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Home

Roles and responsibility

Product Owner: Yue Hu

Responsible for:

- Representing the interests of the client
- o Maximizing the value of the product
- o Providing the ultimate opinion
- Managing the product backlog
- o Write user stories and acceptance criteria
- o Ensure items are clear and well understood
- o Prioritize

Scrum Master: Jinxin Tian

... is a servant leader ...

- o listens, committed to growth, foresight, has the ability to build community, collaboration, trust, empathy, and the ethical use of power
- o NOT a manager!
- ... who helps the team be accountable to themselves ...
- o Expect people will deliver unless an issue is raised.
- ... for the commitments that they make.
- o The team determines the action plan to achieve max value product (high value + high quality + high productivity)

Development Environment Lead: Callum Dowling

Understands the technology

- o Development environment
- o Target technology
- Manages development configuration
- Supports the setup and maintenance of development environments in team members' computers
- Provide resources for tool/technology learning

Quality Assurance Lead: Jiaqi Zhou

Ensure processes are defined to achieve fitness-for-purpose

- o High Quality Process High Quality Product
- Ensure processes are followed (or modified if not working)
- Includes (all lightweight, but defined)
- o Meeting processes (team, client)
- o Team management processes (e.g. use of JIRA)
- o Development management processes (e.g. for BitBucket)
- o Testing policy and practices
- o Code reviewing policy/practices (standards/checklists)
- o Anything else needed to be sure that the product is acceptable

Architecture Lead: Callum Dowling

Has a deep technical understanding

- Leads and coordinates technology research and reuse
- Understands the complete architecture at all times
- o Ensuring that architectural requirements are met

Coordinates efforts between sub-teams (e.g. front- end and back-end)

Ensures integration of sub-systems and components is possible

Recent space activity

Space contributors

**Jiaqi Zhou**

Hospital updated 27 Oct, 2019 • [view change](#)

Doctor updated 27 Oct, 2019 • [view change](#)

Frontend guide updated 27 Oct, 2019 • [view change](#)

Appointment updated 27 Oct, 2019 • [view change](#)

Login updated 27 Oct, 2019 • [view change](#)

- Jiaqi Zhou (231 days ago)
- Jinxin TIAN (231 days ago)
- Yue Hu (263 days ago)
- Callum Dowling (284 days ago)
- admin admin (325 days ago)

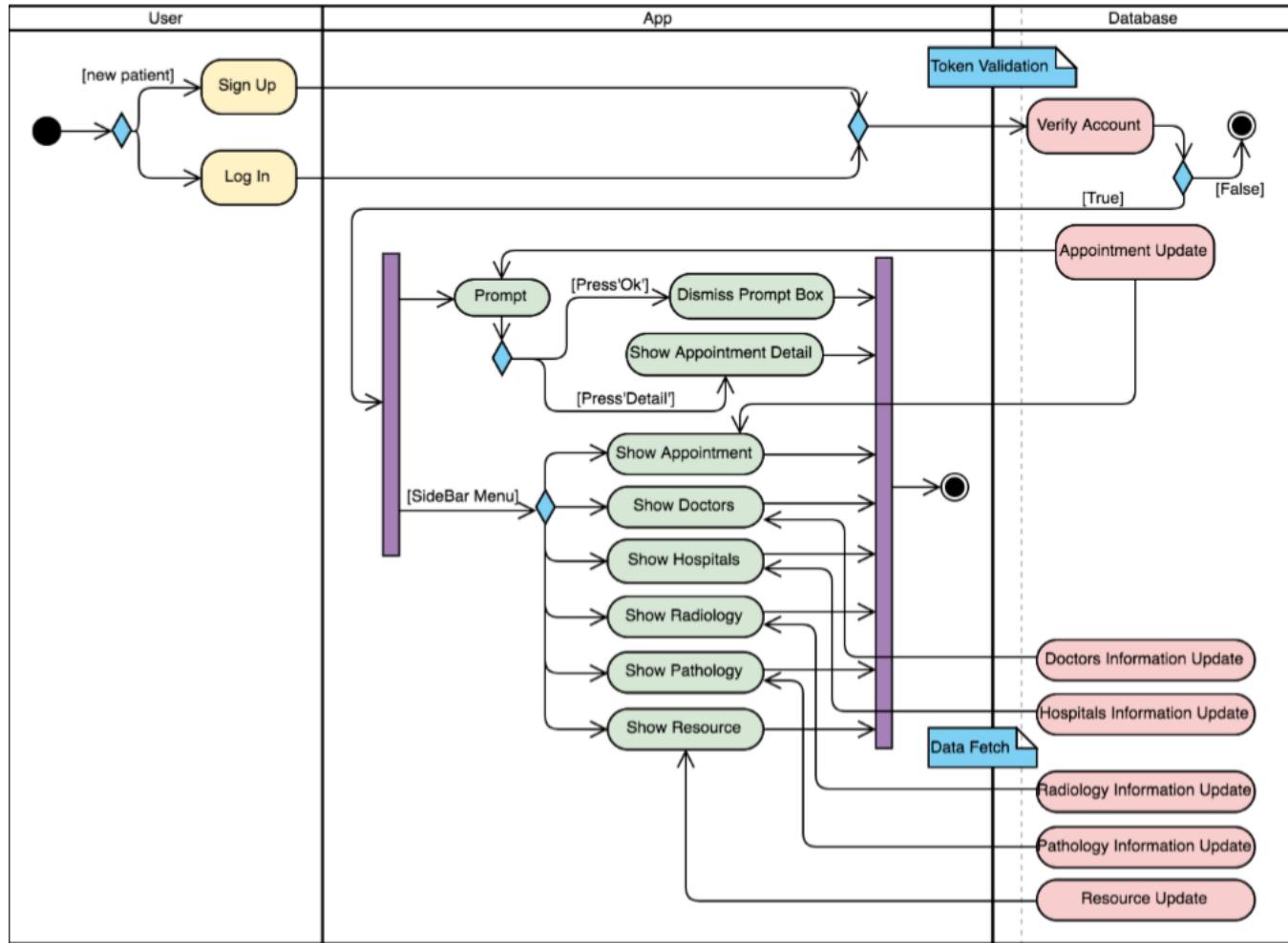
Design concept

Architecture 4+1 graph

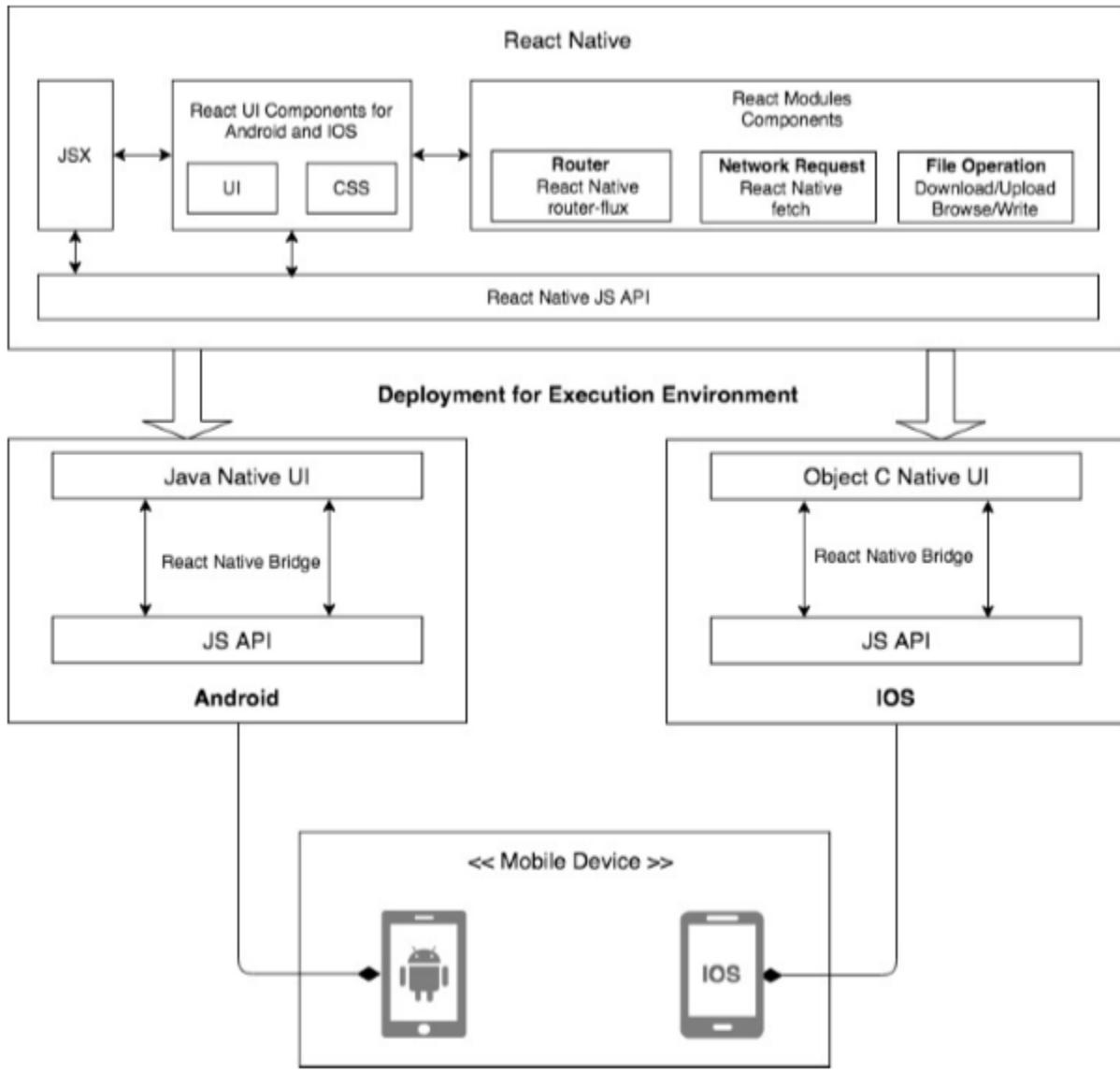
Sequence view (Use case diagram):



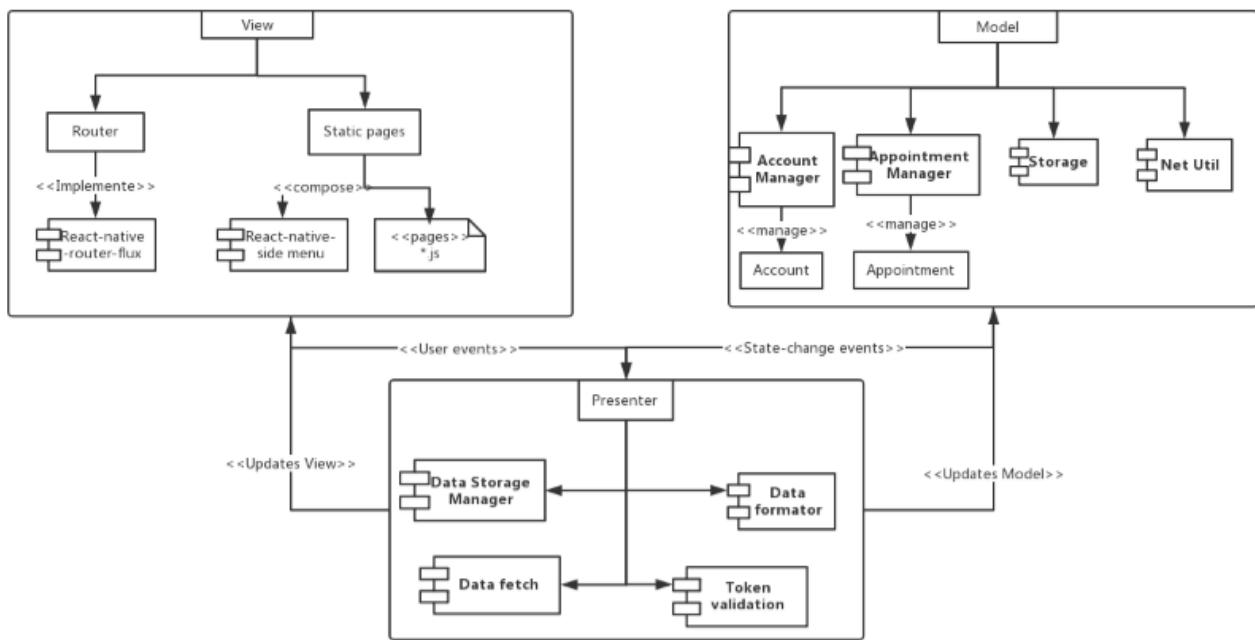
Process view (Activity diagram)



