

## Installation

To install MedWave it is best to follow the step provided below, or for more detailed steps see: [Detailed Installation](#)

### Step 1: Create MySQL Database and User

Create a MySQL Database and User for MedWave on your server. Remember the login details as you will need them.

### Step 2: Get MedWave

Get MedWave either by downloading the zip, or cloning it via command line.

### Step 3: Edit settings.json

Edit system/settings.json to contain your connection information. **DO NOT EDIT conName, or DB Type**

### Step 4: Run console install script

Via command line, run `php system/console` to and follow the install commands instructions.

### Step 5: Create Administrator Account

Via command line again, run `php system/console` and create a user with role a.

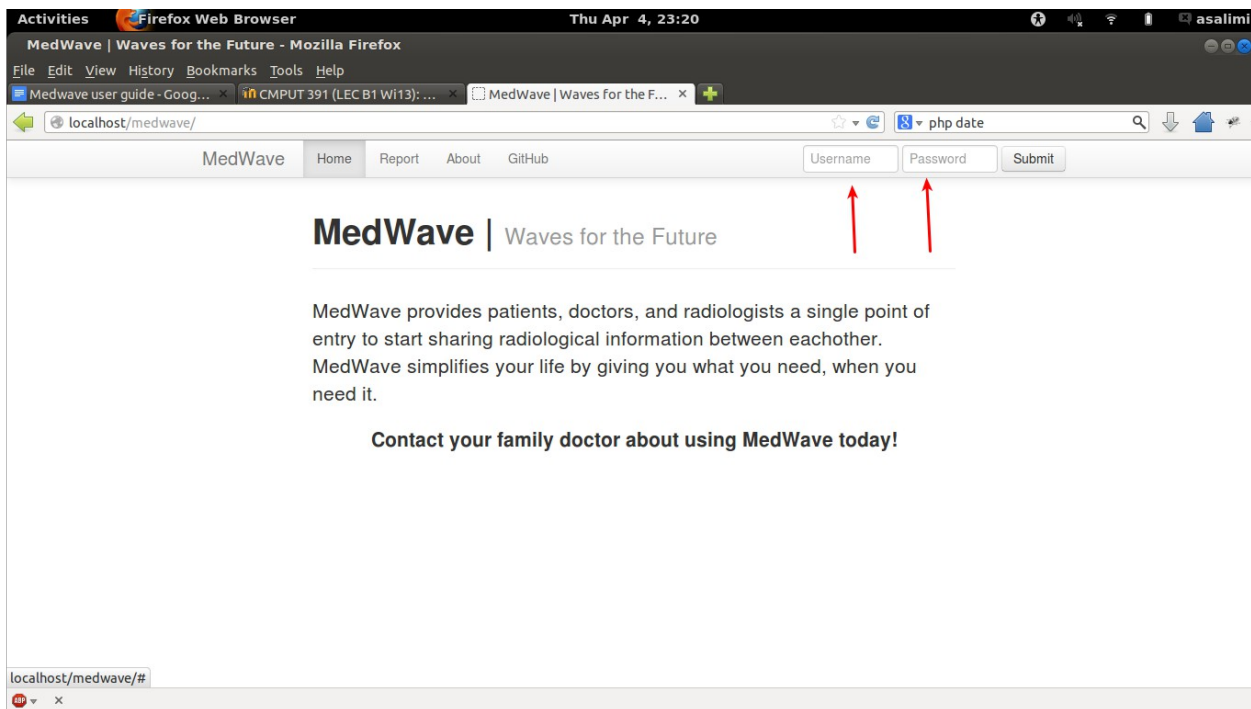
### Step 6: Finished

Celebrate, you have now finished installing MedWave.

