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using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using MainData;

namespace Lab03
{
    class Program
    {
        static void UpdateNumberOfCustomer(Company company)
        {
            company.ValNumberOfCustomer = company.Customers.Count;
        }
        static void Main(string[] args)
        {
            Company company = new Company();
            company.ValNameC = "Garena";
            company.CompanyAddorRemoveEvent += new
Company.CompanyHandler(UpdateNumberOfCustomer);

            company.AddCustomer(new Customer("C001", "Hoang Luan", "SG",
02134522829, CustomerType.TiemNang));
            company.AddCustomer(new Customer("C002", "Ba Nhat", "HN", 0907081191,
CustomerType.CanQuanTam));
            company.AddCustomer(new Customer("C003", "Be But", "LA", 030209992,
CustomerType.TrungThanh));
            company.AddCustomer(new Customer("C004", "Thien Red", "TD",
0629274613, CustomerType.KhachHangKhac));

            Customer customer = company.SearchCustomer("C002");
            company.RemoveCustomer(customer);

            Customer customer1 = company.SearchCustomer("C005");
            company.AddCustomer(customer1);
            company.CompanyInfo();
        }
    }
}

namespace MainData
{
    public enum CustomerType { TrungThanh, TiemNang, CanQuanTam, KhachHangKhac };
    public class Customer

```

```

{
    string CustomerID = "CS000";
    string CustomerName;
    string CustomerAddress;
    int CustomerPhone;
    CustomerType customertype = CustomerType.KhachHangKhac;
    public Customer() { }
    public Customer(string CustomerID, string CustomerName,
        string CustomerAddress,
        int CustomerPhone,
        CustomerType customertype)
    {
        this.CustomerID = CustomerID;
        this.CustomerName = CustomerName;
        this.CustomerAddress = CustomerAddress;
        this.CustomerPhone = CustomerPhone;
        this.customertype = customertype;
    }
    public string ValCustomerID
    {
        get { return CustomerID; }
        set { CustomerID = value; }
    }
    public string ValCustomerName
    {
        get { return CustomerName; }
        set { CustomerName = value; }
    }
    public string ValCustomerAddress
    {
        get { return CustomerAddress; }
        set { CustomerAddress = value; }
    }
    public int ValCustomerPhone
    {
        get { return CustomerPhone; }
        set { CustomerPhone = value; }
    }
    public CustomerType Valcustomertype
    {
        get { return customertype; }
        set { customertype = value; }
    }

    public void CustomerInfo()

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```

    {
        string customertypeName = Enum.GetName(typeof(CustomerType),
customertype);
        if (CustomerID != "CS000")
            Console.WriteLine("Khach hang: {0} - {1} - {2} - {3} - {4}",
                                CustomerID, CustomerName,
CustomerAddress, CustomerPhone, customertype);
    }
}

public class Company
{
    public List<Customer> Customers { get; set; }
    Dictionary<CustomerType, string> customerinfos = new
Dictionary<CustomerType, string>();
    string NameC;
    public delegate void CompanyHandler(Company company);
    public event CompanyHandler CompanyAddorRemoveEvent;
    public Company()
    {
        Customers = new List<Customer>();
        NameC = "Not Assigned";
        customerinfos.Add(CustomerType.CanQuanTam, "Khach hang can quan
tam");
        customerinfos.Add(CustomerType.KhachHangKhac, "Khach hang can nhung
dich vu khac");
        customerinfos.Add(CustomerType.TiemNang, "Khac hang VIP");
        customerinfos.Add(CustomerType.TrungThanh, "Khach hang than quen");
    }
    public string ValNameC
    {
        get { return NameC; }
        set { NameC = value; }
    }
    public void CompanyInfo()
    {
        Console.WriteLine("Cong ty {0} co {1} khach hang nhu sau:", NameC,
NumberofCustomer);
        foreach (Customer cs in Customers)
        {
            KeyValuePair<CustomerType, string> info =
customerinfos.FirstOrDefault(o => o.Key == cs.Valcustomertype);

            cs.CustomerInfo();
            Console.WriteLine("-Thong tin Khach hang {0}\n", info.Value);

```

```

    }
}
public Customer SearchCustomer<SCC>(SCC search)
{
    Customer c = new Customer();
    if (typeof(SCC) == typeof(string))
    {
        c = Customers.FirstOrDefault(o => o.ValCustomerID ==
search.ToString());
        if (c != null)
            return c;
    }
    else if (typeof(SCC) == typeof(int))
    {
        if (Convert.ToInt32(search) < Customers.Count)
            return Customers[Convert.ToInt32(search)];
    }
    else Console.WriteLine("Customer is not found");
    return new Customer();
}
int NumberofCustomer = 0;
public int ValNumberofCustomer
{
    get { return NumberofCustomer; }
    set { NumberofCustomer = value; }
}
public void AddCustomer(Customer customer)
{
    Customers.Add(customer);
    OnCompanyChanger(this);
}
public void RemoveCustomer(Customer customer)
{
    Customers.Remove(customer);
    OnCompanyChanger(this);
}
public void OnCompanyChanger(Company company)
{
    if (CompanyAddorRemoveEvent != null)
        CompanyAddorRemoveEvent(this);
}
}
public static class MyExtensions
{
    public static string ConvertToString(this Customer customer)

```

```

    {
        string customertypeName = Enum.GetName(typeof(CustomerType),
customer.Valcustomertype);
        if (customer.ValCustomerID != "C001")
            return String.Format("Khach hang: {0} - {1} - {2} - {3} - {4}",
                customer.ValCustomerID, customertypeName,
customer.ValCustomerAddress, customer.ValCustomerPhone, customertypeName);
        else return "";
    }
}
}

```

PS D:\HCMUS\Computer Science\.NET\Bài Tập\Assignments of Labs\Lab03> **dotnet** run

Cong ty Garena co 4 khach hang nhu sau:

Khach hang: C001 - Hoang Luan - SG - 2134522829 - TiemNang

-Thong tin Khach hang Khach hang VIP

Khach hang: C003 - Be But - LA - 30209992 - TrungThanh

-Thong tin Khach hang Khach hang than quen

Khach hang: C004 - Thien Red - TD - 629274613 - KhachHangKhac

-Thong tin Khach hang Khach hang can nhung dich vu khac

-Thong tin Khach hang Khach hang can nhung dich vu khac

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