Laboratory Data Management System

Documentation

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Developer's Guide

To setup the application on a system first set up XAMPP/WAMPP/LAMPP on the machine. Then download **wkhtmltopdf** from https://code.google.com/p/wkhtmltopdf/downloads/list and install it on the machine. Then copy the files mentioned below to the relevant folder and the application would become fully functional.

This application comes equipped with the following files:

- **addcomment.php-** To add user comments
- **checkusername.php-** Verify user credentials
- **converttopdf.php-** Convert text from markup language to pdf
- **dblink.php-** Set up the database connection
- **getallreports.php-** Get list of all reports from database
- **getpi.php -** Get the PI of the user
- **getreports.php -** Get list of user reports from database
- **header.php -** Contains the header information about the application
- **index.php -** Contains the main web-interface page
- **login.php -** Initial login page
- **managereports.php -** Manage and view reports (for PI)
- **register.php -** Register a new user
- **savereport.php -** Save the newly added report to database
- **search.php -** Search within the stored reports of the user
- **searchall.php -** Search withing all the stored reports
- **verifyreport.php-** Verify the reports added by researchers
- **css/mystyles.css-** Contains the css components for the application interface
- **js/header.js-** Contains the javascript/jQuery/ajax calls and functions

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2 User Guide

Laboratory Data Management System is the ultimate tool for creating/editing/ reviewing reports. This web application allows users to create a online account and store their laboratory data on a secure server. The users are classified into two different categories: the experimenters/researchers and the PI who are their supervisors. The reports are then verified by a PI and then finally added into central repository. The application also supports the addition of comments on the reports and the reports can be viewed by anyone on the same team(experimenters/researchers working in the same laboratory). The special features that the application supports are speech to text conversion to allow for voice inputs and text in a markup language to pdf (portable document format) conversion for downloading a copy of the report.

2.1 Specialized User Accounts

Only authorized users can login into the application using the login page as shown in 2.1

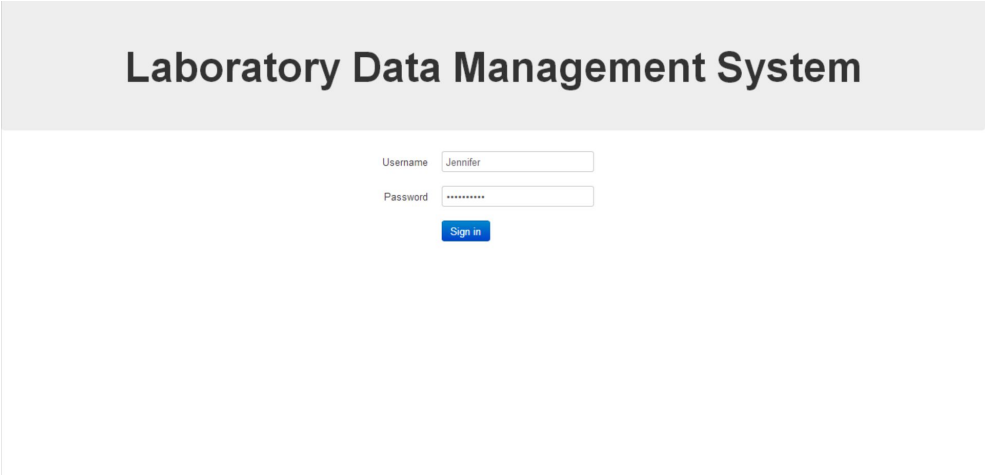

Figure 2.1: Login

2.2 Home Screen

After logging in the users will be directed to the home screen of the application which contains all the reports which have been added by all the experimenters

and and that have been verified by their respective supervisors as shown in 2.2. The user can also search for specific keywords in all the reports.

Figure 2.2: Home

2.3 Personal Screen

There are three tabs on the title bar of the application. The second link shows the user the list of the reports that have been added by him as shown in 2.3. The reports which have been verified by the supervisor appear in blue color while the reports which are yet to be verified are displayed in red color. The user can also search for specific keywords in all the reports that he/she has added.

2.4 Create New Report

The users can create new reports by clicking on the "Add Report" button as shown in 2.3. After clicking on "Add Report" button the user can then create a new report by mentioning the Title and Description of the report. There are plethora of options for editing the report as shown in 2.4. There is option to dictate the report to the application. The user can copy markup language content directly into the editor and the content together with the css component would be copied *per se*. To ensure ease of use, keyboard shortcuts are also enabled.

