice.Focus();
44                    return;
45                }
46            }
47
48            if (false == int.TryParse(tbxInputProductStock.Text, out int stock)) {
49                tbxInputProductStock.Focus();
50                return;
51            } else {
52                if (stock < 0) {
53                    tbxInputProductStock.Focus();
54                    return;
```

```
55         }
56     }
57
58     var product = new Product();
59     product.Name = tbxInputProductName.Text.Trim();
60     product.Code = CreateCode();
61     product.Price = price;
62     product.Stock = stock;
63     product.RegDate = DateTime.Now.AddDays(-(new Random()).Next(20, 100));
64
65     products.Add(product);
66
67     MessageBox.Show("등록 완료");
68
69     ClearInput();
70 }
71
72 private string CreateCode()
73 {
74     Random random = new Random();
75     do {
76         var code = DateTime.Now.ToString("yyyyMMdd") + random.Next
77             (1000).ToString("D3");
78         foreach (var product in products) {
79             if (product.Code == code) {
80                 continue;
81             }
82         }
83         return code;
84     } while (true);
85 }
86
87 private void ClearInput()
88 {
89     tbxInputProductName.Text = string.Empty;
90     tbxInputProductPrice.Text = string.Empty;
91     tbxInputProductStock.Text = string.Empty;
92 }
93
94 private void btnSearch_Click(object sender, EventArgs e)
95 {
96     lbxSearchProduct.SelectedIndex = -1;
97     lbxSearchProduct.Items.Clear();
98     ClearSearch();
99     var searchKeyword = tbxSearchNameCode.Text.Trim();
100
101     foreach (var product in products) {
102         if (product.Name.Contains(searchKeyword)
103             || product.Code.Contains(searchKeyword)) {
104             lbxSearchProduct.Items.Add(product);
105         }
106     }
107
108     if (lbxSearchProduct.Items.Count <= 0) {
```

```
109         MessageBox.Show("조회할 상품이 없습니다.");
110     }
111 }
112
113 private void ClearSearch()
114 {
115     searchProduct = null;
116     lblSearchProductName.Text = string.Empty;
117     lblSearchProductCode.Text = string.Empty;
118     lblSearchProductPrice.Text = string.Empty;
119     lblSearchProductSalePrice.Text = string.Empty;
120     lblSearchProductStock.Text = string.Empty;
121     lblSearchProductRegDate.Text = string.Empty;
122     tbxSearchProductCount.Text = string.Empty;
123     lblSearchProductTotalPrice.Text = string.Empty;
124 }
125
126 private void lblSearchProduct_SelectedIndexChanged(object sender, EventArgs e)
127 {
128     ClearSearch();
129
130     if (lblSearchProduct.SelectedIndex < 0) {
131         return;
132     }
133
134     if (lblSearchProduct.SelectedItem is Product product) {
135         lblSearchProductName.Text = product.Name;
136         lblSearchProductCode.Text = product.Code;
137         lblSearchProductPrice.Text = product.Price.ToString();
138         lblSearchProductSalePrice.Text = product.SalePrice().ToString();
139         lblSearchProductStock.Text = product.Stock.ToString();
140         lblSearchProductRegDate.Text = product.RegDate.ToString("yyyy-MM-dd");
141         tbxSearchProductCount.Text = string.Empty;
142         lblSearchProductTotalPrice.Text = string.Empty;
143
144         searchProduct = product;
145     } else {
146         MessageBox.Show("조회할 정보가 없습니다.");
147         return;
148     }
149 }
150
151 private void btnCal_Click(object sender, EventArgs e)
152 {
153     lblSearchProductTotalPrice.Text = string.Empty;
154
155     if (int.TryParse(tbxSearchProductCount.Text, out int count)) {
156         if (count < 1 || count > searchProduct.Stock) {
157             tbxSearchProductCount.Focus();
158             return;
159         }
160     } else {
161         tbxSearchProductCount.Focus();
```

```
162         return;  
163     }  
164  
165     var totalPrice = searchProduct.CalPrice(count);  
166     lblSearchProductTotalPrice.Text = totalPrice.ToString();  
167 }  
168 }  
169 }  
170
```