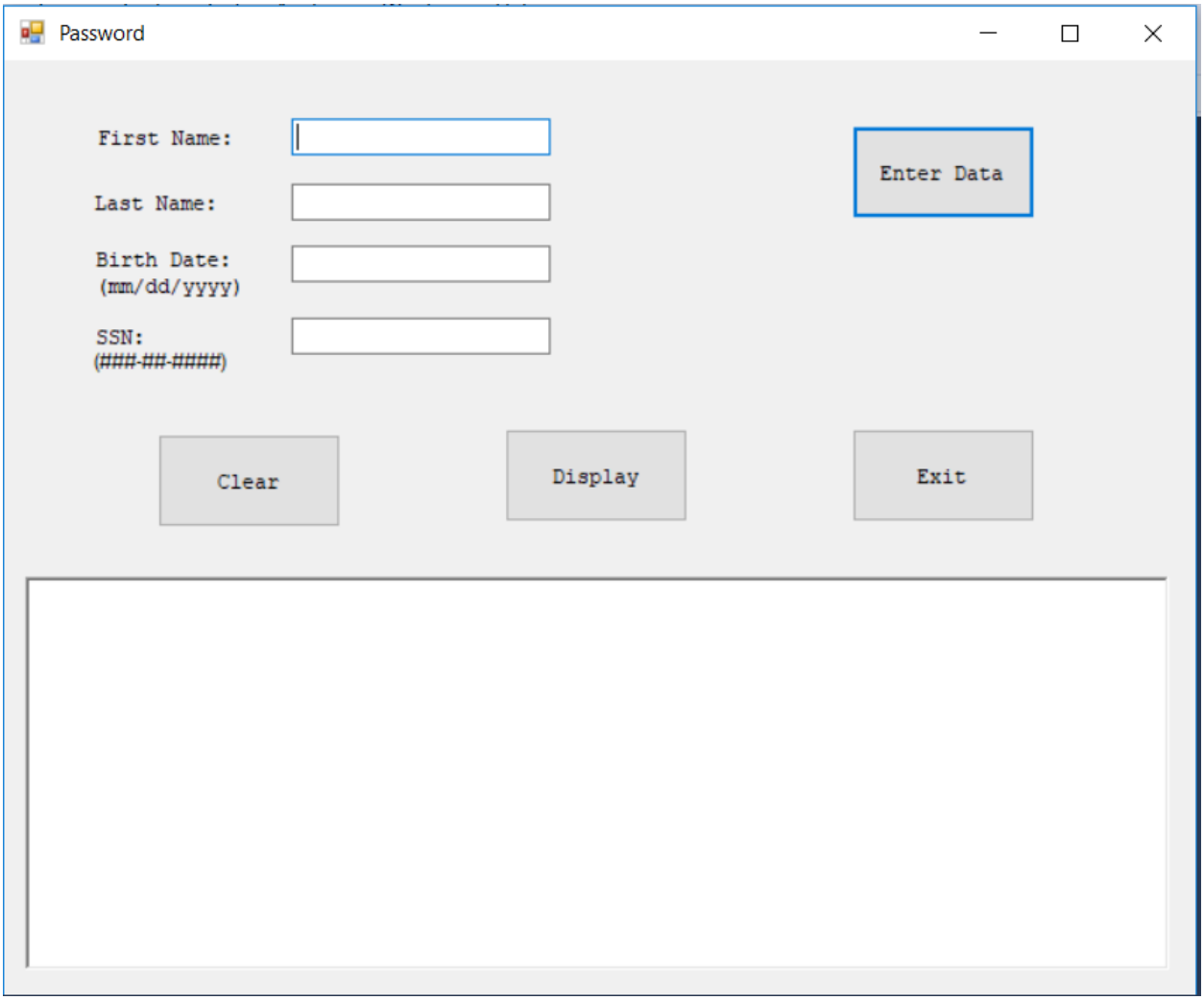
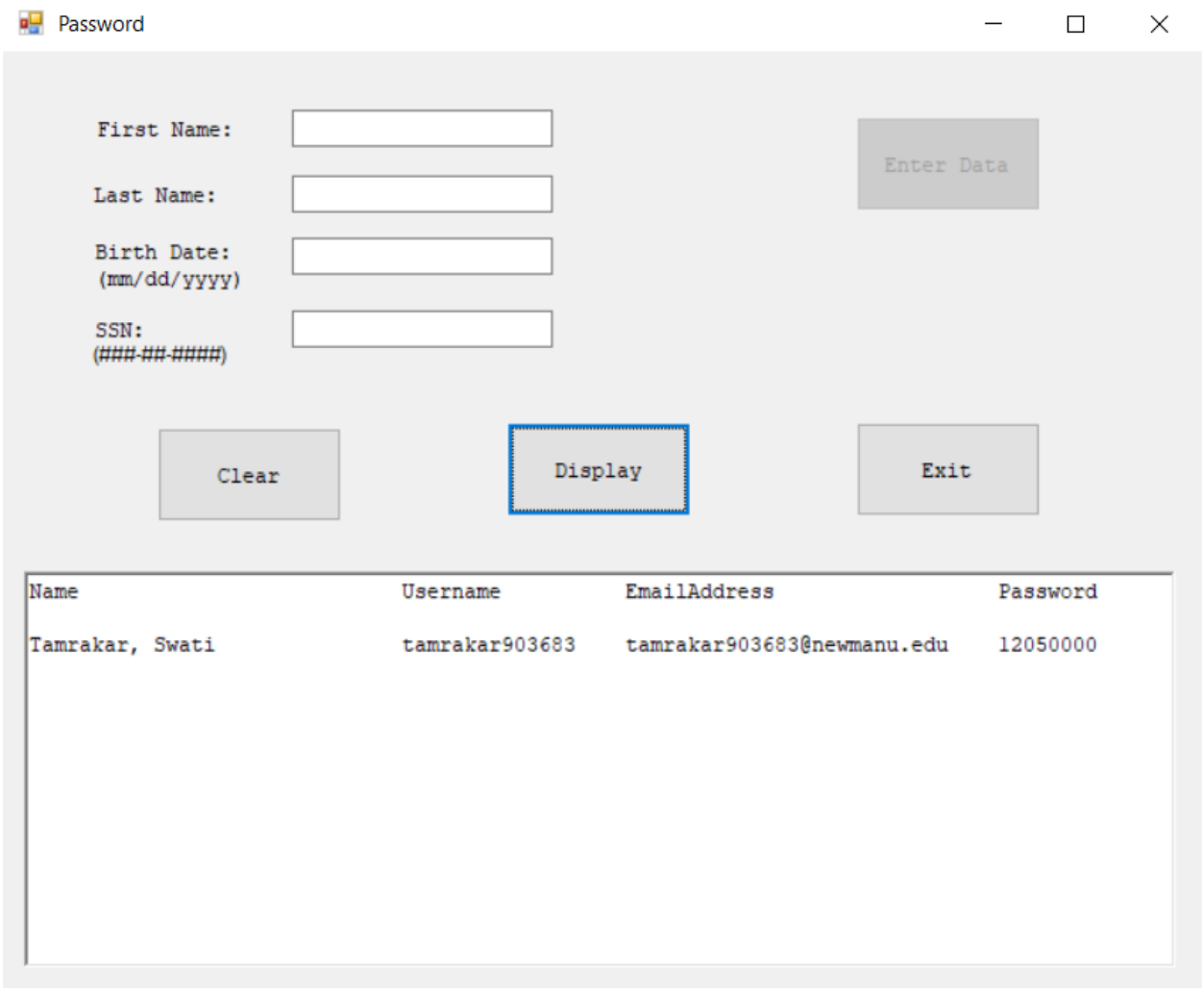

Password
First Name:
Last Name:
Birth Date:
(mm/dd/yyyy)
SSN:
(###-##-####)
Enter Data
Clear
Display
Exit


Password
First Name:
Last Name:
Birth Date:
(mm/dd/yyyy)
SSN:
(###-##-####)
Enter Data
Clear
Display
Exit
Name
Username
EmailAddress
Password
Tamrakar, Swati
tamrakar903683
tamrakar903683@newmanu.edu
12050000

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

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

```
using System;
using System.Windows.Forms;
//Swati Tamrakar
//Midterm Project
//Due 03-29-2016

namespace Midterm_Project
{
   public partial class frmUsername : Form
   {
      int i, intCount = 0;
      const int intMax= 50;
      string strAnswer = "Name".PadRight(30)+"Username".PadRight(18)+
"EmailAddress".PadRight(28)+ "Password".PadLeft(10)+ "\n\n";
      Students[] StudentsArray = new Students[intMax];
      public frmUsername()
      {
         InitializeComponent();
      }
      private void btnExit_Click(object sender, EventArgs e)
      {
```

```
            this.Close();
        }
        private void btnAdd_Click(object sender, EventArgs e)
        {
            string strLastName, strFirstName, strSsn, strBirthdate,strTempSsn;
            double dblSsn;
            int intHyphen, intLastHyphen;
            try
            {
                strLastName = txtBxLastName.Text;
                strFirstName = txtBxFirstName.Text;
                strBirthdate = txtBxBirthDate.Text;
                try
                {
                    strSsn = txtBxSsn.Text;
                    if ( strSsn != "")
                    {
                        intHyphen = strSsn.IndexOf("-");
                        intLastHyphen = strSsn.LastIndexOf("-");
                        if (intHyphen != 3 || intLastHyphen != 6)
                        {
                            MessageBox.Show("Please enter the SSN in the correct format", "Error");
                            txtBxSsn.SelectAll();
                            txtBxSsn.Focus();

                        }
                        else
                        {
                            strTempSsn = strSsn.Substring(0, intHyphen) + strSsn.Substring(intHyphen +
1, 2) + strSsn.Substring(intLastHyphen + 1);
                            dblSsn = Convert.ToDouble(strTempSsn);
