

Advanced Software Engineering

Project Increment 2

FettleUp



Team 8

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2. Mudunuri Sri Sai Sarat Chandra Varma (52)
3. Yalamanchili Sowmya (91)
4. Nandanamudi Sreelakshmi (60)

1. Introduction

FettleUp

When we feel sick, we need to go to hospital and take an appointment with doctor. The severity of the disease is less this will be a time taking process in our day-to-day busy life. In this smart world, we thought of having one application that will be handy to opt for a doctor and make an appointment with him in online and discuss regarding our problem and get the necessary suggestions from him, so we can save our time. Finally, we came up with this thought to save time for everyone.

2. Project Goal and Objectives

Overall Goal:

The main goal of this application system is to provide an end-to-end communication between the common people and their consultation doctors. The gap between them is filled by using various resources of communication such as online chat, request for appointment consultation and ease of search in nearby emergency.

Specific Objectives:

Technology is evolving everyday, so creating an interactive web application by reaching our goal within the time frame is our major objective. The key thing of the application is to provide end-to-end relationship between doctor and patient. We personally take care in building a real time system that is user friendly and reachable to patients round the clock. To make a system, which feeds instant guidelines to people, regarding their appointment status, doctor availability and other related information.

Specific Features:

The features are classified as

- Make a hassle free appointment and consultations with doctor,
- Round the clock advice from doctors by using the chat option,
- Provide daily diet for future reference to doctor's in case of health checkup,
- View prescription and shop for them on e-commerce sites i.e. Wal-Mart pharmacy,
- Look for nearby emergency and pharmacy with single click,
- Feedback option on their experience.

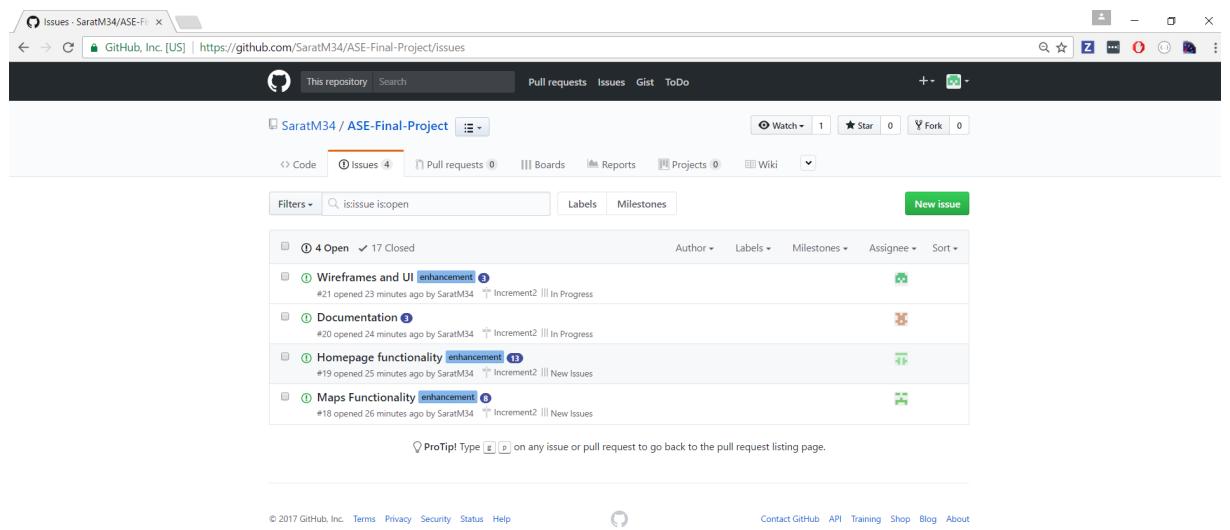
Significance:

As we can see there are many applications for health care but our application is stand out from others. In this application we can quickly check for the availability of doctor in particular categories and schedule an appointment with him or else we can chat with him from our desk itself, which is time saving process. Therefore, this application will become the dominant form of interaction.

3. Project Plan

Zen-Hub Screenshot:

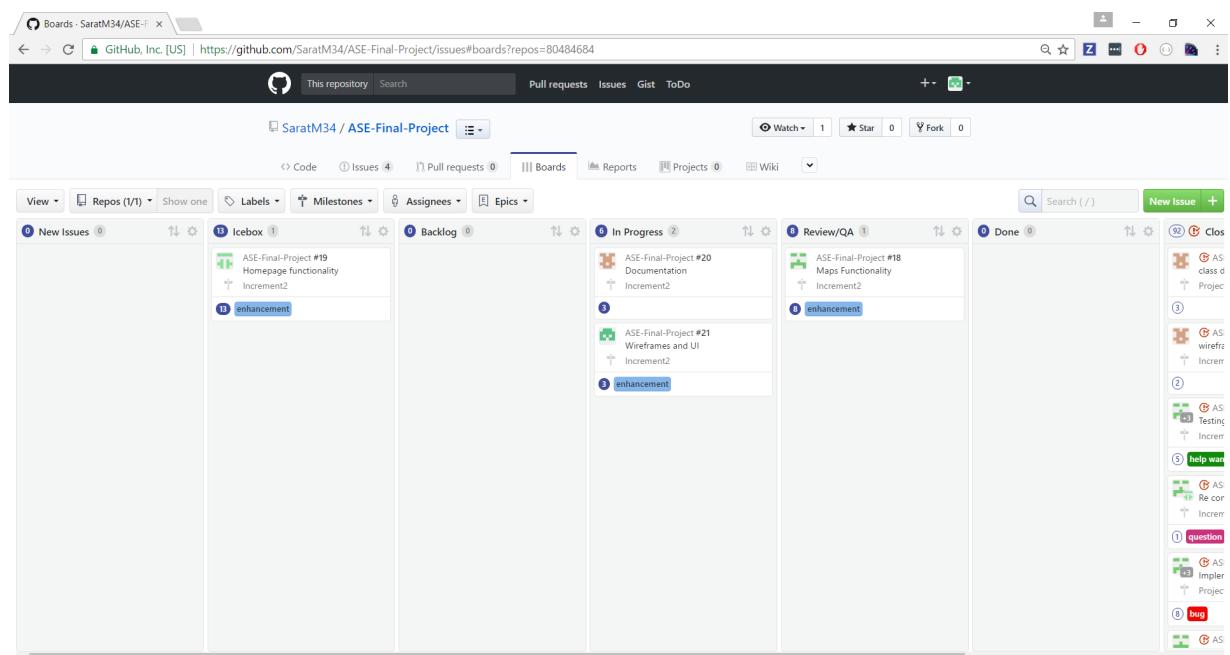
For the second increment we had issues regarding the functionality of Home page which includes text to speech API and maps functionality for searching nearby hospitals and writing unit test cases.



The screenshot shows the GitHub Issues page for the SaratM34/ASE-Final-Project repository. The URL is <https://github.com/SaratM34/ASE-Final-Project/issues>. The page displays 4 open issues:

- Wireframes and UI (enhancement) #21
- Documentation (enhancement) #20
- Homepage functionality (enhancement) #19
- Maps Functionality (enhancement) #18

Each issue has a green checkmark icon next to it. The GitHub interface includes a navigation bar with Code, Issues (4), Pull requests, Gist, ToDo, and a search bar. There are also buttons for Watch, Star, Fork, and a New issue button.



The screenshot shows the GitHub Boards page for the SaratM34/ASE-Final-Project repository. The URL is <https://github.com/SaratM34/ASE-Final-Project/issues?repos=80484684>. The page displays a Kanban board with four columns:

- New Issues
- Backlog
- In Progress
- Review/QA

The In Progress column contains three items:

- Documentation (enhancement) #20
- Wireframes and UI (enhancement) #21
- Maps Functionality (enhancement) #18

The Review/QA column contains one item:

- Maps Functionality (enhancement) #18

A sidebar on the right lists various project-related cards, including 'class d Project', 'AS wirefrz', 'Testing Incret', 'help war', 'Re cor', 'AS Implem Project', 'bug', and 'AS'. The GitHub interface includes a navigation bar with Code, Issues (4), Pull requests, Gist, ToDo, and a search bar. There are also buttons for Watch, Star, Fork, and a New Issue button.

Project Timeline, Members and Task Responsibility

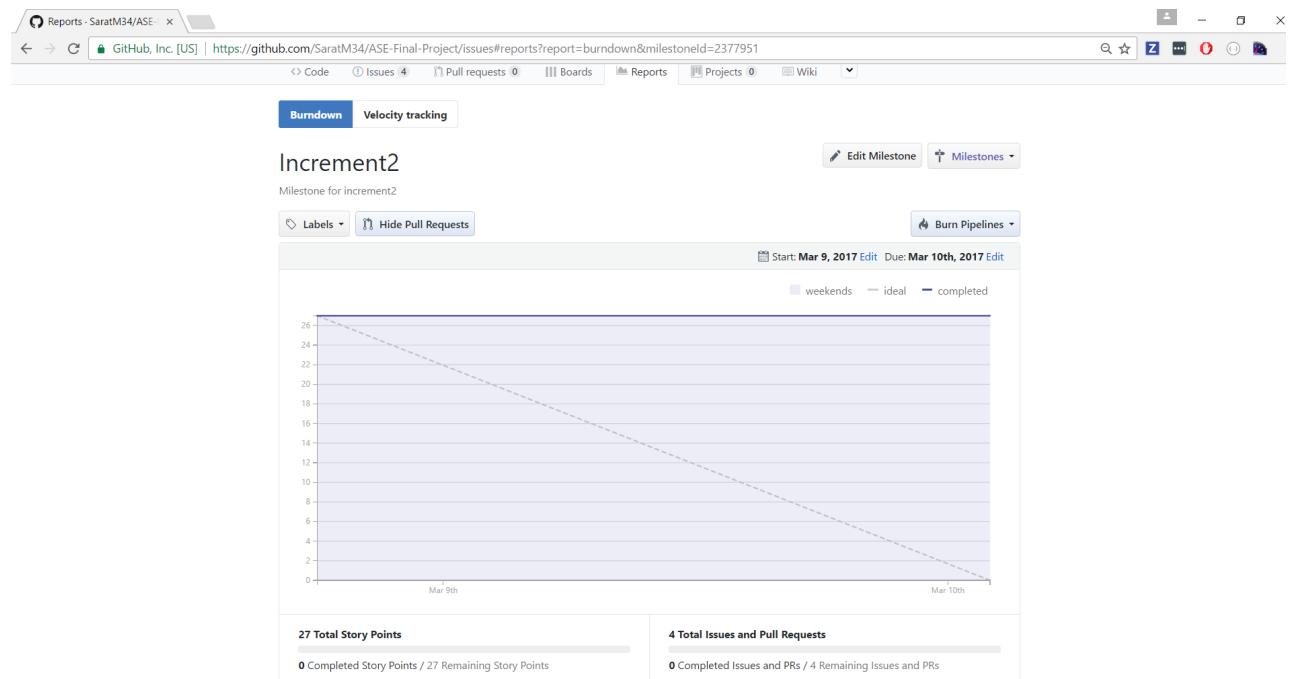
The issues that are registered and current one's which we are working are updated and can be viewed in github repository. The below screenshot will show you the issues and their respective categorization's i.e. New issues, Icebox, Backlog, In Progress.