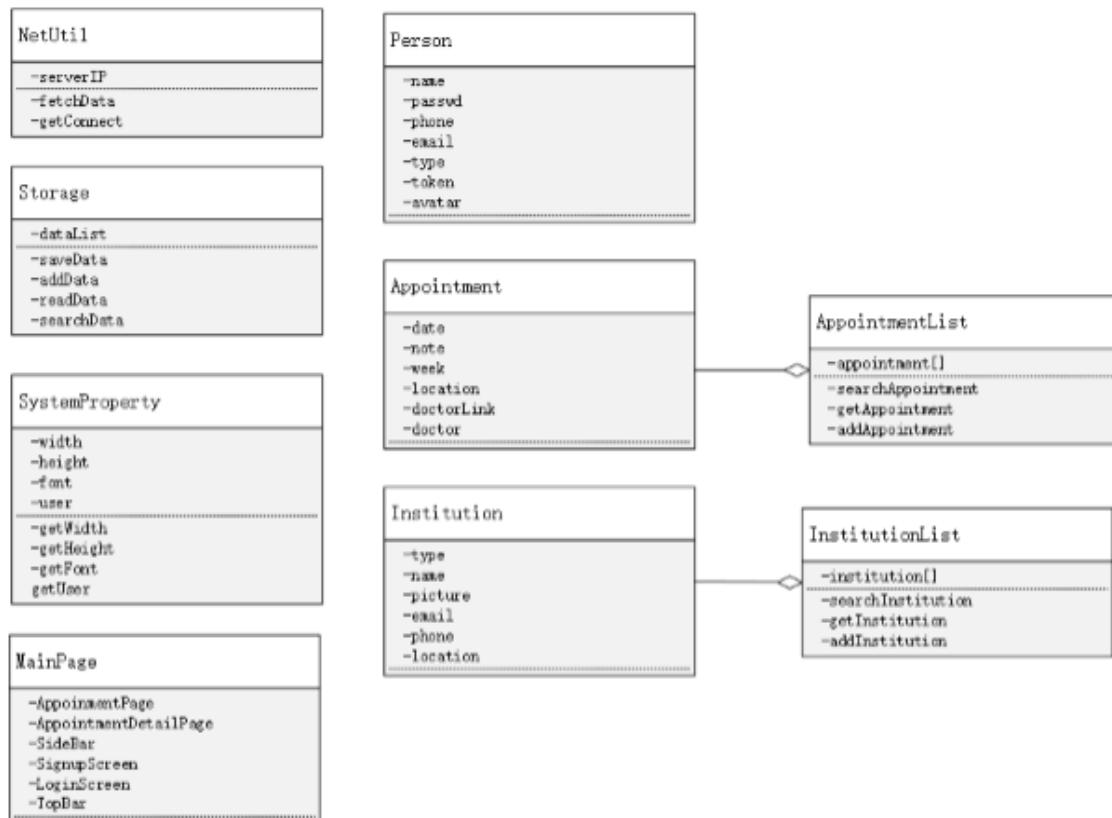
Deployment view



Development view



Logical view



Design Notebook

1. Downloaded and installed the GENIE server app

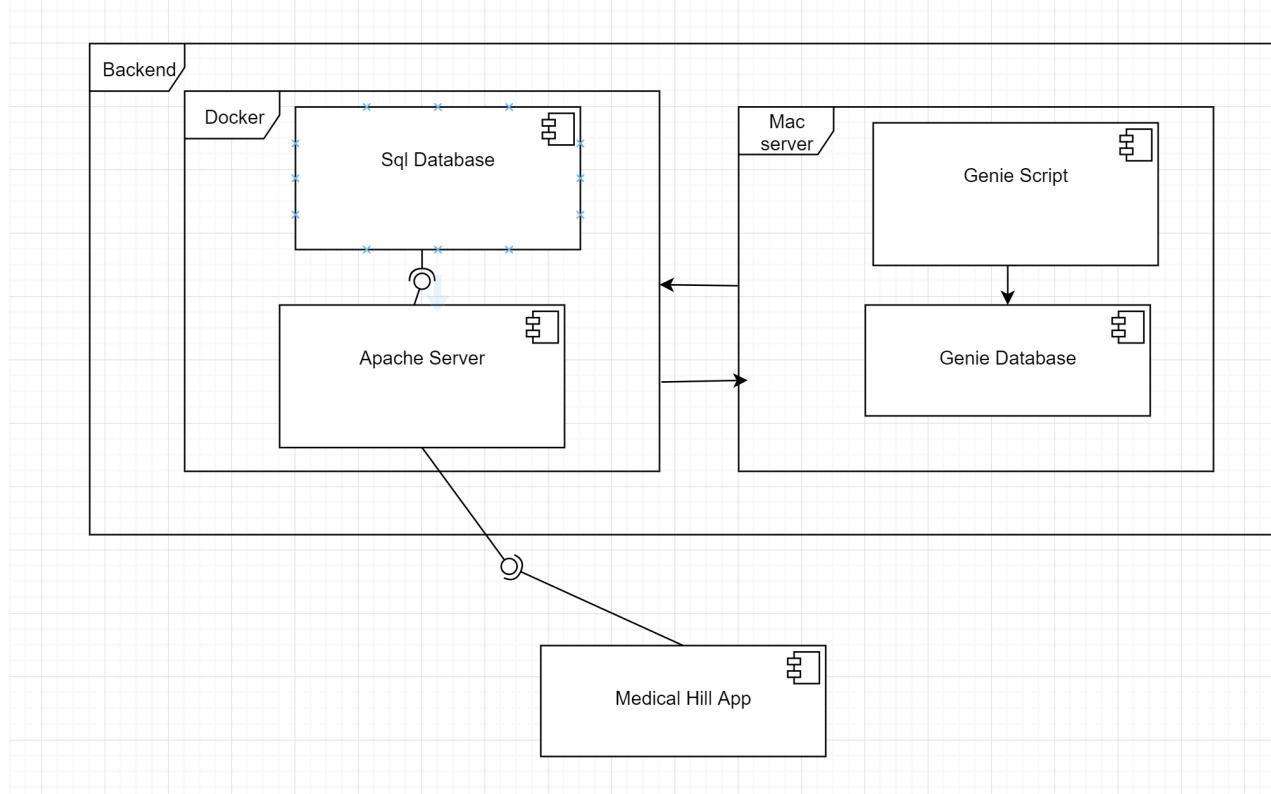
- a. The app has a SQL database but I was unable to connect to it using MySQL workbench - it will likely be hard to find a solution to this issue as there are no documents that cover what we are trying to achieve.
- b. The GENIE app is proprietary software which means implementing the syncing functionality would be incredibly difficult for the team and worse could leave the client in a worse position should the GENIE app update and break our apps functionality
- c. The overall design of the project may need to be revisited and the functionality of the GENIE app may need to be built by us instead of having to interact with GENIE or this could be deemed out of scope for our project.

2. Investigated cross-platform app development

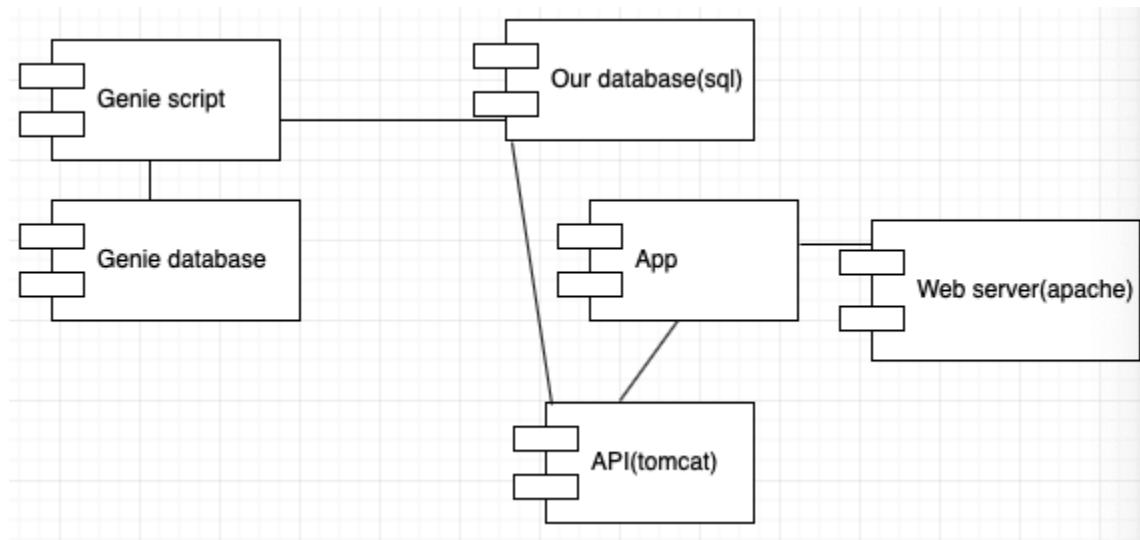
- a. Our client prefers to have the project accessible by all devices, programming all in one place is preferable to multiple developments and Flutter by Google could resolve this issue

Diagram

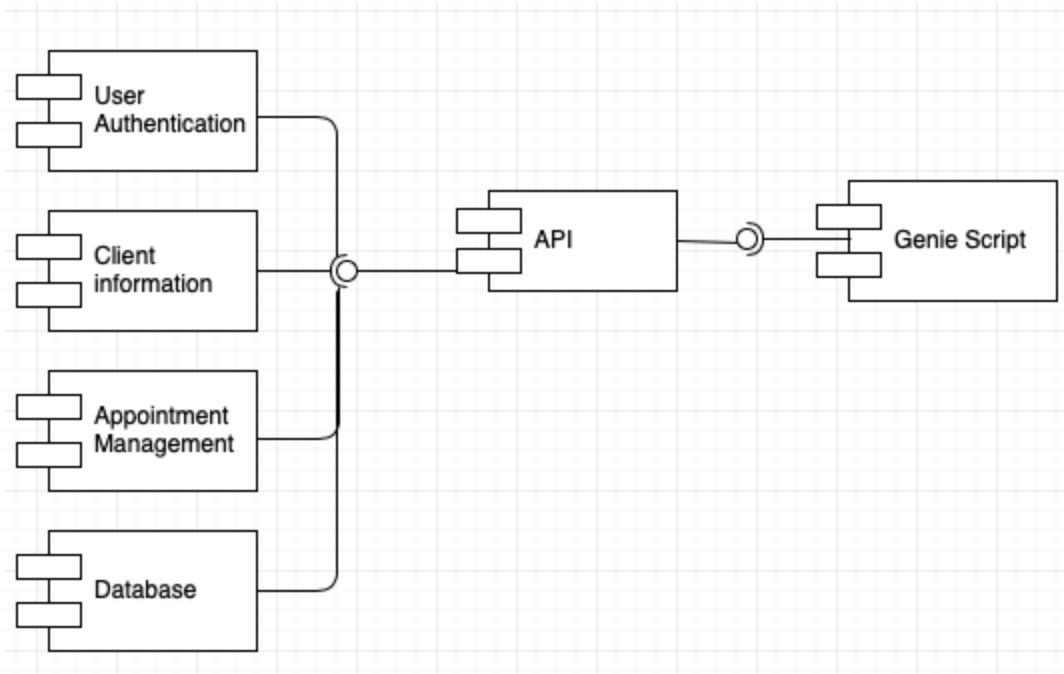
Version 3.0



Version 2.0



Version 1.0



Database: Store the information about user information, the nearby hospitals' information and the appointment information (including doctor available timetables and the hospital location). It provides data when users want to log in, search for some information or make an appointment.

API Users can use this component to search some information use other functions provided by this APP.

Clinic information User can search the nearby clinic information such as doctors, hospitals, radiology and pathology on the menu page.

User Authentication: Verify user identity information and change the password if the user forgets the username or password.

Appointment Management: User can use this function to make an appointment.

Genie Script: The app was also designed for medical clinics, utilizing but not limiting to the medical software, GENIE, to enable them to present clear and concise information to their patients and their families in an efficient and effective manner. It was designed to help clinics reduce the increasing costs of running a business by reducing expenses such as printing, paperwork, and postage.

Main Technologies

Version 2.0(14.09.19)

| Technology | Introduction | Function |
|------------|---|---|
| Docker | Docker is a set of platform-as-a-service (PaaS) products that use operating-system-level virtualization to deliver software in packages called containers . Containers are isolated from one another and bundle their own software, libraries and configuration files; they can communicate with each other through well-defined channels. All containers are run by a single operating-system kernel and are thus more lightweight than virtual machines | the client currently has a MAC server which runs the GENIE app. In order to avoid the client having to buy more hardware or spend time on labor to set it up - Docker will be used. Our entire project will be a docker container which can be run on a MAC - giving the client both the option of setting up a proper server in the future while keeping costs low in the present 1. This docker container will have to communicate with the parent host in order to synchronize the databases together |
| Flutter | Flutter is an open-source mobile application development framework created by Google . It is used to develop applications for Android and iOS , as well as being the primary method of creating applications for Google Fuchsia | this app will allow our team to develop once and deploy on iOS and Andriod simultaneously. The docker image will run Flutter and listen on a port for incoming mobile connections |
| Linux | Linux is a family of open-source Unix-like operating systems based on the Linux kernel | our docker container will be an instance of Linux running appropriate MYSQL server, this instance will communicate with the GENIE app. Options such as XaMPP are available for MAC but the industry standard for web apps is Linux because of flexibility and stability |
| MYSQL | MYSQL is an open-source relational database management system and a standard database server | we will attempt to make an exact replica of the GENIE schema and DBMS for our database to ensure that synchronization is as painless as possible. It is not yet clear what the GENIE software is using because it is designed to be a closed, proprietary software, implementing this functionality will require using GENIE in a way it is not intended to be used |
| Tomcat | Tomcat software is an open-source implementation of the Java Servlet, JavaServer Pages, Java Expression Language, and Java WebSocket technologies. A variety of <i>Access Methods</i> to the supported running Tomcat container shall be supported, to meet varying requirements: <ul style="list-style-type: none">• <i>As A Scriptable Web Application</i> - The existing Manager web application provides a simple HTTP-based interface for managing Tomcat through commands that are expressed entirely through a request URI. This is useful in environments where you wish to script administrative commands with tools that can generate HTTP transactions.• <i>As An HTML-Based Web Application</i> - Use an HTML presentation to provide a GUI-like user interface for humans to interact with the administrative capabilities.• <i>As SOAP-Based Web Services</i> - The operational commands to administer Tomcat are made available as web services that utilize SOAP message formats.• <i>As Java Management Extensions (JMX) Commands</i> - The operational commands to administer Tomcat are made available through JMX APIs, for integration into management consoles that utilize them.• <i>Other Remote Access APIs</i> - Other remote access APIs, such as JINI, RMI, and CORBA can also be utilized to access administrative capabilities | <i>Administrative Apps</i> - support an ability to configure and operate a Tomcat installation through tools, as well as detailed requirements. <i>Realm Implementations</i> - Requirements for the implementations of the <code>org.apache.catalina.Realm</code> interface (providing access to collections of users, passwords and roles) that are included in the standard Tomcat distribution |
| Apache | The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows | we use this project to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards |

| | | |
|----------------|--|--|
| Android studio | <p>Android Studio is the official Integrated Development Environment (IDE) for Android app development, based on IntelliJ IDEA. On top of IntelliJ's powerful code editor and developer tools, Android Studio offers features that enhance our productivity when building apps, such as:</p> <ul style="list-style-type: none"> • A flexible Gradle-based build system • A fast and feature-rich emulator • A unified environment where you can develop for all Android devices • Apply Changes to push code and resource changes to your running app without restarting your app • Code templates and GitHub integration to help you build common app features and import sample code • Extensive testing tools and frameworks • Lint tools to catch performance, usability, version compatibility, and other problems • C++ and NDK support • Built-in support for Google Cloud Platform, making it easy to integrate Google Cloud Messaging and App Engine | we add the Dart plugin to Android Studio, then all the pages can be implemented with dart language |
| Dart | <p>Dart is a client-optimized language for fast apps on any platform</p> | we use dart together with flutter to make sure our project can run on both Android and IOS |

