# Visual Programming

# Assignment 03

## Requirements

Develop a WPF application for managing a small training institute. It would be an Admin application where administrator can manage **Students**, **Courses** and **Trainers**. Admin shall be able to perform CRUD operations when managing all entities (Students, Courses, Trainers).

1. **CRUD (Create, Read/View, Update, Delete) for all Entities**
2. User shall be able to create a new record by filling a form. Following shall be the *manageable* fields in each entity:

**Student:**

* Frist Name
* Last Name
* Date of Birth
* Registration Number
* Phone (Two fields, one for selection of country code and other for phone number)
* Photo
* E-mail
* Address

**Trainer:**

* First Name
* Last Name
* Designation
* Department
* Salary
* Phone
* E-mail
* Photo
* Address

**Course:**

* Code
* Title
* Description

1. There shall be a separate section to manage each entity (windows/panels etc).
2. User shall be able to assign courses to trainers. When assigning courses, courses list shall appear from **course** entity in dropdown/listbox and only unassigned courses shall appear in dropdown.
3. User shall be able to assign courses to students. When assigning courses, courses list shall appear from **course** entity in dropdown/listbox and a list of students from **students** entity.
4. User shall be able to view instructors who have not been assigned any course.
5. User shall be able to view students who are not taking any course.
6. User shall be able to Update a selected record. This shall NOT be done through grid.
7. User shall be able to Delete selected record.

## Implementation Instructions

1. Entities MUST have relationships and database shall be normalized.
2. Use Service-based database.
3. Use Appropriate Icons (when designing forms and menus), containers/panels (to organize controls).
4. Code shall contain comments.