

## **14.0 User Manual**

### **14.1 Login**

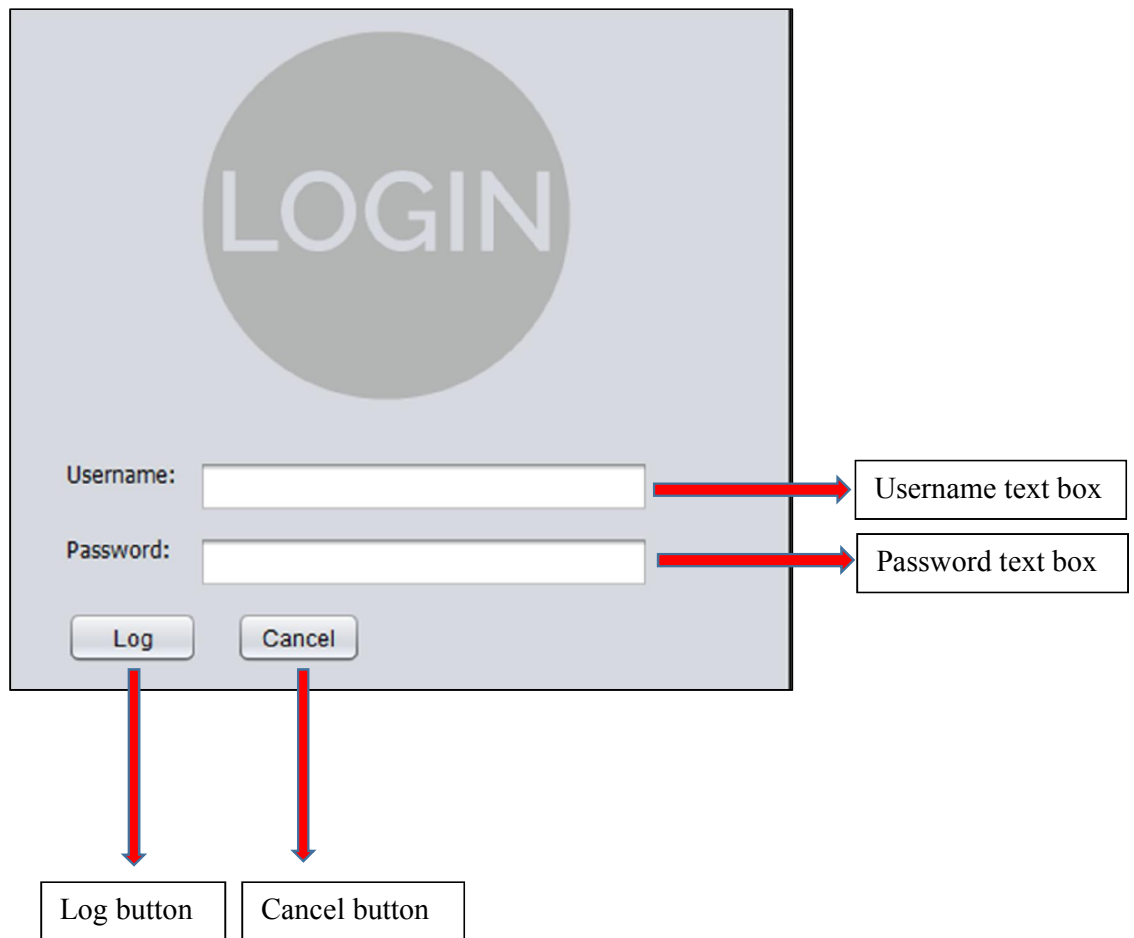


Figure 1: Login Window

#### **14.1.1 Login Process**

Enter correct username and password

Click on Log button

#### **14.1.2 Cancel Login**

Click on Cancel button

### 14.1.3 Error Messages

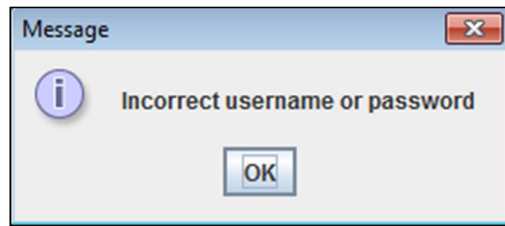


Figure 2: error message-1

When entered username or password is not correct, then error message in Figure 75, will be appeared.

Click on “OK” button in the message box and reenter the correct login credentials.

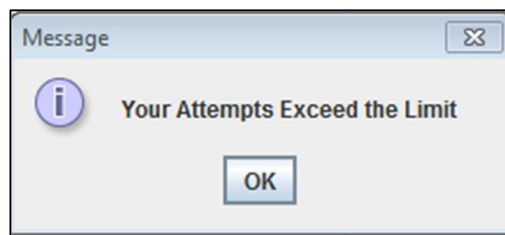


Figure 3: error message-2

When user fails to enter correct username and password within 3 attempts, then error message in Figure 76, will be displayed.

Click on “OK” button, and then the system will automatically exit.

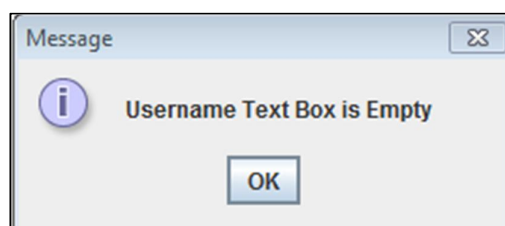


Figure 4: error message-3

When user has not entered a value for the username textbox, then error message in Figure 77 will be appeared.

Click on “OK” button, and then enter username

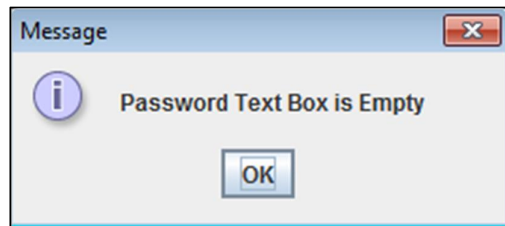


Figure 5: error message-4

When user has not entered a value for the password textbox, then error message in Figure 78 will be displayed.

