

# Object Orient Programming

## Assignment # 01

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- 1) Imagine you were to design a database for a Computer Science department. Consider the following,
  - a. There are at most 5 sections in the CS department
    - i. The attributes for each section are “section\_name” and “No\_of\_students”
  - b. Each section can have at most 50 students
    - i. The attribute for each student are “rollNO”, “name”, and “section” (A,B,C,D,E), “password”
  - c. There are at most 5 admins
    - i. The attribute for each admin are “name”, “designation” (faculty, staff)
  - d. There should be two login options for the database,
    - i. Option 1: Login as admin
      1. The login option for admin are “Name” and “password”
      2. Initially the default username and password for the very first admin: user\_name: admin, password=admin
      3. When the admin logs in for the very first time with the default username and password, he/she must change the password
      4. The admin should have the authority to create more admins (max 5 admins in total).
      5. The default password for each new admin is “admin123”. The newly created admins must have to change their password on their first login
      6. All admins can add/update/view information of admins , students and sections
      7. Only admins can view the details of the any section, any student and any admins
    - ii. Option 2: Login as student
      1. The login options for the students are “rollNo” and “password”
      2. The default password for the student is “student123”
      3. The student has to change his/her rollNo on his/her first login
      4. The student can view only his information

- e. Your program should proceed in a form of a Menu as depicted in the sample output below
- f. You must nested array structures for fulfilling this assignment

```
Windows PowerShell
PS C:\Users\p18-0405\Documents\structures> g++ test.cpp
PS C:\Users\p18-0405\Documents\structures> ./a
Welcome to the Department of Computer Science

press 1 to login as Admin
press 2 to login as Student

Enter your option: 1
user name: admin
password: admin

you must change your password

new password: test123
confirm new password: test123
your password has been changed

Press 1 to add/update/view admins
Press 2 to add/update/view students
Press 0 to logout

Your option:
PS C:\Users\p18-0405\Documents\structures> █
```