                            Students newStudents = new Students(strFirstName, strLastName, strBirthdate,
strSsn);
                            StudentsArray[intCount] = newStudents;
                            MessageBox.Show("Student Added");
                            intCount++;
                            txtBxFirstName.Text = "";
                            txtBxLastName.Text = "";
                            txtBxBirthDate.Text = "";
                            txtBxSsn.Text = "";
                            txtBxFirstName.Focus();
                        }
                    }
                    else
                    {
                        //constructor call
```

```
                Students newStudents = new Students(strFirstName, strLastName, strBirthdate,
strSsn);
                StudentsArray[intCount] = newStudents;
                MessageBox.Show("Student Added");
                intCount++;
                txtBxFirstName.Text = "";
                txtBxLastName.Text = "";
                txtBxBirthDate.Text = "";
                txtBxSsn.Text = "";
                txtBxFirstName.Focus();
            }
        }
        catch (FormatException)
        {
            MessageBox.Show("You must input a number", "error");
            txtBxSsn.SelectAll();
            txtBxSsn.Focus();
        }
    }
    catch (IndexOutOfRangeException)
    {
        MessageBox.Show("You exceeded the limit", "Error");
        btnAdd.Enabled = false;
    }
}
private void btndisplay_Click(object sender, EventArgs e)
{
    int k;
    Students newStudents;
    string strName;
    for (int i =1; i<intCount; ++i)
    {
        newStudents = StudentsArray[i];
        k = i;
        while (k>0 && string.Compare(StudentsArray[k-1].LastName,
newStudents.LastName)>0)
        {
            StudentsArray[k] = StudentsArray[k - 1];
            k = k - 1;
        }
        StudentsArray[k] = newStudents;
    }
    for (int i = 0; i < intCount; i++)
    {
        strName = StudentsArray[i].LastName + ", " + StudentsArray[i].FirstName;
```

```
            strAnswer += strName.PadRight(30) + StudentsArray[i].Username.PadRight(18) +
StudentsArray[i].Email.PadRight(28) + StudentsArray[i].Password.PadLeft(10) + "\n";
        }

        rchTxtBxAnswer.Text = strAnswer;
        btnAdd.Enabled = false;
    }
    private void btnClear_Click(object sender, EventArgs e)
