

## Module 10 Lab Assignment.

In this lab assignment, you need to repeat the in-class programming exercise for a different scenario. The interface and the functionality will be the same, but they need to be adopted to different classes. In the lecture, there were Circle, Triangle, and Rectangle classes deriving from the Shape class. Differently, in this assignment, you need to create the `FootballTeam` and `BasketballTeam` classes that derive from the `Team` class.

As you have done in the in-class exercise, the application should allow users to create different types of teams (using a **TabControl**) and display them in a **Listbox** control. When a team is selected from the list, the total number of matches played, and the total points gained should be displayed in a label placed just below the list box.

The properties and the methods of all classes that you need to create are given below.

### Team

- Id : int property
- Name: string property
- League: string property
- Wins: int property
- Defeats : int property
- ScoresAchieved: int property
- ScoresConceded: int property
- Average: int, read-only property that returns  $\text{ScoresAchieved} - \text{ScoresConceded}$

### Football Team

- Draws: int property
- CalculateMatchesPlayed() : method that returns  $\text{Wins} + \text{Defeats} + \text{Draws}$
- CalculatePoints(): method that returns  $\text{Wins} * 3 + \text{Draws}$

### Basketball Team

- TotalFauls: int property
- TotalRebounds: int property
- CalculateMatchesPlayed() : method that returns  $\text{Wins} + \text{Defeats}$
- CalculatePoints(): method that returns  $\text{Wins} * 2 + \text{Defeats}$