

# OBJECT ORIENTED PROGRAMMING

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**Lab 3.3** – on struct datatype objects, array, list, placeholders and try and catch

## Objective

You will do some programming exercises of variables and data types in C#. It will help you to improve your programming skills in using **struct**, **array**, **list**, and **object(instance) creation using struct in C#**.

**Q1:** Use Visual Studio editor to write a console program in C# to display complete student information.

Create a struct **Person** with members for the **first name**, **last name** and **age**. Create another struct **Student** with members: **Person**, **student ID**, **college name**, **city**, and **address**. (*Check the solution of Lab 3.2*)

Create two objects for representing two students from the same college, one is hard-coded and the second is entered by the user on run time. Accept (*validate*) student's and college values into the appropriate struct variable's datatypes (*use **Convert** class*). Have the option **1** that allow you to add the student instance in that array.

Add the try & catch to all your conversions from string to some other datatypes (use **goto** instruction if you have an exception). Store all those values into an object, and then, save it into an array. Create a list of the same type as the array (*Student*) with those instances of the array. Have the option **2** that allow you to add the student instance into the list.

Have the option **3** to print (*show*) all the student's information from the array. Display student data by using the interpolation (*align all the numbers to the right and the text to the left*).

Have the option **4** to print (*show*) all the student's information from the list (use foreach loop). Display student data by using the placeholders (*align all the numbers to the right and the text to the left*).

Test and debug your application, identify yourself and the work, comment your code. Send your solution folder as zip file by LEA of Omnivox