

Final Project Presentation On Medical Data Visualization



PRESENTED BY

**RIZU PAUDEL(21)
SHRADHA BASNET(35)
SANJOG SIGDEL(57)
BISHWAS DAHAL (58)**

4TH AUGUST,2015

Contents

2

- Background
- Why did we choose this project?
- Literature Review
- Design Guidelines
- Tools used
- System Design
- Features
- Problems Encountered
- Limitations
- Future Enhancement
- Conclusion

Background

3

- MDV is a web based application built for visualizing medical information in context of Nepal.
- Visualization provides some pattern about data we present in pictorial form.

Why did we choose this project?

4

- Data Related to medical study is abundant online.
- In context of Nepal we are still not used to electronic data entry system.
- So Health related data of Nepal is neither available nor visualize.
- In case any individuals wants to research on medical field, s/he shouldn't spent much time for getting data and visualizing them.

Literature review

5

- Many eyes-is an experiment, by IBM, that allows you to visualize your data set and helps to visualize the users who uses maximum data for social networking sites.
- I Charts-It includes private charts, custom, templates, unlimited live databases connections, survey data set and much more.
- Exhibit- Developed by MIT, and fully open source, makes it easy to create interactive maps, and other data based visualizations.

Tools Used

6

- JavaScript
- JQuery
- PHP
- MySQL
- CSS
- HTML
- Sublime Text
- PHPMYadmin

Design Guidelines

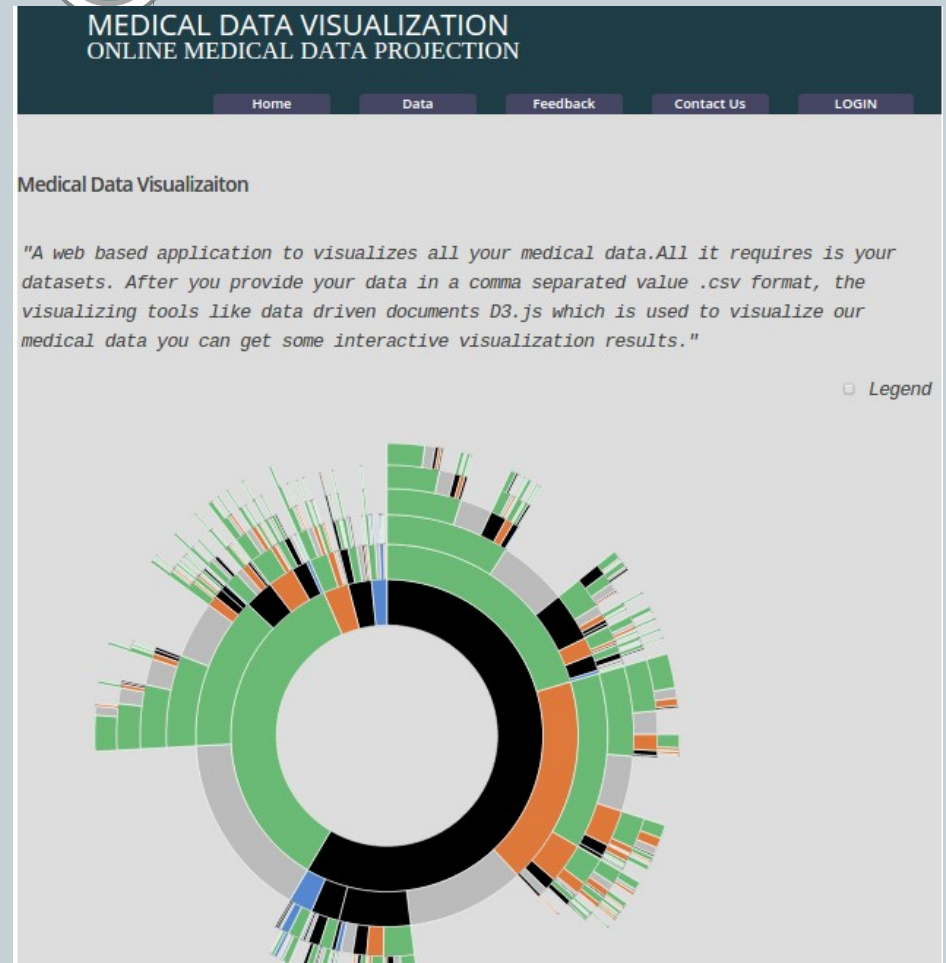
7

- Identified User Requirements
- Use of common fate
- Proper Use of Hyperlink
- Use of pictures, icons and dialogue boxes. Meaningful title and consistency style

System Design (C0ntd...)

8

Figure: Main Page



System Design

9

Figure: Terms and agreement.

