

CS5551 – ADVANCED SOFTWARE ENGINEERING

HEALTH INSPECTOR

TEAM NUMBER : 12

TEAM MEMBERS: Sai Tejaswi Koppuravuri(30)

Lakshmana Kumar Mettu(35)

Anusha Reddy Palla (38)

Praneeth Thota(52)

1. INTRODUCTION:

HEALTH INSPECTOR

"Health Inspector" is a hybrid application with the fundamental plan to offer important rules to the client about their wellbeing. It basically focusses on finding the close-by specialists dependent on the clients area, giving the points of interest of the nourishment to be devoured dependent on the calories given by the client. In extra the client can ascertain his Body Mass Index (BMI) utilizing his weight and stature.

2. PROJECT GOALS AND OBJECTIVE:

2.1 Motivation:

Have you at any point thought of knowing the best specialists that you have close-by? It is safe to say that you are been contemplating the eating routine intend to pursue? Have you thought of consequently arranging an ideal eating routine for you? Indeed, we thought of it and built up an application called Health inspector which gives you an ideal day diet plan dependent on you selection of calories you require to devour.

2.2 Significance and uniqueness:

Presently there are numerous applications that screen the wellbeing conditions. In any case, in our application we are concentrating on the prerequisites required by the client with the end goal to know the close-by specialists dependent on their specialization. This application likewise gives the ideal eating routine arrangement to the day. The client can ascertain the BMI dependent on his height and weight.

2.3 Objectives:

The goal is to build up a hybrid application where in the client can login and improve his health encounter utilizing the highlights worked in. Since we are managing health it makes obvious that we ought to build up an engaging UI which catches the client eye. The application contains at first the client login exercises which ought to be anchored and we are likewise giving the client the eating regimen plan which to be precise and any wrong recommendations

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ought may deceive them. Indeed, even the client should impeccably happy with the administrations given by the application.

2.4 System Features:

- Ability to login the application safely with the client data
- To think about the client wellbeing conditions(if endorsed)
- Suggesting the client the best eating regimen plan in customary premise and not withstanding enabling the client to record his weight physically on standard premise.
- To ascertain client's BMI which is a valuable factor for a person.

Github Issues:

- Github issues were raised during the project increment.
- Different issues were assigned to different contributors of the project.

Filters

is:issue is:open

Labels

Milestones

New issue

13 Open

7 Closed

Author

Labels

Projects

Milestones

Assignee

Sort

Android_signout functionality

#24 opened just now by SaitejaswiK

Android_API search

#23 opened a minute ago by SaitejaswiK

Android_BMI calculation

#22 opened 2 minutes ago by SaitejaswiK

Android_Diet plan

#21 opened 2 minutes ago by SaitejaswiK

Android_Display doctors based on the specialization

#20 opened 3 minutes ago by SaitejaswiK

Android_display the doctors using geolocation

#19 opened 4 minutes ago by SaitejaswiK

Android_displaying doctors nearby

#18 opened 5 minutes ago by SaitejaswiK

Android_Oauth authentication

#17 opened 6 minutes ago by SaitejaswiK

Android_login

#16 opened 7 minutes ago by SaitejaswiK

Increment_2 Android version

#15 opened 8 minutes ago by SaitejaswiK

Mention types of insurance plans available for students

#7 opened on Sep 5 by AnushaPalla

Submit diet plan to the user based on their health condition

#6 opened on Sep 5 by AnushaPalla

Display nearby doctors availability

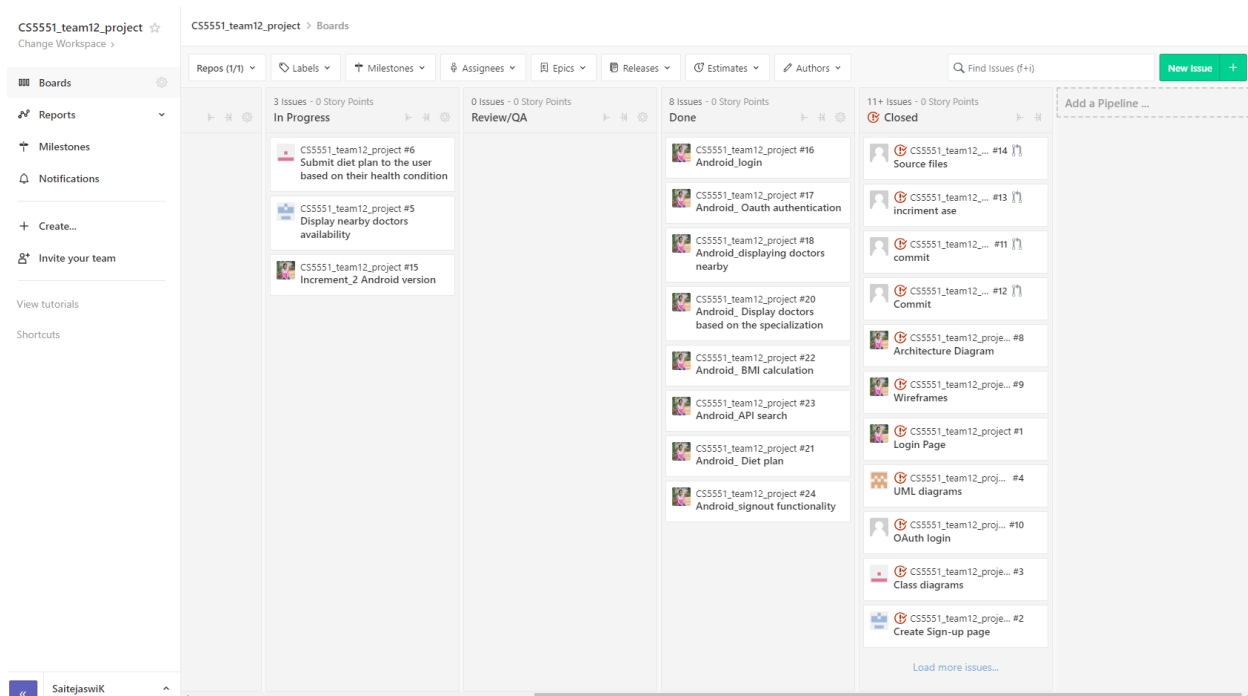
nes

jshaPalla

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Zenhub boarding:



First Increment Report:

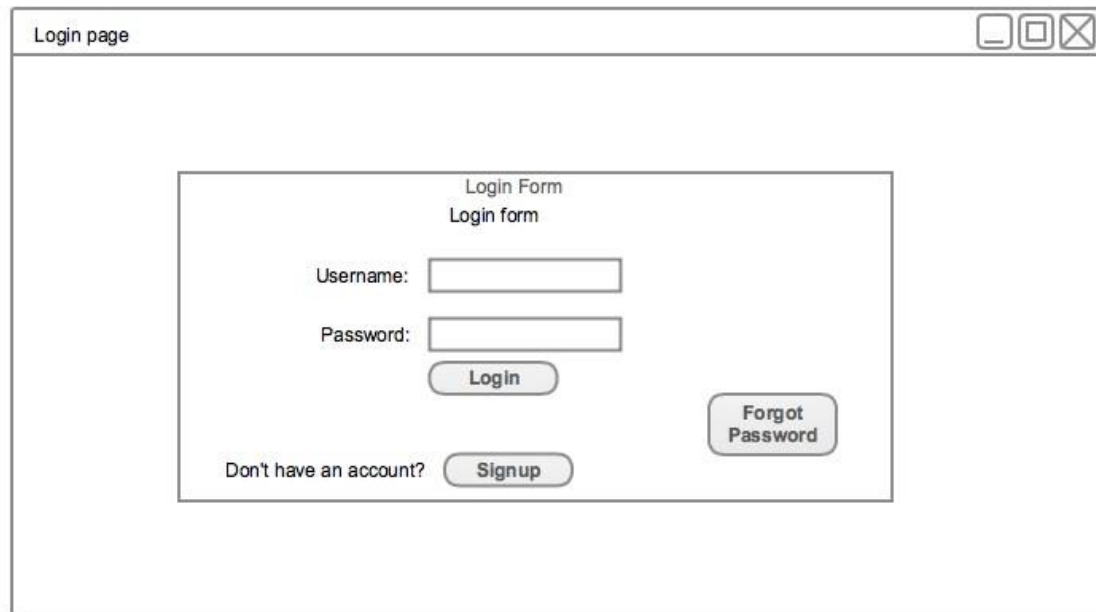
- In the phase 1 of the project, we have implemented the authentication phase.
- Under authentication phase, login page has been implemented using local storage as well as with social login.
- In the social login phase, using OAuth2.0 google sign in and facebook login are implemented.

Wireframes:

- If the user has already registered he can directly login to the application.

Wireframes for login and signup page are as follows:

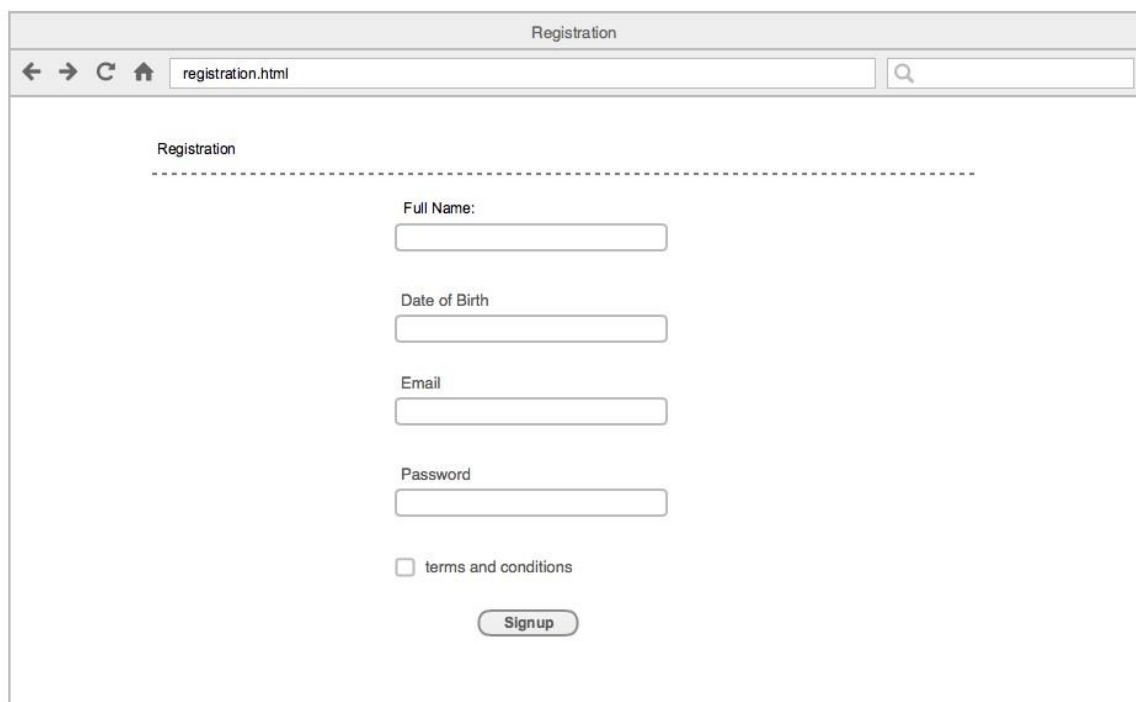
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The wireframe shows a browser window titled "Login page". Inside the window is a central box labeled "Login Form" and "Login form". It contains two input fields: "Username:" and "Password:". Below the "Password:" field is a "Login" button. To the right of the "Login" button is a "Forgot Password" button. Below the "Username:" field is a "Don't have an account?" link followed by a "Signup" button.

- If the user is not registered he can register to the application using Signup page

Wire frame for Signup page:



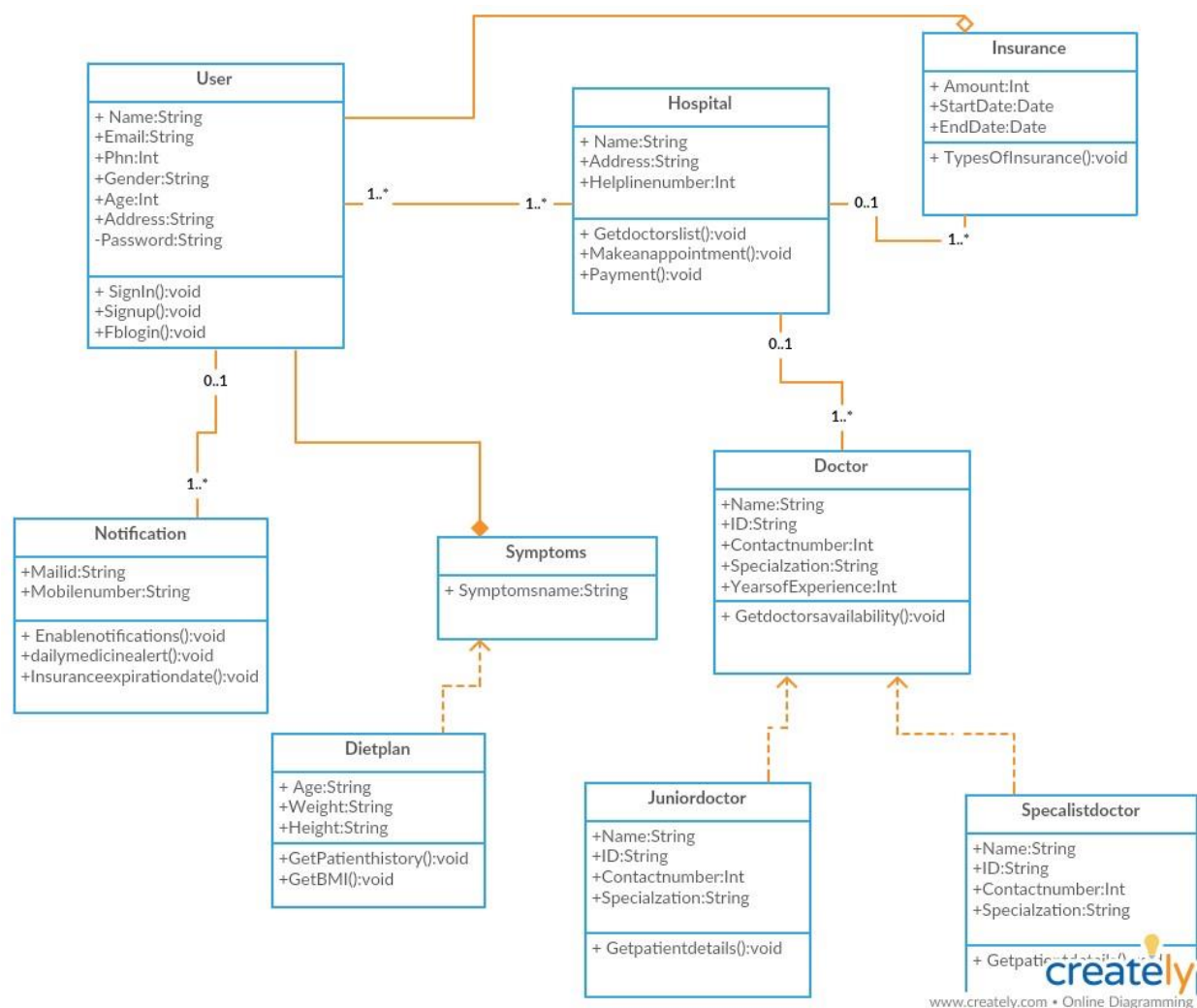
The wireframe shows a browser window titled "Registration". The address bar shows "registration.html". The main content area is titled "Registration" and contains a dashed line separator. Below the separator are four input fields: "Full Name:", "Date of Birth", "Email", and "Password". Below the "Password" field is a checkbox labeled "terms and conditions". At the bottom is a "Signup" button.

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UML DIAGRAMS:

The major part of any project is to understand the workflow of the project where in the class diagram and sequence diagrams are very much helpful in going through the process workflow.

The class diagram of the project is as follows:

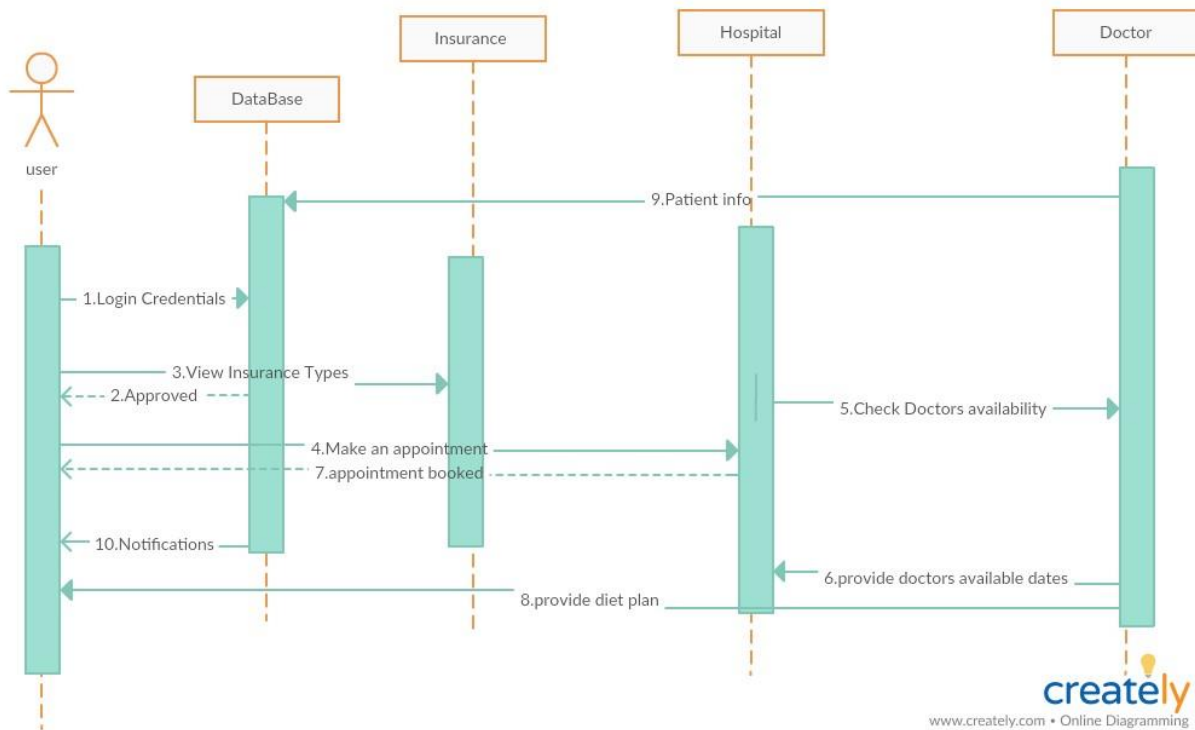


- Another important UML diagram which is very helpful in the user stories is a sequence diagram.

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Sequence Diagram:

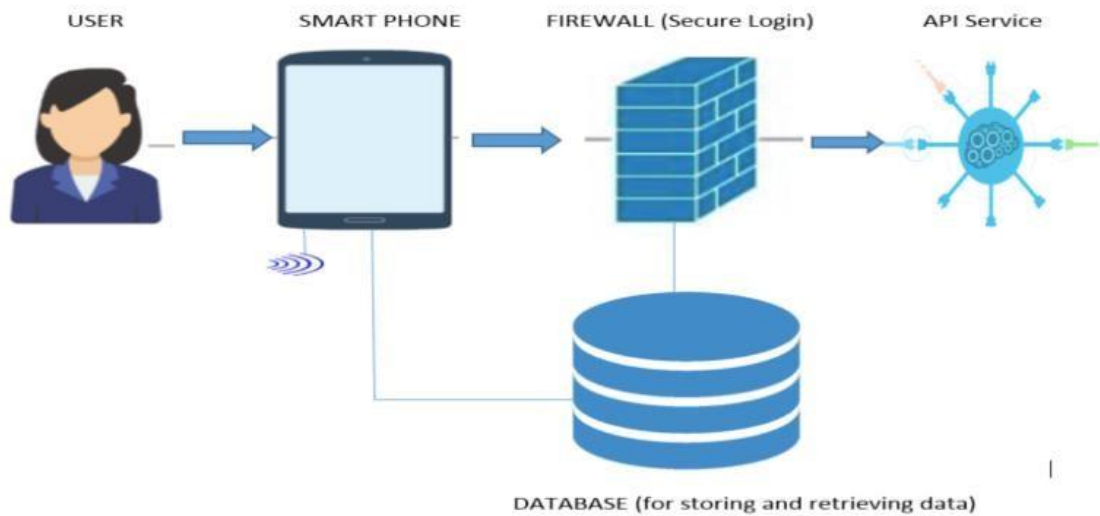


Architecture:

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Architecture Diagram



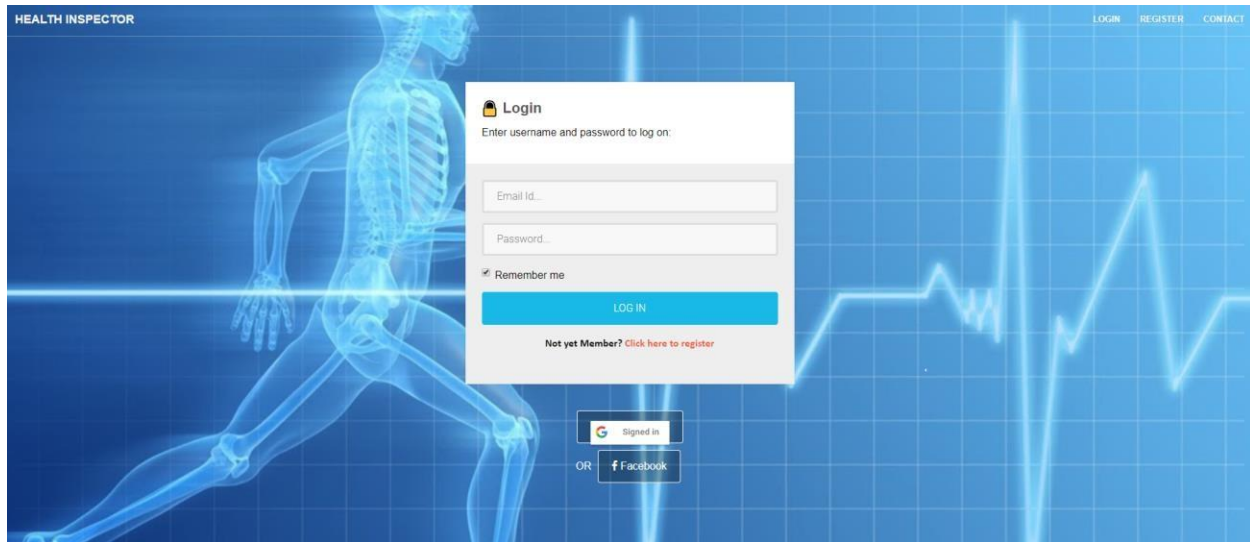
Implementation:



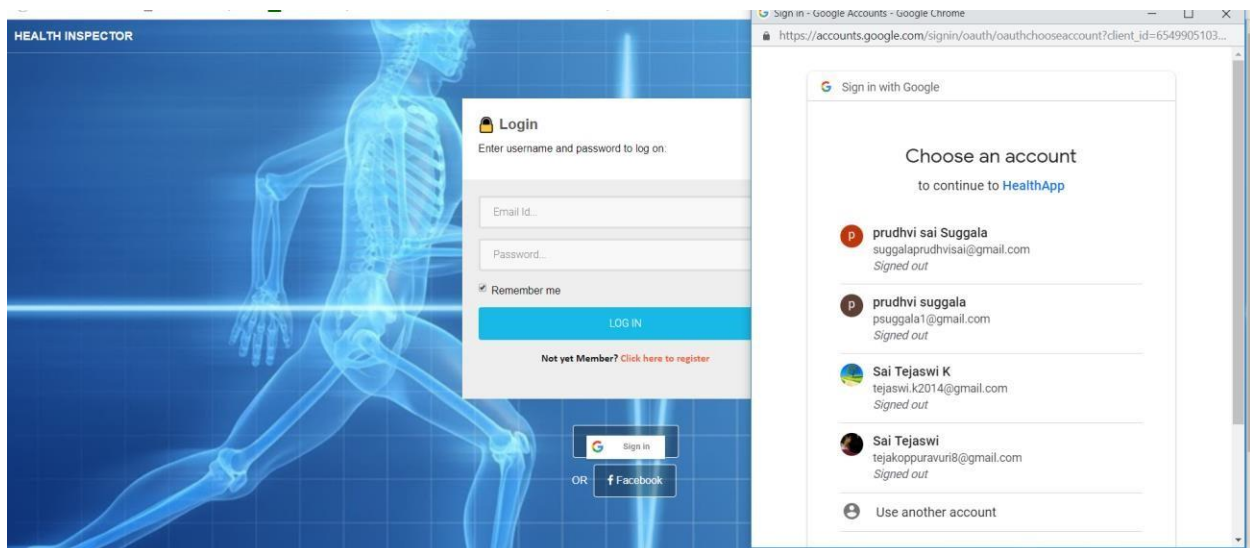
Login page

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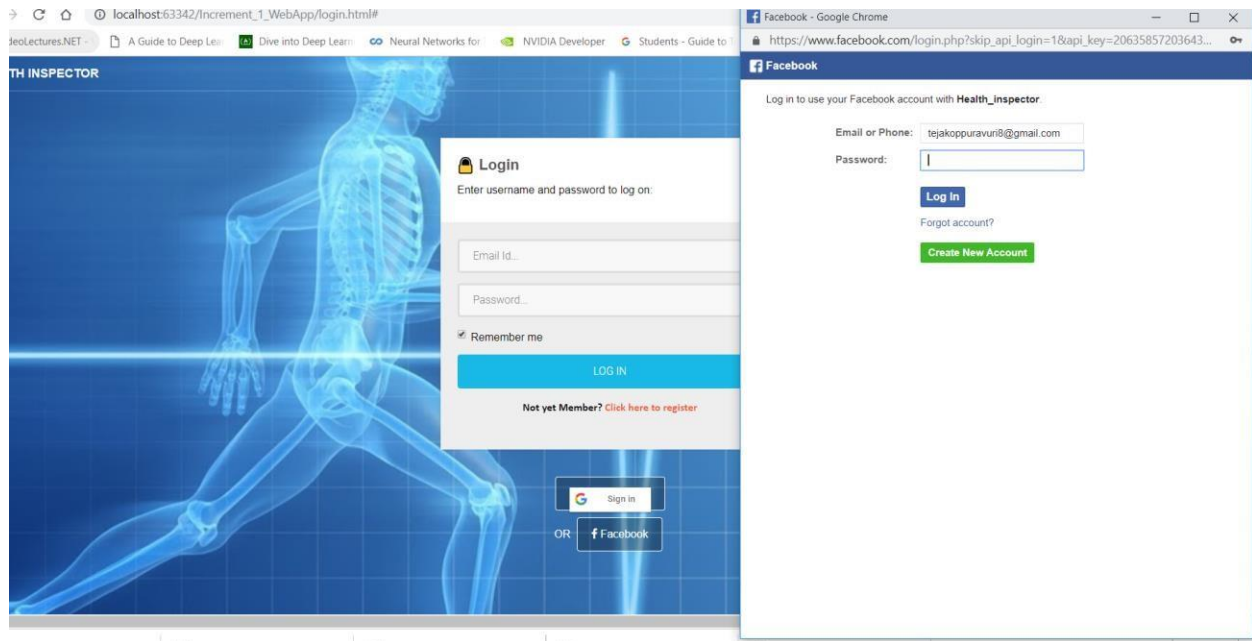
Oauth Login



