Alexandria University
Faculty of Engineering
Computer and Systems Engineering
Department

CS121: Computer Programming 1
Assigned: Saturday, November 10th, 2024
Due: Saturday, December 7th, 2024

Project 1
Clinic management system

Problem Statement

Design a clinic management system that has data of 10 doctors stored in file, Each doctor is defined using 4 things:

- Name
- Speciality
- Clinic address
- Visita

Patients can use this system by :

- Sign up using
    - Name
    - username
    - password

- Sign in (log in) using
    - username
    - password

Patients can do many things:

- Search for a specialty
- See all doctors with their all information

Implementation Details

1. Create 2 files one for storing doctors data and the other one for storing the patients data after they sign up.
2. Load Patients and doctors data in either 2D array or array of struct at the start of the program.
3. Your system should support only 10 doctors and 10 patients.
4. You have always to check for validity for example:
    - When logging in: check that the username and password exist and match.
    - When you sign up if you exceed the limit of 10 patients .

Required Deliverables

1. Report contains:
    - Use case diagrams
    - Sequence diagrams
    - Snippets from some important functions of your program
    - Example of running samples.
2. A running code

Examples of the needed flow

Example 1

1. User sign up
2. User search to see all doctors
3. User search with specific value in the doctors data
4. User logout (Program stop)

Example 2

1. User sign in without signed up before
   Expected behavior :
    1. Message to till him/her that they should sign up first
    2. Pass them to sign up step

NOTES

1. Team will be 3 or 4 students.
2. You are encouraged to ask any questions on MS teams, or in person.
3. Cheating will be severely penalized (for both parties). So, it is better to deliver nothing than deliver a copy!.
4. You are not allowed to use any AI Tool.
5. Submission details will be announced on MS Teams.

Good Luck