

## HW01

### Face Recognition Using Dimensionality Reduction

In a library, there are many books and articles about math, biology,... for the students to refer and research more advanced. At the first time for using the library's services, the students are required to offer some information and documents for registration as:

- Full name
- Date of Birth
- Class ID
- Student ID
- Picture of student

After registration is completed, they will be received a library card which contains the information about the students and their picture. When students come in the library, they will show the library card in front of a camera to identify who they are and allow they check in the library.

Build an application with below functions:

- Register a new student.
- When the student check in the library: verify the student's information: if student registered, they were come in the library else they were denied.

Note: after student show the library card in front of a camera, an image of student is extracted for next processing.

Requirements:

- Use Python language.



- Allow use arbitrary framework/library.
- Write pure code by yourself (priority and bonus).
- Homework only a student.
- Prohibited copy from other students.