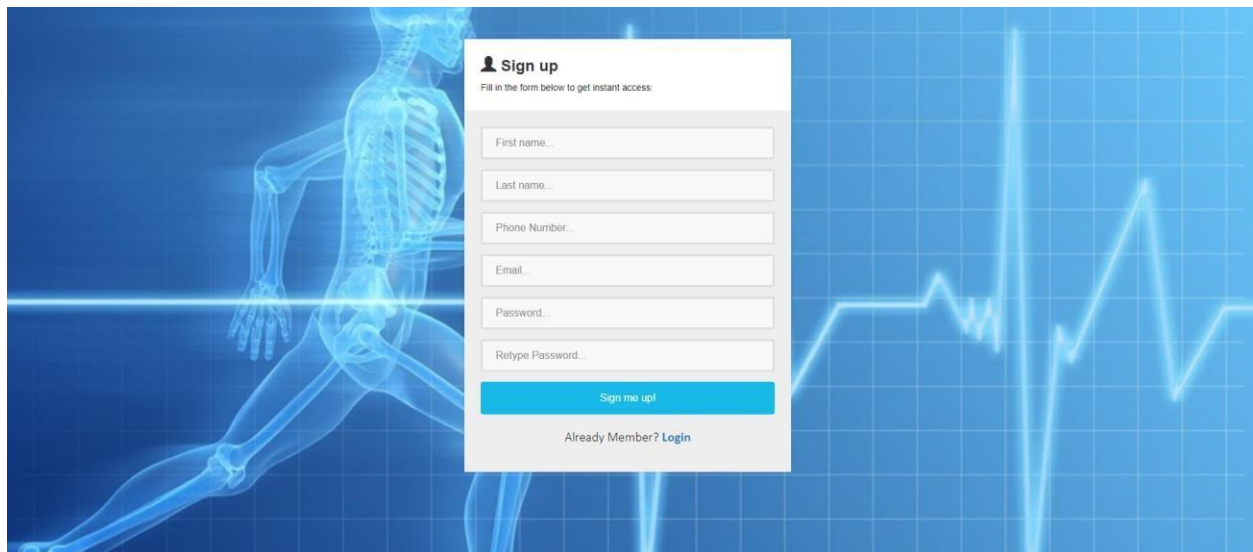
Facebook OAuth:

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Signup page:



If the user has been successfully logged into the application, they are redirected to the home page.

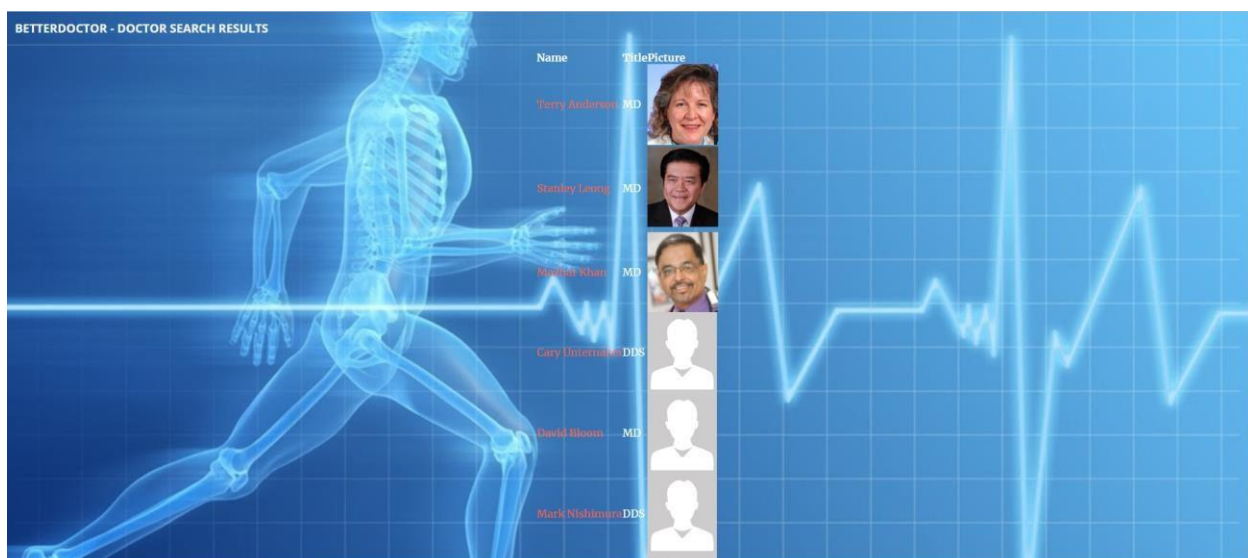
Home page:

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For the phase 1 we have used a *Better Doctor API* in order to retrieve the list of doctors available. So in order to show the doctors available user has to click on the Get Doctor button which will retrieve the doctors list.

The result is as shown:



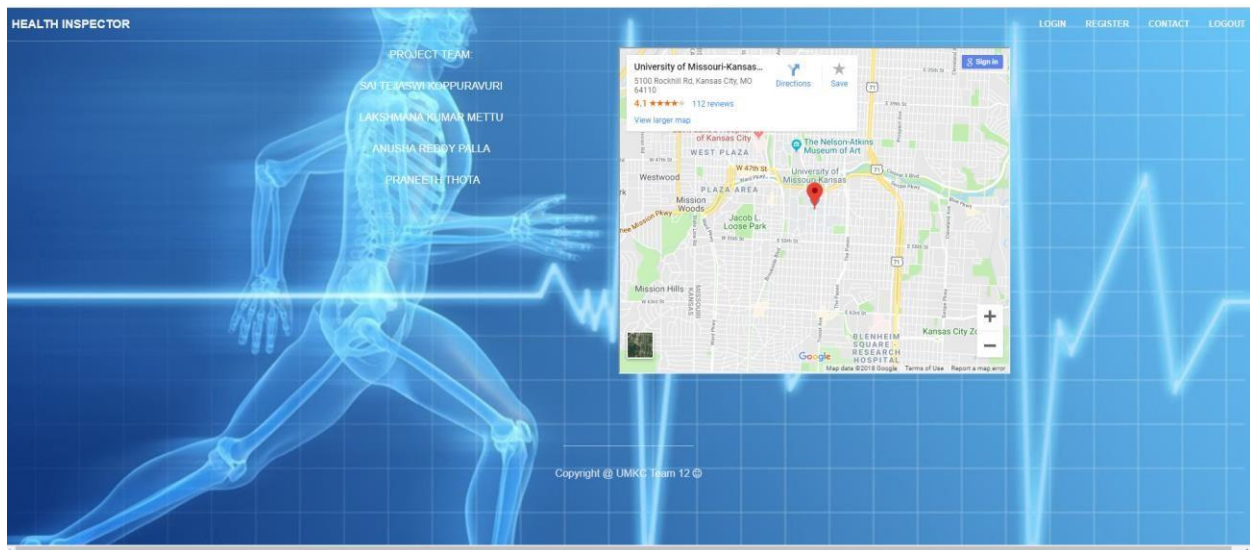
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About page displays the glimpse of the project proposal.



