

# DSCI-D 532 Applied Database Technologies

## Final Project Part 3

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### 1. Web App Architecture

#### Overview

**Model:** I used MySQL Database for storing data.

**View:** I used Java Script for Front-end.

**Controller:** I used Java Spring for Back-end.

\* IntelliJ was used as a development tool.

#### 1. Data Storage

The data was initially designed locally. And it was transferred and stored in MySQL DB of JawsDB\_MySQL serviced by Heroku.

#### 2. Languages – Back End

Java was used as the back-end language.

#### 3. Database Access/Connection/Secutiry

Initially I created a mock MySQL database using MAMP on my local. I re-implemented this database structure in JawsDB\_MySQL supported by Heroku. In this process, data import did not work smoothly, so I switched JawsDB from the free version to the paid version. Some of the information used in the data connection is shown below.

Property	Value	Action
Host	r4wkv4apxn9btls2.cbetxkdyhwsb.us-east-1.rds.amazonaws.com	
Username	ewwnqrx4ks7aw6j9	

Finally, in my application, the privileges of general users and administrators are separated. To implement this part, I created a new table for administrators in MySQL DB separately and wrote the source code for actual implementation.

#### 4. Languages – Front End

I used Javascript for the front end.

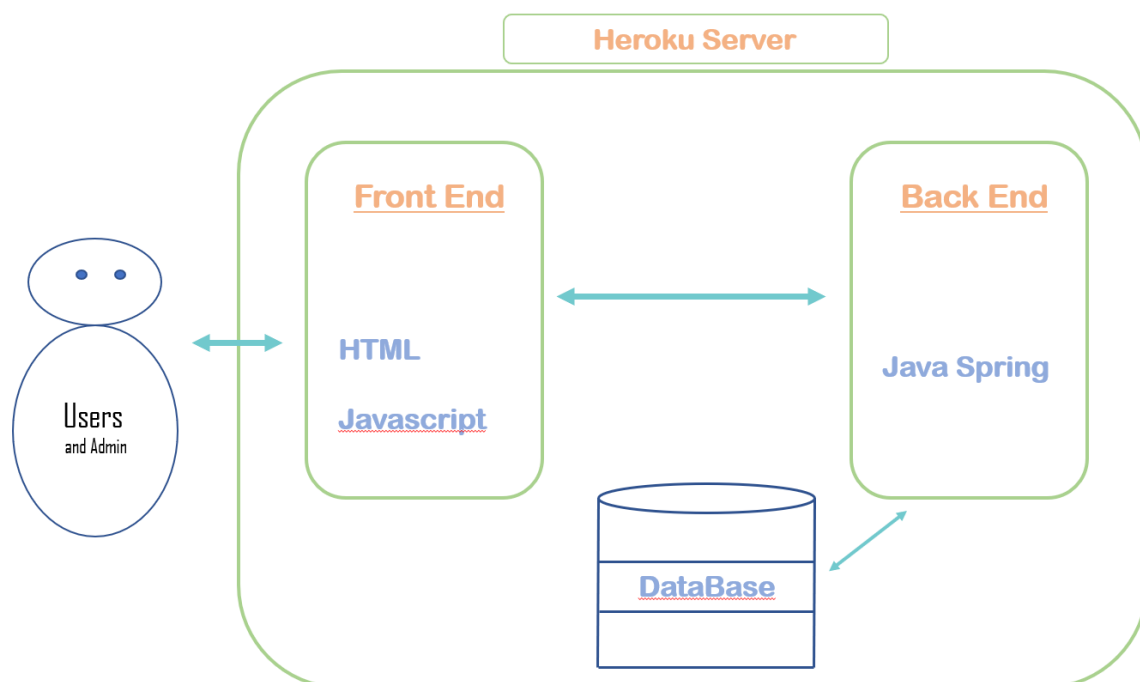
#### 5. App deployment

I have deployed my app to Heroku.

#### 6. App Interactivity

Users can quickly access the most important information by data year and pharmaceutical company name. Users can sort with a single click on a specific column, and double-click a specific data (raw) to see a time series chart for that data. A admin user can use all these functions and can create, delete, and modify additional data.