Click on “OK” button, and then enter password

## 14.2 Home

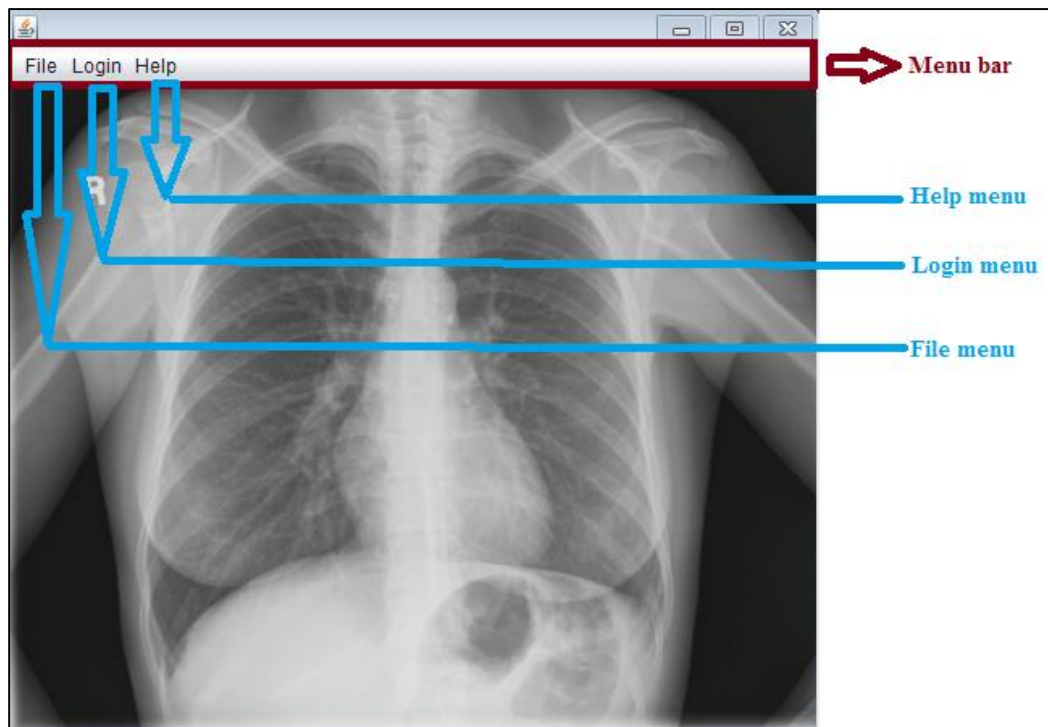


Figure 6: Home Window

Click on each menu in the menu bar and then separate menu item list for each menu will be appeared.

### 12.2.1 File Menu

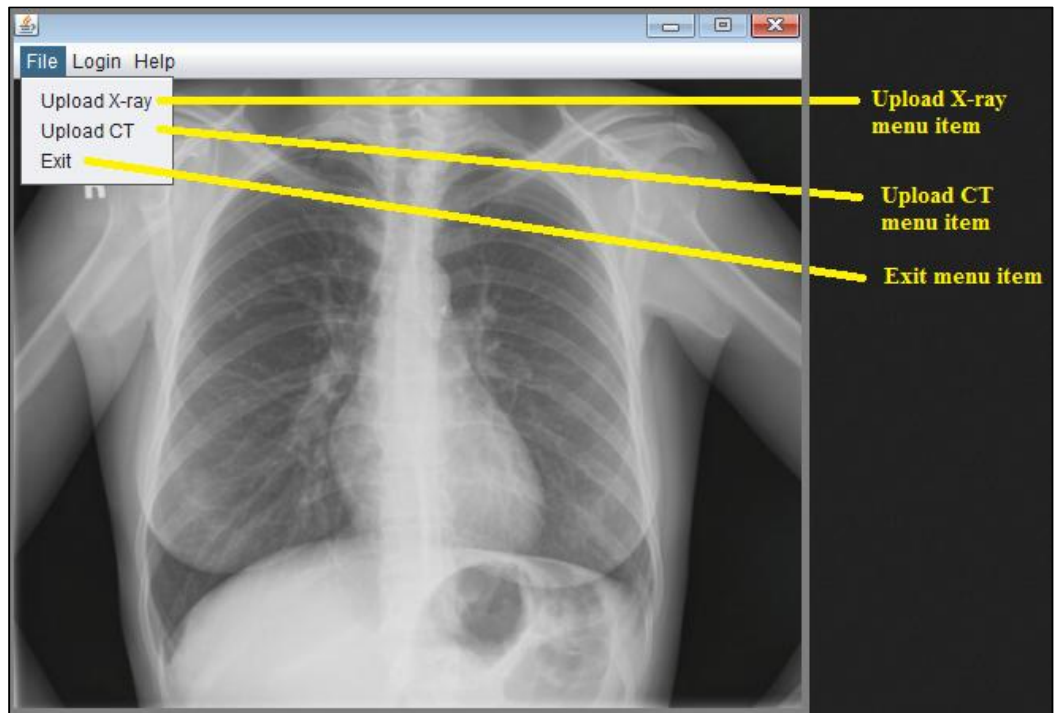


Figure 7: Home-File menu

Click on “Upload X-ray” menu item, and then Home window will be disappeared and “Upload X-ray” window will be appeared.

Click on “Upload CT” menu item, and then Home window will be disappeared and “Upload CT” window will be appeared.

Click on “Exit” menu item, and then Home window will be disappeared and “Login” window will be appeared.

