

## User and Software Manuals

# A COVID-19 Vaccine Schedule Program

## Introduction:

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1. **Purpose:** This application as a simulation can help people to schedule a vaccine shot easily. When there is new vaccine came out and open to the public, there are many people who want to get it, but it's hard to schedule it because people have different work time, also numbers of vaccines are limited at the beginning. This application will help the user to register, choose vaccines and schedule their appointments. For the admin system, the administrator can check the user's information, and be able to save, edit, upodate, and delete any information in the system.
- 
2. **The implement needed for this program:**
    - A. DB Browser for SQLite  
Store any data we need for this program, it's included two tables( user table, admin table)
    - B. Stylesheet QSS implement  

```
QFile styleSheetFile(":/qss/Irrorater.qss");
styleSheetFile.open(QFile::ReadOnly);
QString styleSheet = QLatin1String(styleSheetFile.readAll());
setStyleSheet(styleSheet);
```
    - C. Source file ( Three imgs and qss styles)
- 
3. **libraries needed to compile this program (For each file)**
    - A. main.cpp :

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```
#include <QApplication>
#include <QTabWidget>
#include <QPushButton>
```

B. Login.cpp:

```
#include <QSqlError>
#include <QSqlQuery>
#include <QDebug>
#include <QString>
#include <QException>
#include <QMessageBox>
```

C. User.cpp:

```
#include <iostream>
#include <QString>
```

D. UserDialog1:

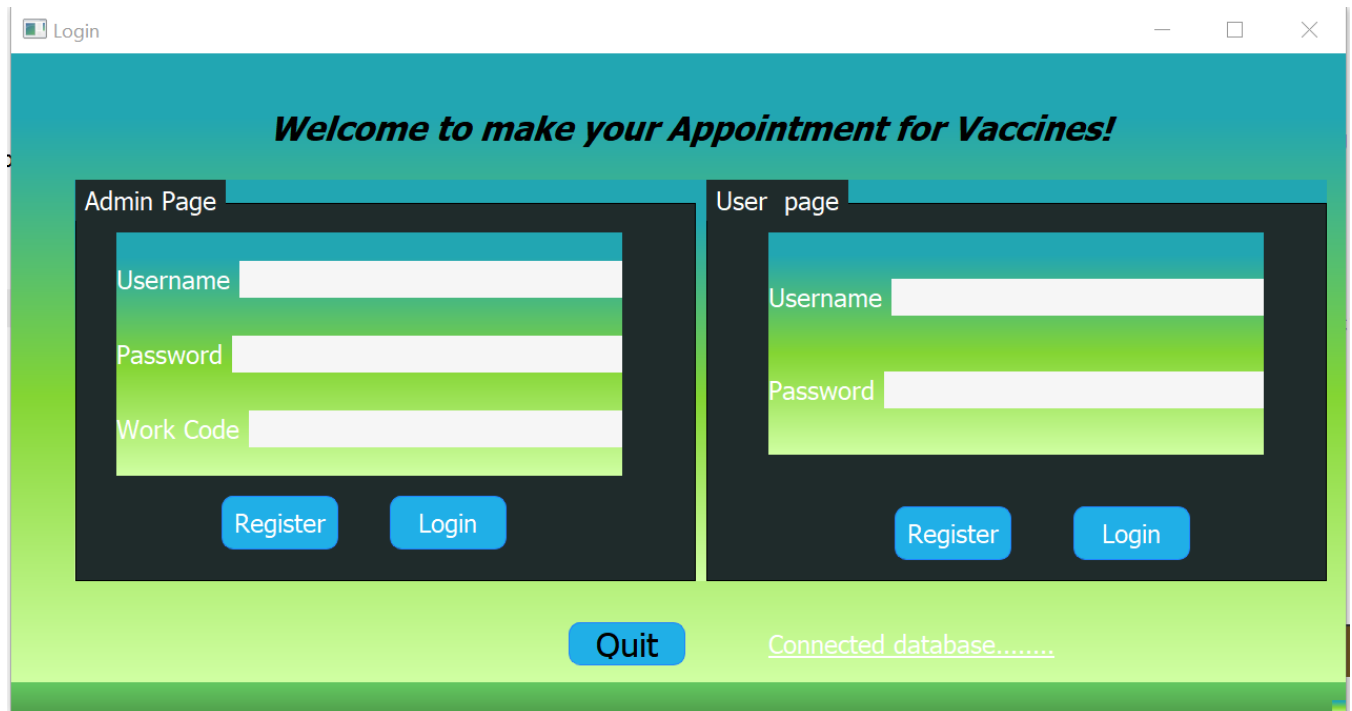
```
#include <QPixmap>
#include <QMessageBox>
#include <QDebug>
```

E. AdminDialog1.cpp:

```
#include <QString>
#include <QMessageBox>
#include <QPixmap>
#include <QTableView>
#include <QListView>
#include <QLineEdit>
#include <QSqlTableModel>
#include <QComboBox>
```

### 4. Main login page (5 buttons can take different actions):

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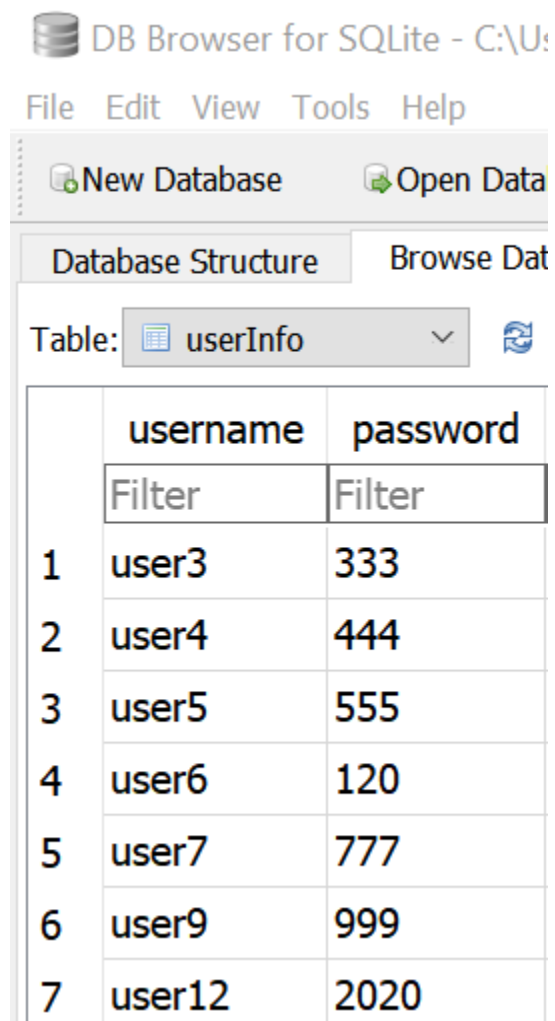


### 5. For User page: (Button Register)

A. For people who use this system and first login. You have to input two things first, and make them all correct, and also remember them. For Username and Password, it's can be a String, char, number. The username is Unique.

B. After the user inputs two information, it will save the username and password to the database back in the system. So next time, this admin has his/her information recorded in the database.

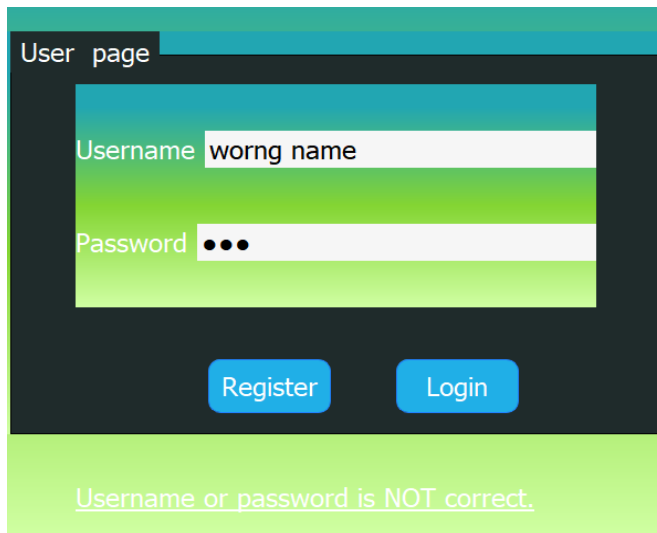
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### 6. For User page: (Button Login)

- A. For people who use with this system , You have to input two things first, and make sure the username and password are correct at same time.