#### 7. Architecture

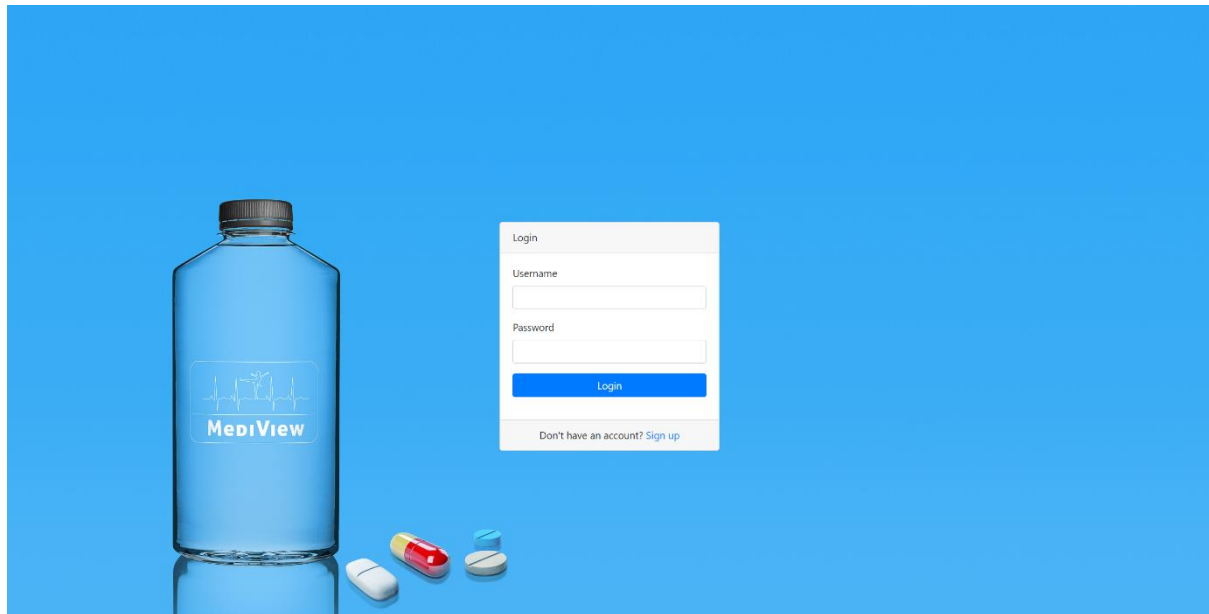


## 2. Web App Layout

### Oerview


There are two kinds of pages in this app(**MediView**). The first is the login page and the second is the analytics page. And finally, there is a chart popup.

## Login Page:



The login page is the first page users can see. After signing up, users can enter their information and log in. The main color of the login page is sky blue, and the background was created with Photoshop using a free image that can be modified and a logo image that I created myself. The login box is located in the center of the screen..

## Analysis page :



Year

Brand

Generic

search text here

Q

Year	Brand	Generic	Claim Count	Total Spending	Beneficiary Count	Total Annual Spending per User	Unit Count	Average Cost per Unit	Beneficiary Count No LIS	Beneficiary Count LIS	
2011	10 WASH	SULFACETAMIDE SODIUM	24	1569.19	16	98.07	5170	0.3	0	0	<div>Modify</div> <div>Delete</div>
2011	1ST TIER UNIFINE PENTIPS	PEN NEEDLE, DIABETIC	2472	57666.73	893	64.58	293160	0.2	422	471	<div>Modify</div> <div>Delete</div>
2011	1ST TIER UNIFINE PENTIPS PLUS	PEN NEEDLE, DIABETIC	0	0	0	0	0	0	0	0	<div>Modify</div> <div>Delete</div>
2011	60PSE-400GFN-20DM	GUAIFENESIN/DMPS/DOEPHEDRINE	12	350.1	11	31.83	487	0.7	0	0	<div>Modify</div> <div>Delete</div>
2011	8-MOP	METHOXSALEN	11	9003.26	0	0	298	30.21	0	0	<div>Modify</div> <div>Delete</div>
2011	A-B OTIC	ANTIPYRINE/BENZOCANE	30	212.86	29	7.34	451	0.47	0	0	<div>Modify</div> <div>Delete</div>
2011	ABACAVIR	ABACAVIR SULFATE	0	0	0	0	0	0	0	0	<div>Modify</div> <div>Delete</div>
2011	ABACAVIR-LAMIVUDINE-ZIDOVUDINE	ABACAVIR/LAMIVUDINE/ZIDOVUDINE	0	0	0	0	0	0	0	0	<div>Modify</div> <div>Delete</div>
2011	ABELCET	AMPHOTERICIN B LIPOID COMPLEX	363	455566.1	97	4696.56	49027	9.29	49	48	<div>Modify</div> <div>Delete</div>
2011	ABILIFY	ARIPIPIRAZOLE	2447965	1469661103	360675	4074.75	77474809	19.22	57408	303267	<div>Modify</div> <div>Delete</div>