TERMS AND CONDITIONS ×

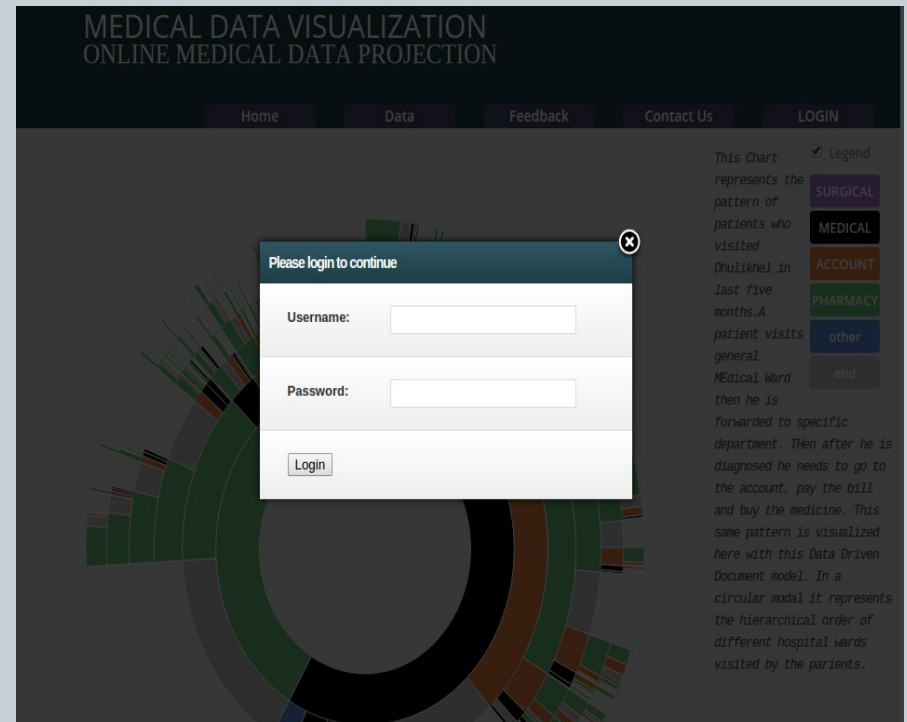
WELCOME TO MEDICAL DATA VISUALIZATION
Your Online medical data projection applicatoin. Since you are visiting this app for the first time we would like you to go through our *TERMS AND CONDITIONS*.

- Medical data available in this application are provided by different medical institutions and hospitals of Nepal, Whic are their legal assests.Such data will not be published or provided to anybody.
- RESOURCE PROVIDER'S DETAILS WILL NOT BE DISCLOSED.
- User or organisation is free to use these visualization for the purpose of demonstration, only after receiving the administrator's permission.
- In case, any user or organisation found using our visulized data for their personal purpose to manipulate it against the law, such user or organisation will be punished according to the law.
- User or organisation should do a paper agreement in order to receive the visualized information from the administrator.
- Incase of any misuse of the data provided from this application against the law, individual or organisation will

System Design(Contd...)

10

Figure: Login Screen



Limitations

11

- Application is static in nature. Many commands should be carried on manually.
- Visualized data cannot be manipulated further.
- Visualized result cannot be exported.

Problems Encountered

12

| Problem Faced | Solution Technique applied |
|---|--|
| Import data to apache server | <i>Direct upload of <u>.xlsx</u> was not <u>possible</u>. So <u>first file</u> was converted to <u>.ods</u> format</i> |
| Maximum Post size limit reached | By default the post / upload size was 2MB. Manually edited <u>/etc/php5/apache2/php.ini</u> and set size limit to 10MB as <u>post_max_size = 10M</u> |
| Session: didn't determined whether \$_SESSION['user'] started or not | Worked after <u>\$_SESSION['user']</u> is assigned with value of <u>username</u> from row of table user as <u>\$_SESSION['user'] = \$row['username']</u> |
| <u>Menubar</u> not appearing as below: Login if session was not started Logout if session is started | Assigned <i>if else condition</i> as <u>if(!\$_SESSION['user'])</u> <u>{ ... Login ... }</u> <u>else{ ... Logout ... }</u> <u>}</u> |
| Unable to download file from server to a specified destination folder due to security issue. | Downloaded file and handled file through terminal as <u>root@user:~\$ sudo mv Downloads/file.csv</u> <u>/var/www/html/mdv/csv/</u> |

Future Enhancement

13

- Application can be made dynamic.
- More visualizing tools can be included.
- Different patterns regarding pharmacy, patients' density, resource management can be visualized.

Conclusions

14

- With the completion of this project, we are now familiar with JavaScript, JQuery and also different ideas for visualization.
- Upon completion and submission of this project, we have been able to successfully achieve all the proposed features.

Thank You