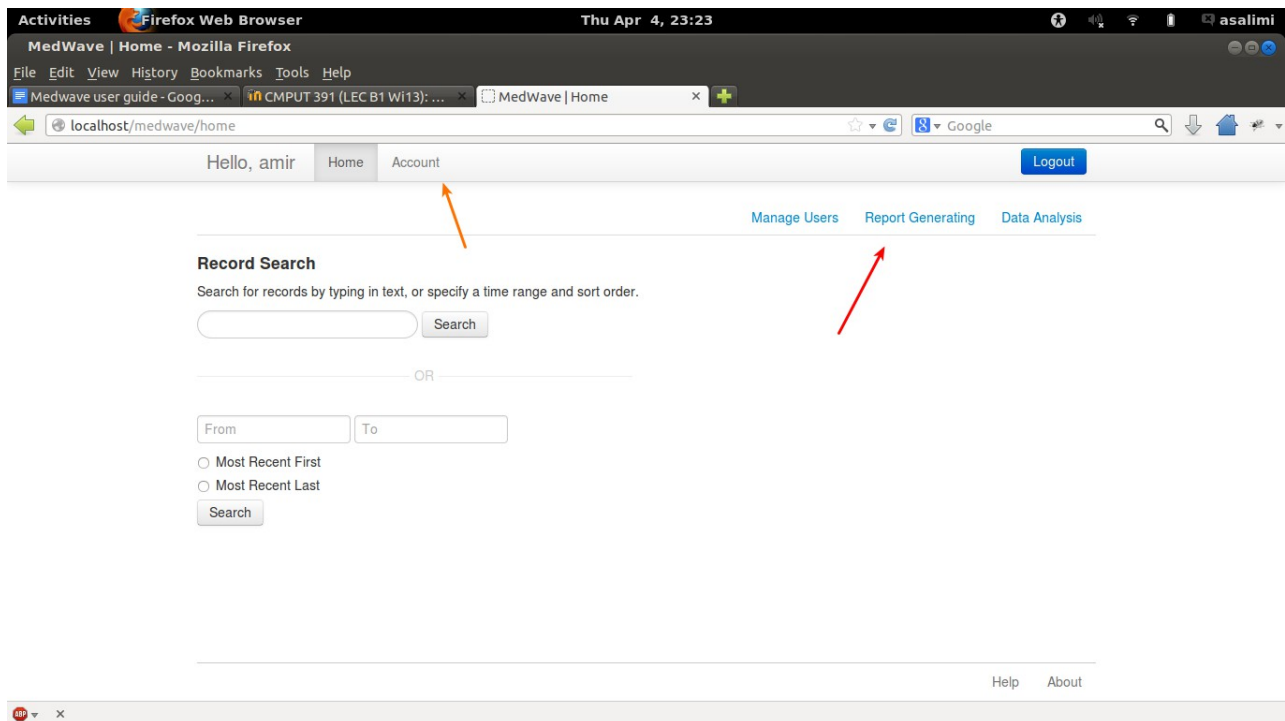
## Modules

### Login

The login module can be accessed from the front page of the site. A user must login using their user name and password to gain access to the rest of the site.



Once logged in, proper privileges and tools will be given to the user based on their role set by the administrators. These tools are in the user menu which can be accessed on the top right of the home page. A user may change their personal information by clicking on the account button on the top left of the home page.



Activities Firefox Web Browser Thu Apr 4, 23:24

MedWave | Account - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Medwave user guide - Goog... CMPUT 391 (LEC B1 Wi13): ... MedWave | Account

localhost/medwave/account

Hello, amir Home Account Logout

### Update Information

First Name:

Last Name:

Address:

Email: \*

Phone:

Update Information

\* Required Fields

localhost/medwave/account# Help About

## User Management

This module can be accessed only by the system administrators. It allows the administrators to modify, add and delete information about the users and doctor/patient relations.

An admin may access the user management module by clicking on the user management button on their homepage options menu.

The admin will then be able to change and modify information about a user in the table by clicking on any field that they wish to change. The changes will be submitted by clicking on the upload button in the controls column.

In order to add a user, click on the Add user button (orange arrow) and you will be taken to the add user page. In order to modify the family-doctor table, click on the Doctor's List button (red arrow).

Activities Firefox Web Browser Thu Apr 4, 23:30

MedWave | User List - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Medwave user guide - Goog... CMPUT 391 (LEC B1 Wi13): ... MedWave | User List