    {
        txtBxFirstName.Text = "";
        txtBxLastName.Text = "";
        txtBxBirthDate.Text = "";
        txtBxSsn.Text = "";
        txtBxFirstName.Focus();
        rchTxtBxAnswer.Text = "";
        intCount = 0;
        i = 0;
        strAnswer = "Name".PadRight(30) + "Username".PadRight(18) +
"EmailAddress".PadRight(28) + "Password".PadLeft(10) + "\n\n";
        btnAdd.Enabled = true;
    }

  }//end class
}//End namespace



using System;

namespace Midterm_Project
{
  class Students
  {
    private string strFirstName, strLastName, strEmail, strPassword, strUsername,strBirthdate,
strSsn;
    private int intID;
    public Students(string FirstName, string LastName, string Birthdate, string Ssn)
    {
        strFirstName = FirstName;
        strLastName = LastName;
        strBirthdate = Birthdate;
        strSsn = Ssn;
        intID = ID;
        ID = FindID();
        strUsername = FindUserName(ID, strLastName);
        strEmail = FindEmail(strUsername);
```

```
            strPassword = FindPassword(intID, strBirthdate, strSsn);
        }
        public static int FindID()
        {
            int intID;
            Random Id = new Random();
            intID = Id.Next(100000,999999);
            return intID;
        }
        public static string FindUserName(int ID, string LastName)
        {
            string strUsername;
            int intSpace, intDash, intApostrophy;
            intSpace = LastName.IndexOf(" ");
            intDash = LastName.IndexOf('-');
            intApostrophy= LastName.IndexOf("'");
            if (intSpace != -1)
            {
             LastName = LastName.Substring(0, intSpace) + LastName.Substring(intSpace + 1);
            }
            if (intDash !=-1)
            {
                LastName = LastName.Substring(0, intDash) + LastName.Substring(intDash + 1);
            }
            if (intApostrophy != -1)
            {
                LastName = LastName.Substring(0, intApostrophy) +
LastName.Substring(intApostrophy + 1);
            }
            if (LastName.Length <= 8)
            {
              strUsername = LastName.ToLower() + ID.ToString();
            }
            else
            {
                strUsername = LastName.ToLower().Substring(0,8) + ID.ToString();
            }
                return strUsername;
        }