This screenshot shows the GitHub Boards interface for the project 'SaratM34 / ASE-Final-Project'. The boards are organized into columns: Icebox, Backlog, In Progress, Review/QA, Done, and Closed. The 'In Progress' column contains several issues, including #19 (Homepage functionality), #20 (Documentation), #21 (Wireframes and UI), and #22 (enhancement). The 'Review/QA' column contains issue #18 (Maps Functionality). The 'Done' column contains issue #16 (Re consider the User Stories?). The 'Closed' column contains issues #6 (class diagram for the application), #10 (wireframe), #13 (Testing), #15 (help wanted), #17 (question), #14 (Implementation), and #18 (bug). The 'Icebox' column contains issue #19 (Homepage functionality). The 'Backlog' column contains issue #21 (Wireframes and UI).

This screenshot shows the GitHub Boards interface for the project 'SaratM34 / ASE-Final-Project'. The boards are organized into columns: New Issues, Icebox, Backlog, In Progress, Review/QA, Done, and Closed. The 'In Progress' column contains several issues, including #20 (Documentation), #19 (Homepage functionality), and #22 (enhancement). The 'Review/QA' column contains issue #18 (Maps Functionality). The 'Done' column contains issue #21 (Wireframes and UI). The 'Closed' column contains issues #20 (Documentation), #18 (Maps Functionality), #19 (Homepage functionality), #22 (enhancement), #21 (Wireframes and UI), and #22 (enhancement). The 'Icebox' column contains issue #20 (Documentation). The 'Backlog' column contains issue #19 (Homepage functionality).

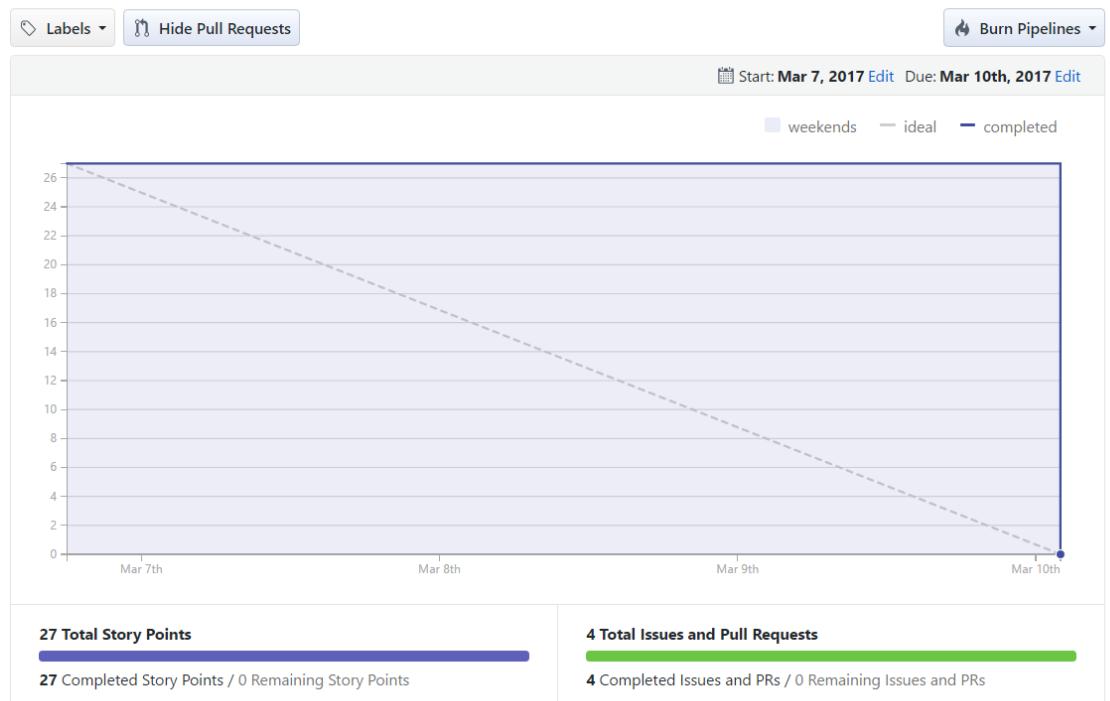
Burn-Down Chart:

Burn-Down chart is created for the above issues via Milestones in github. Below is the screenshot for more information,



Increment2

Milestone for increment2

[Edit Milestone](#)[Milestones](#)

4. Second Increment Report

Existing Services/REST API's Used

Facebook API:

We have integrated Facebook API for our login module using OAuth 2.0 security.

Google API:

We also included Google API in our login module using OAuth 2.0 so users can easily login into our web application by using their respective existing accounts.

Bootstrap:

Bootstrap 4.0 is used in creating the web pages and has a major role in designing the CSS elements and layouts.

Google Maps API:

We have included Google Maps API to search for the nearest location of the pharmacies.

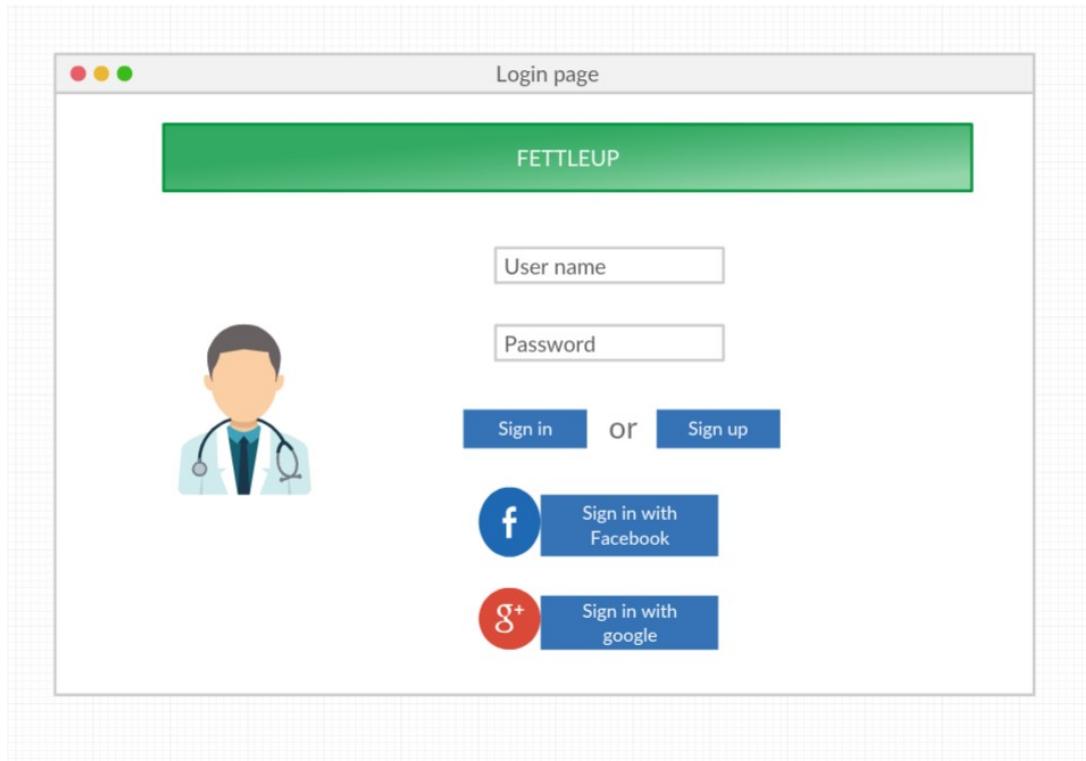
API's Forthcoming:

- Mail service API
- Speech to Text API

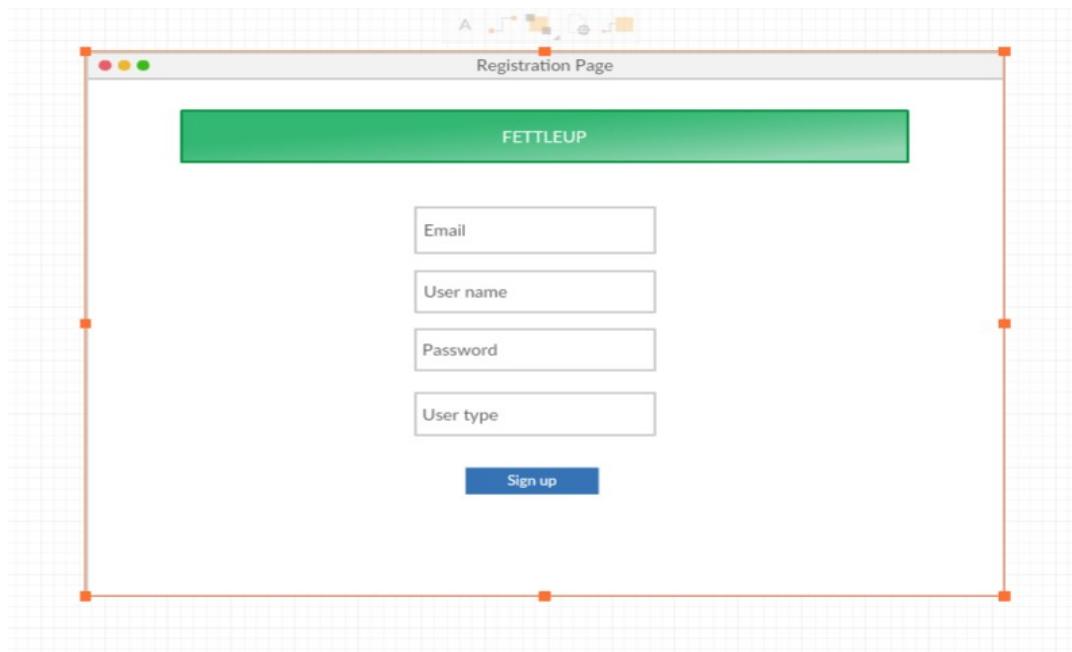
Detail Design of Features (using tools)