localhost/medwave/user-list

Hello, amir Home Account Logout

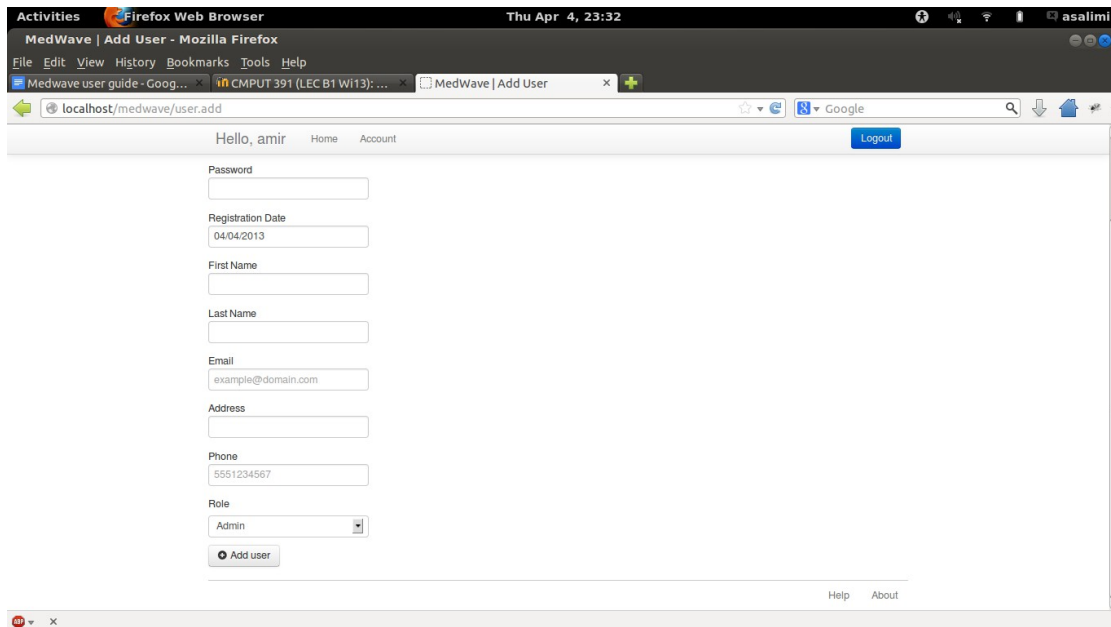
[Add User](#)
[Manage Users](#)
[Report Generating](#)
[Data Analysis](#)

[User List](#)
[Doctor List](#)

Username	Password	Registration Date	First Name	Last Name	Email	Address	Phone #	Role	Controls
toni	*****	2013/04/04	toni	kroos	tony@gmail.co	munchen	7801231234	Radiologi	↑
roy	*****	2013/04/04	roy	makaay	roy@gmail.coi	amsterdam	7801231234	Patient	↑
javier	*****	2013/04/04	javier	zanetti	javier@gmail.x	milan	7801231234	Doctor	↑
amir	*****	2013/04/03						Admin	↑
pablo	*****	2013/04/03						Admin	↑

localhost/medwave/user-list# Help About

Once the admin has clicked Add User they are able to fill out the form and add a user to the system. From here onwards, Users are able to login.