- B. Then after you click the login button, the information will match with the database. Otherwise, it's will shows an error until you input the correct username and password.

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User page

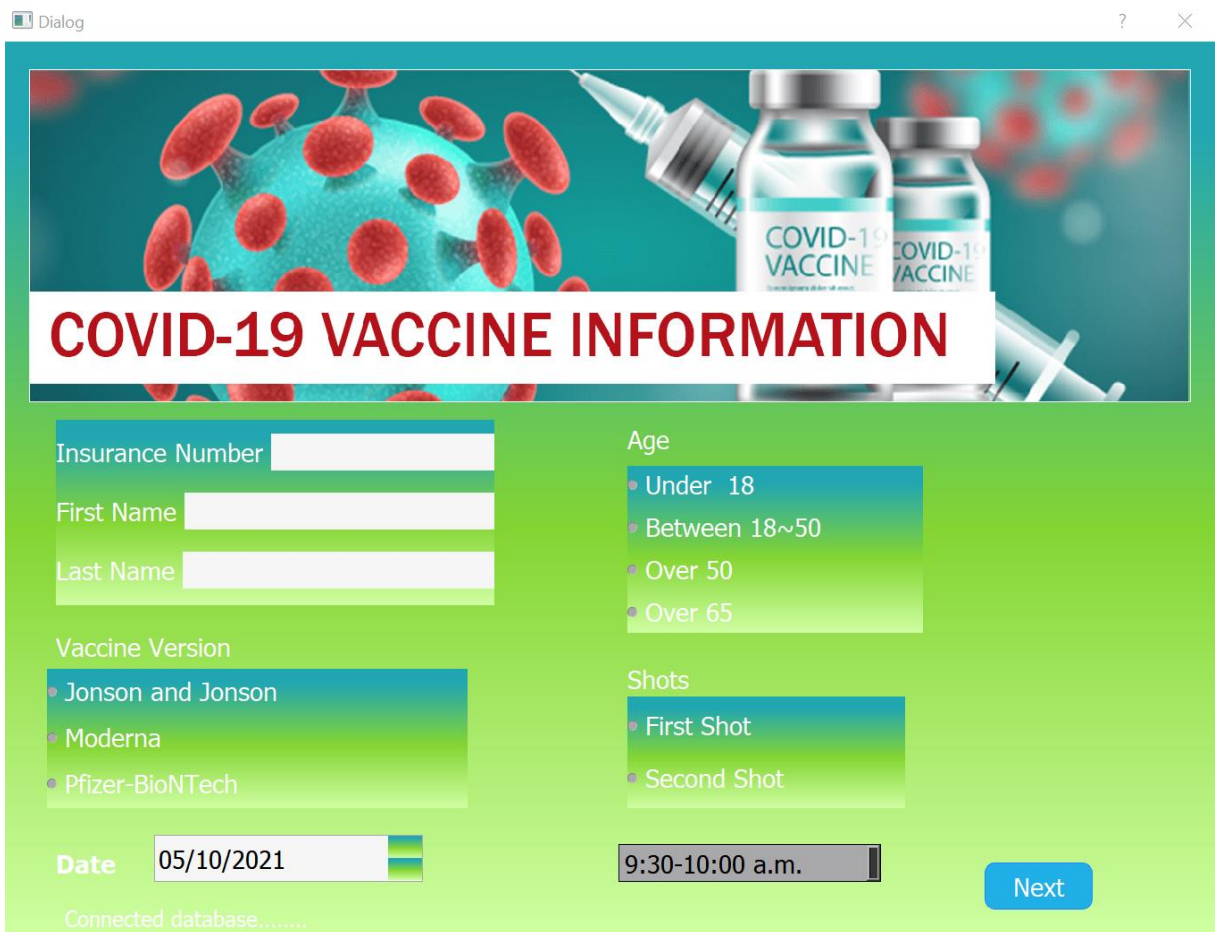
Username worng name

Password ●●●

Register Login

Username or password is NOT correct.