Version 1.0(20.08.19)

1. **Docker:** the client currently has a MAC server which runs the GENIE app. In order to avoid the client having to buy more hardware or spend time on labor to set it up - Docker will be used. Our entire project will be a docker container which can be run on a MAC - giving the client both the option of setting up a proper server in the future while keeping costs low in the present
 - a. This docker container will have to communicate with the parent host in order to synchronize the databases together
2. **Flutter:** Flutter is a cross-platform app SDK developed by Google, this app will allow our team to develop once and deploy on iOS and Andriod simultaneously. The docker image will run Flutter and listen on a port for incoming mobile connections.
3. **Linux:** our docker container will be an instance of Linux running appropriate MYSQL server, this instance will communicate with the GENIE app. Options such as XaMPP are available for MAC but the industry standard for web apps is Linux because of flexibility and stability.
4. **MYSQL:** standard database server - we will attempt to make an exact replica of the GENIE schema and DBMS for our database to ensure that synchronization is as painless as possible. It is not yet clear what the GENIE software is using because it is designed to be a closed, proprietary software, implementing this functionality will require using GENIE in a way it is not intended to be used.

Reference

Version 2.0(14.09.19)

The references we need to use are some teaching websites or information and explanation for the main technologies we chose:

1.Flutter:

https://flutter.dev/?gclid=CjwKCAjw1rnqBRAAEiwAr29lI5MhoTzQa6suWF9wLGEsk5v6RzhapiZ14OnPNVOrDRTiZaZjl8dnRoCH6wQAvD_BwE

<https://flutter.dev/docs/get-started/codelab>

<https://www.appcoda.com/flutter-basics/>

2.Docker:

<https://www.docker.com/>

<https://hub.docker.com/>

https://yeasy.gitbooks.io/docker_practice/introduction/what.html

<https://nodered.org/docs/getting-started/docker>

3.MySQL:

<https://www.mysql.com/>

<http://www.runoob.com/mysql/mysql-tutorial.html>

4.Dart:

<https://github.com/sha3rawi33/Sehetna>

<https://github.com/search?q=dart>

5.Tomcat and Apache:

<https://tomcat.apache.org/>

<https://httpd.apache.org/>

file:///C:/Users/h9924/AppData/Local/Temp/Rar\$Dla15128.32465/SWEN900132018ME-280819-1545-14.pdf

Version 1.0(20.08.19)

The references we need to use are some teaching websites or information and explanation for the main technologies we chose:

1.Flutter:

https://flutter.dev/?gclid=CjwKCAjw1rnqBRAAEiwAr29lI5MhoTzQa6suWF9wLGEsk5v6RzhapiZ14OnPNVOrDRTiZaZjl8dnRoCH6wQAvD_BwE

<https://flutter.dev/docs/get-started/codelab>

<https://www.appcoda.com/flutter-basics/>

2.Docker:

<https://www.docker.com/>

<https://hub.docker.com/>

https://yeasy.gitbooks.io/docker_practice/introduction/what.html

<https://nodered.org/docs/getting-started/docker>

3.MySQL:

<https://www.mysql.com/>

<http://www.runoob.com/mysql/mysql-tutorial.html>

Reuse Plan

Reuse Plan (Vision 2.0)

| Design concept item | Reuse/Developed for purpose/Mix | Comments |
|---------------------|--|---|
| Our database | Developed for purpose - reusing the schema of the GENIE server | |
| Docker image | Developed for purpose | <ul style="list-style-type: none"> Comprehensive documentation to be provided for installation on a MAC |
| GENIE server | Reuse from current GENIE server | <ul style="list-style-type: none"> The client will not want to use an app that requires re-inputting of patient/clinic information/history |
| Flutter code | Developed for purpose | |
| iOS app | Reuse from Flutter | |
| Android app | Reuse from Flutter | |
| MVC | Framework of development | <ul style="list-style-type: none"> Model - Represents the data of the application. This matches up with the type of data a web application is dealing with, such as a user, video, picture or comment. Changes made to the model notify any subscribed parties within the application. View - The user interface of the application. Most frameworks treat views as a thin adapter that sits just on top of the DOM. The view observes a model and updates itself should it change in any way. Controller - Used to handle any form of input such as clicks or browser events. It's the controller's job to update the model when necessary |
| MySQL | Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). | <ul style="list-style-type: none"> MySQL is a freely available open source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). SQL is the most popular language for adding, accessing and managing content in a database. It is most noted for its quick processing, proven reliability, ease and flexibility of use. |
| Maven | | <ul style="list-style-type: none"> Maven, a Yiddish word meaning <i>accumulator of knowledge</i>, began as an attempt to simplify the build processes in the Jakarta Turbine project. There were several projects, each with their own Ant build files, that were all slightly different. JARs were checked into CVS. We wanted a standard way to build the projects, a clear definition of what the project consisted of, an easy way to publish project information and a way to share JARs across several projects. The result is a tool that can now be used for building and managing any Java-based project. We hope that we have created something that will make the day-to-day work of Java developers easier and generally help with the comprehension of any Java-based project. |

Reuse Plan (Vision 1.0)

| Design concept item | Reuse/Developed for purpose/Mix | Comments |
|---------------------|--|---|
| Our database | Developed for purpose - reusing the schema of the GENIE server | |
| Docker image | Developed for purpose | Comprehensive documentation to be provided for installation on a MAC |
| GENIE server | Reuse from current GENIE server | The client will not want to use an app that requires re-inputting of patient/clinic information/history |
| Flutter code | Developed for purpose | |
| iOS app | Reuse from Flutter | |
| Android app | Reuse from Flutter | |

Documentation

Deployment Document

In order to deploy our project, we need to download and install flutter, Android studio and docker related to configuration.
We also need to configure coco pods on IOS.

The following describes the deployment of fluent.

Flutter

System environmental requirements

MacOS or Windows (64 bit)

Hard disk space: 700 MB (excluding editor tools such as Android studio).

Command line tools: bash, MKDIR, RM, GIT, curl, unzip, which, brew need to ensure that the above commands can be used on the command line.
If brew is not installed, you need to install it first: <https://segmentfault.com/a/11900013317511>

Download

Website: <https://fluent.io/setup-macos/>

Configure Environment

```
vim ~/.bash_profile  
export PATH=/app/flutter/bin:$PATH  
flutter -h
```

Then it will shows in terminal

Inspection Environment

`flutter doctor`

Then it will shows in terminal

Cocopods

Run this in the terminal

`pod setup`

or

```
cd ~/.cocoapods/repos git clone https://github.com/CocoaPods/Specs.git
```

Then

`flutter doctor`

Configuration Environment

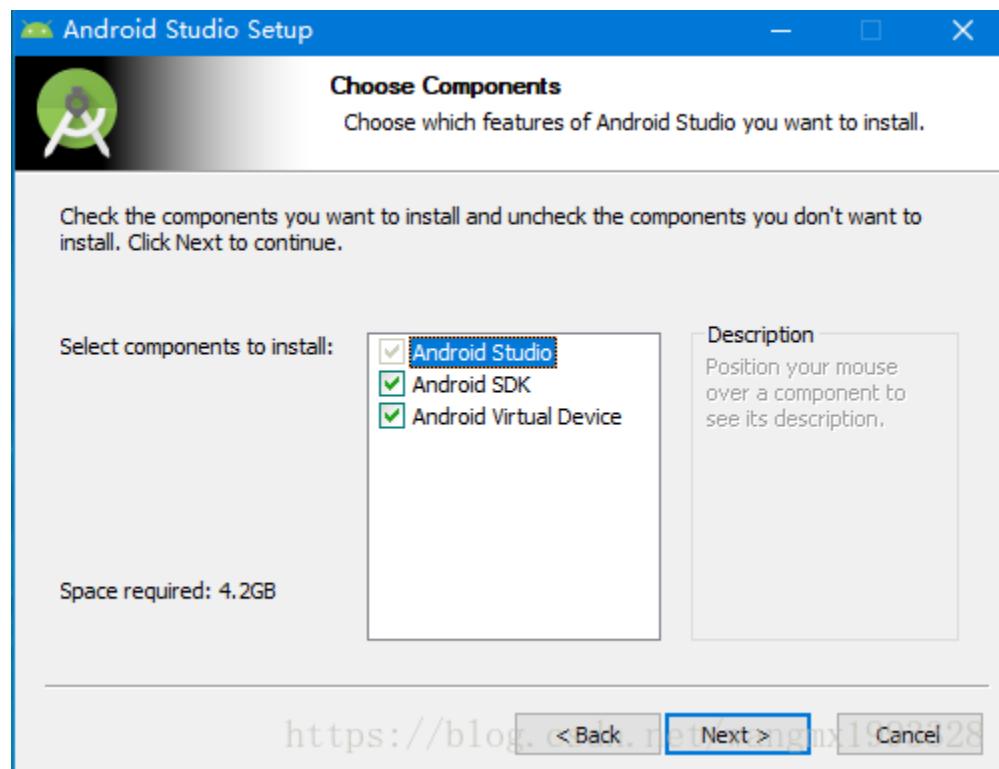
```
vim ~/.bash_profile  
export PUB_HOSTED_URL=https://pub.flutter-io.cn  
export FLUTTER_STORAGE_BASE_URL=https://storage.flutter-io.cn  
source ~/.bash_profile
```

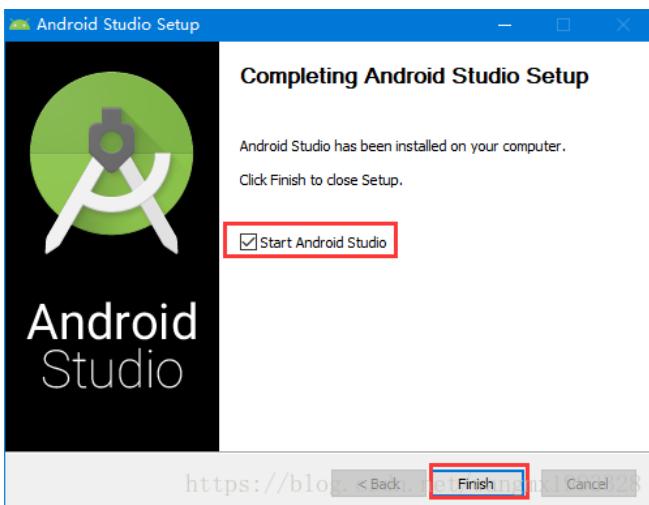
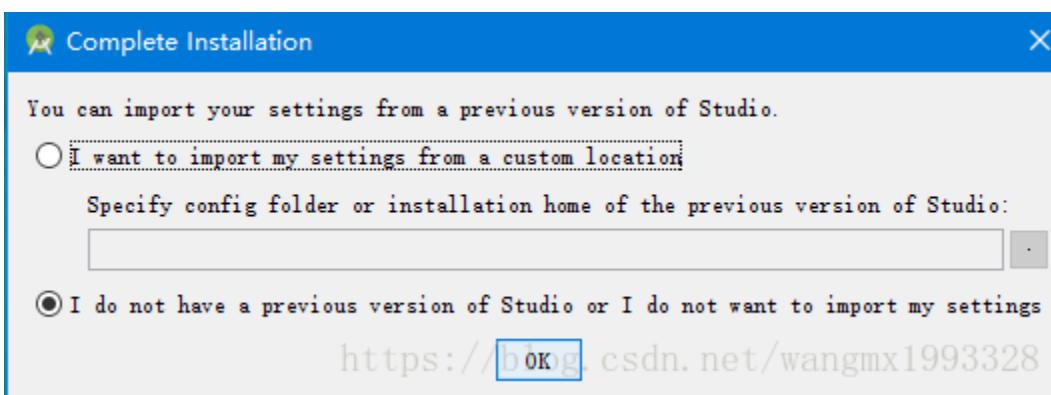
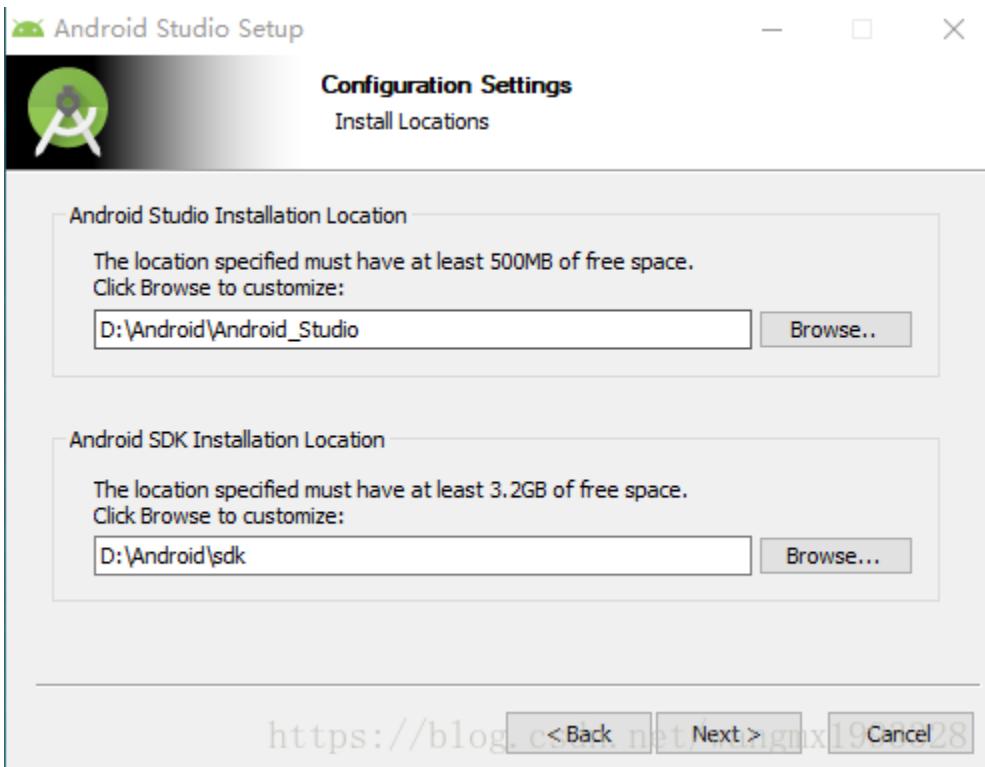
Android Studio