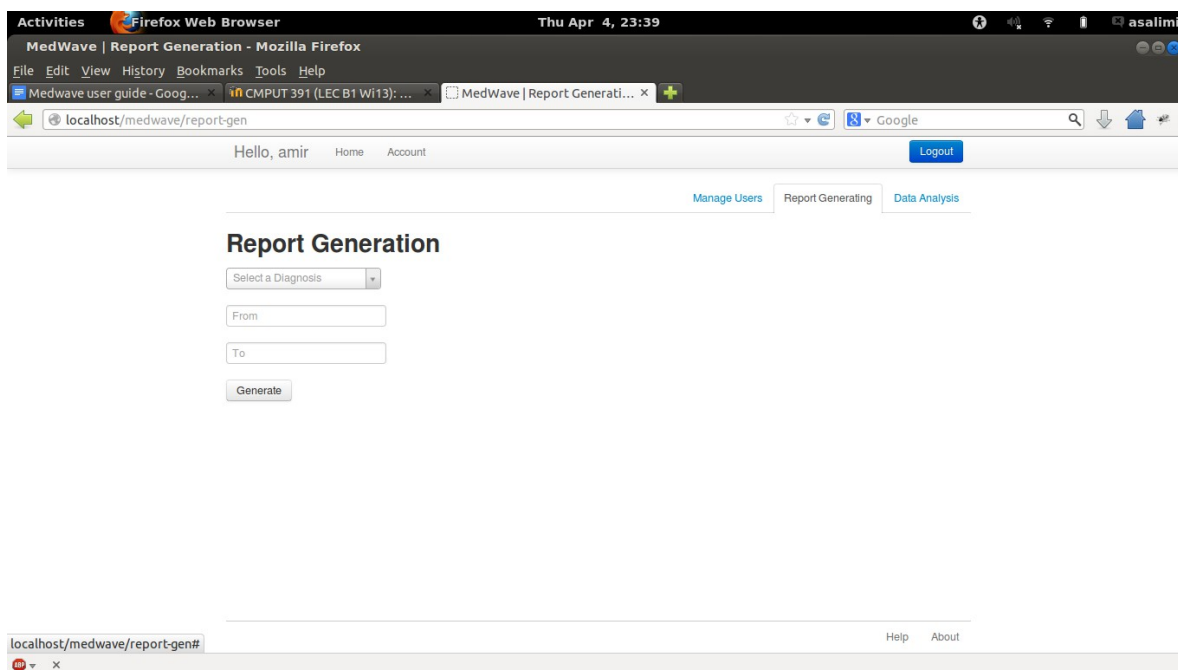


The screenshot shows a web browser window titled "MedWave | Add User - Mozilla Firefox". The address bar shows "localhost/medwave/user.add". The page has a header with "Hello, amir", "Home", "Account", and a "Logout" button. The main content area contains a form with the following fields: Password, Registration Date (04/04/2013), First Name, Last Name, Email (example@domain.com), Address, Phone (5551234567), and Role (Admin). There is an "Add user" button at the bottom of the form. The footer includes "Help" and "About" links.

In the Doctor's table, you may only delete a row by clicking on the remove button on the controls column, or insert a new row.

## Report Generating

This module can be used by a system administrator to get the list of all patients with a specified diagnosis for a given time period. To access this module, click on the "Report Generating" link found on the menu bar on the home page.



The screenshot shows a web browser window titled "MedWave | Report Generation - Mozilla Firefox". The address bar shows "localhost/medwave/report-gen". The page has a header with "Hello, amir", "Home", "Account", and a "Logout" button. Below the header is a navigation bar with "Manage Users", "Report Generating" (active), and "Data Analysis". The main content area is titled "Report Generation" and contains a form with the following fields: "Select a Diagnosis" (dropdown), "From" (text input), "To" (text input), and a "Generate" button. The footer includes "Help" and "About" links.

Then enter specific diagnosis and the beginning date/end date in each box labeled as such. A table will be generated giving the administrator all the relevant results.

Activities Firefox Web Browser Fri Apr 5, 14:31 asalimi

MedWave | Report Generation Results - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Campus Computing ID Login MedWave | Waves for t... MedWave | Report Gen... 4.png (PNG Image, 1366... User documentation · e... User documentation (P...

142.244.135.230/MedWave/report-gen-results?diagnosis=Broken+Hand&from=04%2F01%2F2013&to=04%2F23%2F2013 Google

Hello, admin Home Account Logout

Manage Users Report Generating Data Analysis

## Report Generation Results

Select a Diagnosis

From

To

Generate

Reports found for time period from: 2013-04-01 to: 2013-04-23

Name	Address	Phone	First Tested Date	Diagnosis
Patient Last Name (patient)			2013-04-02	Broken Hand

142.244.135.230/MedWave/report-gen-results?diagnosis=Broken+Hand&from=04/01/2013&to=04/23/2013# Help & Support

## Uploading

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

Activities Firefox Web Browser Fri Apr 5, 12:57 asalimi

MedWave | Home - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Campus Computing ID Login MedWave | Waves for the F... phpMyAdmin MedWave | Home Editing User documentatio...

142.244.110.8/MedWave/home Google

Hello, radio Home Account Logout

Upload Module

### Record Search

Search for records by typing in text, or specify a time range and sort order.

Search

OR

From To

☐ Most Recent First  
☐ Most Recent Last

Search

142.244.110.8/MedWave/home Help & Support

A radiologist can access this module by clicking on "upload-module" on their home page. They will then be able to upload all the record information along with all the relevant images. To select multiple image, hold the ctrl key and click on all the images that need to be uploaded.

Activities Firefox Web Browser Fri Apr 5, 12:59

MedWave | Uploading Module - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Campus Computing ID Login x MedWave | Waves for the F... x phpMyAdmin x MedWave | Uploading Module x Editing User documentio... x

142.244.110.8/MedWave/uploading-module

Hello, radio Home Account Logout

radio

Test Type:  
bone test

Prescribing Date:  
04/02/2013

Test Date:  
04/09/2013

Diagnosis:  
bone fracture

Description:  
fracture in bone

Choose a file(s) to upload:  
/home/asalimi/wallpapers/11255 Browse...

submit record

142.244.110.8/MedWave/uploading-module# Help & Support

## Search

On the homepage when logged in, all users are able to perform a radiology record search. Users have two choices: Either perform a text search, or perform Time Period Search. Searching with Text returns the results of the search results, provided anything is found.