- C. If you did all the things correctly as you registered for the first time. The second dialog will jump out like this.



Dialog

COVID-19 VACCINE INFORMATION

Insurance Number

First Name

Last Name

Vaccine Version

- Jonson and Jonson
- Moderna
- Pfizer-BioNTech

Date 05/10/2021

Age

- Under 18
- Between 18~50
- Over 50
- Over 65

Shots

- First Shot
- Second Shot

9:30-10:00 a.m.

Next

Connected database.....

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D. You can start build and save your imformation like this:

E. After you hit the Next Button, all your information all be saved in the database system.

DB Browser for SQLite - C:\Users\9751\Desktop\VaccineSchedule\mydb.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

Table: userInfo

	username	password	insurance	firstName	lastName	age	vaccine	shot	date	time
1	user1	111	Mass298643	Fengnan	Zhang	Between 18~50	Moderna	Second shot	05/14/2021	11:30-12:00 P.m.

## 7. For Admin Page: (Button Register)

- For people who working as admin with this system, and first login. You have to input three things first, and make them all correct, and also remember them. For Username and Password, it's can be a String, char, number. But for work code, it has to be a number. The username is Unique.
- After admin input for this three information, it will save username, password, and work code to the database back in the system. So next time, this admin has his/her information recorded in the database. It's will look like this:

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DB Browser for SQLite - C:\Users\9751\Desktop\VaccineSchedule\mydb.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

Table: admin

	admin_username	admin_password	admin_code
	Filter	Filter	Filter
1	admin1	111	100
2	admin2	22222	200
3	admin3	33333	30000
4	admin4	4320	400
5	admin5	555	500
6	adm6	asd123	600
7	adm7	asd77	700000
8	admin8	asdzxc758	8023

### 8. For Admin Page: (Button Login):

- For people who work with this system, You have to input three things first and make sure the username, password, and work code all correct at the same time.