Wireframes

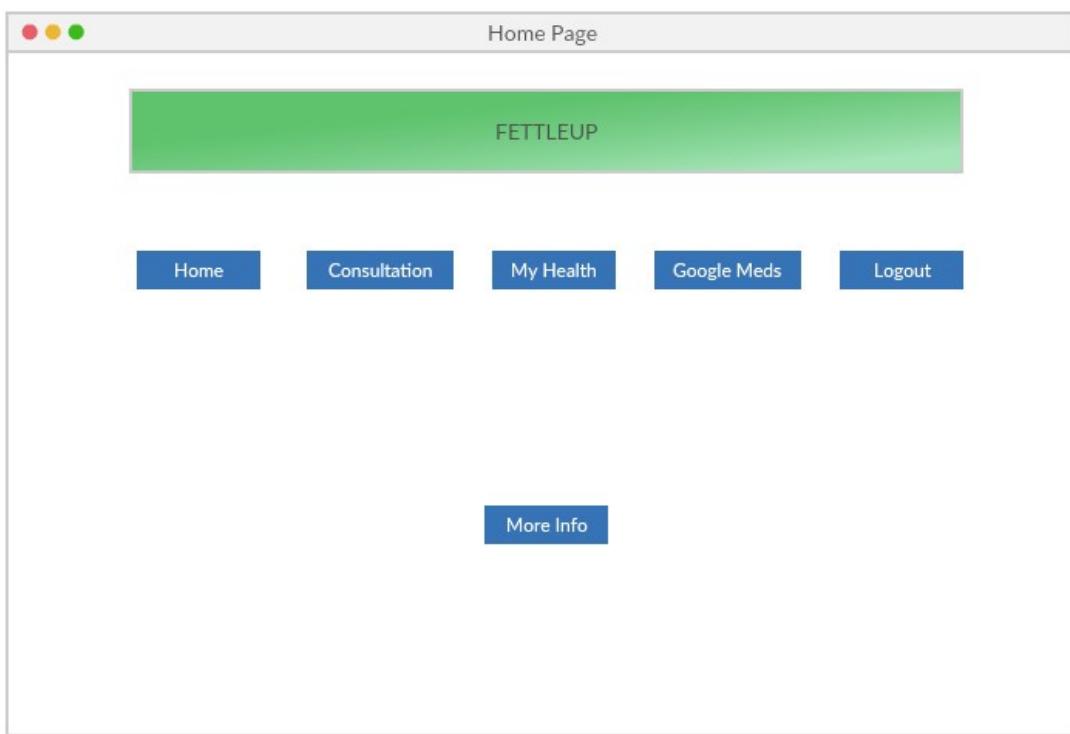
Login Page Wireframe:



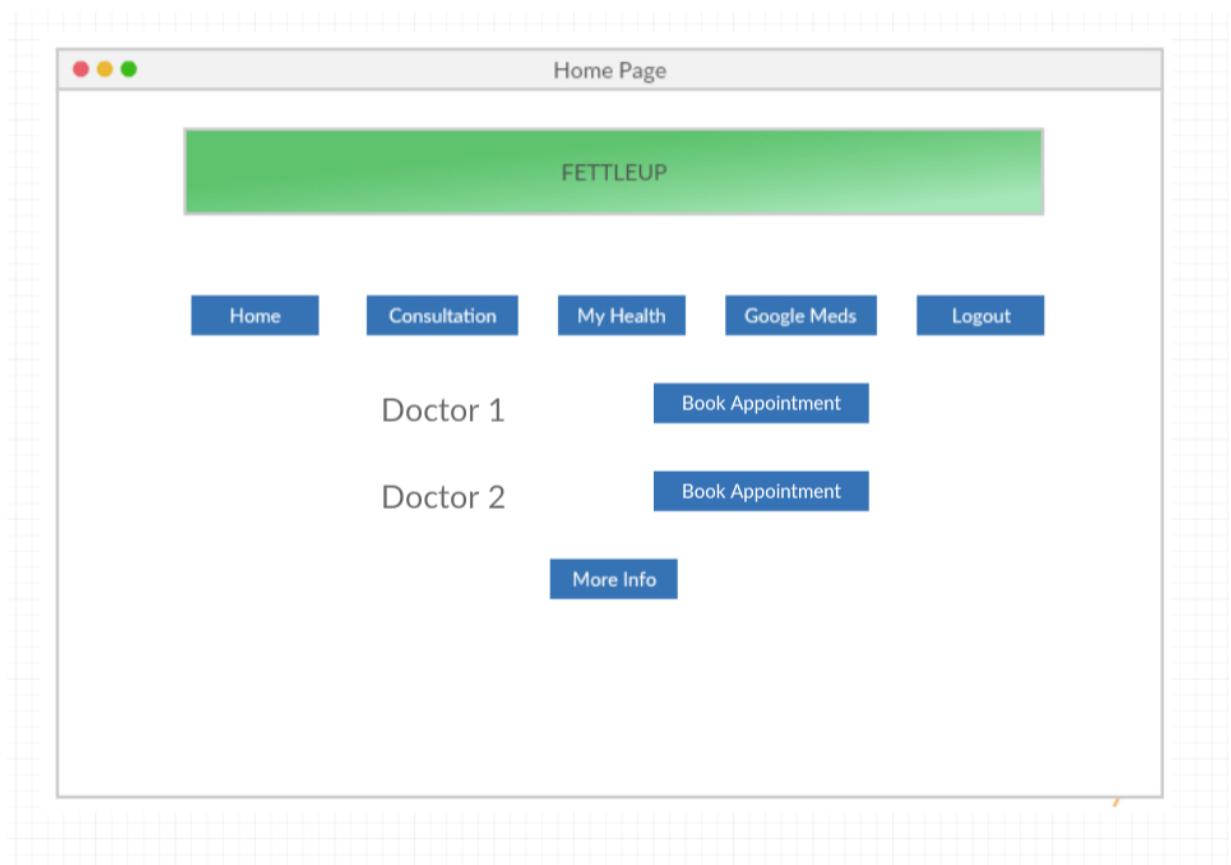
Register Page Wireframe:



Home Page Wireframe:



Consultation Page Wireframe:

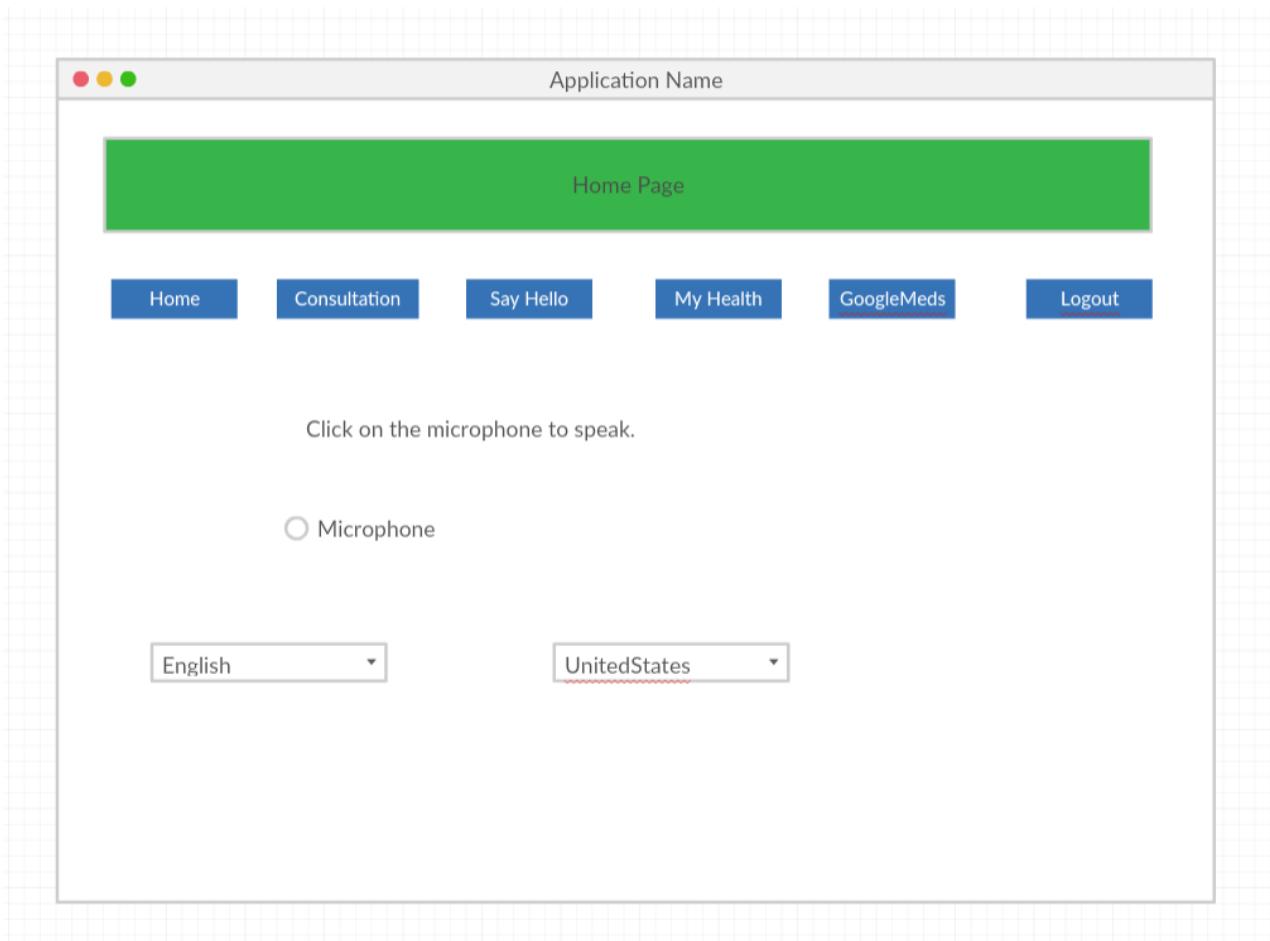


Book an Appointment Page Wireframe:

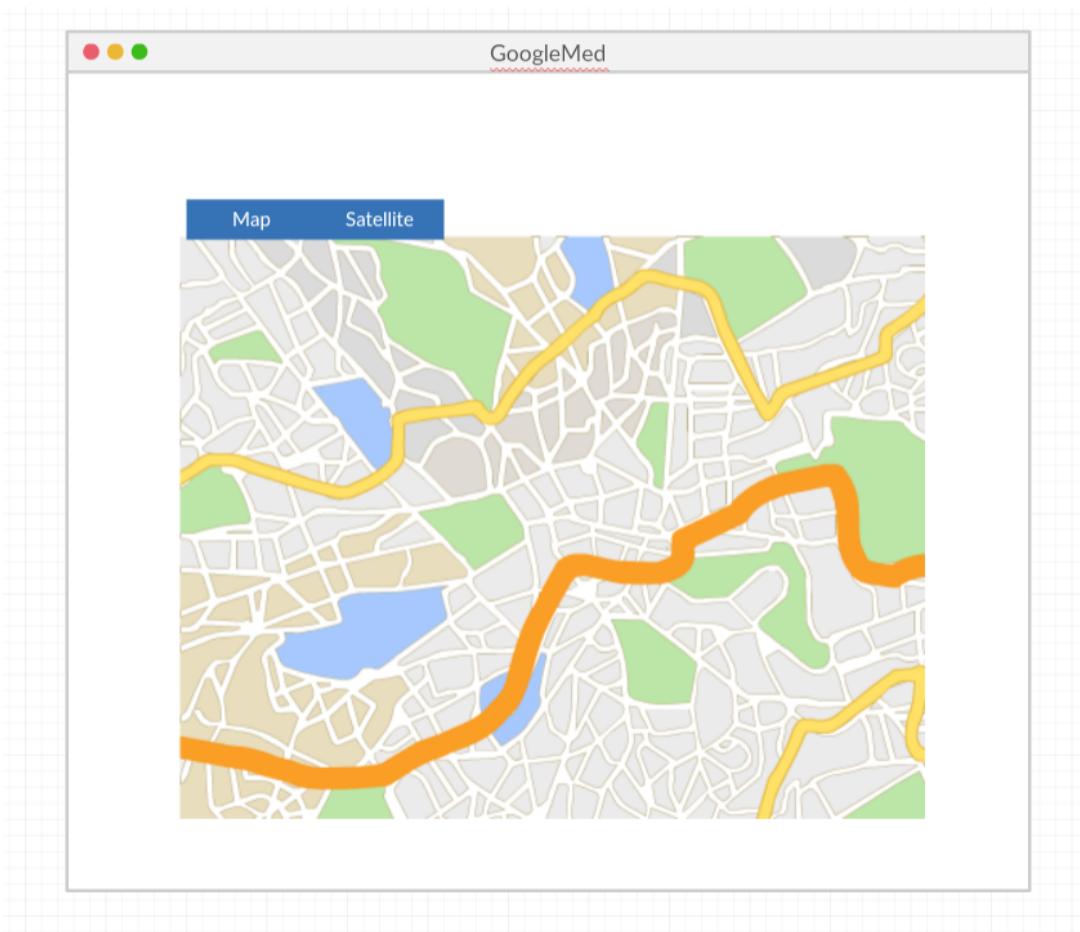
The wireframe shows a 'Home page' header with three colored dots (red, yellow, green) on the left. Below it is a title 'Book an Appointment'. The form consists of five input fields: 'Name', 'Phone', 'Email', 'Date of Birth', and 'Message'. Each field has a corresponding empty rectangular input box. A blue rectangular button labeled 'Confirm' is located at the bottom right of the form area.

Field	Type
Name	Text input
Phone	Text input
Email	Text input
Date of Birth	Text input
Message	Text input (large)
Action	
Confirm	

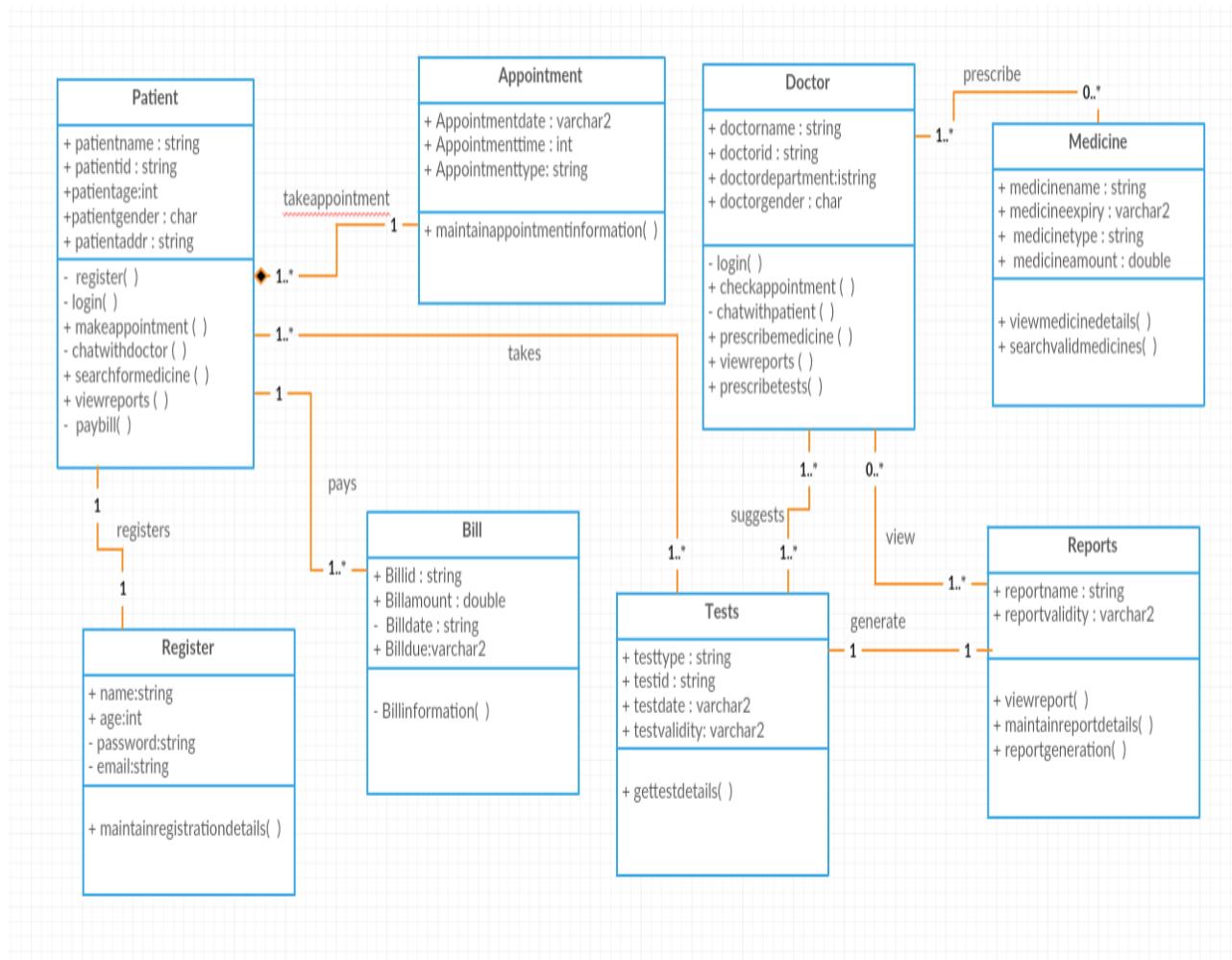
Say Hello Page Wireframe:



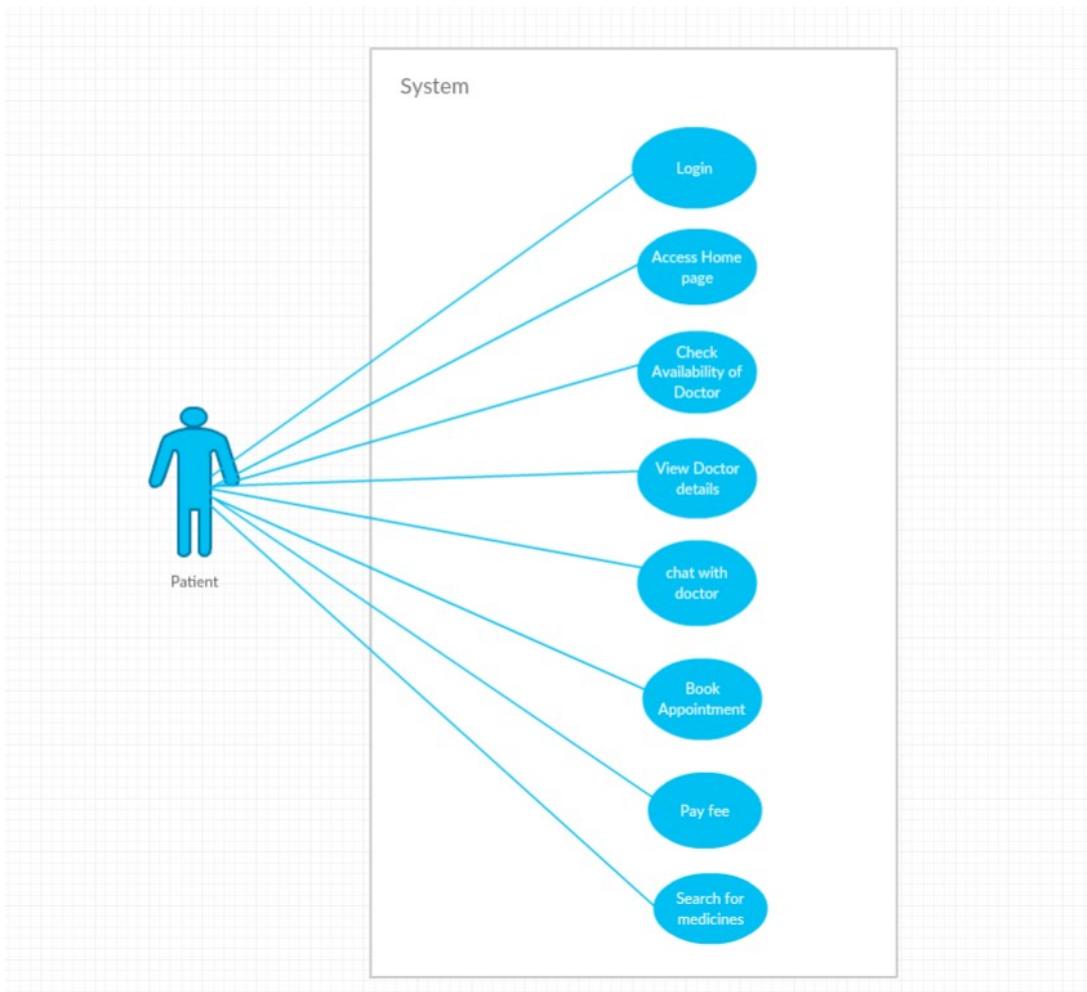
Google Meds Page Wireframe:

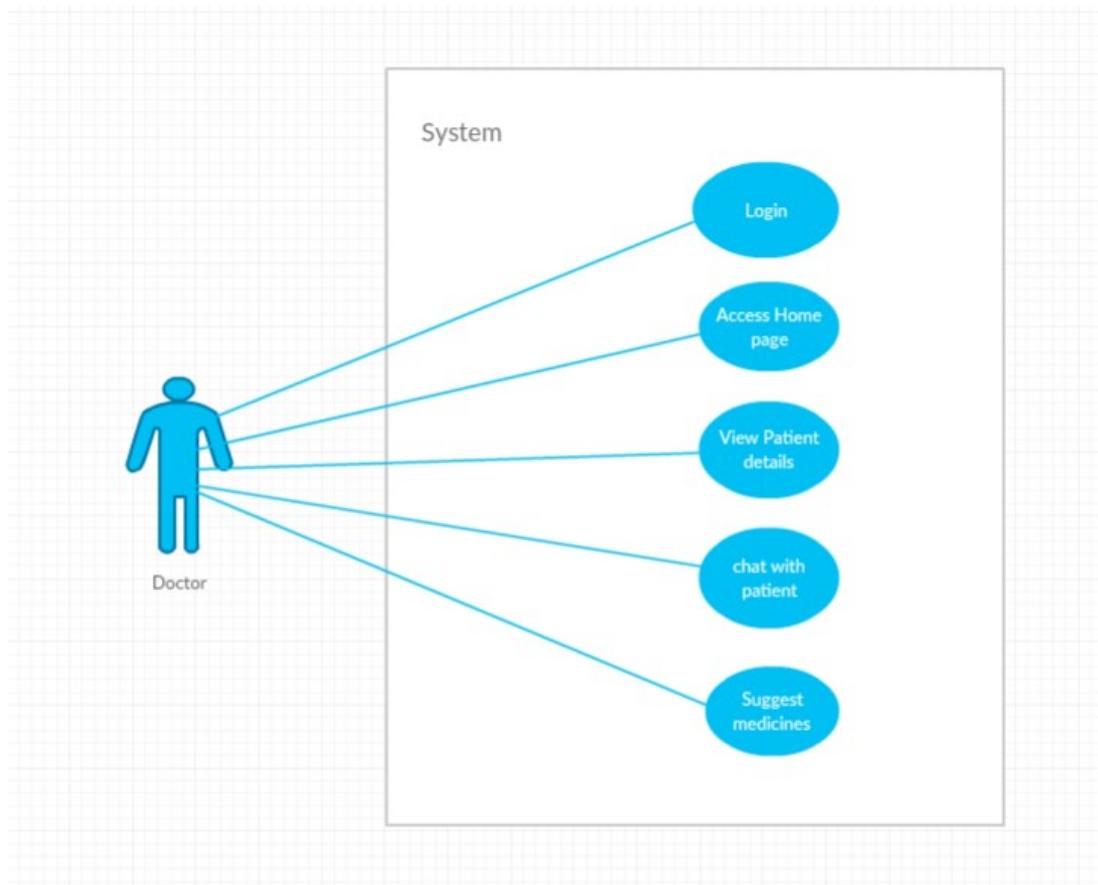


Class Diagram

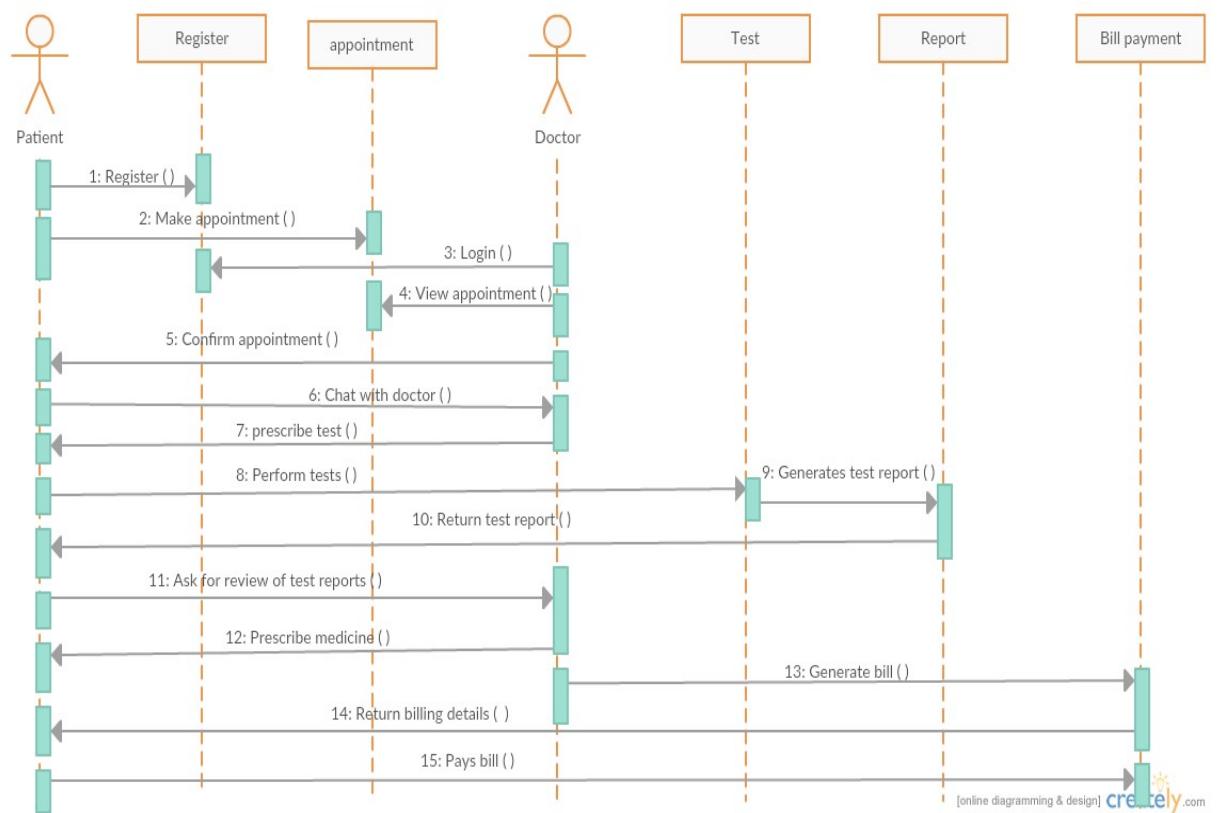


Usecase Diagram

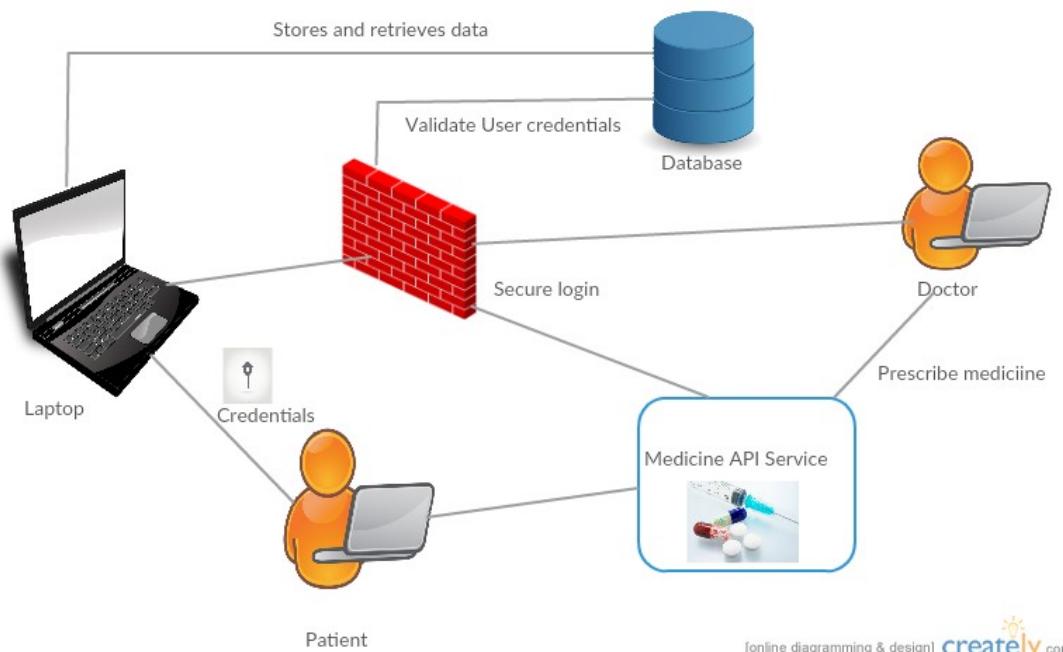




Sequence Diagram



Architecture Diagram



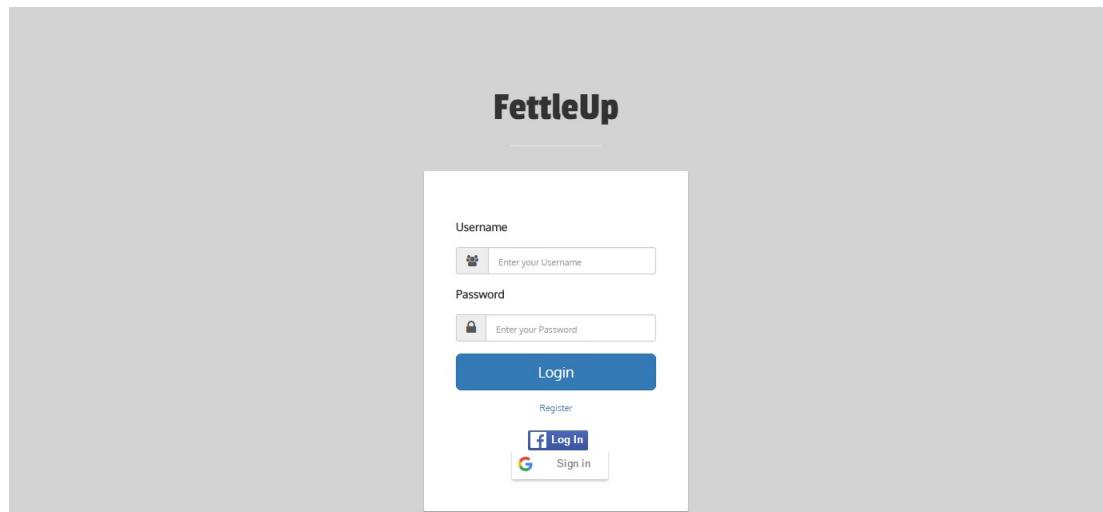
User Stories

As a	I want to	So that
User	Book an appointment for consultation	I can discuss my condition with the doctor.
User	Chat with the designated person	I can able to get the help during emergency.
User	Search for a nearby pharmacy store	I'll be able to reach them without hurry.
User	Upload my documents in the website	My doctor can view health condition and other general information.
User	Search for a nearby doctor	I'll be able to reach him quickly in an emergency situation.