Download <http://www.android-studio.org/>

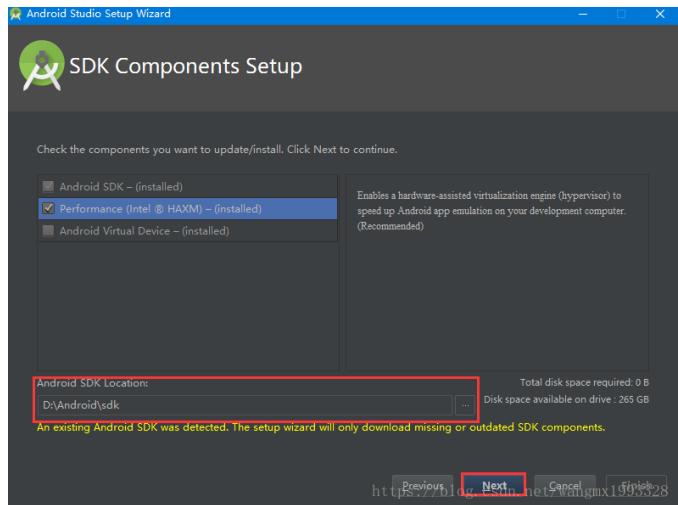
Installation

```
C:\Users\Administrator.SC-201707281232>java -version  
java version "1.8.0_101"  
Java(TM) SE Runtime Environment (build 1.8.0_101-b13)  
Java HotSpot(TM) 64-Bit Server VM (build 25.101-b13, mixed mode)  
C:\Users\Administrator.SC-201707281232>
```





Click Finish and open Android studio and start configuration



Developer Documentation

Development team structure

| Name | Role | Responsible for |
|----------------|--|--|
| Yue Hu | Product Owner | <ul style="list-style-type: none"> • Representing the interests of the client • Maximizing the value of the product • Providing the ultimate opinion • Managing the product backlog • Write user stories and acceptance criteria • Ensure items are clear and well understood • Prioritize the backlog |
| Jinxin Tian | Scrum Master | <ul style="list-style-type: none"> • Listens, committed to growth, foresight, has the ability to build community, collaboration, trust, empathy, and the ethical use of power • Expect people will deliver unless an issue is raised. • The team determines the action plan to achieve max value product (high value + high quality + high productivity) |
| Callum Dowling | Development Environment Leader & Architecture Leader | <ul style="list-style-type: none"> • Understands the technology & Development environment • Manages development configuration • Supports the setup and maintenance of development environments in team members' computers • Provides resources for tool/technology learning • Leads and coordinates technology research and reuse • Understands the complete architecture at all times • Ensuring that architectural requirements are met • Coordinates efforts between sub-teams (e.g. front-end and back-end) • Ensures integration of sub-systems and components is possible |
| Jiaqi Zhou | Quality Assurance Leader | <ul style="list-style-type: none"> • Ensure processes are defined to achieve fitness-for-purpose • Ensure processes are followed (or modified if not working) • Meeting processes (team, client) • Development management processes (e.g. for BitBucket) • Testing policy and practices • Code reviewing policy/practices (standards/checklists) • Anything else needed to be sure that the product is acceptable |

What challenges we have met during this development period.

| No | Challenge | Description |
|----|----------------------|--|
| 1 | Efficient | We only have one or two team members have the experience of programming application and sometimes it takes a lot of time to help each other to figure out some questions even they are simple questions. Working together in a project is very important and difficult, so we have to overcome this by thinking independently and ask for help until we are sure for not being able to understand alone. |
| 2 | Timetable | We do not have a reliable plan or timetable for each sprint which leads us always do not have enough time to manage the process and have enough discussion about the last sprint. Lacking a good schedule makes the quality of the final product is not satisfied enough cause we have to leave some functions even they have high priority. |
| 3 | Programming language | Since the Dart is not a programming language that any of our group members learned before, it is a significant problem to all of us. Moreover, it is not a very common programming language like Java or Python, which means there is not enough sample code on the internet for us to use. We did spend a lot of time to understand the code. In order to conquer the problem, we learned from the Internet. We watched some videos on YouTube to understand this kind of programming language. |
| 4 | Resource | By the end of the semester, we had insufficient development resources. For example, we lacked API and the software requirement specification documents. The lack of these two parts of the resource has created difficulties for our development, leading to the slow development of our project. |

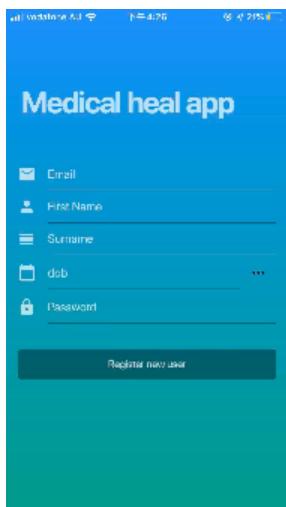
| | | |
|---|-------------------------|--|
| 5 | Programming environment | We met some problems to build the running environment. One crucial reason for this is because this time we used a lot of new technical tools, which means we have to install them and make them work on our laptop. For example, some of our team members meet have trouble installing flutter because of the software version, and others met some issues when installing the Docker. This kind of problem took us a lot of time to work on solving them. |
|---|-------------------------|--|

What we have learn during this development period.

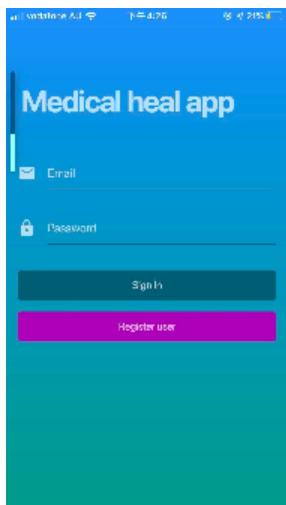
| No | lesson | Description |
|----|-------------------------------|---|
| 1 | Agenda model | The agenda model for the development, which is a very useful model for software development. We were getting familiar with some concept in agenda model during the process of development, such as team roles, product backlog, daily stand-up and so on. This model helps us a lot to manage the process of our development. |
| 2 | Dart language and the flutter | The dart language and the flutter. As we explained before, the flutter can be suitable for both android and ios, which can save us a lot of time and energy for future app development. Also, we learned the docker image to help us to build the backend side. |

User documentation

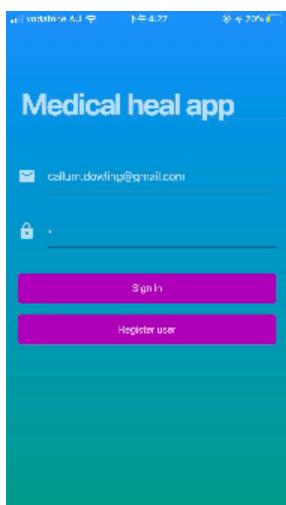
For register, user must enter some informations including:Email, First name, Surname, Date of birth and password.



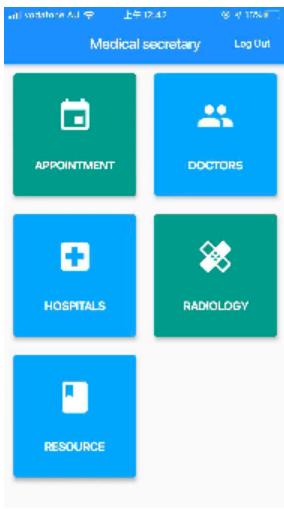
For users, who has got a username, he can log in with his own username and password in the login page.



For this MHapp, users can login with the username: callum.dowling@gmail.com & password:1



After the authentication, the user can enter the menu page.



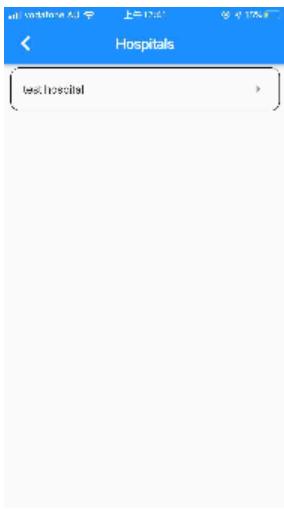
User can make an appointment in the APPOINTMENT function. The need to choose the date and time of appointment. One users have no limitation of the number of appointment but one time can just has one appointment.



User can read the information of doctor on the DOCTOR.



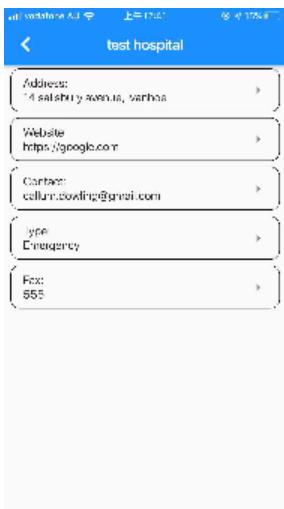
User can see the information about hospital in the HOSPITAL.



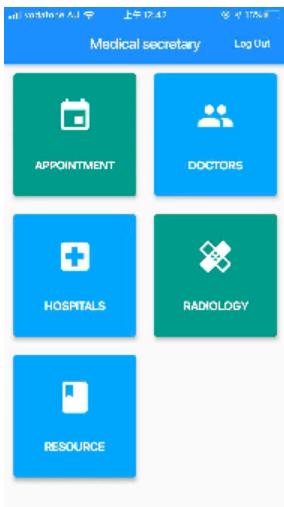
If user want to see more information about a hospital they can click the name of the hospital.

Then they can enter to a new page which shows some information about hospital.

The information includes: Address, website, contact detail, type of the hospital and fax.



When user want to logout, he can click the LogOut button on the top-right on the menu page.



Executable Architecture

An executable architecture (EA) is a build that can achieve some parts of architecture for Our MH system, which means a runnable implementation of the architecture of our APP. In the EA, we should utilise all of the reuse elements we have selected during the concept design which involves a web app with back-end database. In addition, we should minimize the amount of bespoke development required. The executable architecture can be used to validate that the relevant architecturally requirements which are supported by that architecture. Apart from this, the EA also make a contribution to assure that the core functionality of the system is stable and more generally fit-for-purpose and therefore provides a basis for building the remainder of the system.

Environment Setup

---Install Docker:

1. Download Docker at <https://www.docker.com/products/docker-hub>.



Docker for Developers

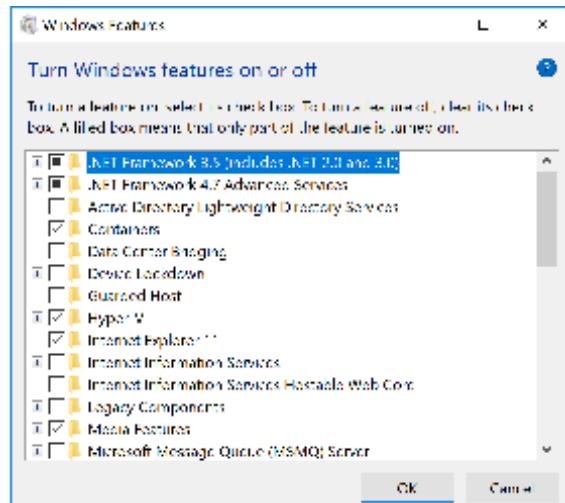
Building and deploying new applications is faster with containers. Docker containers wrap up software and its dependencies into a standardized unit for software development that includes everything it needs to run: code, runtime, system tools and libraries. This guarantees that your application will always run the same and makes collaboration as simple as sharing a container image.