### **12.2.2 Login Menu**

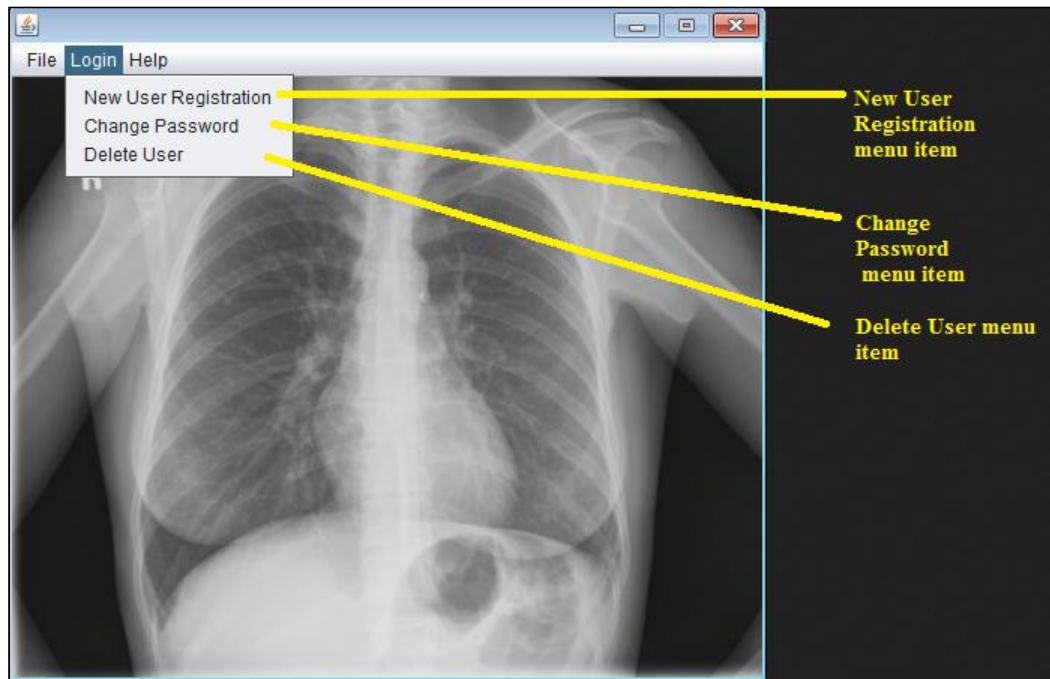


Figure 8: Home-Login menu

Click on “New User Registration” menu item, and then Home window will be disappeared and “New User Registration” window will be appeared.

Click on “Change Password” menu item, and then Home window will be disappeared and “Change Password” window will be appeared.

Click on “Delete User” menu item, and then Home window will be disappeared and “Delete User” window will be appeared.

### **12.2.3 Home Menu**

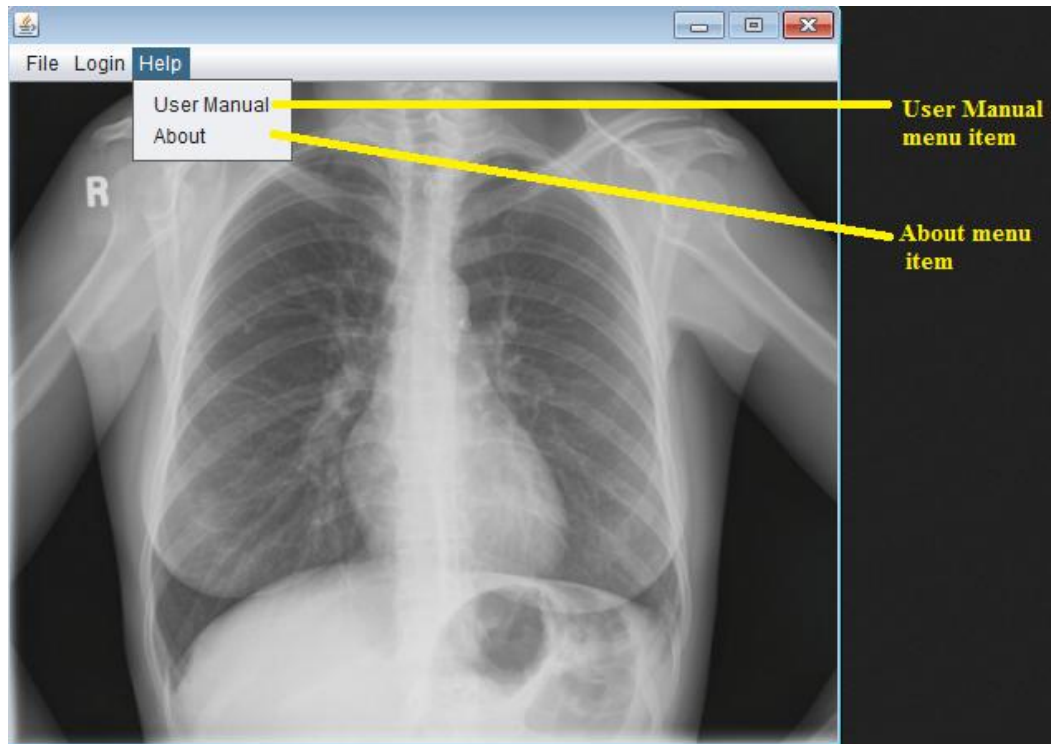


Figure 9: Home-Login menu

Click on “User Manual” menu item, and then user manual pdf will be opened.

Click on “About” menu item, and then Home window will be disappeared and “About” window will be appeared.

### **14.3 New User Registration**

New user can be registered using this window.

