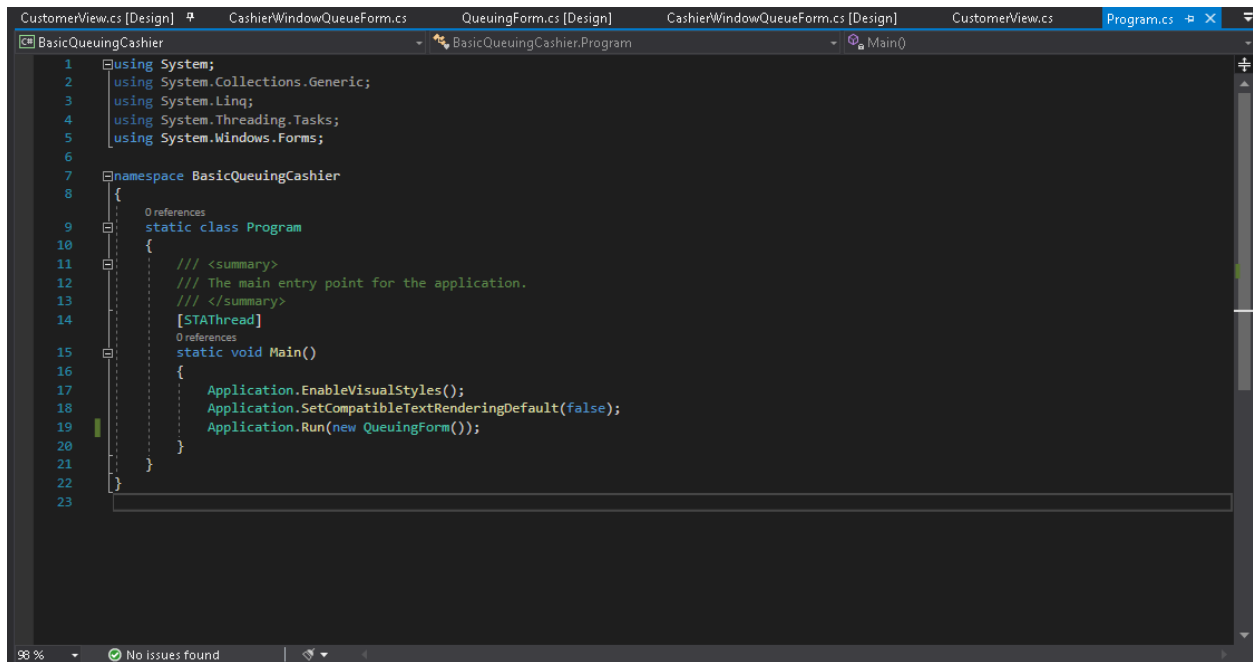Kimwel Lourence C. Beller

BSIT 3.1A

# Task Performance - Basic Queuing (Part 2)

Program.cs



```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace BasicQueuingCashier
{
    0 references
    static class Program
    {
        /// <summary>
        /// The main entry point for the application.
        /// </summary>
        [STAThread]
        0 references
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new QueuingForm());
        }
    }
}
```

## CashierClass.cs

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace BasicQueuingCashier
{
    14 references
    class CashierClass
    {
        private int x;
        public static string getNumberInQueue = "1";
        public static Queue<string> CashierQueue;

        1 reference
        public CashierClass()
        {
            x = 10000;
            CashierQueue = new Queue<string>();
        }

        1 reference
        public string CashierGeneratedNumber(string CashierNumber)
        {
            x++;
            CashierNumber = CashierNumber + x.ToString();
            return CashierNumber;
        }
    }
}
```
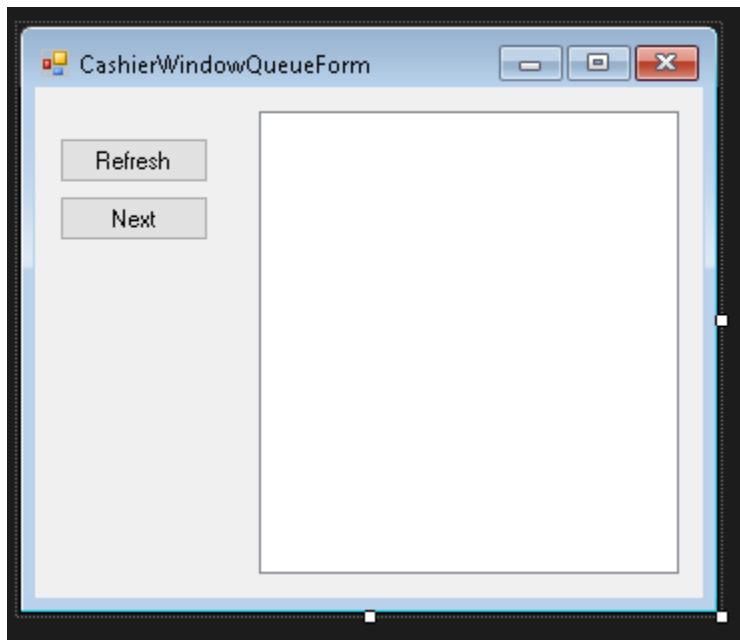
## QueuingForm Design

QueuingForm.cs