Docker containers whether Windows or Linux are backed by Docker tools and APIs and help you build better software:

Download Desktop and Take a Tutorial

2. Open the Hyper-V for windows 10.

go to windows features select Hyper-V Select OK.



3. Restart the computer and try to check whether it works.

eg. try to run docker image.

| REPOSITORY | TAG | IMAGE ID | CREATED | SIZE |
|-------------|--------|--------------|--------------|--------|
| alpine | latest | cdf98d1859c1 | 4 days ago | 5.53MB |
| hello-world | latest | fce289e99eb9 | 3 months ago | 1.84kB |

---Install Maven:

1. Download maven from the website:<https://maven.apache.org/download.cgi>

Files

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive and follow the [installation instructions](#). Use a source archive if you intend to build Maven yourself.

In order to guard against corrupted downloads/installations, it is highly recommended to [verify the signature](#) of the release bundles against the public **KEYS** used by the Apache Maven developers.

| Link | Checksums | Signature |
|---|--------------------------------------|-----------------------------------|
| Binary tar.gz archive apache-maven-3.6.2-bin.tar.gz | apache-maven-3.6.2-bin.tar.gz.sha512 | apache-maven-3.6.2-bin.tar.gz.asc |
| Binary zip archive apache-maven-3.6.2-bin.zip | apache-maven-3.6.2-bin.zip.sha512 | apache-maven-3.6.2-bin.zip.asc |
| Source tar.gz archive apache-maven-3.6.2-src.tar.gz | apache-maven-3.6.2-src.tar.gz.sha512 | apache-maven-3.6.2-src.tar.gz.asc |
| Source zip archive apache-maven-3.6.2-src.zip | apache-maven-3.6.2-src.zip.sha512 | apache-maven-3.6.2-src.zip.asc |

2. Extract the file

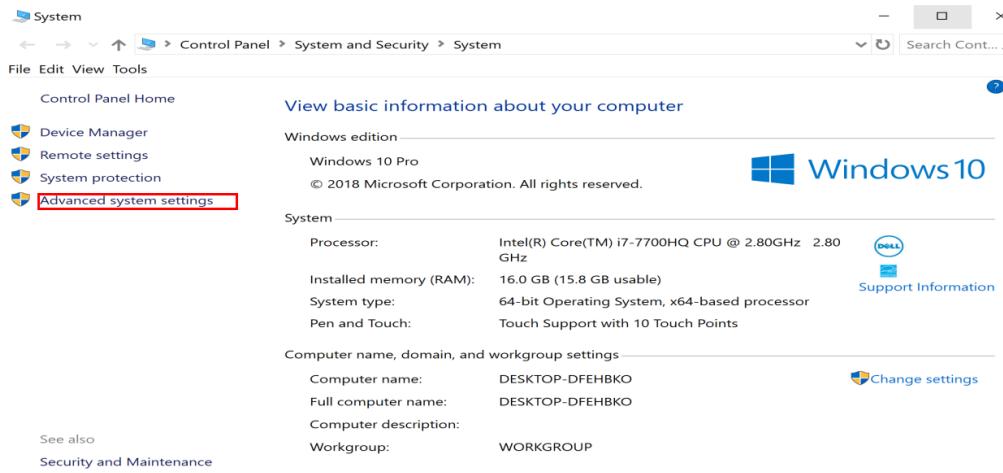
OS (C:) > Program Files > Apache > maven



| 名称 | 修改日期 | 类型 | 大小 |
|------------|-----------------|------|-------|
| bin | 2019/9/24 22:17 | 文件夹 | |
| boot | 2019/9/24 22:17 | 文件夹 | |
| conf | 2019/9/24 22:17 | 文件夹 | |
| lib | 2019/9/24 22:17 | 文件夹 | |
| LICENSE | 2019/8/27 17:09 | 文件 | 13 KB |
| NOTICE | 2019/8/27 17:09 | 文件 | 1 KB |
| README.txt | 2019/8/27 17:01 | 文本文档 | 3 KB |

3. Set up environment

System



View basic information about your computer

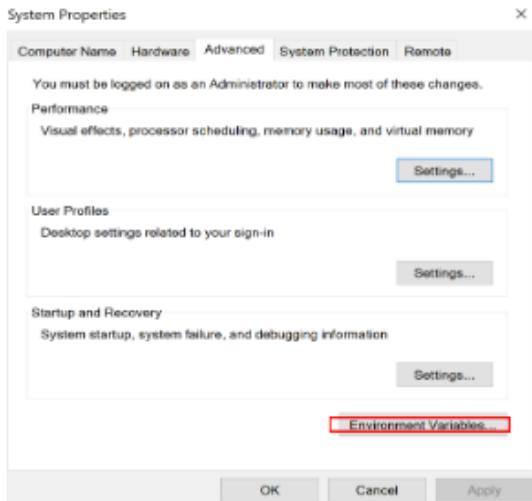
Windows edition: Windows 10 Pro
© 2018 Microsoft Corporation. All rights reserved.

Processor: Intel(R) Core(TM) i7-7700HQ CPU @ 2.80GHz 2.80 GHz
Installed memory (RAM): 16.0 GB (15.8 GB usable)
System type: 64-bit Operating System, x64-based processor
Pen and Touch: Touch Support with 10 Touch Points

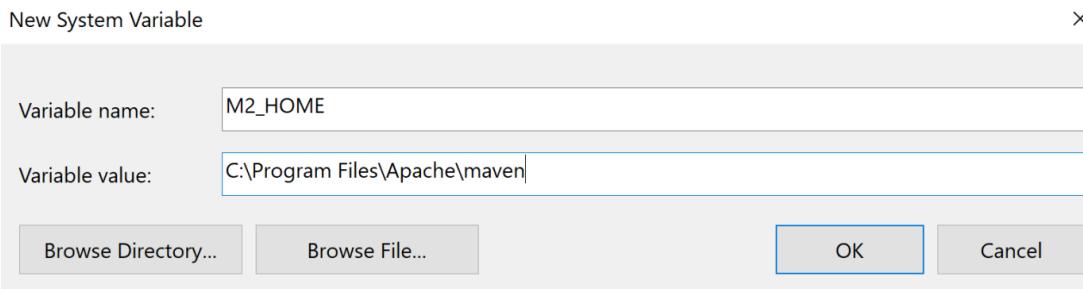
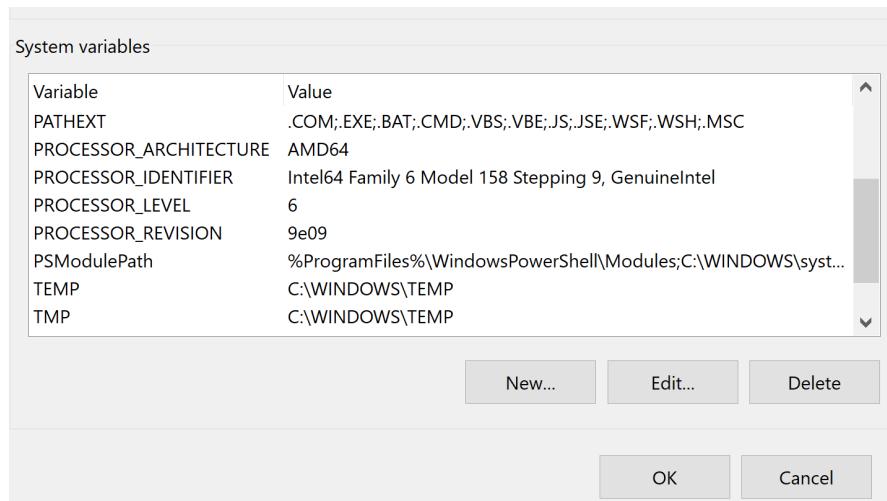
Computer name, domain, and workgroup settings

Computer name: DESKTOP-DFEHBKO
Full computer name: DESKTOP-DFEHBKO
Computer description:
Workgroup: WORKGROUP

See also
Security and Maintenance

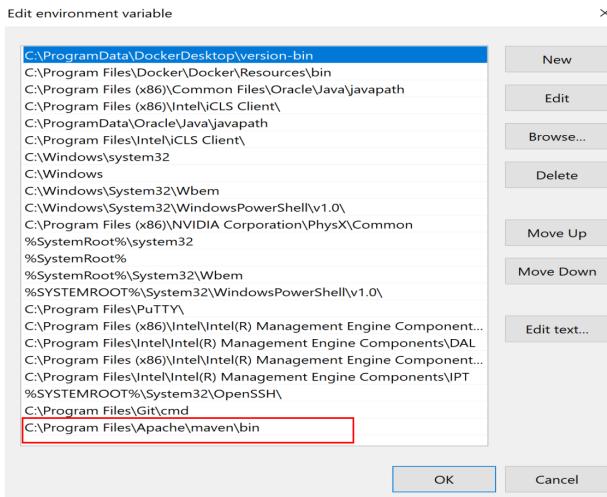


select Edit



click OK

Select Path, Click Edit.



Add C:\Program Files\Apache\maven\bin

Press OK.

4.Verify maven installation

```
gidel@DESKTOP-DFEHBKO MINGW64 ~/Desktop
$ mvn -v
Apache Maven 3.6.2 (40f52333136460af0dc0d7232c0dc0bcf0d9e117; 2019-08-28T01:06:1
6+10:00)
Maven home: C:\Program Files\Apache\maven
Java version: 1.8.0_221, vendor: Oracle Corporation, runtime: C:\Program Files\J
ava\jre1.8.0_221
Default locale: en_US, platform encoding: GBK
OS name: "windows 10", version: "10.0", arch: "amd64", family: "windows"
```

----Install Flutter:

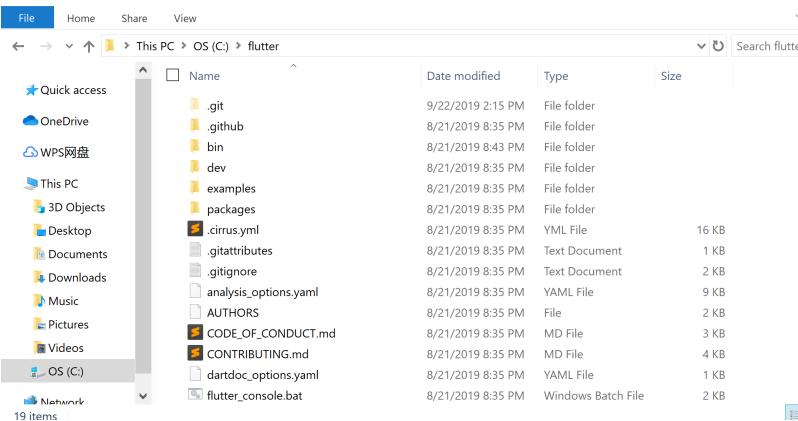
1. Download flutter at the website: <https://flutter.dev/docs/get-started/install>

Select the proper operationg system.

. Download the following installation bundle to get the latest stable release of the Flutter SDK:

[flutter_windows_v1.9.1+hotfix.2-stable.zip](#)

2. Extract the zip file and store it under C:\flutter



3. Try to run the flutter using flutter doctor, to check whether the installation is successful.

```
PS C:\Users\DELL\OneDrive\Desktop> flutter doctor
$ flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, v1.7.8+hotfix.4, on Microsoft Windows [Version 10.0
     .17134.1006], locale en-US)
[✓] Android toolchain - develop for Android devices (Android SDK version 28.0.3)
[✓] Android Studio (version 3.5)
[!] Connected device
    ! No devices available

! Doctor found issues in 1 category.
```

Backend guide

Stepwise

1. obtain git: sudo apt get install git
 2. pull down git repo:
-git clone <https://bitbucket.cis.unimelb.edu.au:8445/projects/SWEN900142019MHBILBY/repos/swen90014-2019-mh-bilby.git>
 3. go to backend directory: cd backend
 4. name the clinic: edit ..backend/.env file with clinic name
 5. build and run containers: docker-compose up -d
 6. seed the database:
-find the db container: docker ps
- | |
|--|
| cal@cal-desktop:~/Development/medical-heal\$ docker ps |
| CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES |
| 0b1f49c393f5 callum_web "docker-php-entrypoi..." 3 hours ago Up 3 hours 0.0.0.0:80->80/tcp callum_WEB |
| df47543b70e3 callum_tomcat "catalina.sh run" 3 hours ago Up 3 hours 0.0.0.0:8080->8080/tcp callum_TOMCAT |
| 7fb95bb23cba callum_db "docker-entrypoint.s..." 3 hours ago Up 3 hours 0.0.0.0:8889->3306/tcp callum_DB |
- 7.
 8. -access database: docker exec -it <first few chars of db container id> bash
-go to seed dir: cd /var/seed
-seed the db: mysql -u root -p < db_with_data.sql
use password root (these settings are specified in docker-compose.yml)

Explanation

Each one of our components is a docker container, the build instructions for each container are located in a Dockerfile for their respective directories. For example, the dockerfile for the www container is the following.

```
cal@cal-desktop:~/Development/medical-heal/backend/www$ cat Dockerfile
FROM php:7.2-apache
RUN docker-php-ext-install mysqli && docker-php-ext-enable mysqli
```

The build takes a base image php:7.2-apache and then runs the below command to obtain mysqli php extensions.

It is possible to call docker build . in each directory to manually build, but we use a docker-compose.yml to coordinate the build and deployment.