Activities Firefox Web Browser Fri Apr 5, 12:56

MedWave | Home - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Medwave user guide - G... x CMPT 391 (LEC B1 Wi1... x MedWave | Home x localhost / localhost / ... x MedWave | Home x Editing User document... x

142.244.110.8/MedWave/home

Hello, admin Home Account Logout

Manage Users Report Generating Data Analysis

**Record Search**

Search for records by typing in text, or specify a time range and sort order.

Search

OR

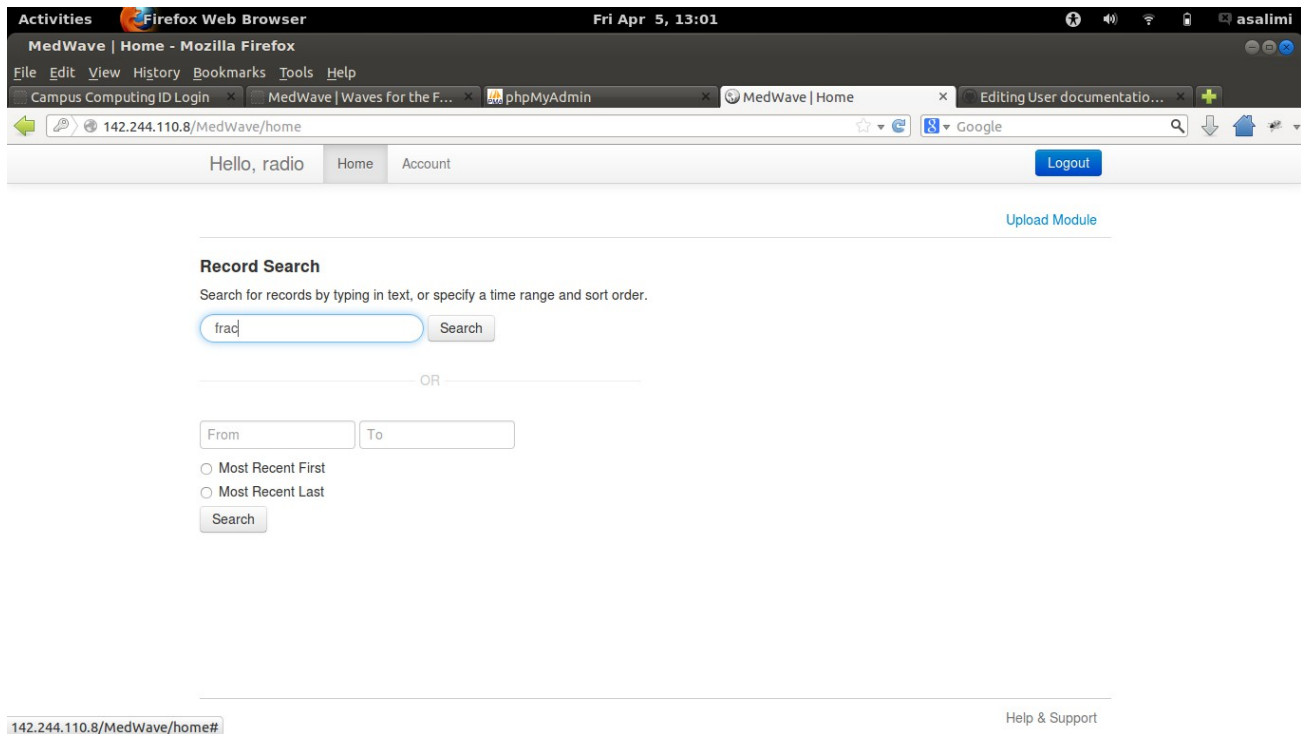
From To

☐ Most Recent First  
☐ Most Recent Last

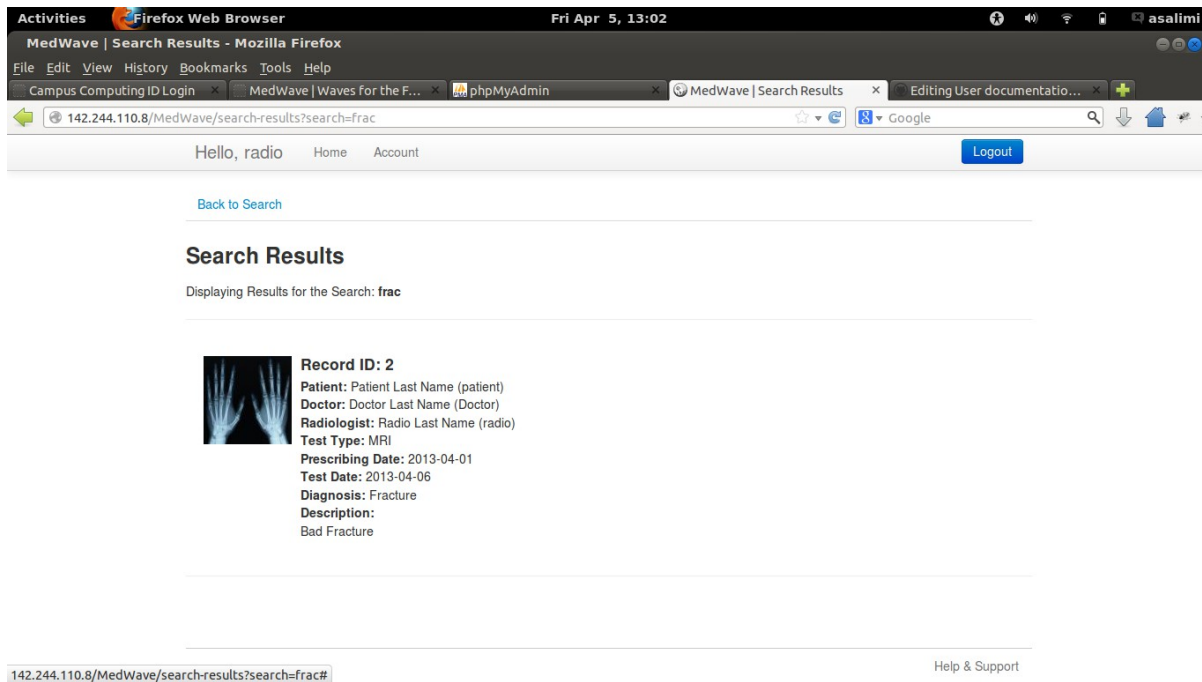
Search

142.244.110.8/MedWave/home# Help & Support

Performing a Time Period Search returns results from the database between the periods that were specified, in the order specified (Most Recent First or Most Recent Last).



On the results page, the information from the record is displayed one at a time. Clicking on Record Images allows you to zoom in, with the option of viewing the full size image.



Finally, Records are displayed ONLY to the pertaining user that is logged in. So patients will only see their records, Doctors will only see their Patients records, Radiologists will only see the records they have added, and Administrators are able to see all records.

## Data Analysis

On the Data Analysis Module page, Administrators are able to see the image count depending on what

parameters are set. The image count is based on a summation of data for each record in the database. For filtering options, the Administrator is able to select individual Patients and/or Test Types, or they can select all of them or none of them.

Activities Firefox Web Browser Fri Apr 5, 14:33