```csharp
using System;
using System.Windows.Forms;

namespace BasicQueuingCashier
{
    3 references
    public partial class QueuingForm : Form
    {
        private CashierClass cashier;
        1 reference
        public QueuingForm()
        {
            InitializeComponent();
            cashier = new CashierClass();
        }

        1 reference
        private void btnCashier_Click(object sender, EventArgs e)
        {
            lblQueue.Text = cashier.CashierGeneratedNumber("P - ");
            CashierClass.getNumberInQueue = lblQueue.Text;
            CashierClass.CashierQueue.Enqueue(CashierClass.getNumberInQueue);

            if (!CheckOpenedWindow("CashierWindowQueueForm"))
            {
                new CashierWindowQueueForm().Show();
            }
        }

        1 reference
        private bool CheckOpenedWindow(string windowname)
        {
            FormCollection fc = Application.OpenForms;

            foreach (Form frm in fc)
            {
                if (frm.Text == windowname)
                {
                    return true;
                }
            }
            return false;
        }
    }
}
```

## CashierWindowQueueForm Design



## CashierWindowQueueForm.cs

```csharp
using System;
using System.Collections;
using System.Windows.Forms;

namespace BasicQueuingCashier
{
    public partial class CashierWindowQueueForm : Form
    {
        public CashierWindowQueueForm()
        {
            InitializeComponent();
        }

        public void timer1_tick(Object sender, EventArgs e)
        {
            DisplayCashierQueue(CashierClass.CashierQueue);
        }

        private void btnRefresh_Click(object sender, EventArgs e)
        {
            DisplayCashierQueue(CashierClass.CashierQueue);
        }

        public void DisplayCashierQueue(IEnumerable CashierList)
        {
            listCashierQueue.Items.Clear();
            if (CashierList != null )
            {
                foreach (Object obj in CashierList)
                {
                    listCashierQueue.Items.Add(obj.ToString());
                }
            }
        }

        private void btnNext_Click(object sender, EventArgs e)
        {
            if (!CheckOpenedWindow("CustomerView"))
            {
                new CustomerView().Show();
            } else
            {
                if (CashierClass.CashierQueue != null && CashierClass.CashierQueue.Count != 0)
                {
                    CashierClass.CashierQueue.Dequeue();
                }
            }
        }
```
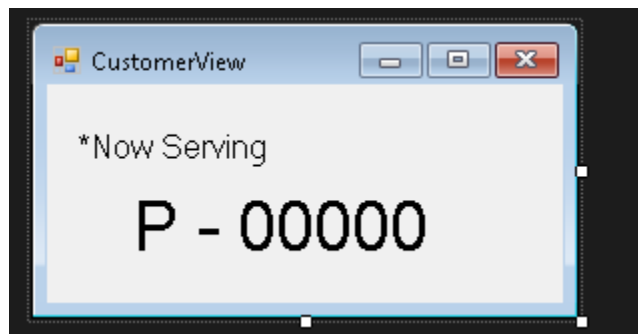
```csharp
                1 reference
50          private bool CheckOpenedWindow(string windowname)
51          {
52              FormCollection fc = Application.OpenForms;
53
54              foreach (Form frm in fc)
55              {
56                  if (frm.Text == windowname)
57                  {
58                      return true;
59                  }
60              }
61              return false;
62          }
63
                1 reference
64          private void CashierWindowQueueForm_Load(object sender, EventArgs e)
65          {
66              Timer timer = new Timer();
67              timer.Interval = (1 * 100); // 1 decisecond
68              timer.Tick += new EventHandler(timer1_tick);
69              timer.Start();
70          }
71      }
72  }
73
```
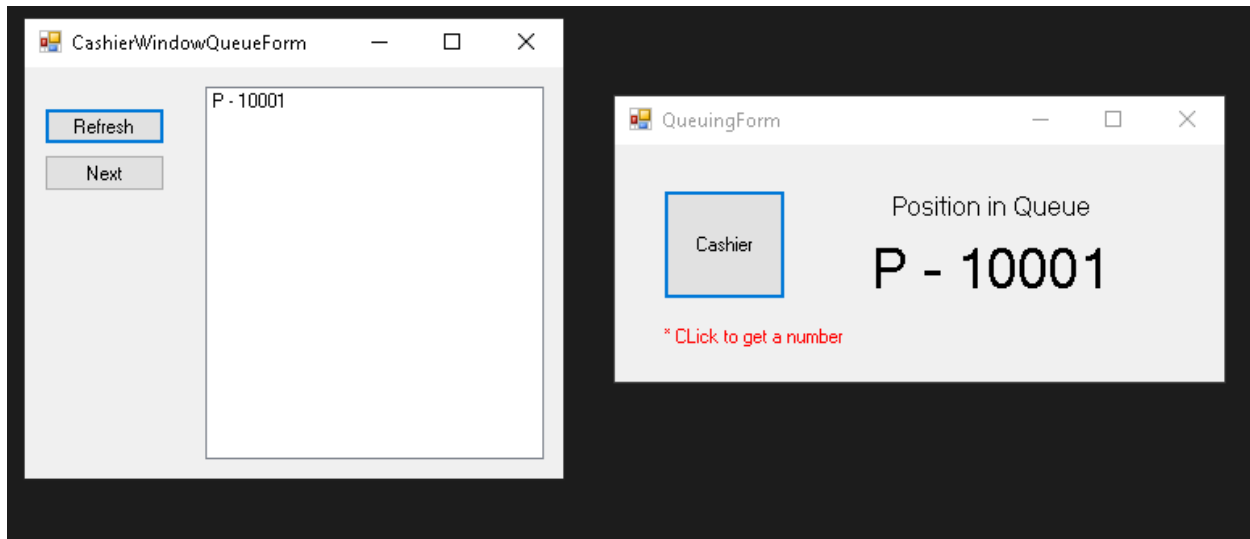
CustomerView Design

CustomerView.cs