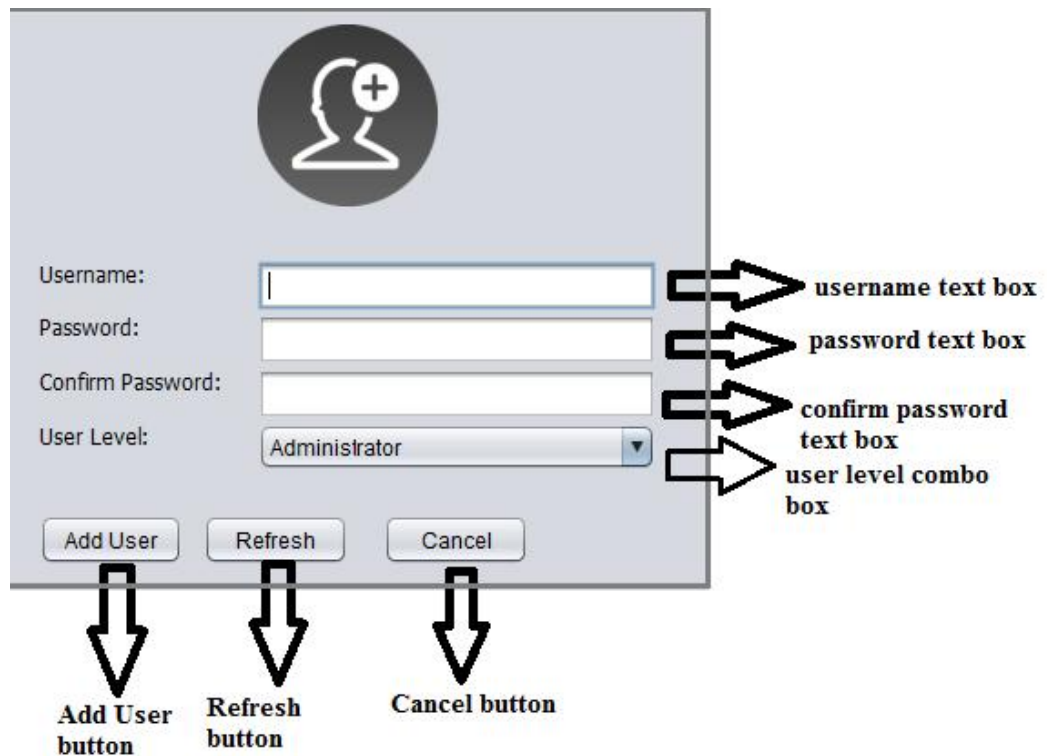


Figure 10: New User Registration Window

#### **14.3.1 Registering New User Process**

- Enter username in username text box
- Enter password in password text box
  - Password policy
    - ✓ Length of the password must be more than 8 characters
    - ✓ Password must consist of at least one uppercase letter
    - ✓ Password must consist of at least one lowercase letter
    - ✓ Password must consist of at least one digit
    - ✓ Password must consist of at least one special character
- Reenter the password in confirm password text box
- Select the user level from user level combo box
- Click on Add User button

#### **14.3.2 Refreshing fields**

Click on Refresh button

#### **14.3.3 Close the Registration Window**

Click on Cancel button

#### 14.3.4 Error Messages

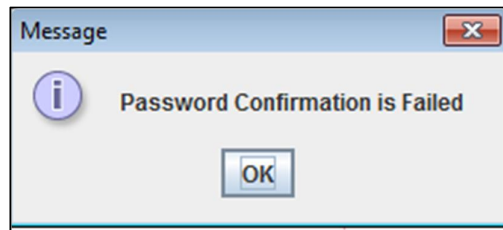


Figure 11: error message-5

When the reentered password in the confirm password text box does not match with the password in the password text box, then this error message in the Figure 84, will be appeared.

Click on “OK” button in the message box and reenter the correct password.

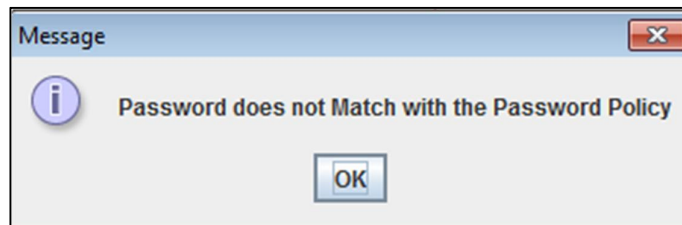


Figure 12: error message-6

When the entered password does not match with the above mentioned password policy, then this error message in Figure 85, will be appeared.

Click “OK” button and reenter the appropriate password.



Figure 13: error message-7

When the entered username is already taken, this message will appear.

Click OK and enter another username



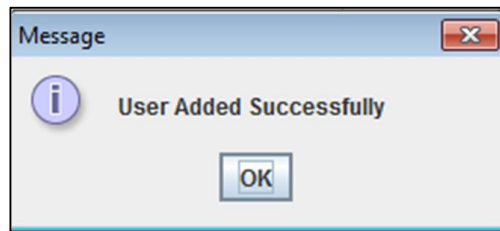


Figure 14: success message-1

This message box in the Figure 86, will appear, when the user is added to the database successfully.

Click OK button

#### **14.4 Change Password**

User password can be changed using this window.

