

## AP - Assignment 3

Create an C# application to manage a list of students as following:

- a. Create an abstract base class **Student** with the specifications as below:

Public Fields:

No.	Identifiers	Data type	Description
1	ID	String	Id code
2	Fullname	String	Full name
3	DOB	DateTime	Date of birth
4	Gender	boolean	

Public Methods:

No.	Identifiers	Return type	Description
1	Abstract Print ( )	void	Display detailed information
2	Accept ( )	void	Input detailed information of a student: id, full name, dob

- b. Create child class **StudentPremium**, derived from **Student**:

i. Fields:

No.	Identifiers	Data type
1	markofObj	Int
2	markofPrac	Int

ii. Methods: Override methods of base class:

1. **Accept()** : first invoke Accept() of base class, second input data for the two new fields markofObj, markofPrac and then calculate final mark.
2. **Print()**: Display content of student by appropriate format, including average mark

- c. class **Program**

i. Fields:

no.	Identifiers	Data type
1	max	Max of students
2	count	Total of students
3	stList	Array of StudentPremium

ii. Methods:

no.	Identifiers	Return	Description
1	Add()	void	Add an object <b>StudentPremium</b> into list (stList)
2	Display( )	void	Display list of students
3	Display (string ID)	void	Search a student by ID.
4	Display (int avg )	void	Display list of students having average mark $\geq$ avg
5	Menu()	void	Create a menu system to call functions of program