Study question (in classroom):

Implement a sample **class Student**.

Objective: To understand the following Object-Oriented Programming (OOP) concepts**:**

i. **class**
ii. **object** (also called as **instance**)
iii. **method**
iv. **data member** (also called as **attribute**)

a) Create a class **Student** with the following **private** instance variables: **name**, **ID** and **age**.

b) Define **public** mutator (**set**) and accessor (**get**) methods for each instance variable of the class.

c) Define also a **display** method to print out the information (i.e., name, ID and age) of a student.

d) Implement a **main** method to test the class Student. In main, instantiate an **object** (instance) of class Student. Then, set the instance variables of the object with the input values to be read from the keyboard. Finally, display the corresponding information of the object.

Version#2: Separate the class Student from the method main. So, implement the program using two classes (i.e., Student and Test).

Version#3: In main, use an array object to store 4 Student references. Then, let these references refer to 4 new Student objects. Finally, test the methods via the references available in the array.

Version#4: In main, use an object (instance) of ArrayList to store Student references. Instantiate 4 new Student objects and add their references into the ArrayList object. Finally, test the methods via the references available in the ArrayList.