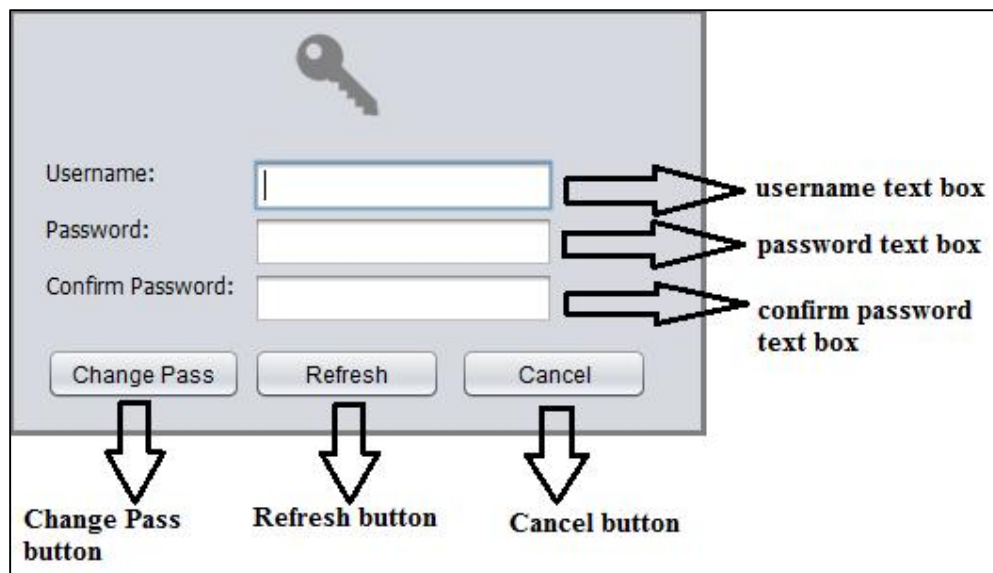


Figure 15: Change Password Window

##### **14.4.1 Changing Password Process**

- Enter username in username text box
- Enter password in password text box
  - Password policy
    - ✓ Length of the password must be more than 8 characters
    - ✓ Password must consist of at least one uppercase letter
    - ✓ Password must consist of at least one lowercase letter
    - ✓ Password must consist of at least one digit

✓ Password must consist of at least one special character

- Reenter the password in confirm password text box
- Click on Change Pass button

#### **14.3.2 Refreshing fields**

Click on Refresh button

#### **14.3.3 Close the Changing Password Window**

Click on Cancel button

#### **14.3.4 Error Messages**

- Some error messages are already mentioned. Please refer them.

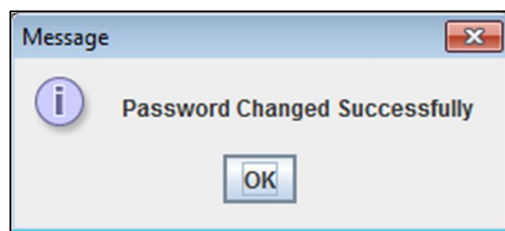


Figure 16: success message-2

When password is changed successfully, this message box in Figure 87 will be appeared.

Click OK button.

#### **14.5 Delete User**

User can be deleted from the system using this window.

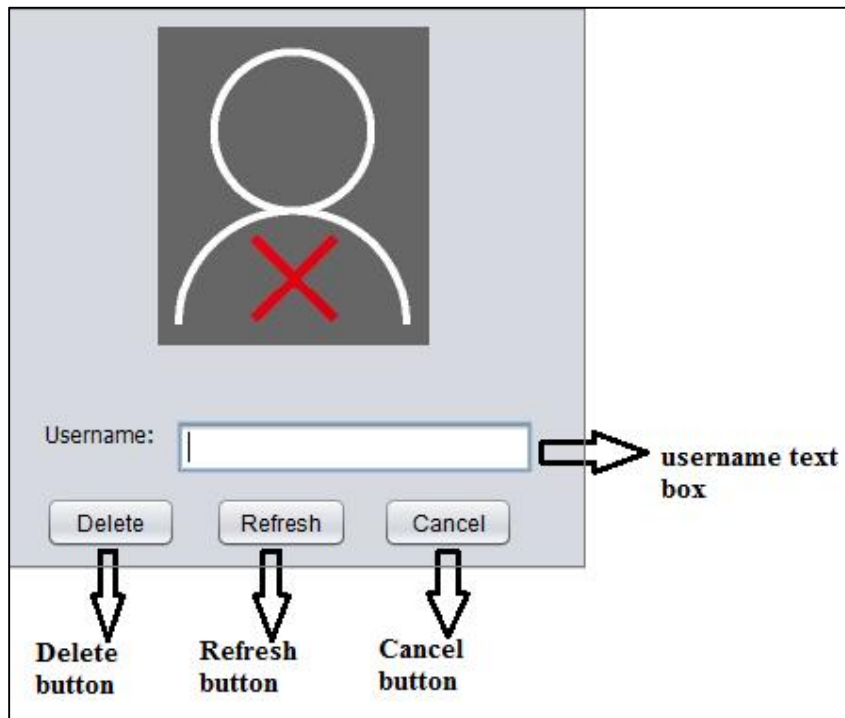


Figure 17: Delete User window

#### **14.5.1 Deleting Password Process**

Enter valid username

Click Delete button

#### **14.5.2 Refreshing fields**

Click Refresh button

#### **14.5.3 Close the Deleting Password Window**

Click Cancel button

#### **14.5.4 Error Messages**

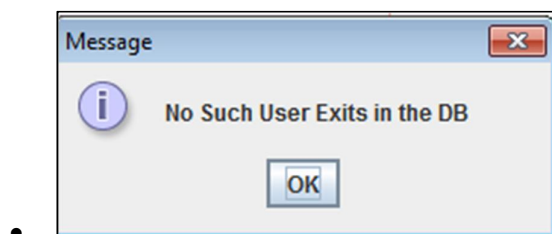


Figure 18: error message-8

If the entered username is not available in the database, then this message box will be displayed.

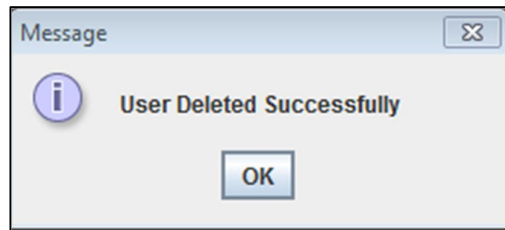


Figure 19: Success message-3

#### **14.6 Upload X-ray Window**

This window is for abnormality detection in X-ray images.

