1.0 COURSEWORK TITLE

COVID-19 VACCINE REGISTRATION SYSTEM

2.0 THE COURSEWORK OVERVIEW & DESCRIPTION

Vaccines are one of the methods for us to curb the pandemic and one of the best ways to protect our society from COVID-19. Since the beginning of the pandemic, various efforts have been carried out globally to develop COVID-19 vaccines. The Special committee for ensuring access to COVID-19 vaccine supply was established to ensure timely access to the supply of COVID-19 vaccines for the country. As such, you are commissioned to develop a window system that simulates the process of accessing to the supply of COVID-19 vaccine involving real-word objects such as personnel members, people, vaccines, appointments and vaccination centres, to name a few. The people either citizens or non-citizens should be able to register for vaccination to the system. Also, the system should allocate the access to vaccines for people via appointment. In addition, the system should be GUI-driven with options for the functional scenarios. As an object-oriented programming student, you are required to identify the domain objects and the relationships and develop the necessary data attributes or methods needed to fulfil the requirements.

In this assignment, a report document is mandatorily required to reflect the solution design and the implementation details along with code snippets that employ object-oriented programming concepts.

The following are the basic requirements that illustrate the scenario.

Login access:

You program should have two types of access rights such as People (citizens/non-citizens) and Personnel of special committee for access to covid19 vaccine supply.

Personnel of the committee:
Personnel should have access to the following functionalities:

- Citizens/Non-citizens people (Register/Modify/View/Search)
- Manage vaccination appointments for registered people (Add/Remove/Modify/View/Search)
- Supply of covid19 vaccines at the centre (Add/Remove/Modify/View/Search)

People (Citizens/Non-citizens):
People should have access to the following functionalities:

- Register to the vaccination programme (Register/Modify/View)
- Submit vaccination appointment (Register/Cancel/View)
- View Vaccination status (View/Search)

The basis entities involved in the system is given as follows, but not limited to:

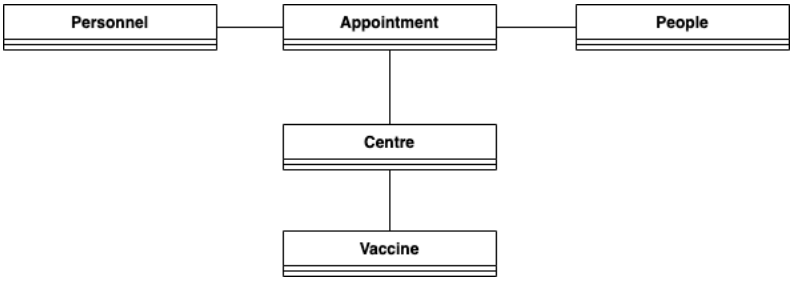

Figure 1: Analysis class diagram

In solution design, you are required to

- Identify the various attributes needed for describing the entity.
- Identify and include the necessary methods.
- Check duplication of records.
- State any valid/logical assumptions for functional requirements to reach the object-oriented design concepts.

3.0 OBJECTIVE OF THIS COURSEWORK

Develop the practical ability to describe, justify, and implement an Object-oriented system.

4.0 LEARNING OUTCOME

At the end of this coursework, you should be able to:

- Implement a software application that exploits the strength of object-oriented paradigm (C6, PL02)
- Demonstrate the use of object oriented concepts and their functionalities in the existing system (A3, PL05)

5.0 TYPE

Group Assignment (2 in a group); Each member is expected to complete 50% functional requirements.

6.0 GENERAL REQUIREMENTS

- The program submitted should compile and be executed without errors.
- Validation for input should be done for each entry from the users to avoid logical errors.
- The implementation code **must highlight** the use of object-oriented programming concepts as required by the solution.
- Students should use **text files** for storing and retrieving data required for the system.
- **Not allowed** to use any database tools like access / oracle etc.

7.0 DELIVERABLES:

- The system with complete code to be submitted in the Moodle.
- Report document in softcopy form to be submitted in the Moodle.
- Submission deadline: As per specified in Moodle

8.0 DOCUMENTS: COURSEWORK REPORT

- As part of the assessment, you must submit the project report in softcopy form, which should have the following format:

A) Cover Page:

All reports must be prepared with a *front cover*. A protective transparent plastic sheet can be placed in front of the report to protect the front cover. The front cover should be presented with the following details:

- Module
- Coursework Title
- Intake
- Group member (Student name and ID)
- Date Assigned (the date the report was handed out).
- Date Completed (the date the report is due to be handed in).

B) Contents:

- Description and justification of the design and the implementation code which illustrate the object oriented programming concepts incorporated into the solution
- A 2000-word report based on the object-oriented topic researched

C) Conclusion

D) References

- The font size used in the report must be 12pt and the font is Times New Roman. Full source code is not allowed to be included in the report. The report must be typed and clearly printed.
- You may source algorithms and information from the Internet or books. Proper referencing of the resources should be evident in the document.
- All references must be made using the APA referencing system.
- List of references at the end of your document or source code must be specified.

9.0 ASSIGNMENT ASSESSMENT CRITERIA

The assignment assessment consists of four components: Requirement Analysis (20%), Implementation (40%), Report (30%), and Presentation (10%). Details of the allocation for each component are as follows:

Criteria	Marks allocated
Requirement Analysis: [CLO2-PLO2] • Use case diagram with description • Class diagram	**20%** 10% 10%
Implementation: [CLO2-PLO2] *Group Member A:* 1) User-level access and logging activity 2) Functional requirement/use cases for personnel committee *Group Member B:* 1) Functional requirement/use cases for people 2) Report or file generation ** the group has freedom to decide what should be allocated according to the amount of work assigned.*	**40%** 20% 20% 20% 20%
Report: [CLO3-PLO4] - Report Format and References - System Documentation	**30%** 10% 20%
Individual Presentation: [CLO3-PLO4] Ability to answer questions addressed by the lecturer pertaining to the work done and presented	**10%**

10.0 DEVELOPMENT TOOLS

The program must be written in Java language and you can use any Java development IDE as a tool but the back-end data store must be **.txt** files.

11.0 ACADEMIC INTEGRITY

- You are expected to maintain the utmost level of academic integrity during the duration of the course.
- Plagiarism is a serious offence and will be dealt with according to APU and Staffordshire University regulations on plagiarism.