DATA STRUCTURES & ALGORITHM

SEMESTER PROJECT – GROUP A

VACCINE MANAGEMENT SYSTEM
PROJECT REPORT

Muhammad Khubaib Shafi – BSEE21025

Haleema Sadia Hamid – BSEE21072

Qasim Irfan – BSEE21074

Submitted To

Course Instructor: Mr Umer Farooq

Lab Engineer: Mr. Usama Riaz

INFORMATION TECHNOLOGY
UNIVERSITY OF THE PUNJAB

<div align="center">

TASK LIST AND PLAN

</div>

TASKS	EXECUTED BY
1. Organization	BSEE21074
2. MANAGER	BSEE21072
3. Citizen	BSEE21025
4. Feed back	BSEE21072 & BSEE21025

Organization

Organization class requires the user to insert and remove vaccination centers and employees in the database. Further employees can be promoted or demoted. And all of this is being saved in a text file. Moreover a separate class was created in order to maintain the security to prevent any intrusion.

```
1 - Insert Vaccination Centre       2 - Insert Employee

3 - Remove Vaccination Centre       4 - Remove Employee

5 - Promote to manager              6 - Demote to worker

7 - Display Vaccination Centres     8 - Display Employees

9 - Add organisation accounts

0 - Exit Organisation

Enter:
```

Manager

In Manager class, first of all manager is going to login in system. Then a menu will display that will ask manager to manage vaccination center by selecting centers and their capacity then the manager is going to assig the timings slots. Then there is a group where manager can do chat with citizen. We are going to use **Trees, Priority Queues** and by **File Handling**.

```
                User name :    Haleema

                Password :      123456


+ + + + + + + + + + + + + + + + + + + + + + + + + + + + + + + + +
Welcome Manager! You are successfully login into the system


1 - To Manage Vaccination Centers


2 - To Specify Timings For Vaccination


 3 - For Chatting in Group


4 - To Log Out From System
```

Citizen

In citizen class, first of all details of citizen will be entered and the vaccine against that particular age will be displayed and the particular details of the citizen are displayed and also displayed in the file generated using **file handling**. The details of the citizen are displayed according to the priority using the **priority queue** and will also be deleted according to the priority.


```
W e l c o m e      C i t i z e n

                    1 - To Enter the Details Of Citizen


                    2 - To Delete the Details Of Citizen


                    3 - To Display the Details Of Citizn


                     4 - For Chatting in Group


                    5 - To Exit from Registration Process
```

For the group chat, the citizen will be entering his name and the message according to the priority and will be displayed in the output and in the file generated using file handling.

UML DIAGRAM

VACCINE MANAGEMENT SYSTEM (GROUP A)

ORGANIZATION

+insertVaccinationCentre()
+insertStaff()
+removeVaccinationCentre()
+removeStaff()
+specifyManager()
+removeManager()
+displayOrganization()
+displayStaff()

MANAGER

+insertingCenter()
+displayingCenter()
+insertingTimeSlots()

CITIZEN

+enque()
+deque()
+displayQueue()

managerMessages

+enquingMessages()
+displayQueue()

FEEDBACK

+Complement()
+insertionFeddBack()

CitizenMessage

+enquingCitizenMessages()
+displayMessage()