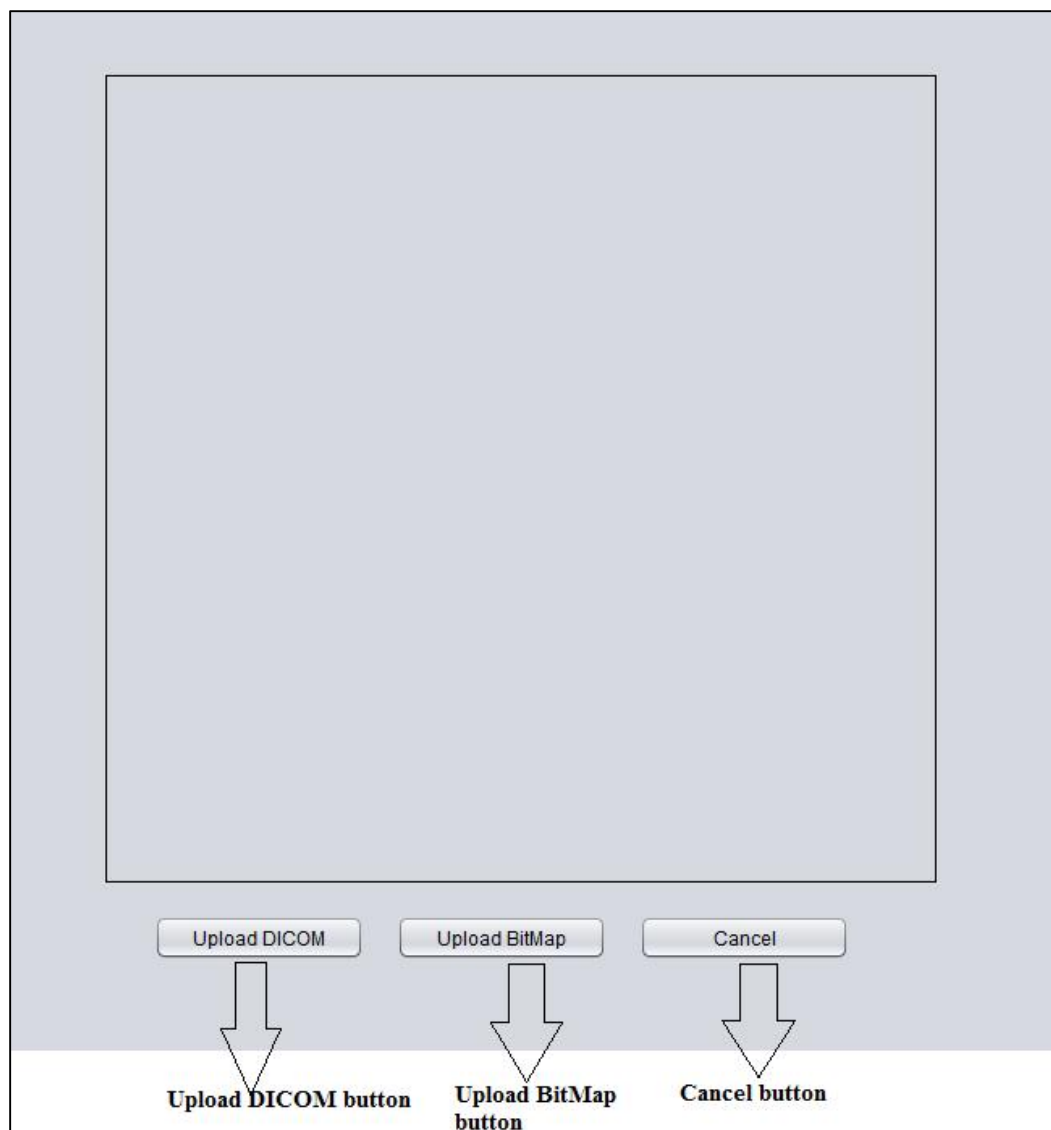


Figure 20: Upload X-ray Window

#### **14.6.1 Abnormality Detection Process**

- If the chest x-ray is in DICOM format, then click Upload DICOM button.
- If the chest x-ray is in BMP format, then click Upload BitMap button
- Select required file from the file chooser dialog

