

Interface and Generics Exercise

Create a Console Application Project

Create a Person Class with the following properties

 Name - String

 Birthday - DateTime

Search on a list

 Create a list of Person objects (three objects is enough): `List<Person>`

 Use Contains methods to test if a person exists on the list. Pass as argument a new

Person object with the same data of one existing on the list

 It doesn't work!!! Why?

Right Search

 Create Equals and GetHashCode method (search on internet about these methods)

 Try again, works?

Sort

 Type ToString Method

 Implement interface IComparable (CompareTo method)

 Sort with the following criteria, first by name, second by birthday

 Create a list of Person objects

 Do sort using Sort method of the generic class

 Test that works fine

EVENTS

Create a Console Application Project

Class Person

Must have a property called Name

Create delegate and event

```
public delegate void NameChangedEvent(Person p, string oldName);  
static public event NameChangedEvent NameChanged;
```

In the set method, when the value is changed the NameChanged event must be triggered.

Type main method that change names and create events.

EXCEPTIONS

Create new exception class TooUglyNameException, if the name is Pancuato must generate an exception (set method of Name property)

Interface and Generics Exercise**ASSEMBLIES and REFLECTION**

Read on Internet about Assemblies in .NET Framework

Create a project as Library (Ex_Assembly)

Copy all the previous classes (except main program) to the library

Create a console application (Ex_Reflection)

Reflection Exercise

Show loaded assemblies

Load an assembly dynamically (Assembly from previous exercise)

Get Information about class Person

Create an object invoking Constructor

Get information about properties, show the value for any property of the created object

Call ToString method

Search on internet about how plugins systems works. Discuss it.