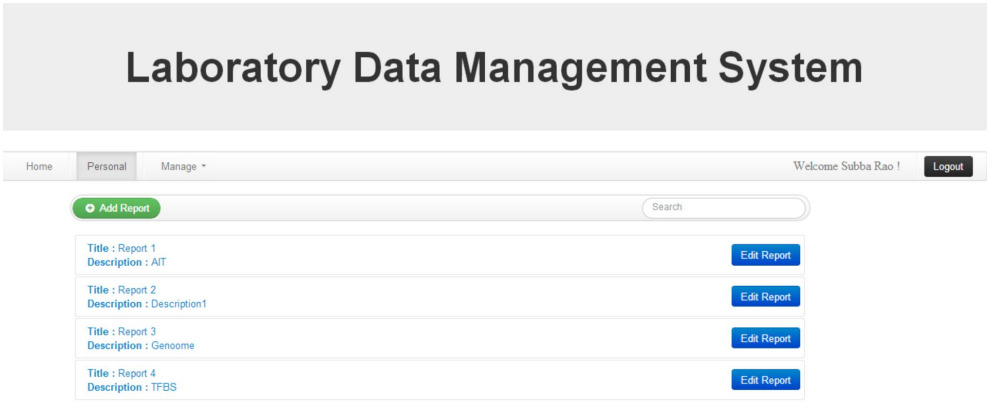

Figure 2.3: Personal Secion

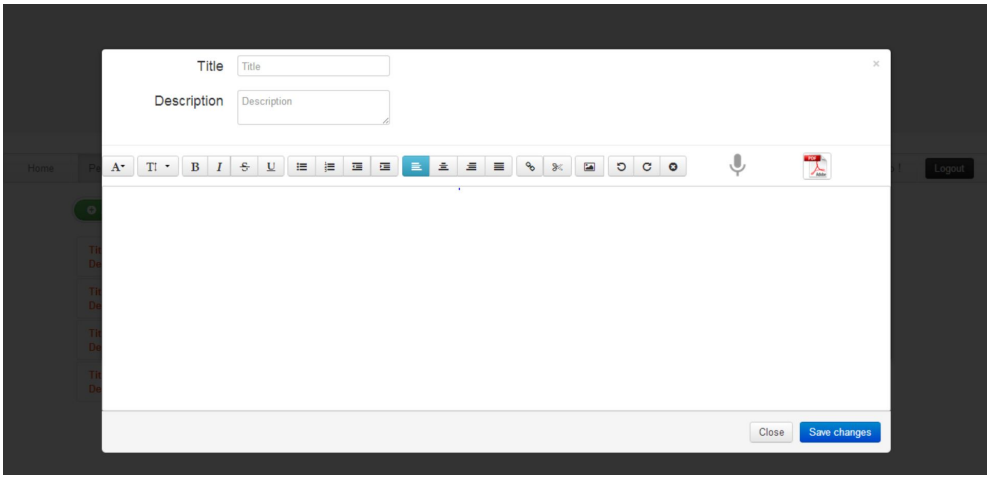

Figure 2.4: New Report

2.5 Manage Account

The supervisors have an additional feature of "Manage Accounts". The supervisor can create accounts and review the reports that are pending for their verification as shown in 2.5

2.6 Create User Account

The supervisor can create new user accounts as shown in 2.6.