        public static string FindEmail(string UserName)
        {
            string strUsername, strEmail;
            strUsername=UserName;
            strEmail = strUsername + "@newmanu.edu";
            return strEmail;
        }
```

```
public static string FindPassword(int ID, string Birthdate, string Ssn)
{
   int intID, intSlash, intLastSlash;
   string strPassword, strBirthDate,  strMonth, strDate,strSsn;
   strBirthDate = Birthdate;
   strSsn = Ssn;
   intID = ID;
   if (strBirthDate == "")
   {
      strBirthDate = "9999";
   }
   else
   {
      intSlash = strBirthDate.IndexOf("/");
      intLastSlash = strBirthDate.LastIndexOf("/");
      strMonth = strBirthDate.Substring(0, intSlash);
     if (strMonth.Length==1)
      {
         strMonth = "0" + strMonth.Substring(0, 1);
      }
      strDate = strBirthDate.Substring(intSlash + 1,intLastSlash-intSlash-1);
      if (strDate.Length == 1)
      {
         strDate = "0" + strDate.Substring(0, 1);
      }
      strBirthDate = strMonth + strDate;

   }
      if (strSsn == "")
      {
         strPassword = strBirthDate + ID.ToString().Substring(2);
      }
      else
      {
         strPassword = strBirthDate + strSsn.Substring(7);
      }
   return strPassword;
}
//properties
public string FirstName
{
   get
   {
      return strFirstName;
   }
   set
```

```
    {
        strFirstName = value;
    }
}
public string LastName
{
    get
    {
        return strLastName;
    }
    set
    {
        strLastName = value;
    }
}
public string Username
{
    get
    {
        return strUsername;
    }
    set
    {
        strUsername = value;
    }
}
public string Email
{
    get
    {
        return strEmail;
    }
    set
    {
        strEmail = value;
    }
}
public string Password
{
    get
    {
        return strPassword;
    }
    set
    {
        strPassword = value;
```

```
        }
    }
    public int ID
    {
        get
        {
            return intID;
        }
        set
        {
            intID = value;
        }
    }
    public string BirthDate
    {
        get
        {
            return strBirthdate;
        }
        set
        {
            strBirthdate = value;
        }
    }
    public string Ssn
    {
        get
        {
            return strSsn;
        }
        set
        {
            strSsn = value;
        }
    }
  }
}
```