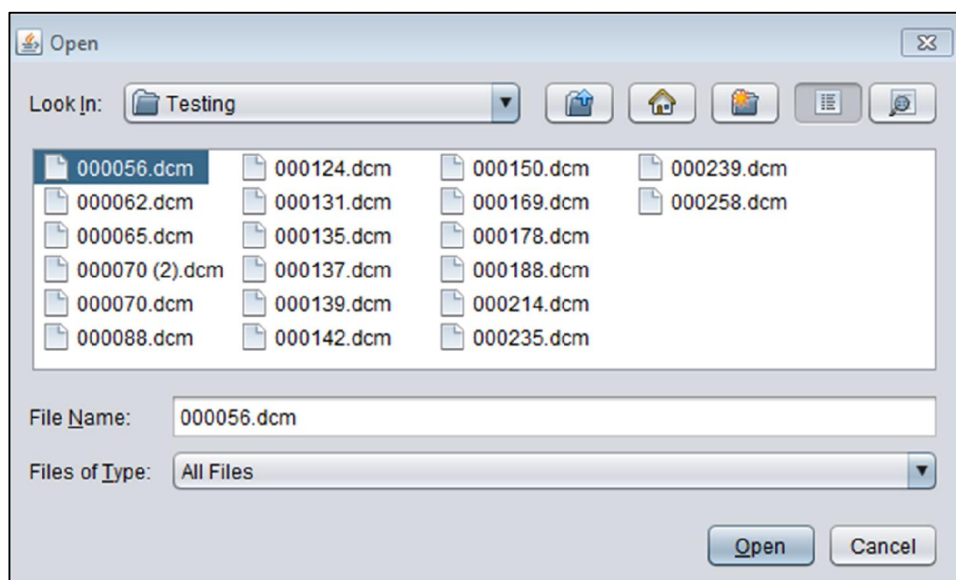


Figure 21: file chooser dialog

- Click Open button in file chooser dialog

#### **14.6.2 Sample Output**

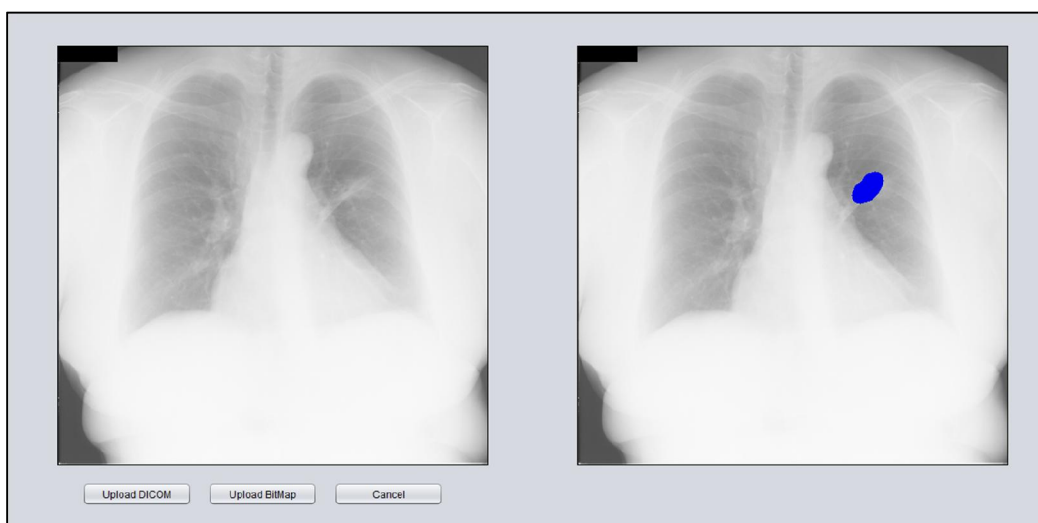


Figure 22: Sample output for abnormality detection in chest x-ray

### **14.7 Upload CT Window**

This window is for detecting lung nodules in CT images and classification them.

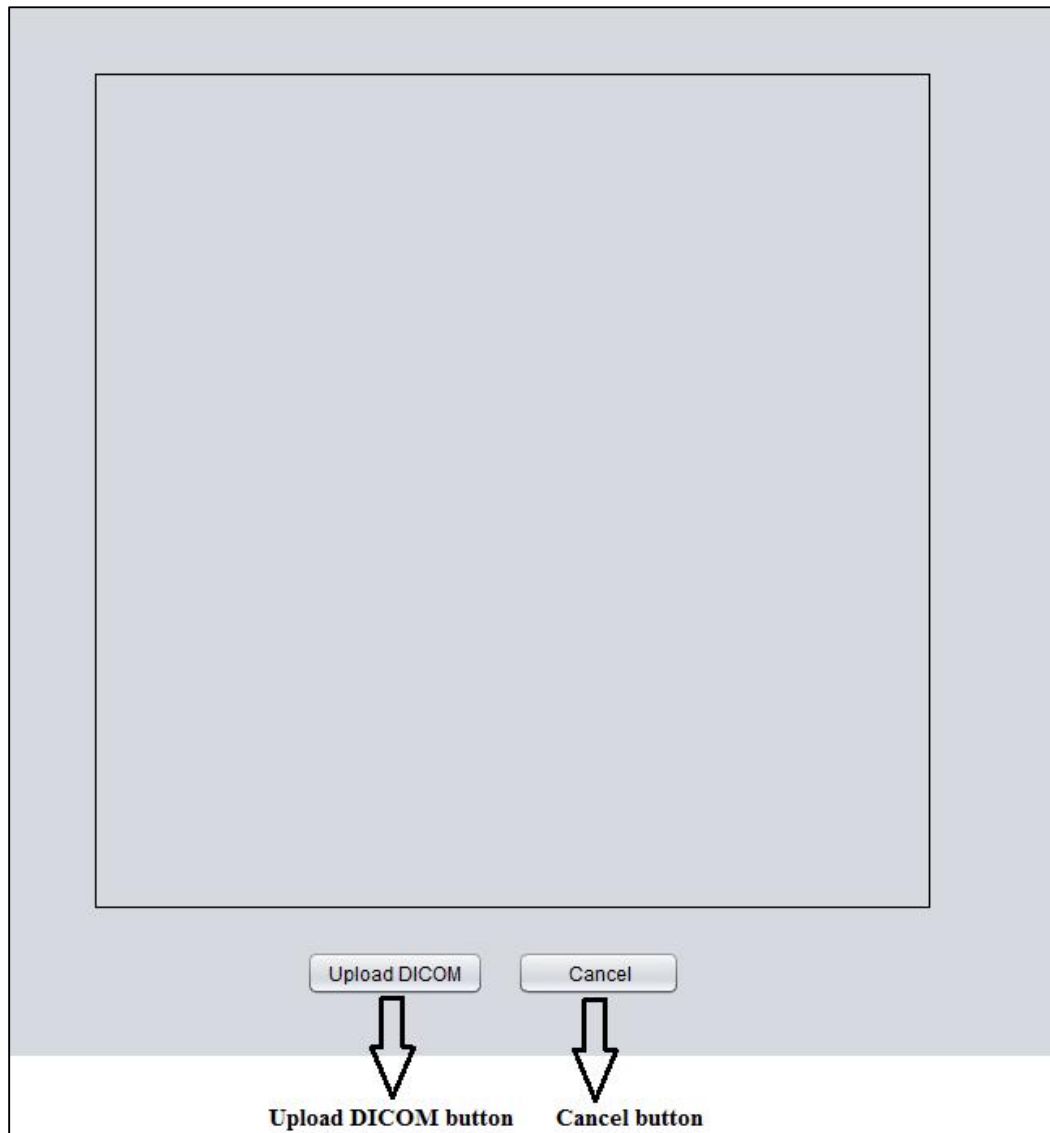


Figure 23: Upload CT Window

#### **14.7.1 Lung Nodule Detection Process**

- Click Upload DICOM button.
- Select required file from the file chooser dialog
- Click Open button in file chooser dialog