```csharp
using System;
using System.Windows.Forms;

namespace BasicQueuingCashier
{
    3 references
    public partial class CustomerView : Form
    {
        1 reference
        public CustomerView()
        {
            InitializeComponent();
        }

        1 reference
        private void CustomerView_Load(object sender, EventArgs e)
        {
            Timer timer = new Timer();
            timer.Interval = (1 * 100); // 1 decisecond
            timer.Tick += new EventHandler(timer1_tick);
            timer.Start();
        }

        1 reference
        private void timer1_tick(object sender, EventArgs e)
        {
            if (CashierClass.CashierQueue != null && CashierClass.CashierQueue.Count != 0)
            {
                lblQueue.Text = CashierClass.CashierQueue.Peek();
            }
        }
    }
}
```
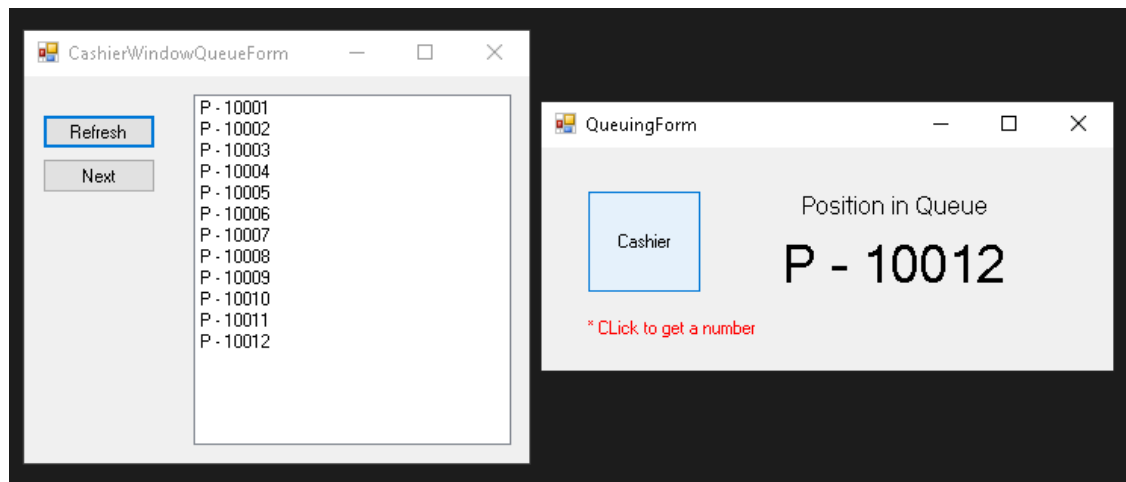
Output: Enqueuing

Output: Peeking and Dequeuing