

Duration: 90 min, **Mandatory:** the project should compile and run without **any** errors. Only tested implementations will be graded.

Create a Windows Forms project with the following name "StudyYear_LastName_FirstName". For the **management of a fitness gym**, you are asked to define two classes: a **primary** class that will store the details for the memberships and **secondary** class that will represent the fitness gym (includes a collection or array of memberships).

(2p) The user should be able to add new instances for the primary class using a **secondary form**. The instances of the primary class will be displayed in the **main form** using a ListView control, configured to look similar to a table.

(1p) The instances of the primary class, added using the secondary form, will be stored **only** in the array / collection included in the secondary class (**note:** you only need one instance of the secondary class).

(1p) Perform validations on the data imputed by the user in the secondary form. The errors will be displayed using ErrorProviders.

(1p) Implement the IComparable or IComparable <T> interface to compare instances of the primary class based on a criterion at your choice. Keep the items displayed in the ListView sorted all the time in ascending order based on the chosen criterion.

(1p) Add the option to edit the instances displayed in the ListView using a contextual menu. The instances should be edited using the same secondary form that is used for adding new instances.

(2p) Add a button to the main form, that when pressed, will insert into a table in a database of your choice (SQLServer, SQLite or Access) the information for all the memberships.

(1p) Automatically serialize / deserialize the instance of the secondary class when the user closes the application / opens the application.