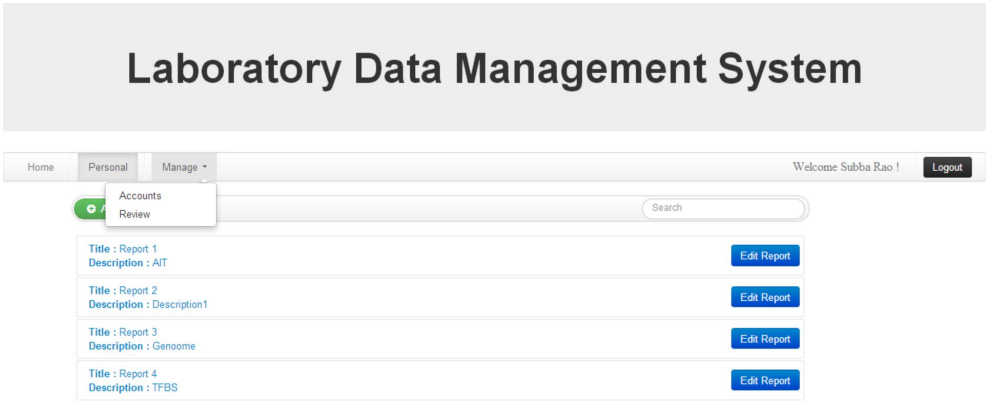

Figure 2.5: Manage

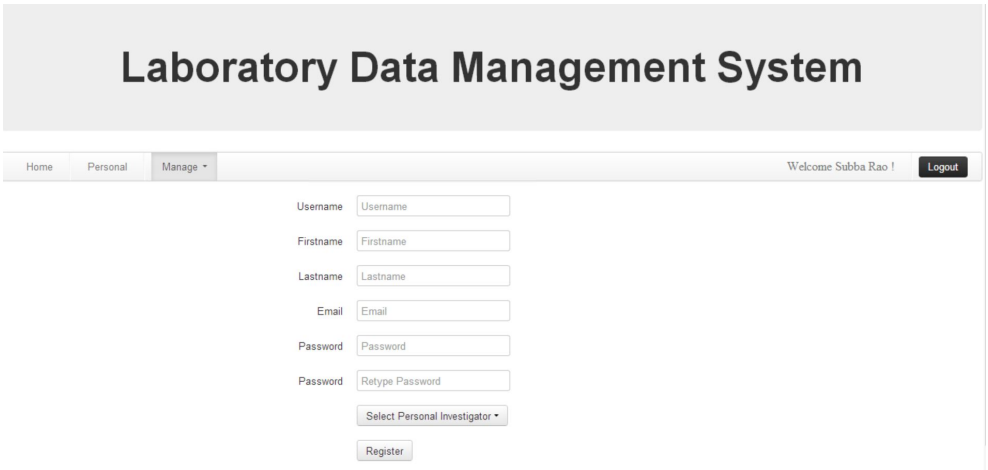

Figure 2.6: Create Account

2.7 Verify Reports

The supervisor can view and verify the reports that are pending for his supervision as shown in 2.7

2.8 Add Comments

Even though the users cannot change/edit other users Reports but still they can view and add comments in the comment section of the respective report as demonstrated in 2.8

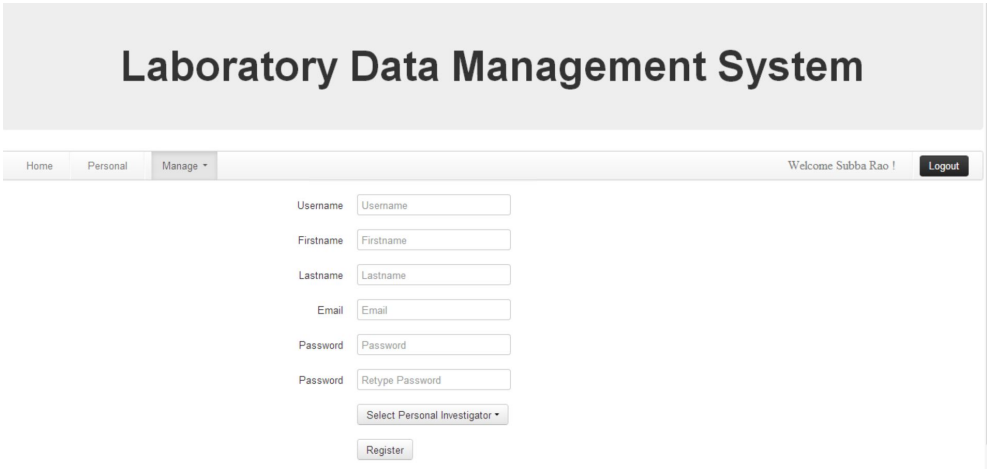

Figure 2.7: Review

Figure 2.8: Add Comments

2.9 Upcoming Features

The next version of the application would contain features to convert the text form of report into voice for eases of use. We also plan to make the system more interactive and fun to use.

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