### **14.7.2 Sample Output**

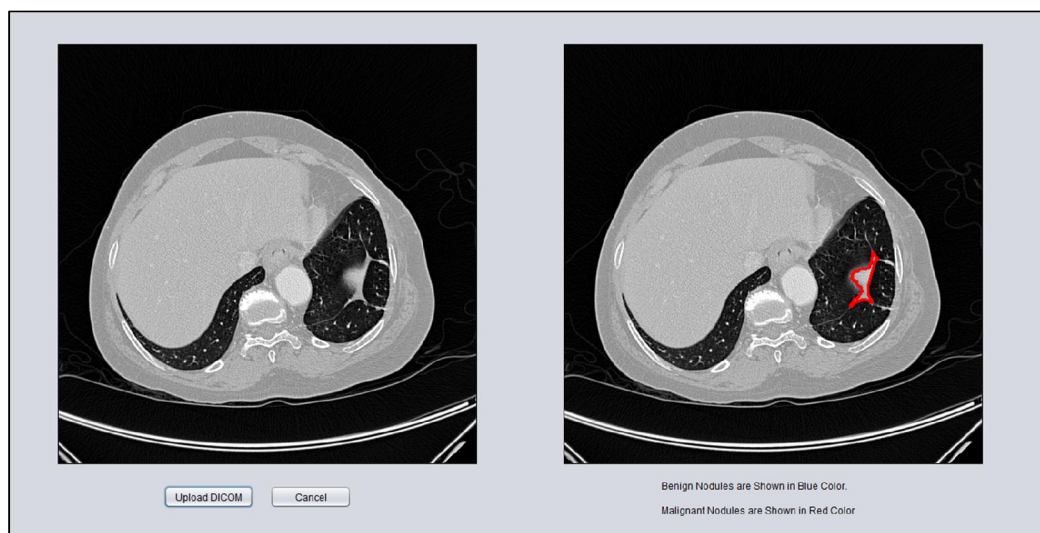


Figure 24: Sample output for lung nodule detection in chest CT images

### **14.8 About Window**

Hardware and software requirements are shown by this window.

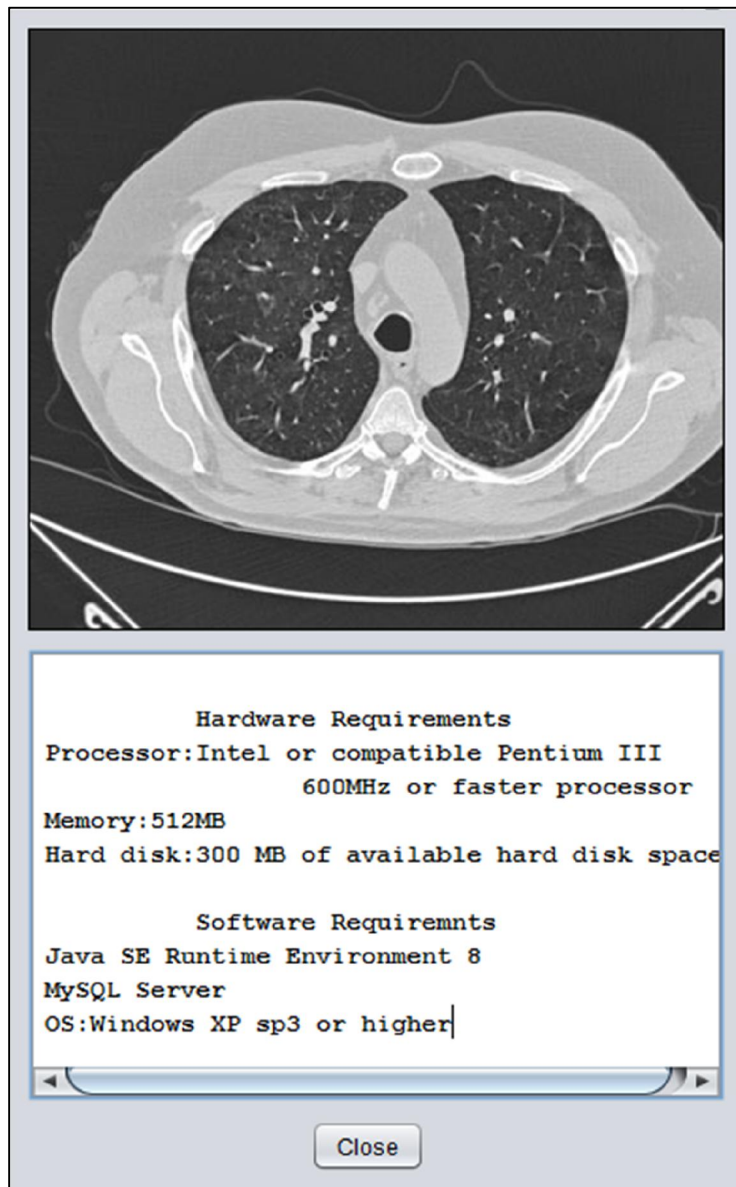


Figure 25: About window

#### **14.8.1 Close about Window**

Click Close button

#### **14.9 User Levels**

There can be found two user levels. They are administrator and normal user. Administrator have full access to all the functionalities in the system. Normal users can not add new user to the system, change passwords and delete existing users from the system.