King Saud University

Collage of Computer and Information Sciences

Lab 1

Section
- studentList: Student[ ] - sectionNumber: String - nbOfStudents: int
+ section(SecNumber : String, Size : int) + addStudent(StdName: String, ID :String) : boolean + display( ): void

Student
- id: String - name: String
+ Student ( ) + Student(id :String ,StdName: String) + getID( ): String + setID (id : String): void + getName( ): String + setName (Name : String): void + displayStudent ( ): void

Student

- **id**: (String)
An attribute that holds the student ID, (e.g. 433000123. Why String?).

- **name**: (String)
An attribute that holds the student's Name.

+ **Student (ID, StdName):** *hint, use "this".*
Constructor, ID will copy the value of ID, and Name will copy the value of StdName.

setters and getters: To set and get the value of each attribute (ID, Name). Why Public?

+ **displayStudent ( ):**
Display the student info in the following format:
Student ID: 433000123 – Student Name: Ahmad

Section

- **studentList**: (Student [])
Array to hold students information that registered in this section.

- **sectionNumber**: (String)
An attribute that holds the section number (e.g. 11602).

- **nbOfStudents**: (int)
Keep track of registered students in this section.

+ **Section**(secNumber, size):
Constructor to set sectionNumber and initialize StudentList with the given Size.
e.g. StudentList = new Student[Size];

+ **addStudent(StdName: String, ID: String): boolean**
This method will receive name and id, and it will add it to the students list (as a student object). It will return true if successfully added, false otherwise.
e.g. StudentList[nbOfStudents]= new Student(id,name);

+ **display(): void**
This method displays all the students in the array.

Once you are done, you need to test your classes by implementing the class Lab1 with main method that shows the following menu:

Please choose one of the following options:
- 1 - Add Student (reading student information from user)
- 2 - Display all the students (prints out all student information in that section).
- 9 - Exit

Helpful tips and hints:

- To auto generate Getters and setters go to
  Source -> Generate Getter and Setter
  Or just type set and press Crtl + Space for the variable you just added.
- To invoke the Auto Formatter for your code : Ctrl+Shift+F
- For auto complete: Crtl + space
- To Undo: Crtl + z
  To Copy: Crtl + c
  To Paste: Crtl + v
- - private, + public, # protected.