The following is an example of our yml file.

```
version: '3'
services:
  www:
    context: ./www
    restart: always
    image: callum_web
    ports:
      - "80:80"
    volumes:
      - ./www:/var/www/html
    environment:
      - ALLOW_DEBUGGER=true
      - PHP_IDE_CONFIG=PHPSTORM
    depends_on:
      - db
    networks:
      - www
    healthcheck:
      test: curl -f http://localhost/
      interval: 10s
      timeout: 5s
      retries: 3
  db:
    image: callum_db
    environment:
      - MYSQL_ROOT_PASSWORD=root
      - MYSQL_DATABASE=callum
      - MYSQL_USER=callum
      - MYSQL_PASSWORD=callum
      - MYSQL_HOST=callum
    depends_on:
      - www
    networks:
      - db
    healthcheck:
      test: curl -f http://localhost/
      interval: 10s
      timeout: 5s
      retries: 3
networks:
  www:
  db:
```

-Each container is their own service

-Build/context specifies where the dockerfile is

-Restart specifies what happens when service crashes

-Ports map a host port to a container port (in this case the www port 80 is mapped to the host computer port 80)

-Volumes are specified to persist information or to load files into the container

Eg, The container will read whatever is in www/html when it is deployed so it will reflect the git repo
-Container name is a custom name for container, it takes a clinic name from the .env file
-Compose project name names the project something other than backend/web in order to have multiple repos on the same system
-Hostname: compose contains a dns resolver, so if a container is in the same network they can be accessed by this hostname. Eg the hostname of the www service is WEB, and the database can access it by using WEB:port rather than the ip address
-Networks adds the container to a network (these are specified at the bottom of the file)

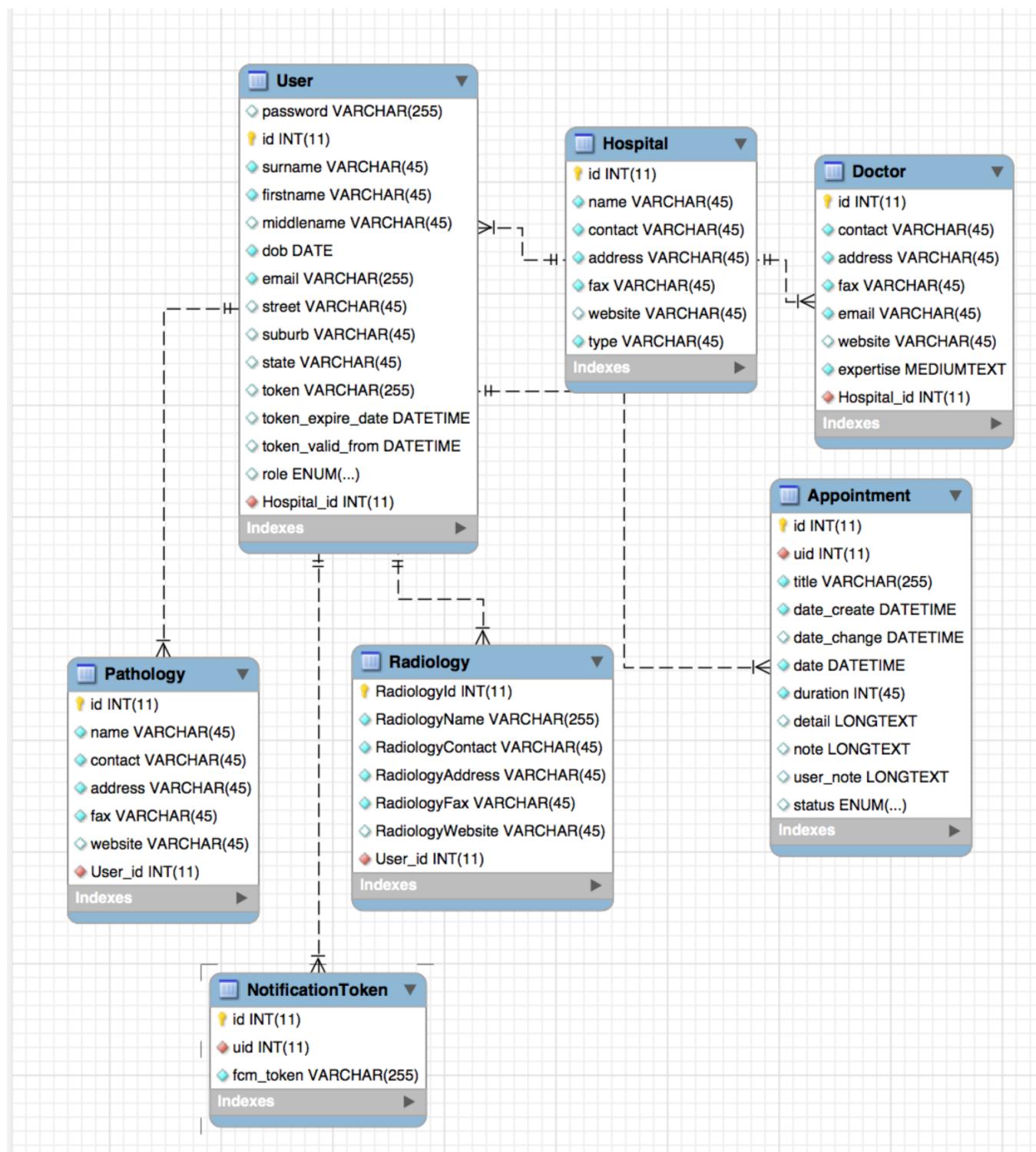
The mysql data will persist in the volume /db/mysql even if the container crashes.

The advantage of this approach is that the details of the containers are explicit and reasonably easy to build with a few commands rather than having a server set up where the environment details could be unknown/ambiguous.

The tomcat service contains a .war file which is the built version of the api from a previous team.

Database Guide

We use SQL to build our database, here is our database relationship picture.



```

CREATE TABLE `Appointment` (
  `id` int(11) NOT NULL,
  `uid` int(11) NOT NULL,
  `title` varchar(255) NOT NULL,
  `date_create` datetime NOT NULL,
  `date_change` datetime DEFAULT NULL,
  `date` datetime NOT NULL,
  `duration` int(45) NOT NULL,
  `detail` longtext,
  `note` longtext,
  `user_note` longtext,
  `status` enum('UNCONFIRMED','CONFIRMED','CANCELLED') DEFAULT 'UNCONFIRMED',
  PRIMARY KEY (`id`),
  KEY `fk_Appointment_Patient1_idx` (`uid`),
  CONSTRAINT `fk_Appointment_User` FOREIGN KEY (`uid`) REFERENCES `User` (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

```

```

CREATE TABLE `Doctor` (
  `id` int(11) NOT NULL,
  `contact` varchar(45) NOT NULL,
  `address` varchar(45) NOT NULL,
  `fax` varchar(45) NOT NULL,
  `email` varchar(45) NOT NULL,
  `website` varchar(45) DEFAULT NULL,
  `expertise` mediumtext NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

-- 

```

```

CREATE TABLE `File` (
  `id` int(11) NOT NULL,
  `title` varchar(45) NOT NULL,
  `link` varchar(255) NOT NULL,
  `pid` varchar(250) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```

CREATE TABLE `Hospital` (
  `id` int(11) NOT NULL,
  `name` varchar(45) NOT NULL,
  `contact` varchar(45) NOT NULL,
  `address` varchar(45) NOT NULL,
  `fax` varchar(45) NOT NULL,
  `website` varchar(45) DEFAULT NULL,
  `type` varchar(45) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```

CREATE TABLE `Pathology` (
  `id` int(11) NOT NULL,
  `name` varchar(45) NOT NULL,
  `contact` varchar(45) NOT NULL,
  `address` varchar(45) NOT NULL,
  `fax` varchar(45) NOT NULL,
  `website` varchar(45) DEFAULT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```

CREATE TABLE `User` (
  `password` varchar(255) DEFAULT NULL,
  `id` int(11) NOT NULL,
  `surname` varchar(45) NOT NULL,
  `firstname` varchar(45) NOT NULL,
  `middlename` varchar(45) DEFAULT NULL,
  `dob` date NOT NULL,
  `email` varchar(255) NOT NULL,
  `street` varchar(45) DEFAULT NULL,
  `suburb` varchar(45) DEFAULT NULL,
  `state` varchar(45) DEFAULT NULL,
  `token` varchar(255) DEFAULT NULL,
  `token_expire_date` datetime DEFAULT NULL,
  `token_valid_from` datetime DEFAULT CURRENT_TIMESTAMP,
  `role` enum('PATIENT','ADMIN') DEFAULT 'PATIENT',
  PRIMARY KEY (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
CREATE TABLE `NotificationToken` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `uid` int(11) NOT NULL,
  `fcm_token` varchar(255) NOT NULL,
  PRIMARY KEY (`id`),
  KEY `fk_NotificationToken_User_idx` (`uid`),
  CONSTRAINT `fk_NotificationToken_User` FOREIGN KEY (`uid`) REFERENCES `User` (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

Frontend guide

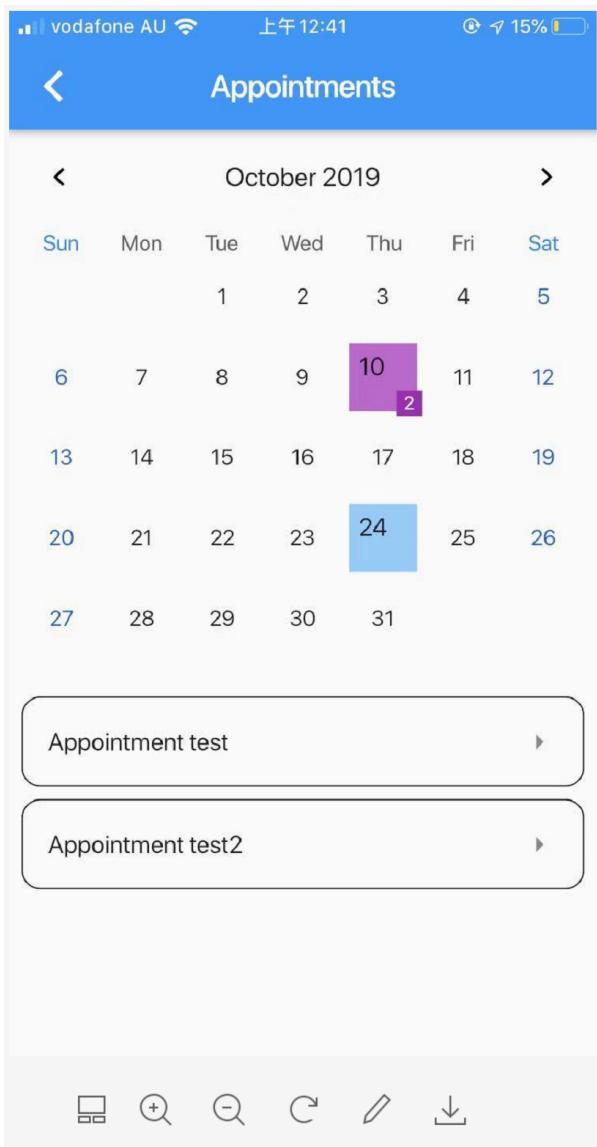
For the frontend guide, we are going to show some important code part for our project and illustrate the page of the front end.

Appointment

The table calendar:

```
| Widget _buildTableCalendar() {  
|     return TableCalendar(  
|         calendarController: _calendarController,  
|         events: _events,  
|         //holidays: _holidays,  
|         startingDayOfWeek: StartingDayOfWeek.monday,  
|         calendarStyle: CalendarStyle(  
|             selectedColor: Colors.purple[400],  
|             todayColor: Colors.red[200],  
|             markersColor: Colors.red[700],  
|             outsideDaysVisible: false,  
|         ), // CalendarStyle  
|         headerStyle: HeaderStyle(  
|             formatButtonTextStyle:  
|                 TextStyle().copyWith(color: Colors.white, fontSize: 15.0),  
|             formatButtonDecoration: BoxDecoration(  
|                 color: Colors.deepOrange[400],  
|                 borderRadius: BorderRadius.circular(16.0),  
|             ), // BoxDecoration  
|         ), // HeaderStyle  
|         onDaySelected: _onDaySelected,  
|         onVisibleDaysChanged: _onVisibleDaysChanged,  
|     ); // TableCalendar  
| }
```

Final page looks like:



Doctor

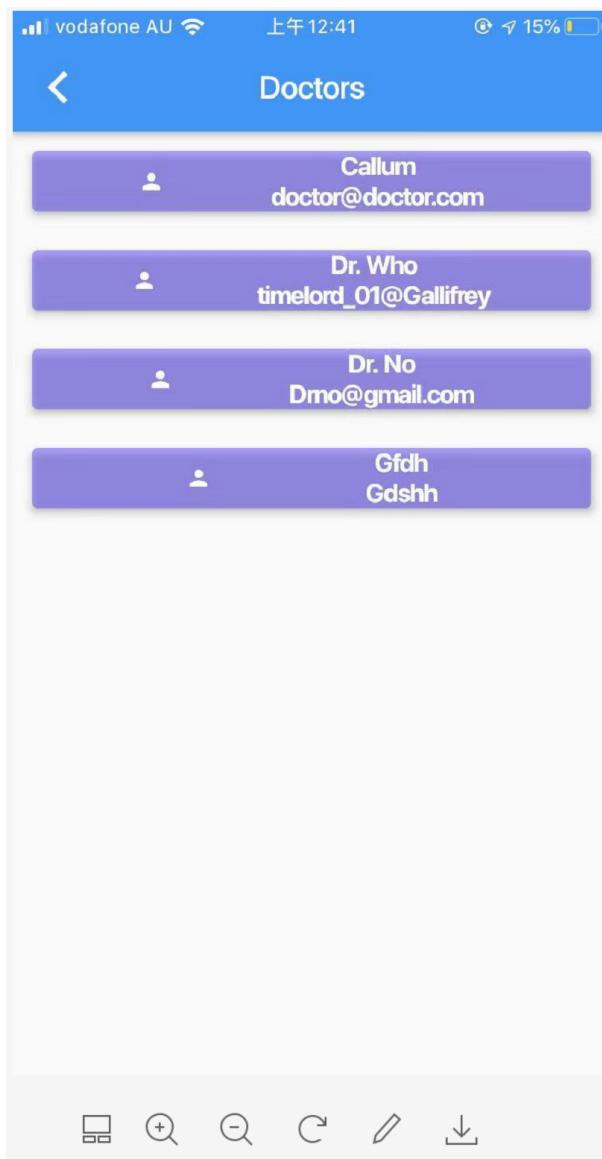
list view of the Doctor page:

```

} build(context) {
  return Scaffold(
    appBar: AppBar(title: Text("Doctors")),
    body: Column(
      children: _doctors
        .map((element) => Padding(
          padding: const EdgeInsets.all(8.0),
          child: Card(
            elevation: 4.0,
            color: Color.fromRGBO(100, 80, 255, 0.5),
            child: InkWell(
              onTap: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(
                    builder: (context) => Scaffold(
                      appBar: AppBar(title: Text(element.name)),
                      body: Column(
                        children: <Widget>[
                          Text("Address " + element.address),
                          Text("Contact " + element.contact),
                          Text("Email " + element.email),
                          Text("Expertise " + element.expertise),
                          Text("ID" + element.id)
                        ]), // <Widget>[], Column
                  ), // Text
                  Text(
                    element.email,
                    style: TextStyle(
                      fontSize: 16.0,
                      color: Colors.white,
                      fontWeight: FontWeight.bold), // TextStyle
                ), // Text
                ]), // <Widget>[], Column
              ], // <Widget>[]
            ), // Row
          ), // InkWell
        ), // Card
      )), // Padding
      .toList()); // Column, Scaffold
}

```

Final page looks like:



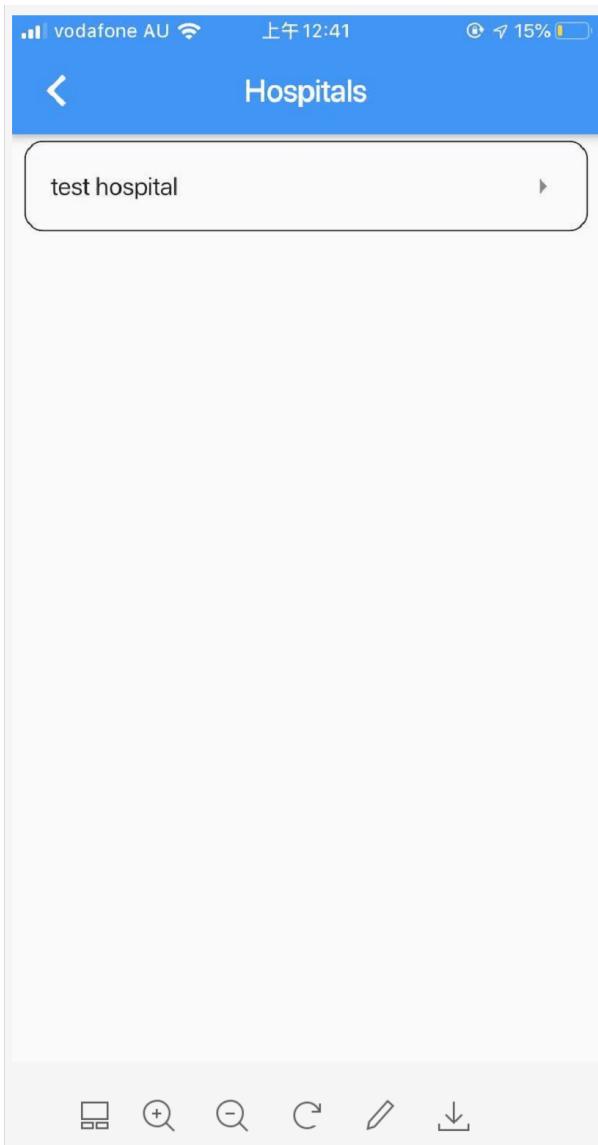
Hospital

List view of the hospitals:

```
override
} build(context) {
} return Scaffold(
|-- appBar: AppBar(title: Text("Hospitals")),
|-- body: ListView(
|   children: _hospitals.map((element) => Container(
|     decoration: BoxDecoration(
|       border: Border.all(width: 0.8),
|       borderRadius: BorderRadius.circular(12.0),
|     ), // BoxDecoration
|     margin:
|       const EdgeInsets.symmetric(horizontal: 8.0, vertical: 4.0),
|     child: ListTile(
|       title: Text(element.name),
|       trailing: Icon(Icons.arrow_right),
|       onTap: () {
|         Navigator.push(
|           context,
|           MaterialPageRoute(
|             builder: (context) =>
|               HospitalDetail(element))); // MaterialPageRoute
|         }
|       ) // ListTile
|     )), // Container
|   ) // ListView
);
}); // Scaffold

}
}
```

Final page looks like:



Login

1. Users can login in this MH App with their usernames and passwords in the login page in our App.
2. Receptionist can reset the login details of an account so that patients can access their accounts again.

There are some components included in this page:

Logo(which can be a picture and modified after the clients provide a logo picture):

```
- Container(
  width: 130.0,
  height: 130.0,
  decoration: BoxDecoration(
    image: DecorationImage(
      image: AssetImage('assets/logo.png'))), // DecorationImage, BoxDecoration
), // Container
```

Slogan(which is a 5-7 words phrase and can be modified by clients):

```
- Text(
  'Welcome to',
  style: TextStyle(color: Colors.black, fontSize: 20.0),
), // Text
Row(
  children: <Widget>[
  Padding(
    padding: const EdgeInsets.only(top: 4.0),
    child: Text(
      'Medical',
      style: TextStyle(
        color: Colors.black,
        fontWeight: FontWeight.bold,
        fontSize: 25.0), // TextStyle
    ), // Text
  ), // Padding
  Padding(
    padding: const EdgeInsets.only(top: 4.0, left: 5.0),
    child: Text(
      'Secretary',
      style: TextStyle(
        color: Colors.red,
        fontWeight: FontWeight.w800,
        fontSize: 27.0), // TextStyle
    ), // Text
  ), // Padding
], // Row
```

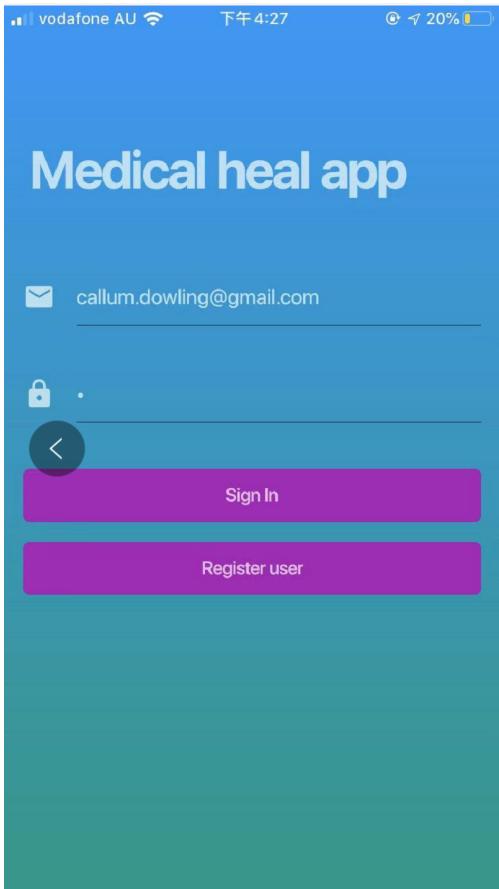
Introduction(to guide the users on how to sign in and type their username and password):

```
Padding(
  padding: const EdgeInsets.only(top: 8.0),
  child: Text(
    'Please sign in to continue',
    style: TextStyle(color: Colors.black, fontSize: 15.0),
  ), // Text
```

Login button(which can be two different color to show the result of logging in):

```
[Color(Colors.white), Color(Colors.red)], // Colors
  splashColor: Colors.yellow,
  color: Colors.red,
```

Final page looks like:



Main

This page is a home page for the whole project and shows the routes of all the other pages and the `runApp` is included in to make the app runnable through `main.dart`

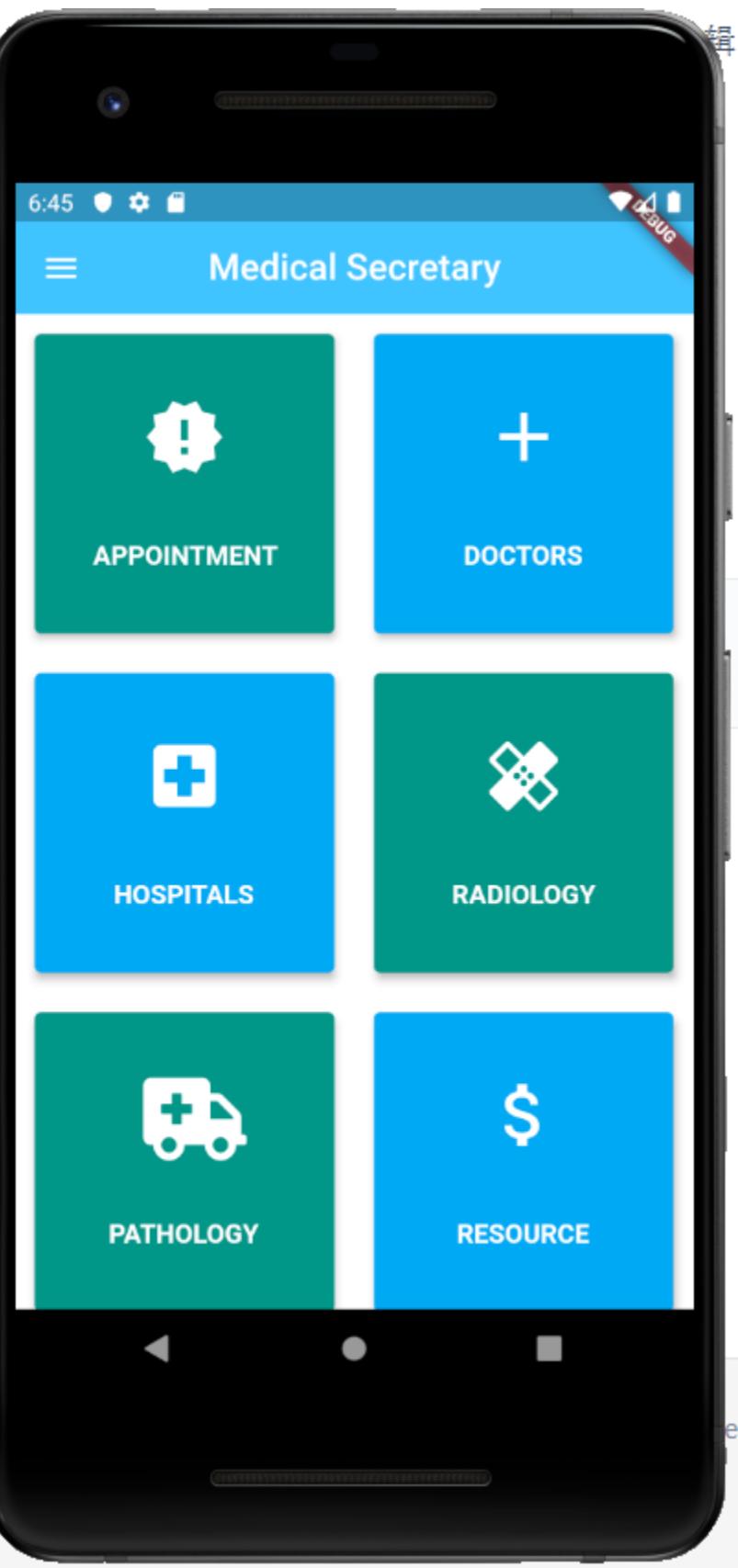
```
void main() {  
  runApp(MaterialApp(  
    title: "Healthy Wealthy",  
    home: SplashScreen(),  
    routes: {  
      'home': (context) => NearHospital(),  
      'profile': (context) => ProfilePage(),  
      'logout': (context) => LoginScreen(),  
      'splash': (context) => SplashScreen(),  
      'login': (context) => LoginScreen(),  
      'dashboard': (context) => DashboardPage(),  
      'emergency': (context) => DashboardScreen(),  
      'donate': (context) => DonateDashboard(),  
      'alerts': (context) => AlertsDashboard(),  
      'ambulance': (context) => EmergencyDashboard(),  
      'history': (context) => MedicalHistoryDashboard(),  
      'support': (context) => SupportPage()  
    },  
  )); // MaterialApp  
,
```

Menu

Via the menu page, the users can glance at the functions provided by the App. The functions include information about the nearby clinics.