Contact Page displays the location and also the details of the project team.



Second Increment Report:

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In the second increment after the discussion, transformation from web to mobile has been happened. Our team was interested in designing the mobile app in two versions.

1. Using Android
2. Using Ionic.

Increment Report for the Android Version:

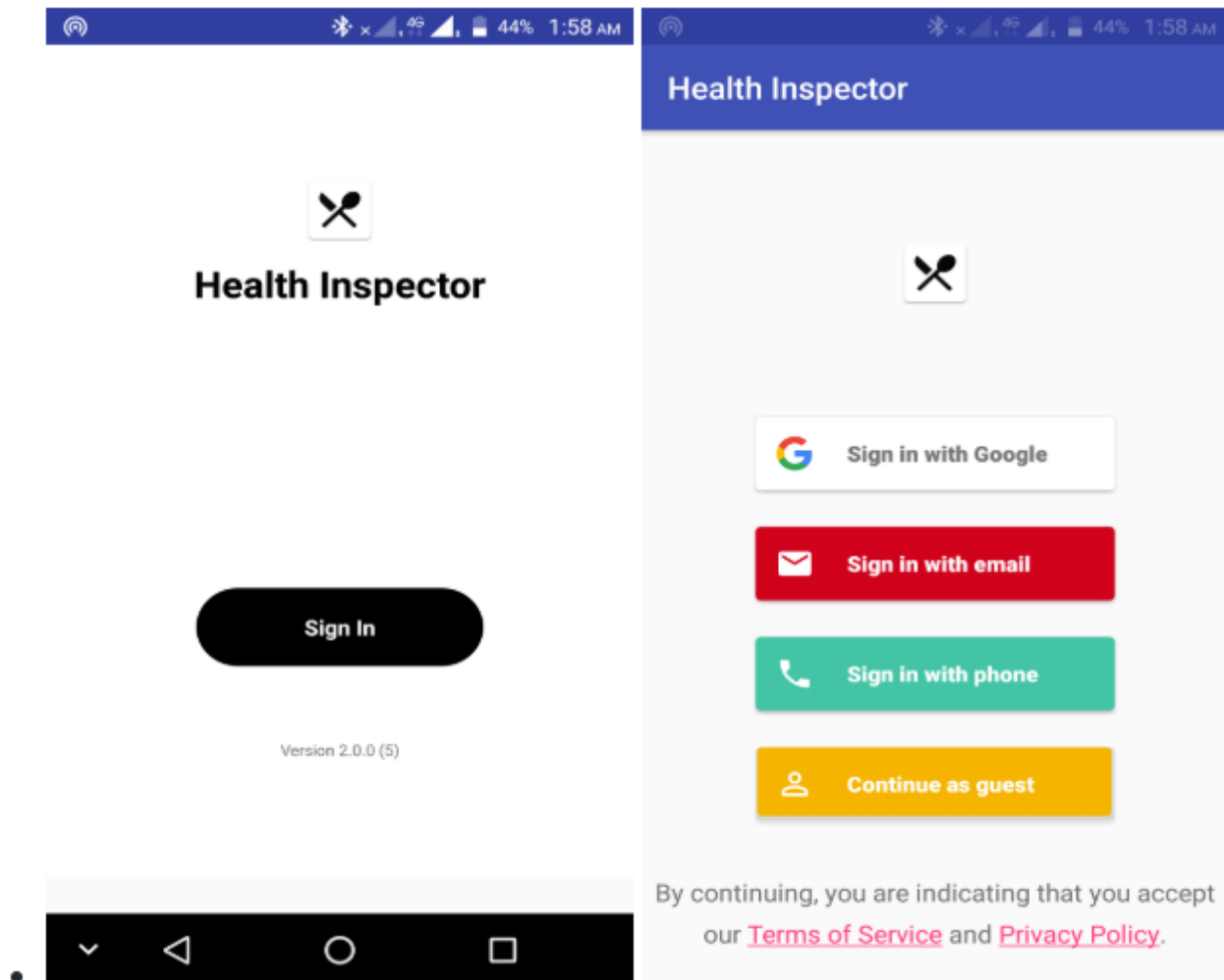
Login credentials for the user have been created.

Authentication:

- Firebase Login UI Auth for social Login (Mobile, Email, Google Login)
- Fetching SHA-1 for release.jks and Substitute that SHA-1 value in firebase console for Authentication
- Firebase SignOut

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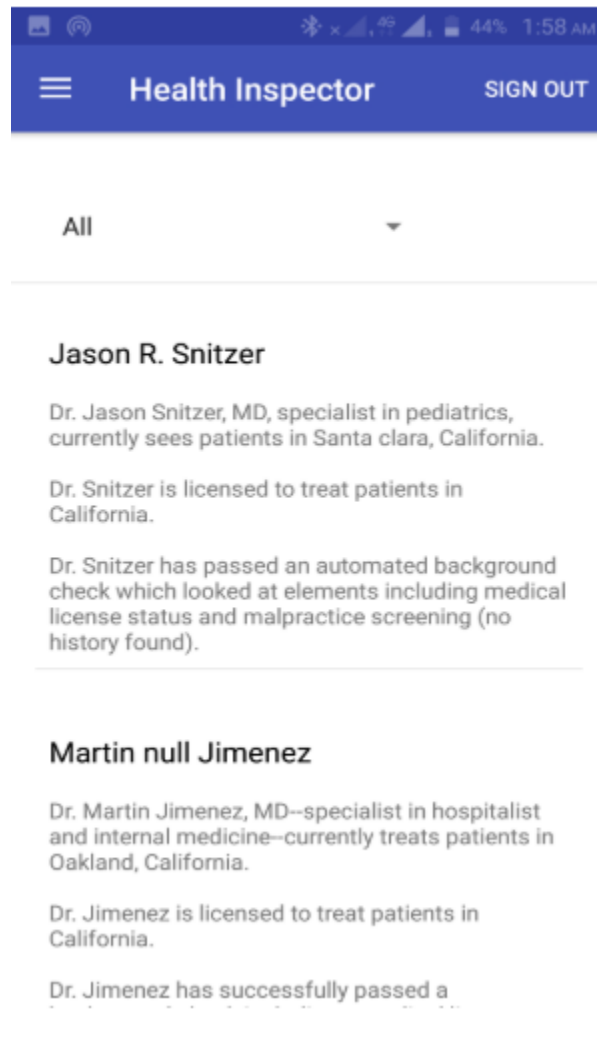
Doctor Search with Better Doctors API:

- Drop down (Spinner) to specify specialization in doctor search query
- Making REST Call with lat,lng, limit=10 and specialization

@GET https://api.betterdoctor.com/2016-03-01/doctors?location=37.773%2C-122.413%2C100&user_location=37.773%2C-122.413&skip=0&limit=10&user_key=76a2878a9e8d28dcd556ba0c53461174&specialty_uid=pediatrician

And parsing it in Home Activity with RecyclerView

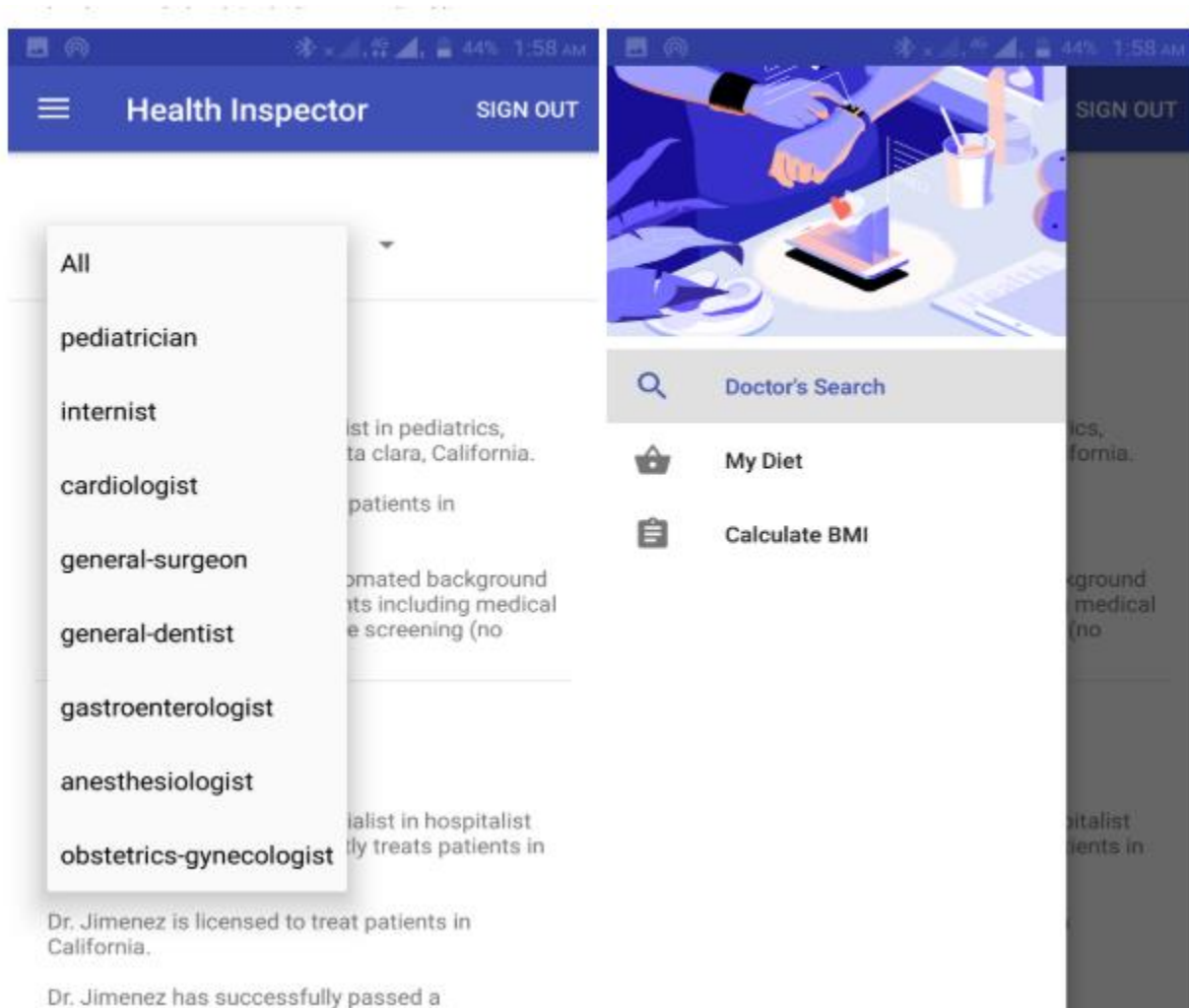
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- The implementation based on the doctors specialization has been developed.

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Calculating Meals for given target calories using Spoonacular API:

- Taking Calories per day input through EditText
- Making REST Call with target calories per day

