

Subject: PRO192

LAB 08

Project name: MASV_Lab08

MASV: là mã số của sinh viên

Nén project lại với tên: submit.zip (hoặc submit.rar)

Sau đó submit bài làm (submit.zip) vào mục **Slot10/ASSIGNMENT/Lab08** trên trang Edunext

Happyline: 23:59, 06/10/2024

Yêu cầu:

- Comment phương thức và giải thuật đầy đủ
- Format code
- Thông tin phần author
- Tạo file .jar cho project
- Nhập trước dữ liệu mẫu

Technical Requirements:

1. Using Object-Oriented programming style.
2. Using ArrayList to store data
3. Check data input is valid with following information:

Class Member

ID: must be exactly 5 characters and no duplicated with existed ID in Database (your list).

name: not empty

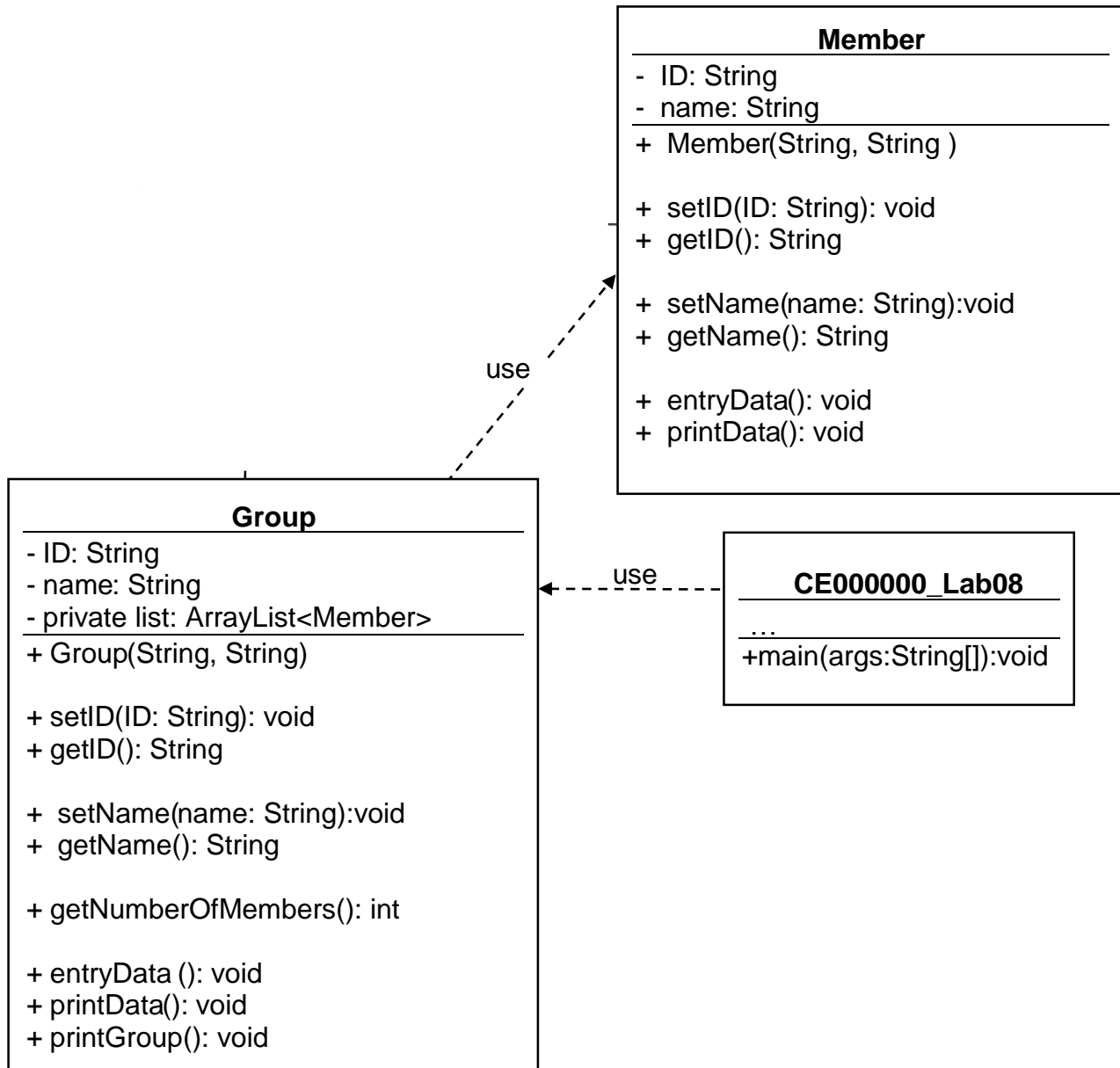
Class Group:

ID: must be exactly 2 characters, starting with the letter 'G' and no duplicated with existed ID in Database (your list).

name: not empty

Content:

Create 3 classes as below:



1. Class **Member**

- Fields
- Constructor: set ID = "", name = ""
- get...(): return value of field
- set...(...): set value of field = ...
- entryData(): allow user input value of all fields
- printData(): show all field values

2. Class **Group**

- Fields
- Constructor: set ID = "", name = ""
- get...(): return value of field
- set...(...): set value of field = ...
- getNumberOfMembers(): return the number of member in group
- entryData(): allow user input value of all fields
- printData(): show all field values (include group information and member list)
- printGroup(): show group ID, name and number of members.

3. Class CE000000_Lab08

Write a group management program with the following functions:

- Create menu for this program as below:
----- GROUP MANAGEMENT -----
A. Adds new group.
V: Views all group.
S: Search group.
Q: Quit.
Please select a function:
- When user select the first function, the application will receive group information and append this group into a list.
Please select a function: A
----- Add new group -----
Input ID: G1

```
Input name: Group 1
Input number of members: 2
-- Add member 1 --
Input ID: G1_M1
Input name: Nguyen Hoang Mai
-- Add member 2 --
Input ID: G1_M2
Input name: Tran Thanh An
Group 01 created!
----- GROUP MANAGEMENT -----
A. Adds new group.
V: Views all group.
S: Search group.
Q: Quit.
Please select a function:
```

When user select the second function, the list of groups will be shown

```
Please select a function: V
----- List of groups -----
-- ID -- Group name -- Number of members --
-- G1 -- Group 01 -- 2 --
-- G2 -- Group 02 -- 3 --
----- GROUP MANAGEMENT -----
A. Adds new group.
V: Views all group.
S: Search group.
Q: Quit.
Please select a function:
```

When user select the third function, ask Group ID, search and show the result (not found or group information)

Please select a function: **S**

----- Search Group -----

ID: **G3**

Result: Not found

Or

----- Search Group -----

ID: **G1**

Result: G1:Group 01 (2 members)

-- ID -- Member name --

-- G1_M1 -- Nguyen Hoang Mai --

-- G1_M2 -- Tran Thanh An -- --

--- GROUP MANAGEMENT -----

A. Adds new group.

V: Views all group.

S: Search group.

Q: Quit.

Please select a function:

When user select the last function, the application will be stopped and show some message as below:

Please select a function: **Q**

THANK FOR USING MY APPLICATION!

SEE YOU AGAIN!

When user select invalid function, the application will show the warning message
The function of application must be from 1 to 4!