- Then after you click the login button, the info will match with the database. If you did any of the three information wrong, it's will shows an error until you input the correct username and password.

Login

**Welcome to make your Appointment for Vaccines!**

Admin Page

Username

Password

Work Code

Register Login

User page

Username

Password

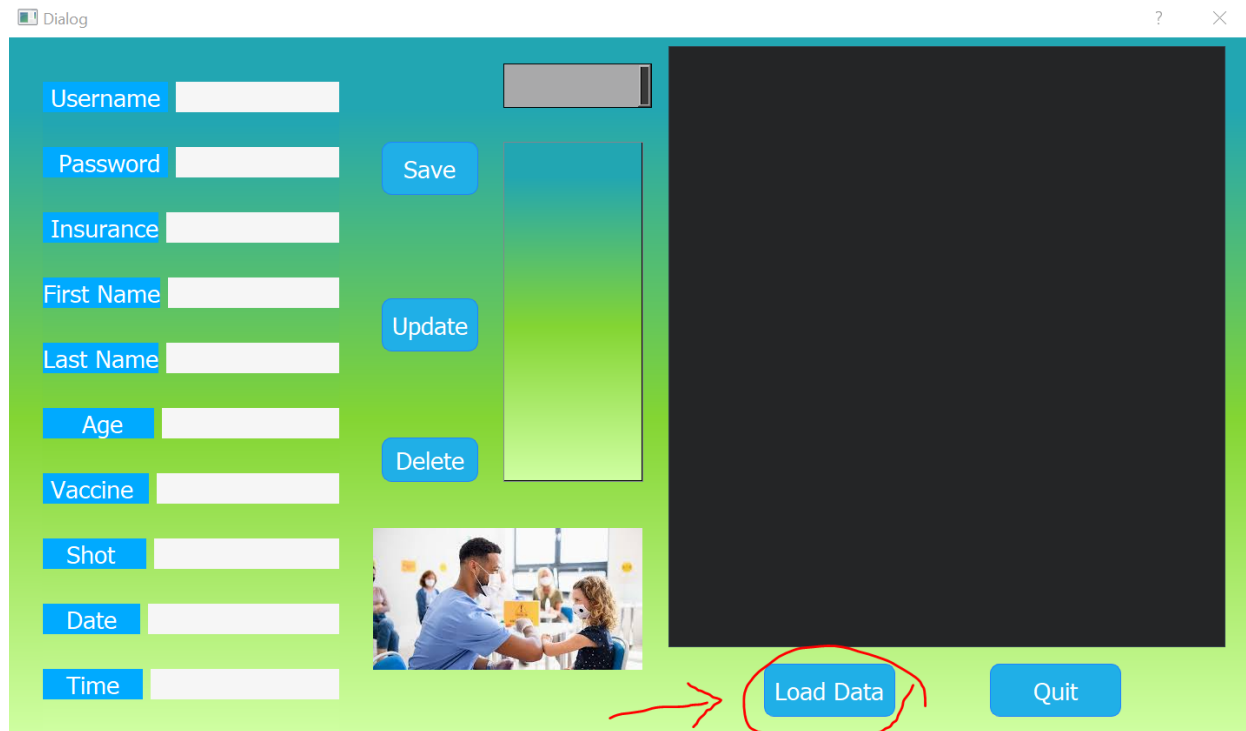
Register Login

Quit

Username or password or work code is NOT correct.

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- C. If you did sll the things correct as you registered at first time. The second dialog will jump out like this.



- D. Then after you clicked the button “ Load Data” all the data from the database will be upload on the table view( the black area and also every textEditLine.
- E. Also, there are three buttons that are clickable.
- Save button:** To save all the imformation from the admin side. Input all the information on the Text did a line, and press the save button. The user’s vaccine appointment will be saved.
- Update button:** For edit and update the information from the database system, in case, anyone wants to change the information they saved before.
- Delete button:** To delete any imformation the user saved before.
- F. Your Screen will be look like this:



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Dialog

Username:  Password:  Insurance:  First Name:  Last Name:  Age:  Vaccine:  Shot:  Date:  Time:  Save Update Delete

user1

user6  
user7  
user9  
user12  
user13  
user14  
user1  
user10  
user16  
user15  
user17

	username	password	insurance	firstName
1	user3	333	Maaaaaa	Asmeret
2	user4	444	WEre46576	Fengnan
3	user5	555	asd98495809	Oli
4	user6	120	asd 123456	Rui
5	user7	777	ABC 434687487	Ahmed
6	user9	999	gdfgfdg	Amanda
7	user12	2020		
8	user13	222	453hfghfg	Daian
9	user14	222	453hfghfg	Nicole
10	user1	111	WERE4674664	Lily
11	user10	12345	QWER1234567	Mia
12	user16	1616	Laaaaa56435...	Fengnan
13	user15	151515	ASSD5623245	Shizhi
14	user17	171717	QWE15454	Anan

Load Data Quit

### 9. For the Main page (Button quit)

- After user click the Quit button, the Qmessage box will jump out:
- Yes for exit the system, no for stay.