5. Implementation and Deployment

We have implemented our web application using the mentioned API's and modules. The process flow of the application can be viewed in the below screenshots,

- The Login Page design and fields for user input are given in the FettleUp application. It also consists of Facebook and Google API's for user to sign in with their respective credentials.



- The Registration Page for new users consists of different fields in which they have to enter all of them to process for the access of FettleUp services. Validation is done for email ID, password and blank fields in this module. The screenshots of Registration Page and all validations can be observed below,

FettleUp

Doctor? Register Here

Your Name
 Enter your Name

Your Email
 Enter your Email

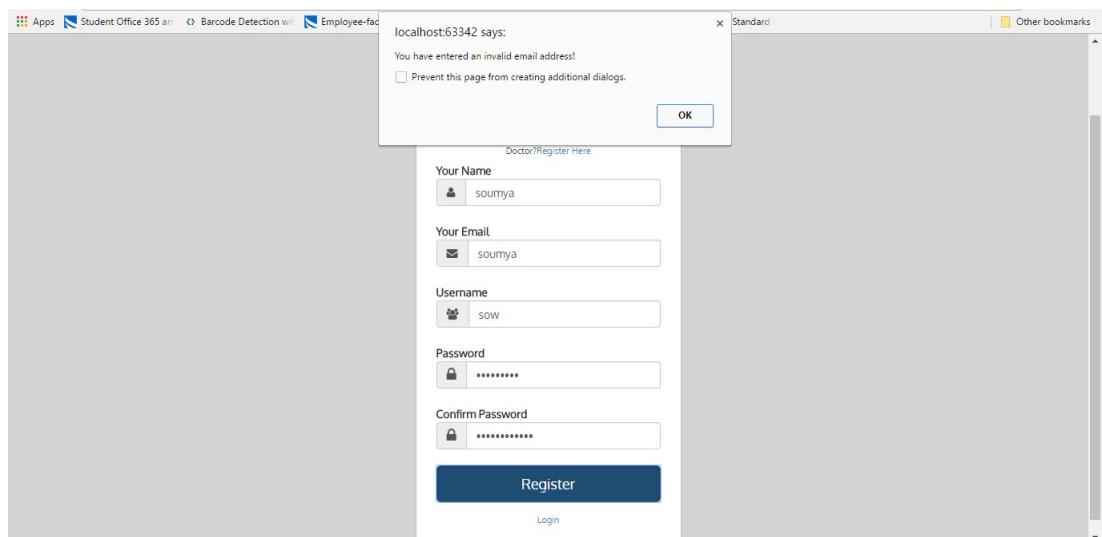
Username
 Enter your Username

Password
 Enter your Password

Confirm Password
 Confirm your Password

Register

[Login](#)



FettleUp

Doctor? Register Here

Your Name
 soumya

Your Email
 soumya

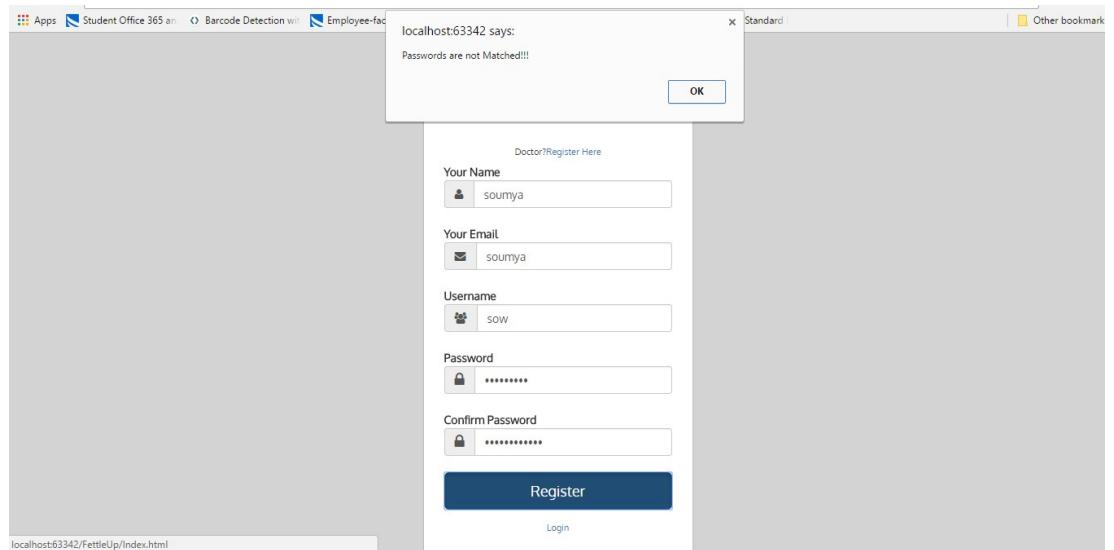
Username
 SOW

Password

Confirm Password

Register

[Login](#)



- On successful registration the details of the user are stored in the local storage of the browser, which are used for future login authentication. Below screenshot will give you details,

The screenshot shows a web browser window with a registration form. The form fields are identical to the previous screenshot:

- Your Name: soumya
- Your Email: soumya
- Username: SOW
- Password: ****
- Confirm Password: ****

To the right of the browser, the developer tools are open, specifically the Application tab. The Local Storage section shows the following data:

Key	Value
cpassword	sarat123
email	sarat.m@gmail.com
name	sarat
password	sarat123
username	tracesarat

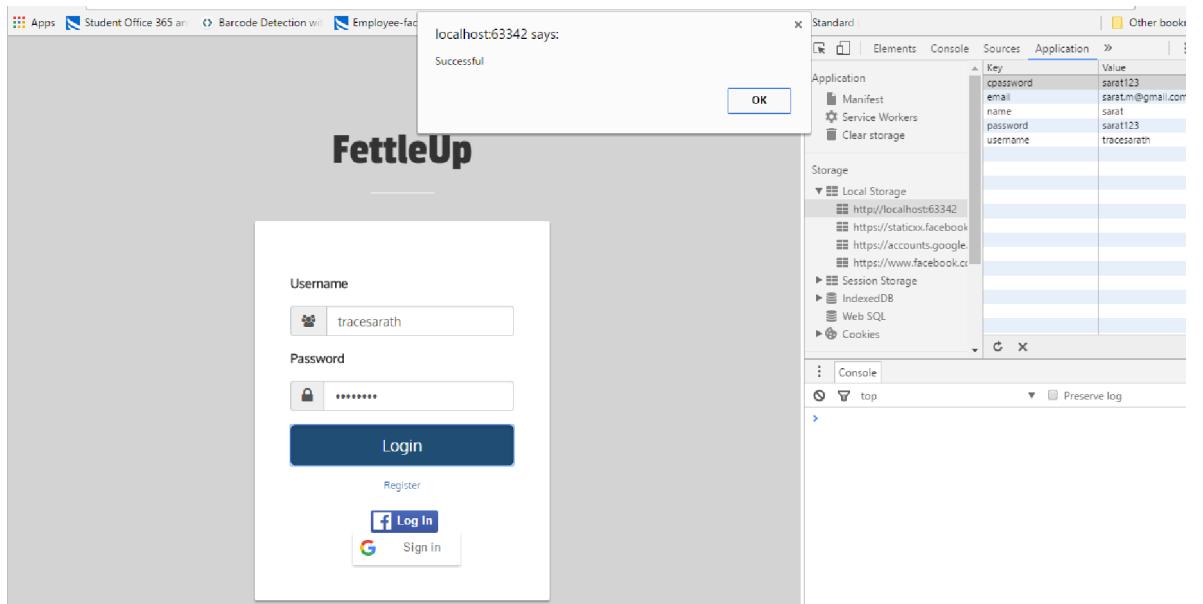
Now, user will give the registered details for accessing the FettleUp application system. Below are the screenshots for validation of Login Page and success pop up window,

The screenshot shows a browser window with a login form for 'FettleUp'. The form has fields for 'Username' (containing 'abcd') and 'Password' (containing '*****'). Below the form are links for 'Register', 'Log In' (with a Facebook icon), and 'Sign in' (with a Google icon). An error message in a modal dialog says: 'localhost:63342 says: Invalid Credentials. Please Re-Enter valid credentials'.

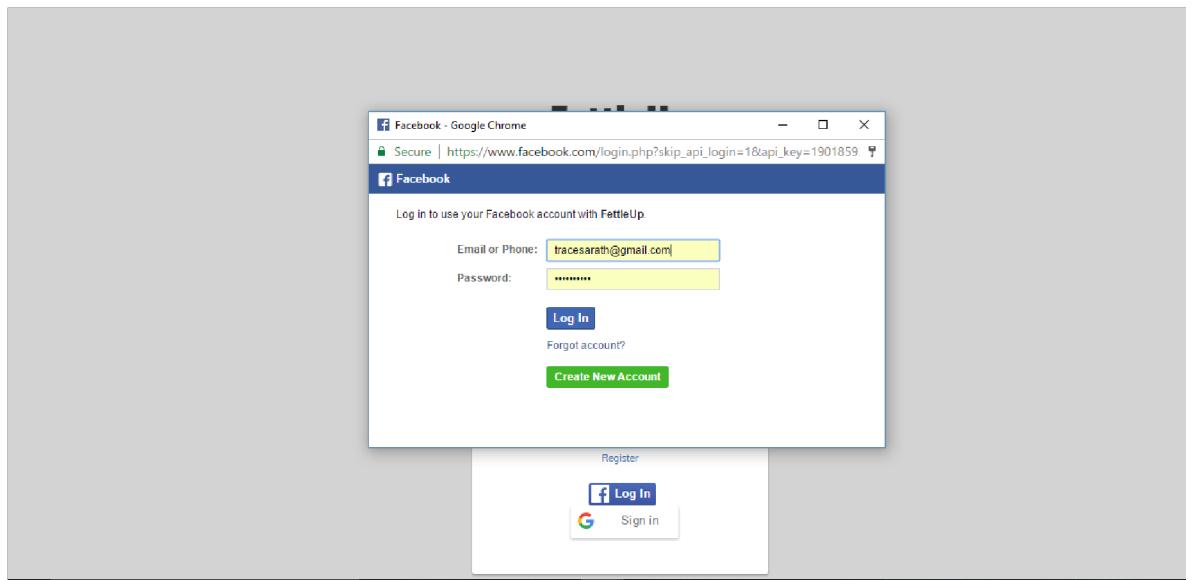
On the right, the developer tools' Application tab is open, showing storage information:

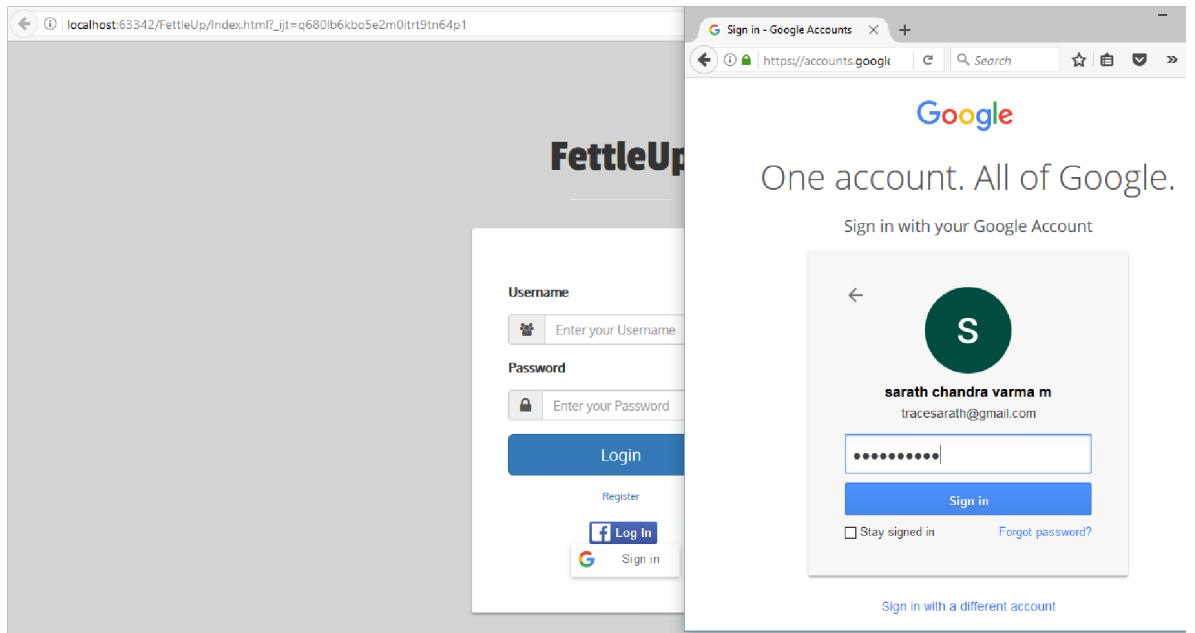
Key	Value
coassword	sarat123
email	sarat.m@gmail.com
name	sarat
password	sarat123
username	tracesarath

Storage sections shown include Local Storage, Session Storage, IndexedDB, and Cookies.



Facebook and Google API's screenshots are given below,





On successful user login it redirects to main home page of FettleUp where user can be able to access all resources of the application,

FETTLEUP

HOME CONSULTATION SAY HELLO MY HEALTH GOOGLE MEDS LOGOUT

WE ARE ON A GOAL TO HELP HUMANS LIVE HEALTHIER

EVERY DAY PEOPLE AROUND THE WORLD STRIVE FOR SUPERIOR HEALTHCARE. WE WANT TO CHANGE THAT.

This starts with helping them find the best doctors and culminates into a single intelligent healthcare account for the people around the world that stores all their health data so they can make better healthcare decisions.

Use your health, even to the point of wearing it out. That is what it is for. Spend all you have before you die; do not outlive yourself.

MORE INFO

If the user clicks on the consultation tab he will be redirected to the page where he can see a list of doctors and make an appointment option.

The screenshot shows the FettleUp website with a light orange header bar containing the logo 'FETTLEUP' and navigation links: HOME, CONSULTATION, SAY HELLO, MY HEALTH, GOOGLE MEDS, and LOGOUT. Below the header, there are three doctor profiles:

- Dr. Antony**
MBBS,MD & Psychiatrist Neuro Psychiatrist
Research Psychiatric Centre
Kansas City
BOOK APPOINTMENT
100 \$
MON-FRI
- Dr. Richards**
MBBS,MD - Obstetrics & Gynaecology General Physician
Saint Luke's Hospital
Kansas City
BOOK APPOINTMENT
300 \$
MON-WED
- Dr. Stephanie**
MBBS, BDS Dentist
BOOK APPOINTMENT

User can check the doctor details and once he was satisfied with the doctor he can make an appointment with him by clicking Book Appointment option.

A screenshot of a web browser window titled 'Consultation'. The address bar shows the URL: localhost:63342/FettleUp/BookAppointment1.html. The page content is a 'Book an Appointment' form:

Book an Appointment.

Name:

Phone:

Email Address:

Date of Birth: DD/MM/YYYY

Appointment Date: DD/MM/YYYY

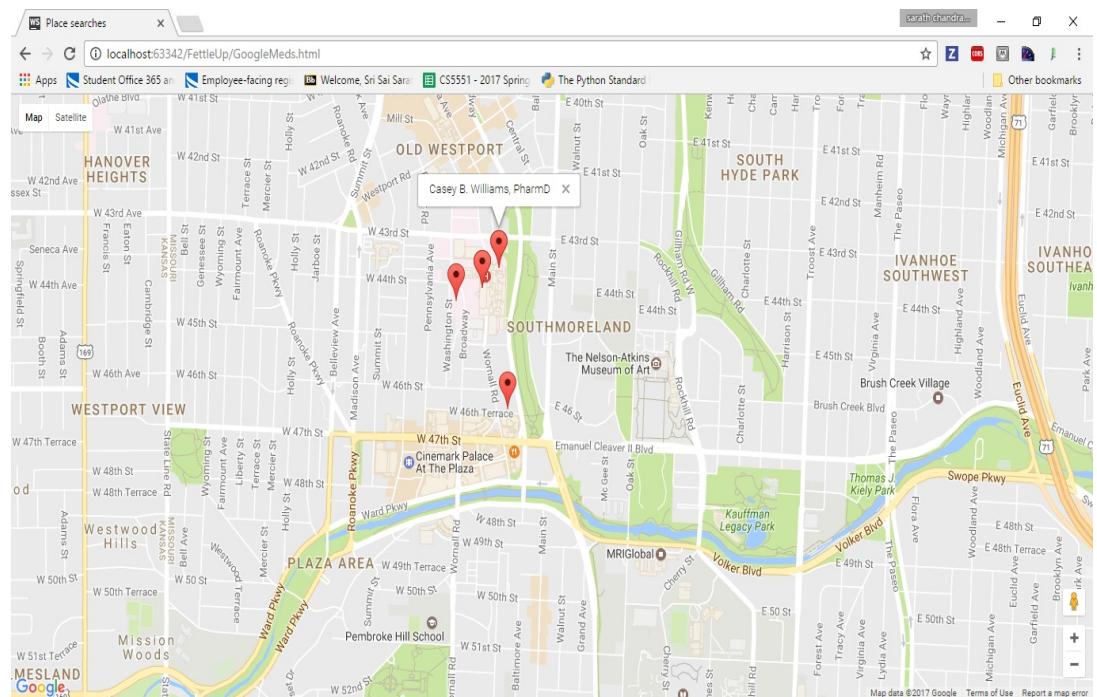
Booked with us Before?

Yes
 No

Message:

CONFIRM

If the user clicks on the GoogleMed tab in the home page he will be redirected to the google maps where he can check for the nearby pharmacies.



If the user clicks on Say Hello tab in the home page he will be redirected to the page where the user can chat.



Click on the microphone icon and begin speaking



Copyright(c) website name. Designed by:www.fettleup.com

- **Github Wiki Page**

The github wiki page URL for the screenshots and the process flow is updated in the following link

- <https://github.com/SaratM34/ASE-Final-Project/wiki/Project-Increment-2>

6. Project Management

Implementation Status Report

Technologies Used

We have collaborated various technologies in the development of the project and in building the application. Some of them are,

- HTML5
- CSS3
- Angular JS
- JavaScript

Work Completed

The completed tasks in this increment are,

- Design and base layout of the tabs in the Home Page,
- Architecture and flow of the application is defined,
- API's are successfully integrated in the application.

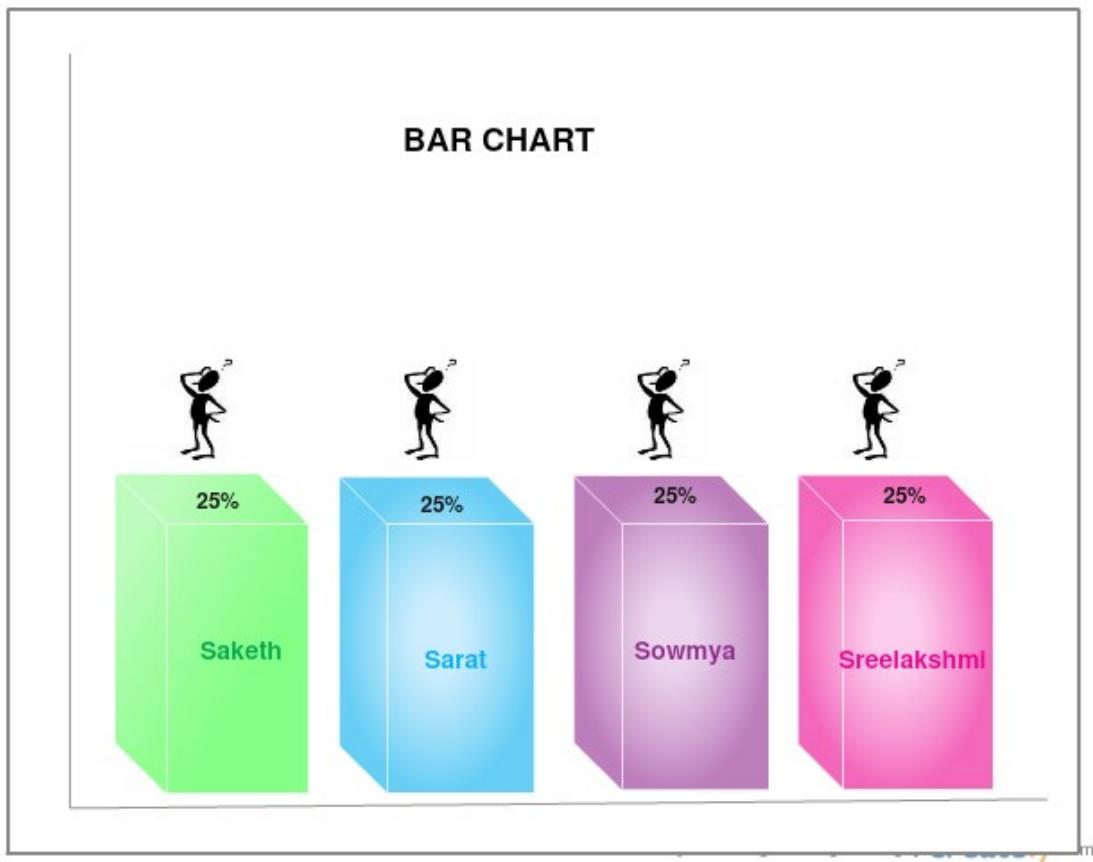
Responsibility and Time Taken for Increment 2