10 Size

Page: 1 of 2250

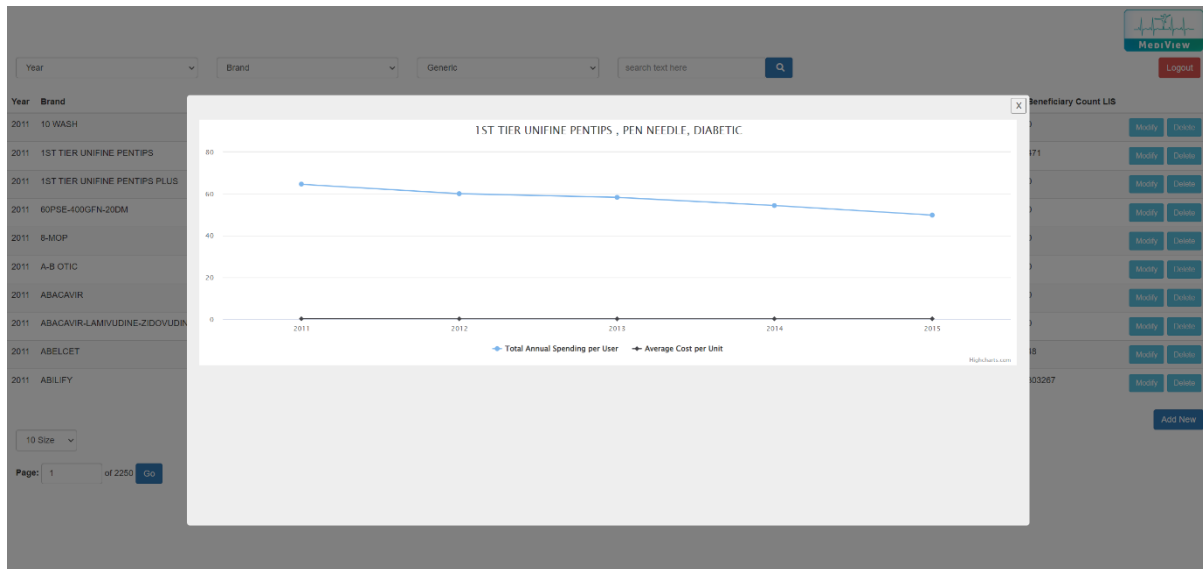
Go

Add New

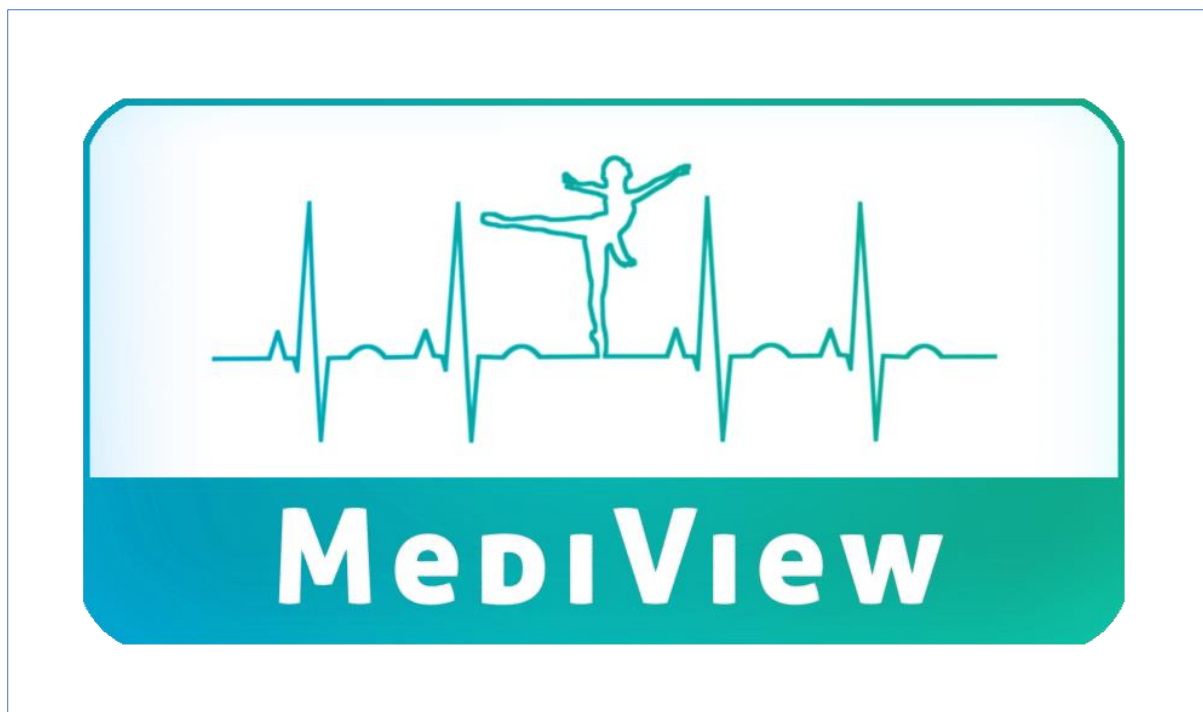
The analysis page consists of a combo box for the three main columns that will be the center of the analysis, a search box, and buttons for various functions. The screen above is for admin users. Unlike general users, admin users will see Edit, Delete, and Add buttons on the right side. All users can sort by clicking on a specific column, and view time series charts by clicking on a specific row. Also, the user can set the number of rows displayed on one page through the combo box at the

bottom left and change the page. As for the color scheme, the app's logo image is located in the upper right corner. And the overall color of the analysis page is simple for data analysis, and the logo is made with the theme of green and white.

### Chart popup :



### Logo Image:



\*A font of Logo image is Aller Display

### 3. Assessment Table (Individual Project)

**Task completion:** 10

**Time commitment:** 10

**What could be done better:** It would be better if it had more analysis functions. And there seems to be a lot of room for improvement in the screen composition part.