Login

**Welcome to make your Appointment for Vaccines!**

Admin Page User page

Username:  Password:  Work Code:

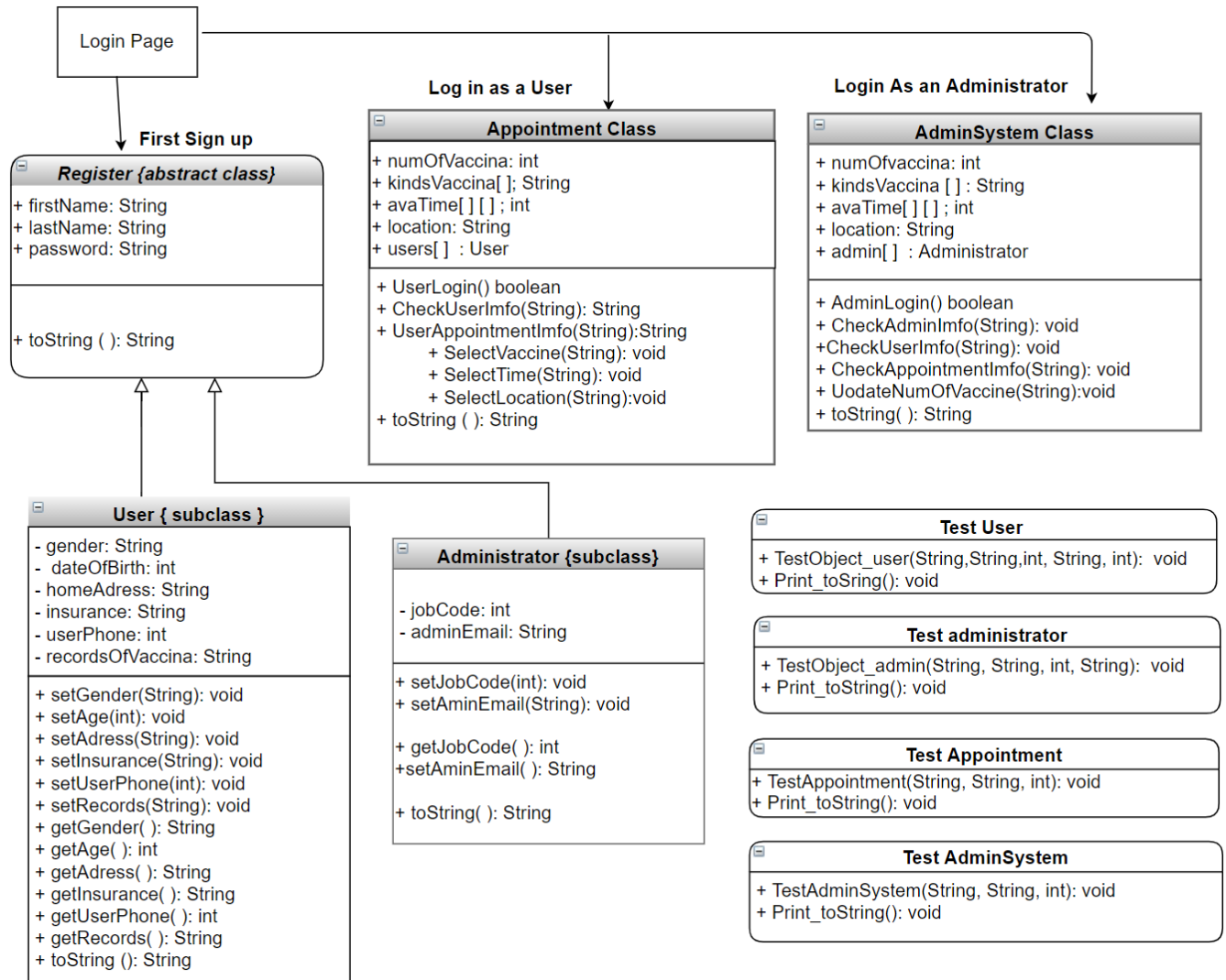
Register Login

My Title

Are you sure to quit the login page?

Yes No

Quit Username or password or work code is NOT correct.

**User and Software Manuals****10. UML, Unit Test for each class (system Maintenance)**

Note: numOfVaccine, kindsVaccine, avaTime, location, and User[ ], are all the global variables or global arrays. So users and administrators can check their information and update the same information.

(The functions and variables may change that depend on the needs of programming.)

Unit Test for each class ( This part for builder management repair system)

## **User and Software Manuals**

There will have 5 tests in the future you may need for TestRegister, TestUser, TestAdiministrator, TestAppointment and TestAdminSystem .

Example of test for user

1. Build the test class and main function for running the program.
2. Build a user object by calling the User Constructor, passing all the parameters information to the User constructor.
3. Calling the toString ( ) function from the User class, and display all the messages about the new Object (new user).
4. Also use get() and set() functions change some parameters, reset for object.
5. Display the object again, check if all the set() and get() functions work fine.
6. After verifying the major features, also needs to test the corner cases
  - a. The input of user info is invalid data
  - b. What if there are two users which have the same name

## **11. Contact the Manufacturer**

If you have any question about this product, please contact our company.

We will contact you in 24 hours.

Email: fengnan.zhang@bhcc.edu

Phone: 617-763-5430

Thank you!