MedWave | Data Analysis - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Campus Computing ID ... MedWave | Waves for t... MedWave | Data Analysis x 4.png (PNG image, 1366... User documentation · e... User documentation (P...

142.244.135.230/MedWave/analysis

Hello, admin Home Account Logout

Manage Users Report Generating Data Analysis

### Data Analysis

Patient

Test Type

Time

From To

Analyze

142.244.135.230/MedWave/analysis# Help & Support

They are also able to filter with Time Range. The Time Range option allows the admins to see a range of data from a date, up to a date, or between two dates. Including a Time Range also includes the Roll Up and Drill Down functionality. By default, it is set to the highest level which is Year. From here you are able to Drill Down to Month and Week.

Activities Firefox Web Browser Fri Apr 5, 14:34

MedWave | Data Analysis - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Campus Computing ID ... MedWave | Waves for t... MedWave | Data Analysis x 4.png (PNG image, 1366... User documentation · e... User documentation (P...

142.244.135.230/MedWave/analysis?patientName=all&testType=XRay&from=04%2F01%2F2013&to=#

Hello, admin Home Account Logout

Manage Users Report Generating Data Analysis

### Data Analysis

Patient

All

Test Type

XRay

Time

04/01/2013 To

Analyze

#### Drill Down/Roll Up

Week Month Year

Image Count	Patient	Test Type	Time
2	patient	XRay	2013

142.244.135.230/MedWave/analysis?patientName=all&testType=XRay&from=04/01/2013&to=# Help & Support

## License

MedWave is free and Open Source; released under the MIT Open Source License.

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