User Documentation

You must submit an electronic copy of the user documentation. The user documentation must contain

- the installation guideline that tells the user how to install your system; and
- a user manual for each module.

You document must also be accessible in your web page in the form of help menu. A popular tool for writing such documents is Texi2html.

Installation Guide

1. Extract file contents into the catalina/webapps/CMPUT391 directory.
2. Open a new terminal in the same directory.
3. Change directory to ./WEB-INF/classes
4. Compile the servlets by typing "`make`"
5. Start tomcat by typing "`starttomcat`"
6. In a browser, enter the following link: `http://ui???.cs.ualberta.ca:<your-first-port-number>/CMPUT391/login.jsp`; ui??? is the computer you are working on, it should be one of the undergrad workstations (you can type 'hostname' in the terminal to get the hostname of the system).

Login Module

Purpose:

Allow all users to login to the system with proper privileges, and to modify their personal information and/or the password.

Use:

To login:

1. Enter a username and password
2. Click "Login"

To modify personal information:

1. From the main menu, click "Modify Account"
2. Edit the information in any of the fields
3. When done, click "Save Changes"

User Management Module

Purpose:

User management gives an administrator the ability to create new user, person and family doctor records as well as update existing records.

Use:

To create:

1. Select which type of entry you wish to create (user, person or family doctor)
2. Click the create button to continue

- For User entry:

1. Enter username in the first text field
2. Enter password in the second text field

3. Enter the class of the user in the third text field (a for administrator, p for patient, d for doctor or r for radiologist)
4. Enter the person ID for the user of this account
5. Click the create button

- For Person entry:
1. Enter the first name of the person in the first text field
2. Enter the last name of the person in the second text field
3. Enter the address of the person in the third text field
4. Enter the email address of the person in the fourth text field
5. Enter the phone number of the person in the fifth text field
6. Click the create button

- For Family Doctor entry:
1. Enter the doctor ID of the doctor in the first text field
2. Enter the patient ID of the patient in the second text field
3. Click the create button

To update:

1. Select which type of entry you wish to update (user, person or family doctor)
2. Click the create button to continue

- For User update:
1. Enter username whose information you wish to update
2. Click the Search Users button
3. If you wish to change the password, edit the text in the first text field
4. If you wish to change the person ID, edit the text in the third text field
5. Click the Update Users button

- For Person update:
1. Enter person ID whose information you wish to update
2. Click the Search Persons button
3. If you wish to change the first name, edit the text in the first text field
4. If you wish to change the last name, edit the text in the second text field
5. If you wish to change the address, edit the text in the third text field
6. If you wish to change the email, edit the text in the fourth text field
7. If you wish to change the phone number, edit the text in the fifth text field
8. Click the Update Persons button

- For Family Doctor update:
1. Enter patient ID and doctor ID whose information you wish to update
2. Click the Search Family Doctors button

3. If you wish to change the doctor ID, edit the text in the first text field
4. Click the Update Family Doctor button

Restrictions:

This module can only be accessed by users with an administrator account. The user management option will not appear in the menu if the stated requirement is not met.

How it works

UserManagementMenu.jsp contains two sets of radio buttons where the first set corresponds to searching for and updating existing entries and the second correspond to creating new entries. If the search button is pressed, it directs the user to the searchUserManagement.jsp page, where, depending on the selection from the previous page, has a text field asking for a username to search users, a person ID to search persons or a patient ID and a doctor ID to search family doctors. When the search button is clicked on this page, it directs you to updateEntry.jsp, where the variables from the previous page are passed and used to find the record matching the inputted information. The text fields present, which change depending on if you are looking for a user, person or family doctor to update, have the information fields filled in from the information found in the record matching the search term. From here, the user can change whatever information they wish to and when they are finished, click the update button to commit the changes by passing the variables to updateSubmit.jsp and updating the table.

If the create button is pressed, it directs the user to the createEntry.jsp page, where, depending on the selection from the previous page, has text fields asking for relevant data to either create a user, person or family doctor. After this data is entered and the create button is clicked, the user is directed to the createSubmit.jsp page where the variables from the previous page are passed to and used to create a new entry in the table selected.

Report Generating Module

Purpose:

Report generating gives an administrator the ability to generate a list of patients that match the parameters entered.

Use:

1. Enter a diagnosis result (e.g. cancer) desired to be found in the first text field (Note: this is not case sensitive)
2. Enter a date in the format "DD/MM/YYYY" in the second text field. This will be the starting boundary for the desired time period
3. Enter a date in the format "DD/MM/YYYY" in the third text field. This will be the ending boundary for the desired time period
4. Click the submit button

The results matching the parameters requested will be displayed on the page in a table. The table is ordered in alphabetical order in reference to the last name of the patient.

Restrictions:

This module can only be accessed by users with an administrator account. The report generating option will not appear in the menu if the stated requirement is not met.

How it works

Report.html contains text fields where the diagnosis string, and a date range strings are entered. These variables are passed to reportResult.jsp as iDiag, iDate1, and iDate2 respectively. When the submit button is pressed the page is redirected to reportResult.jsp. If any of the text fields are left empty, an error message will appear prompting the user to fill in all fields. reportResult.jsp retrieves the variables iDiag, iDate1, and iDate2 to be used in the output and in the SQL statement. The database is connected to and the SQL statement is ran to get the rows that match the specifications of the specified variables. Each row is printed out into a HTML table for the user to view.

Uploading Module

Purpose:

This module will be used by radiologists to first enter a radiology record, and then to upload medical images into the radiology record.

Use:

1. Enter a radiology record ID
2. Click "Browse" and select an image to upload
3. Click "Upload"

Restrictions:

This module can only be accessed by users with a radiologist account.

Search Module

Purpose:

This module will be used by all the registered users to search the database for a list of relevant radiology records and to view medical images with the zoom-in facility.

Use:

1. Enter either a keyword(s) or a time period range
2. Select one of the sorting methods
3. Click "Search"
4. To view larger images, click on an image thumbnail
5. To zoom in/out, click on the image itself

Restrictions:

A patient can only view his/her own records; a doctor can only view records of their patients; a radiologist can only review records conducted by oneself; and an administrator can view any records.

Data Analysis Module

Purpose:

This module serves to create an OLAP report for the user to view. The user can choose to view a report of the number of images associated with a record with any combination of patient ID, the test type or the test date.

Use:

1. Select any combinations of the check boxes to view in the results
2. If "Test Date" is selected, select a date sorting option using the radio buttons (if not, skip this step)
3. Click "Submit"

Restrictions:

This module is only to be used by an administrator and cannot be accessed if the user does not meet this requirement