**.NET Assignment**

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**CODE:**

**Form1.cs**

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| using System;  using System.Collections.Generic;  using System.Windows.Forms;  using static System.Windows.Forms.VisualStyles.VisualStyleElement;  using System.Xml.Linq;  namespace ContactManagerAnshad  {  public partial class Form1 : Form  {  private List<Contact> contacts;  public Form1()  {  InitializeComponent();  contacts = new List<Contact>();  }  private void Form1\_Load(object sender, EventArgs e)  {  // Initialize ComboBox with country list  cmbCountry.Items.AddRange(new string[] { "USA", "Canada", "UK", "Australia", "India" });  // Initialize ListView columns  listView1.Columns.Add("Name", 100);  listView1.Columns.Add("Email", 150);  listView1.Columns.Add("Phone Number", 100);  listView1.Columns.Add("Gender", 50);  listView1.Columns.Add("Favorite", 50);  listView1.Columns.Add("Country", 100);  }  private void btnAddContact\_Click(object sender, EventArgs e)  {  // Validate inputs  if (string.IsNullOrEmpty(txtName.Text) || string.IsNullOrEmpty(txtEmail.Text) || string.IsNullOrEmpty(txtPhoneNumber.Text) || cmbCountry.SelectedItem == null)  {  MessageBox.Show("Please fill in all fields.", "Error", MessageBoxButtons.OK, MessageBoxIcon.Error);  return;  }  // Create a new contact  var contact = new Contact  {  Name = txtName.Text,  Email = txtEmail.Text,  PhoneNumber = txtPhoneNumber.Text,  Gender = GetSelectedGender(),  IsFavorite = chkFavorite.Checked,  Country = cmbCountry.SelectedItem.ToString()  };  // Add to the contacts list and ListView  contacts.Add(contact);  AddContactToListView(contact);  // Clear input fields  ClearInputFields();  }  private void listView1\_MouseClick(object sender, MouseEventArgs e)  {  if (e.Button == MouseButtons.Right)  {  // Context menu for ListView item  if (listView1.FocusedItem.Bounds.Contains(e.Location))  {  contextMenuStrip1.Show(Cursor.Position);  }  }  }  private void editContactToolStripMenuItem\_Click(object sender, EventArgs e)  {  // Edit selected contact  if (listView1.SelectedItems.Count == 0)  return;  var selectedItem = listView1.SelectedItems[0];  var contact = contacts[selectedItem.Index];  txtName.Text = contact.Name;  txtEmail.Text = contact.Email;  txtPhoneNumber.Text = contact.PhoneNumber;  SetSelectedGender(contact.Gender);  chkFavorite.Checked = contact.IsFavorite;  cmbCountry.SelectedItem = contact.Country;  contacts.RemoveAt(selectedItem.Index);  listView1.Items.Remove(selectedItem);  }  private void deleteContactToolStripMenuItem\_Click(object sender, EventArgs e)  {  // Delete selected contact  if (listView1.SelectedItems.Count == 0)  return;  var selectedItem = listView1.SelectedItems[0];  contacts.RemoveAt(selectedItem.Index);  listView1.Items.Remove(selectedItem);  }  private void markAsFavoriteToolStripMenuItem\_Click(object sender, EventArgs e)  {  // Mark selected contact as favorite  if (listView1.SelectedItems.Count == 0)  return;  var selectedItem = listView1.SelectedItems[0];  var contact = contacts[selectedItem.Index];  contact.IsFavorite = !contact.IsFavorite;  selectedItem.SubItems[4].Text = contact.IsFavorite ? "Yes" : "No";  }  private void chkShowFavorites\_CheckedChanged(object sender, EventArgs e)  {  // Filter contacts based on favorite status  listView1.Items.Clear();  foreach (var contact in contacts)  {  if (chkShowFavorites.Checked && !contact.IsFavorite)  continue;  AddContactToListView(contact);  }  }  private void AddContactToListView(Contact contact)  {  var item = new ListViewItem(contact.Name);  item.SubItems.Add(contact.Email);  item.SubItems.Add(contact.PhoneNumber);  item.SubItems.Add(contact.Gender);  item.SubItems.Add(contact.IsFavorite ? "Yes" : "No");  item.SubItems.Add(contact.Country);  listView1.Items.Add(item);  }  private void ClearInputFields()  {  txtName.Clear();  txtEmail.Clear();  txtPhoneNumber.Clear();  rbMale.Checked = false;  rbFemale.Checked = false;  rbOther.Checked = false;  chkFavorite.Checked = false;  cmbCountry.SelectedIndex = -1;  }  private string GetSelectedGender()  {  if (rbMale.Checked) return "Male";  if (rbFemale.Checked) return "Female";  if (rbOther.Checked) return "Other";  return string.Empty;  }  private void SetSelectedGender(string gender)  {  if (gender == "Male") rbMale.Checked = true;  else if (gender == "Female") rbFemale.Checked = true;  else if (gender == "Other") rbOther.Checked = true;  }  private void txtName\_TextChanged(object sender, EventArgs e)  {  }  }  } |

**OUTPUT:**

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