Users are identified with their user type (staff and patient) and the username. In staff there are several users: reception, pharmacy, lab, nurse and doctor.

All users have their own medical details record including personal details, sickness details, drugs prescription and lab test prescription.

Any user can edit and read their personal details.

Patient user can read his medical details and can’t edit them.

In the staff category,

Reception user can read personal and sickness details of any user and can’t edit anything.

Pharmacy user can read personal, sickness, drugs details of any user and can’t edit anything.

Lab user can read personal, sickness and reports of any user and can edit test prescription of any user.

Nurse user can read personal, sickness, drugs and test sections of any user and can write sickness details.

Doctor user can read personal, sickness, drugs and test sections of any user and can write sickness and drugs sections of any user.

Username format for patient – patient1@abc

Username format for staff \_ reception1@reception, pharmacy1@pharmacy, lab1@lab, nurse1@nurse, doc1@doc

Staff users are identified from the username format.

Assumption: For the staff, usernames were given before by the hospital administration.

Test run 1

Register as a patient

username: patient1

password: a

Login

Trying to read patient 1 personal details

Reads his details

Writes to his details

Reads his details

Exit

E:\Programming\python>python Csec.py

function (register, login, details or 0) :

register

/\*\*\*\*\*\*\*\*\*\*\*User Registration\*\*\*\*\*\*\*\*\*/

username: patient2

password

confirm\_password

user\_type (staff or patient): patient

Registration Successfull

/\*\*\*\*\*\*\*\*\*\*\*User Login\*\*\*\*\*\*\*\*\*/

Login Successful

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient1

Records Found

Enter the section you want(personal, sickness, drugs, lab): personal

Enter the process you want(read, write): read

You do not have permission

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient2

Records Found

Enter the section you want(personal, sickness, drugs, lab): personal

Enter the process you want(read, write): read

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient2

Records Found

Enter the section you want(personal, sickness, drugs, lab): personal

Enter the process you want(read, write): write

Enter details:

info1, info2

, info1, info2

Updated Successfully

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient2

Records Found

Enter the section you want(personal, sickness, drugs, lab): personal

Enter the process you want(read, write): read

, info1, info2

function (register, login, details or 0) :

0

Bye

Test run 2

Try to register as doc1 which is existing

Register as doc2 with hospital username

username: doc2@doc

password: a

Read patient 2 personal details

Writes drug details to patient2 details

Reads patient 2 drug details

exit

E:\Programming\python>python Csec.py

function (register, login, details or 0) :

register

/\*\*\*\*\*\*\*\*\*\*\*User Registration\*\*\*\*\*\*\*\*\*/

username: doc1

Records Found

username: doc2

password

confirm\_password

user\_type (staff or patient): staff

staff username(username@doc|nurse|lab|pharmacy|reception): doc1@doc

Records Found

staff username(username@doc|nurse|lab|pharmacy|reception): doc2@doc

Registration Successfull

/\*\*\*\*\*\*\*\*\*\*\*User Login\*\*\*\*\*\*\*\*\*/

Login Successful

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient2

Records Found

Enter the section you want(personal, sickness, drugs, lab): personal

Enter the process you want(read, write): read

, info1, info2

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient2

Records Found

Enter the section you want(personal, sickness, drugs, lab): drugs

Enter the process you want(read, write): write

Enter details:

drug1, drug2

Updated Successfully

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient2

patient\_username

Records Found

Enter the section you want(personal, sickness, drugs, lab): drugs

Enter the process you want(read, write): read

, drug1, drug2

function (register, login, details or 0) :

0

Bye

Test run 3

login as patient1

username: patient1

password: abc

reads his sickness details

Tries to write into his sickness details

exit

E:\Programming\python>python Csec.py

function (register, login, details or 0) :

login

/\*\*\*\*\*\*\*\*\*\*\*User Login\*\*\*\*\*\*\*\*\*/

username: reception1@reception

password

Login Successful

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient1

patient\_username

Records Found

Enter the section you want(personal, sickness, drugs, lab): sickness

Enter the process you want(read, write): read

sick1,sick2

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient1

patient\_username

Records Found

Enter the section you want(personal, sickness, drugs, lab): sickness

Enter the process you want(read, write): write

You do not have permission to do this

function (register, login, details or 0) :

0

Bye

Test run 4

login as a lab user

username: lab1@lab

password: a

writes to patient 1 lab details

reads patient 1 lab details

E:\Programming\python>python Csec.py

function (register, login, details or 0) :

login

/\*\*\*\*\*\*\*\*\*\*\*User Login\*\*\*\*\*\*\*\*\*/

username: lab1@lab

password

Login Successful

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient1

patient\_username

Records Found

Enter the section you want(personal, sickness, drugs, lab): lab

Enter the process you want(read, write): write

Enter details:

lab1, lab2

Updated Successfully

function (register, login, details or 0) :

details

/\*\*\*\*\*\*\*\*\*\*\*Patient Details\*\*\*\*\*\*\*\*\*/

Enter the username of the patient: patient1

patient\_username

Records Found

Enter the section you want(personal, sickness, drugs, lab): lab

Enter the process you want(read, write): read

lab11,lab2, lab1, lab2, lab1, lab2

function (register, login, details or 0) :

0

Bye