- Home Page book appointment: Sarat 1/2 hr, Saketh 1/2 hr.
- Home page Map functionality: Sowmya 1/2 hr, Sreelakshmi 1/2 hr.
- Design Elements: Sarat 1/2 hr, Saketh 1/2 hr.
- UML Diagrams Creation: Sowmya 1/2 hr, Sree Lakshmi 1/2 hr.
- Wireframes: Saketh 1/2 hr, Sarat 1/2 hr.
- Integrating Pages: Saketh 1/2 hr, Sarat 1/2 hr.
- User Stories: Sree Lakshmi 1 hr.
- Unit Test cases: Sowmya 1hr.
- Project Increment Report: Sowmya 1/2 hr, Sreelakshmi 1/2 hr, Sarat 1/2 hr, Saketh 1/2 hr.

Contributors

- Saketh Garuda- **25%**
- Mudunuri Sri Sai Sarat Chandra Varma- **25%**
- Yalamanchili Sowmya- **25%**
- Nandanamudi Sreelakshmi- **25%**

Below is the bar graph that represents contribution of each person in the team towards project,



Work in progress:

Description:

For the next project report we are planning to implement speech to text feature for chat application and a database to store the details and also we will include individual pages for doctor and patient.

SNO	Team Member Name	Task to be done	Status
1	Saketh	Need to develop the chat application for doctor using speech to text api and to store details of doctor	Yet to be start
2	Sarat	Need to develop the chat application for patient using speech to text api and to store details of patient	Yet to be start
3	Sowmya	Need to develop the chat application for doctor using speech to text api and to store details of doctor	Yet to be start
4	Sreelakshmi	Need to develop the chat application for patient using speech to text api and to store details of patient	Yet to be start

Unit Testing

Test cases for Login and Sign Up Pages

Case	Test Case Description	Expected Result	Actual Result	Result
Login	Invalid Username and Invalid Password	Error Message should pop up, stating that invalid credentials and Re-enter valid credentials.	Error Message should pop up, stating that invalid credentials and Re-enter valid credentials.	Pass
Login	Invalid Username and Valid Password	Error Message should pop up, stating that	Error Message should pop up, stating that	Pass
		invalid credentials and Re-enter valid credentials.	invalid credentials and Re-enter valid credentials.	
Login	Valid Username and Invalid Password	Error Message should pop up, stating that invalid credentials and Re-enter valid credentials.	Error Message should pop up, stating that invalid credentials and Re-enter valid credentials.	Pass
Login	Valid Username and Valid Password	Re-direct to Home Page.	Re-direct to Home Page.	Pass
Signup	Must satisfy email ID format	Error Message is please enter a valid email ID.	Error Message is please enter a valid email ID.	Pass
Signup	Satisfy password length to be greater than 8	Error Message is please enter a valid password.	Error Message is please enter a valid password.	Pass

Signup	Password and confirm password fields must match	Error Message is passwords are not same.	Error Message is passwords are not same.	Pass
Consultation tab in Home Page	Should navigate to doctor's information page	Page should redirect successfully	Page should redirect successfully	Pass
Booking Appointment in Consultation tab	Can book an appointment with a doctor	User can book an appointment successfully	User can book an appointment successfully	Pass
Say Hello in Home Page	Navigate to chat application page where user or doctor can chat	The speech input will successfully converts to text	The speech input will successfully converts to text	Pass
GoogleMeds in Home Page	Navigate to google maps where we can see the nearby pharmacies	Must show the location of nearby pharmacies accurately	Must show the location of nearby pharmacies accurately	Pass

Our entire application got a grading of ‘A’ when we tested using YSlow extension. Here are some screenshots of our application,

The screenshot shows a Microsoft Edge browser window. The main content area displays the 'FettleUp' application's registration page with a form for 'Your Name'. Above the form, the title 'FettleUp' is visible. A modal window titled 'Doctor/Register Here' is overlaid on the page. Below the main content, a YSlow analysis report is displayed. The report header says 'Grade A Overall performance score 90 Ruleset applied: YSlow(V2) URL: http://localhost:63342/Source/Register.html?...'. It lists 'ALL (23)' components and provides a detailed breakdown under 'Grade B on Make fewer HTTP requests'. The report notes that the page has 5 external stylesheets and suggests combining them into one. It also mentions ways to reduce the number of components like combining files or using CSS Sprites. The bottom of the report includes a copyright notice and links for 'Read More' and 'Twitter Share'. The browser's address bar shows the URL as chrome-extension://ninejcohidippngpapiilmkgllmakh/yslow.html#1. The taskbar at the bottom shows other open tabs and windows.

The second screenshot shows the 'FettleUp' application's home page. The title 'FETTLEUP' is prominently displayed. Below it, a YSlow analysis report is shown with a grade of 'Grade B Overall performance score 82 Ruleset applied: YSlow(V2) URL: http://localhost:63342/FettleUp/Home.html?...'. It lists 'ALL (23)' components and provides a detailed breakdown under 'Grade B on Make fewer HTTP requests'. The report notes that the page has 6 external stylesheets and suggests combining them into one. It also mentions ways to reduce the number of components like combining files or using CSS Sprites. The bottom of the report includes a copyright notice and links for 'Read More' and 'Twitter Share'. The browser's address bar shows the URL as chrome-extension://ninejcohidippngpapiilmkgllmakh/yslow.html#1. The taskbar at the bottom shows other open tabs and windows.



Dr. Antony

MBBS,MD & Psychiatrist Neuro Psychiatrist
Research Psychiatric Centre

BOOK APPOINTMENT

100 \$
MON-FRI

Grade B Overall performance score 81 Ruleset applied: YSlow(V2) URL: http://localhost:63342/FettleUp/Consultation.html

ALL (23) FILTER BY: CONTENT (6) | COOKIE (2) | CSS (6) | IMAGES (2) | JAVASCRIPT (4) | SERVER (6)

D Make fewer HTTP requests

F Use a Content Delivery Network (CDN)
A Avoid empty src or href
F Add Expires headers
A Compress components with gzip
A Put CSS at top
A Put JavaScript at bottom
A Avoid CSS expressions

This page has 7 external Javascript scripts. Try combining them into one.
This page has 6 external stylesheets. Try combining them into one.

Decreasing the number of components on a page reduces the number of HTTP requests required to render the page, resulting in faster page loads. Some ways to reduce the number of components include: combine files, combine multiple scripts into one script, combine multiple CSS files into one style sheet, and use CSS Sprites and image maps.

[Read More](#)

Book an Appointment.

Name:

Phone:

Email Address:

Grade B Overall performance score 81 Ruleset applied: YSlow(V2) URL: http://localhost:63342/FettleUp/BookAppointment1.html#

ALL (23) FILTER BY: CONTENT (6) | COOKIE (2) | CSS (6) | IMAGES (2) | JAVASCRIPT (4) | SERVER (6)

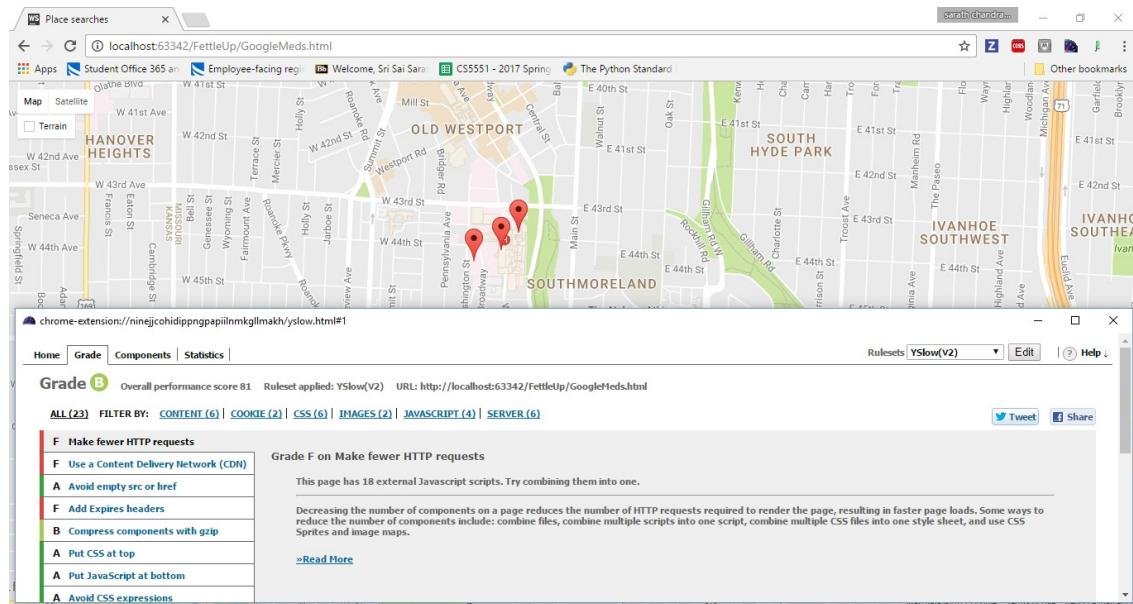
D Make fewer HTTP requests

F Use a Content Delivery Network (CDN)
A Avoid empty src or href
F Add Expires headers
A Compress components with gzip
A Put CSS at top
A Put JavaScript at bottom
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This page has 7 external Javascript scripts. Try combining them into one.
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[Read More](#)



7. Bibliography

1. www.creately.com
2. www.bootstrap.com
3. www.bootsnipp.com
4. www.angularjs.org
5. www.developers.facebook.com
6. www.console.developers.google.com
7. <https://developers.google.com/maps/>
8. www.developers.facebook.com
9. <https://cloud.google.com/speech/>