BLG252E – Homework 1

Report

- The program can be compiled by using this command line:
  g++ main.cpp CivilRegistery.cpp Citizen.cpp Time.cpp CivilRegistery.h Citizen.h Time.h
  -o main

- In order to run the program, you can use this command line:
  ./main

```cpp
class Time {
private:
      int day;
      int month;
      int year;
      int hour;
      int minute;
public:
      Time(int, int, int, int, int);    // Constructor
      string getTime() const;
      // Operator overloading
      bool operator < (Time const &obj);
      bool operator > (Time const &obj);
      bool operator == (Time const &obj);
};
```

In my Time Class, I made all attributes of the class private because we don't need to access them from the outside. Besides, since I am going to use the new operators which I overwrite, I made them public. Finally, I made getTime() method constant due to not changing anything in it.

```cpp
class Citizen {
private:
      char *idNo;
      char *name;
      char *surname;
      bool hasApp;
      Time *appTime;
      char *appSlot;
public:
      Citizen(char *, char *, char*, bool, char *, char *, char *); // Constructor
      ~Citizen();
      char * getName() const;
      bool getCitizensHasAppInfo() const;
      Time * getAppTime() const;
      char * getAppSlotInfo() const;
};
```

In my Citizen Class, the attributes are private again because of the same reason which I have explained above. Also, getName, getCitizenHasAppInfo, getApptime, and getAppSlotInfo are public because they should be reachable from the outside. Moreover, they are again constant since they are getter methods and there is no change in them.

```cpp
class CivilRegistery {
```

```cpp
private:
    std::list <Citizen *> wApp;// queue for the citizens with appoinment
    std::list <Citizen *> wOutApp;    // queue for the citizens without appoinment
public:
    void insertCitizen(Citizen &obj);
    void sortQueues();
    bool removeCitizen(int);
};
```

In my CivilRegistery Class, I made the lists private because they should not be reached and changed from the outside. The order in the lists should be done only by the program itself. Besides, since we are using its methods in main.cpp, they should be public.