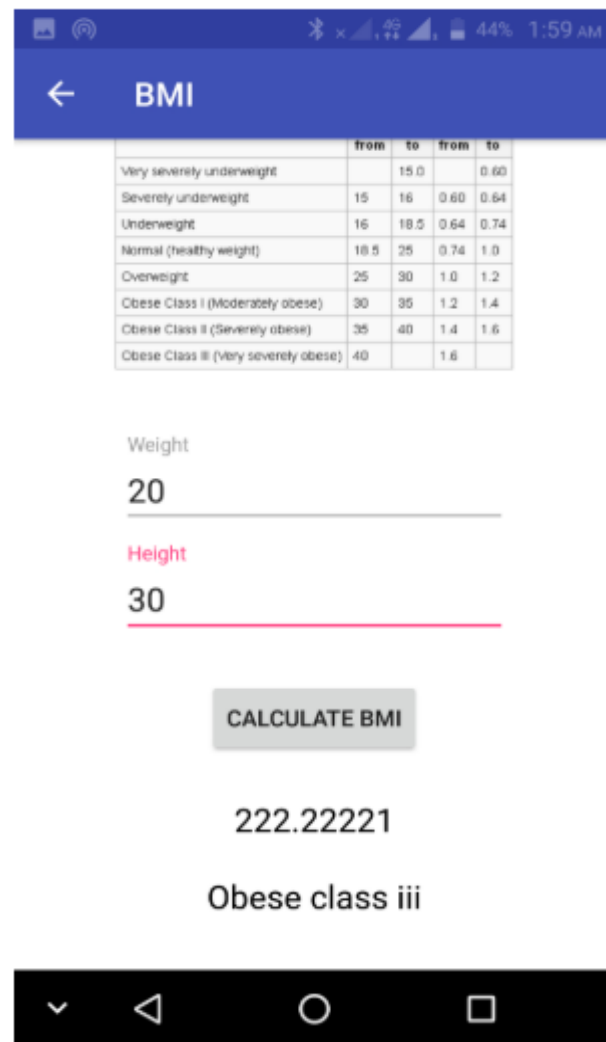
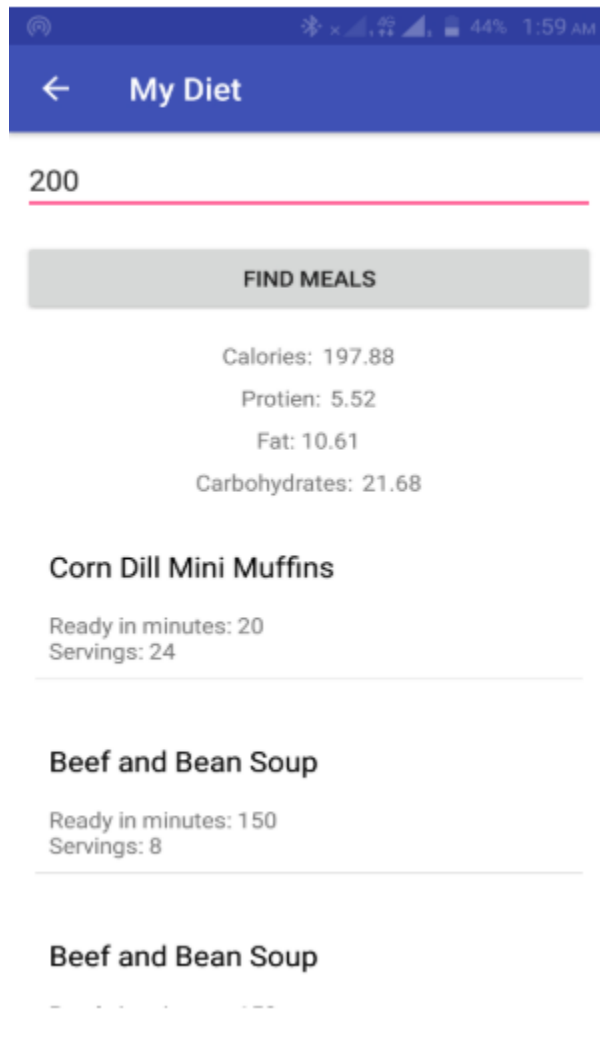
@GET <https://spoonacular-recipe-food-nutrition-v1.p.mashape.com/recipes/mealplans/generate?timeFrame=day&targetCalories=2000> +
Pass Keys in header

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X-Mashape-Key: 1Dnz7LuzBVmshia88a9IKqmf7n82p1v8KSGjsnP7R2gBashGJA (key)
 X-Mashape-Host: spoonacular-recipe-food-nutrition-v1.p.mashape.com (key)

And parsing it in MyDiet Activity with Recycler View and in Nutrients View



Libraries Used / Dependencies:

1. Firebase Auth UI for social login.
2. Retrofit, OkHTTP for making network calls
3. GSON to parse JSON response to java object
4. Google Maps API for location

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Tasks remaining:

1. Writing test cases
2. Using geolocation for displaying the doctors nearby

Ionic version project increment report:

In Second Increment we have done login and registration page using firebase along with facebook and google oauth .In addition to this we have implemented hybrid application ,when the user enters the location and disease it will display the nearest specialist doctors list.



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LOGIN

Email Address

Password

LOGIN

New User? Create an Account

REGISTER

Or Login With

LOGIN WITH FACEBOOK

LOGIN WITH GOOGLE

BACK TO HOME PAGE

REGISTER

Name

Email Address

Password

Phone Number

Address

REGISTER

CANCEL

ENERGY

CLEAN

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← REGISTER

Name
Anusha

Email Address
apgmc@mail.umkc.edu

Password
••••••••

Phone Number
2345678900

Address
5418 Rockhill RD, KC, MO

REGISTER

CANCEL

ENERGY

CLEAN

← REGISTER

Name
Anusha

Email Address
apgmc@mail.umkc.edu

Password
••••••••

Phone Number
2345678900

Address
5418 Rockhill RD, KC, MO

Info!
The email address is already in use by another account.

OK

REGISTER

CANCEL

ENERGY

CLEAN

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LOGIN

Email Address

Password

LOGIN

Info!
Registered!

OK

G+ LOGIN WITH GOOGLE

BACK TO HOME PAGE

ENERGY CLEAN

Menu

- About Us
- Login
- Register
- Near By Doctors
- Contact Us

FOOD

HEALTH

Get List of Ne

ENERGY

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The screenshot shows the Firebase Authentication console. The left sidebar contains navigation links for Project Overview, Develop (Authentication, Database, Storage, Hosting, Functions, ML Kit), Quality (Crashlytics, Performance, Test Lab), and Analytics. The main content area is titled 'Authentication' and includes tabs for Users, Sign-in method, Templates, and Usage. A search bar at the top of the Users tab allows searching by email address, phone number, or user UID. Below the search bar is a table of users:

Identifier	Providers	Created	Signed In	User UID ↑
anushreddypallie9@gmail.c...	📧	Oct 26, 2018	Oct 26, 2018	0DcWbF9Jg0T4SjDrY3qkvUtBH0e2
apgmco@mail.umkc.edu	📧	Oct 26, 2018	Oct 26, 2018	QkSLJvkBoTMSV69GyHVZ8q4Vst52
lmknd@mail.umkc.edu	📧	Oct 26, 2018	Oct 26, 2018	uHbLVego3PQVmdMK7zzZj83C6v...

At the bottom of the table, it indicates 'Rows per page: 50' and '1-3 of 3'.

Find Doctors

Stanford

Cancer

[Get Doctors](#) [Logout](#)

Sutter Pacific Medical Foundation

Stanford Cancer Center

<https://med.stanford.edu/profiles/seema-nagpal>

Avenues For Health

Ent Consultants Of Marin PC

<http://www.gayleshimokajimd.com/>

Susan Stevens, MD

Hepatology And Gastroenterology Associates

Harry Liberman, MD

The Permanente Medical Group

<https://mydoctor.kaiserpermanente.org/>

Get Doctors

Find Doctors

Missouri

Toothache

[Get Doctors](#) [Logout](#)

Steven Toschi, DDS

<http://www.drstoschi.com/>

Behnaz Cheikh , D.d.s. Inc.

<http://www.bcendo.com/>

Geary Dental Center

<http://www.gearydental.com/#/?link=home>

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Find Doctors

kansas

yellow fever

[Get Doctors](#) | [Logout](#)

Elite Medical Center

<http://www.elitemedicalcenter.com>

Michael Koppe, DDS

ANTHONY N. DEMEO, MD, INC.

San Francisco Internal Medicine

Sutter Health, Palo Alto Medical Foundation - Fremont Center

<http://www.pamf.org/dr-jennifer-louie.html>

Palo Alto Medical Foundation - Mountain View Center

<http://www.pamf.org/dr-robert-huang.html>

The Permanente Medical Group

<http://mydoctor.kaiserpermanente.org/hcal/provider/irenemoff>