```
- body: GridView(
  gridDelegate:
    SliverGridDelegateWithFixedCrossAxisCount(crossAxisCount: 2),
  children: <Widget>[
    _buildCard("APPOINTMENT", Icons.new_releases, Colors.teal, onTap: () {Navigator.of(context).pushReplacementNamed("emergency");}),
    _buildCard("DOCTORS", Icons.add, Colors.lightBlue, onTap: () {}),
    _buildCard("HOSPITALS", Icons.local_hospital, Colors.lightBlue, onTap: () {Navigator.of(context).pushNamed("home");}),
    _buildCard("RADIOLOGY", Icons.healing, Colors.teal, onTap: () {Navigator.of(context).pushNamed("alerts");}),
    _buildCard("PATHOLOGY", FontAwesomeIcons.ambulance, Colors.teal, onTap: () {Navigator.of(context).pushNamed("ambulance");}),
    _buildCard("RESOURCE", Icons.attach_money, Colors.lightBlue, onTap: () {Navigator.of(context).pushNamed("donate");}),
  ],
)
```

By clicking different buttons you can jump to different pages and get the other information



Register

The container of the text input:

```
Container textSection() {
    return Container(
        width: 100,
        padding: EdgeInsets.symmetric(horizontal: 15.0, vertical: 20.0),
        child: Column(children: <Widget>[
            TextFormField(
                controller: emailController,
                cursorColor: Colors.white,
                style: TextStyle(color: Colors.white70),
                decoration: InputDecoration(
                    icon: Icon(Icons.email, color: Colors.white70),
                    hintText: "Email",
                    border: UnderlineInputBorder(
                        borderSide: BorderSide(color: Colors.white70), // UnderlineInputBorder
                        hintStyle: TextStyle(color: Colors.white70),
                    ), // InputDecoration
                ), // TextFormField
            TextFormField(
                controller: firstNameController,
                cursorColor: Colors.white,
                style: TextStyle(color: Colors.white70),
                decoration: InputDecoration(
                    icon: Icon(Icons.person, color: Colors.white70),
                    hintText: "First Name",
                    border: UnderlineInputBorder(
                        borderSide: BorderSide(color: Colors.white70), // UnderlineInputBorder
                        hintStyle: TextStyle(color: Colors.white70),
                    ), // InputDecoration
                ), // TextFormField
            TextFormField(
                controller: surnameController,
                cursorColor: Colors.white,
                style: TextStyle(color: Colors.white70),
                decoration: InputDecoration(
                    icon: Icon(Icons.calendar_view_day, color: Colors.white70),
                    hintText: "Surname",
                    border: UnderlineInputBorder(
                        borderSide: BorderSide(color: Colors.white70), // UnderlineInputBorder
                        hintStyle: TextStyle(color: Colors.white70),
                    ), // InputDecoration
                ), // TextFormField
            ),
        ],
        style: TextStyle(color: Colors.white70),
        decoration: InputDecoration(
            icon: Icon(Icons.calendar_today, color: Colors.white70),
            hintText: "dob",
            border: UnderlineInputBorder(
                borderSide: BorderSide(color: Colors.white70), // UnderlineInputBorder
                hintStyle: TextStyle(color: Colors.white70),
            ), // InputDecoration
            controller: dobController,
            keyboardType: null,
            onTap: () {
                _chooseDate(
                    context,
                    (dobController.text.isNotEmpty)
                        ? dobController.text
                        : "1991-01-25");
            },
        ),
        child: Row(children: <Widget>[
            Expanded(child: new TextFormField(
                enabled: false,
                decoration: InputDecoration(
                    icon: Icon(Icons.calendar_today, color: Colors.white70),
                    hintText: "dob",
                    border: UnderlineInputBorder(
                        borderSide: BorderSide(color: Colors.white70), // UnderlineInputBorder
                        hintStyle: TextStyle(color: Colors.white70),
                    ), // InputDecoration
                    controller: dobController,
                    keyboardType: null,
                    onTap: () {
                        _chooseDate(
                            context,
                            (dobController.text.isNotEmpty)
                                ? dobController.text
                                : "1991-01-25");
                    },
                ), // TextFormField, Expanded
            ),
            new IconButton(
                icon: new Icon(Icons.more_horiz),
                tooltip: "Choose date"
            )
        ],
    );
}
```

```

    keyboardType: null,
    onTap: () {
      _chooseDate(
        context,
        (dobController.text.isNotEmpty)
          ? dobController.text
          : "1991-01-25");
    })),
  // TextFormField. Expanded
], // Widget>[], Row, Container
),
// IconButton(
  icon: new Icon(Icons.more_horiz),
  tooltip: 'Choose date',
  onPressed: () {
    _chooseDate(
      context,
      (dobController.text.isNotEmpty)
        ? dobController.text
        : "1991-01-25");
  },
), // IconButton
]), // <Widget>[], Row, Container
),
// TextFormField(
  controller: passwordController,
  cursorColor: Colors.white,
  obscureText: true,
  style: TextStyle(color: Colors.white70),
  decoration: InputDecoration(
    icon: Icon(Icons.lock, color: Colors.white70),
    hintText: "Password",
    border: UnderlineInputBorder(
      borderSide: BorderSide(color: Colors.white70), // UnderlineInputBorder
      hintStyle: TextStyle(color: Colors.white70),
    ), // InputDecoration
  ), // TextFormField
)); // <Widget>[], Column, Container
}
}

```

The button to register:

```

} Container buttonSection() {
}   return Container(
|   width: MediaQuery.of(context).size.width,
height: 40.0,
padding: EdgeInsets.symmetric(horizontal: 15.0),
margin: EdgeInsets.only(top: 15.0),
| child: RaisedButton(
|   onPressed: (emailController.text == "" ||
|             passwordController.text == "" ||
|             surnameController.text == "" ||
|             firstNameController.text == "" ||
|             dobController.text == "") ? null
|   : () {
|     setState(() {
|       _isLoading = true;
|     });
|     register(emailController.text, surnameController.text, firstNameController.text, dobController.text, passwordController.text);
|   },
elevation: 0.0,
color: Colors.purple,
child:
|   Text("Register new user", style: TextStyle(color: Colors.white70),
|   shape: RoundedRectangleBorder(borderRadius: BorderRadius.circular(5.0)),
), // RaisedButton
); // Container
}

```

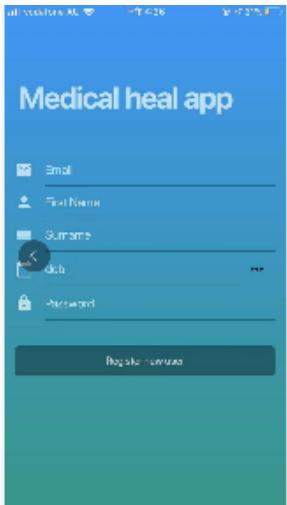
Header section:

```

} Container headerSection() {
}   return Container(
|   margin: EdgeInsets.only(top: 50.0),
padding: EdgeInsets.symmetric(horizontal: 20.0, vertical: 30.0),
| child: Text("Medical heal app",
|   style: TextStyle(
|     color: Colors.white70,
fontSize: 40.0,
|     fontWeight: FontWeight.bold), // TextStyle, Text
); // Container
}

```

Final page looks like:



Meeting minutes

2019-8-9

Time

09 Aug 2019

6 pm- 7 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling

Location

Booth 6

Target

- Group members meet for the first time.
- Discuss about the MH app.
- Assign the work after class..

Minutes

| Item | Who | Outcome |
|---|---|--|
| Group members meet for the first time. | Yue Hu Jinxin Tian Callum Dowling | Some work still need to be completed. |
| Assign roles and tasks to team members. | Scrum master | Yue Hu: Scrum master Jinxin Tian: Product Owner and QA leader. Callum Dowling: Development environment leader and architecture leader. |
| Discuss about the technology. | Yue Hu Jinxin Tian Callum Dowling | My sql Linux |
| Assign the work after class. | Scrum master | Yue Hu: Complete the reference and copy the requirements from the 90014 space. Jinxin Tian: Complete the design diagram. Callum Dowling: Complete the reuse plan and technology. |

Next meeting time will be hold in 8.11 from 1 pm- 3pm.

2019-08-11

Time

11 Aug 2019

1 pm- 3pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling

Location

Booth 5

Target

- To check if every group member complete his work after class.

Minutes

| Item | Who | Outcome |
|---------------------------------|--------------|--|
| Check each group member's work. | Scrum master | Some work still need to be completed. |
| Assign the work after class. | Scrum master | <p>Yue Hu: Complete the reference.</p> <p>Jinxin Tian: Complete the meeting minutes.</p> <p>Callum Dowling: Complete the reuse plan.</p> |

Next meeting 2019-8-31

12 pm-7pm

Balliue booth 2

2019-8-31

Time

31 Aug 2019

12 pm- 7 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou

Location

Booth 2

Target

- To complete the UI design via flutter and Android Studio and the backend of our App.

Minutes

| Item | Who | Outcome |
|---|---|---|
| Check each group member's work. | Scrum master | The work assigned on the last meeting has been completed successfully. |
| Discuss the changes about Genie Script. | Callum Dowling | The component diagram need to be modify due to the Genies Script only can set message. |
| Modify the component diagram. | Jinxin Tian | Modify the diagram including Genie and database. |
| Decompose the work need to be done during the sprint 1. | Scrum master | Yue Hu: Complete the UI design. Jinxin Tian: Complete and correct the document. Callum Dowling: Complete the backend of our app. Jiaqi Li: Complete the UI design. |
| Install the flutter and Android Studio. | Yue Hu | The Android emulator can work well on our PC. |
| Start to our sprint 1. | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | Some part of our EA have been completed. |

Next meeting 2019-9-1

12 pm-7pm

Balliue booth 2

2019-9-15

Time

15 Sep 2019

12 pm- 7 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou

Location

Old engineering

Target

- To complete the UI design via flutter and Android Studio and the backend of our App.

Minutes

| Item | Who | Outcome |
|--|---|--|
| Welcome | All | |
| Minutes of previous meeting and review of the Action Items | Scrum master | <ol style="list-style-type: none">1. Each team member presents his/her work done so far2. New Sprint Plan review3. Task adjust |
| Progress update from team members | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | Study the docker and install it |
| Planning the activities for the sprint 2 | Scrum master | Each team member presents his/her work done in sprint 1 so far Code Review and testing Sprint Retrospective Sprint Review Plan for Sprint 2 |
| Start to our sprint 2. | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | Some part of our sprint 2 have been completed. |

Next meeting 2019-9-18

12 pm-4pm

Balliue booth 7

2019-9-18

Time

18 Sep 2019

12 pm- 4 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou

Location

Ballieu booth 7

Target

- To check the work assigned in the last meeting.

Minutes

| Item | Who | Outcome |
|--|---|---|
| Welcome | All | |
| Minutes of previous meeting and review of the Action Items | Scrum master | <ol style="list-style-type: none">1. Each team member presents his/her work done so far2. Code Review and testing3. New plan for Sprint 2 |
| Progress update from team members | Scrum master | <ol style="list-style-type: none">1. Callum Dowling: Implement the api and the end-back of the MH APP2. Jiaqi Li: Complete the front end and the back end of the MH APP of the appointment function3. Yue Hu: Complete the front end of the MH APP of the appointment function and complete some of the document4. Jinxin Tian: Complete the front end of the MH APP of the appointment function and complete some of the document |
| Planning the activities for the next submission | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | <ol style="list-style-type: none">1. Update Jira |

Next meeting 2019-9-21

12 pm-5 pm

Ballieu booth 7

2019-9-21

Time

21 Sep 2019

1 pm- 5 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou

Location

ERC

Target

- To check the work assigned in the last meeting.

Minutes

| Item | Who | Outcome |
|---|---|--|
| Welcome | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | |
| Each team member presents his /her work done so far | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | <ol style="list-style-type: none">1. Callum Dowling: present api and the end-back of the MH APP2. Jiaqi Li: present the front end and the back end of the MH APP of the appointment function3. Yue Hu: present the front end of the MH APP of the appointment function and complete some of the document (Jira part and risk part)4. Jinxin Tian: present the front end of the MH APP of the appointment function and complete some of the document (sprint document part, meeting part and V&V part) |
| Code Review and testing | Scrum master | Discuss the Sprint Retrospective. Generally, the communication among the team is still good. |
| Sprint review | Scrum master | Discuss the income and outcome of the second Sprint. Most of the required functions are delivered excluding the reminder function. |
| Plan for the next meeting | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | Maybe we will have a meeting on 9.22 (it depends on the work we done tonight) |

Next meeting Maybe in 9-22

ERC

from 12.30 pm -5 pm

2019-9-30

Time

30 Sep 2019

12.30 pm- 6 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou

Location

ERC level G

Target

- To check the work assigned in the last meeting.

Minutes

| Item | Who | Outcome |
|---|---|--|
| Welcome | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | |
| Each team member presents his /her work done so far | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | <ol style="list-style-type: none">1. Callum Dowling: present api and the end-back of the MH APP,present the front end and the back end of the MH APP of the appointment function2. Jiaqi Li: Present the database part of our APP3. Yue Hu: complete some of the document (Jira part and risk part)4. Jinxin Tian:complete some of the document (sprint document part, meeting part and V&V part) |
| Code Review and testing | Jinxin Tian | Discuss the Sprint Retrospective. Generally, check the code developed by the technical leader and test our MHApp to check if it has the requirement what we need |
| Sprint plan | Jinxin Tian | Plan for the next sprint (Sprint 3) . Discuss what we need to complete in this sprint and design new story according to the last client meeting |
| Plan for the next meeting | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | We need to check the tasks that we need to completed during this period assigned showed on the JIRA and complete the document section about this sprint. |

Next meeting 10-7

ERC

from 1 pm -3 pm

2019-10-7

Time

07 Oct 2019

1 pm- 4 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou

Location

ERC G floor

Target

- To check the work assigned in the last meeting.

Minutes

| Item | Who | Outcome |
|--|---|---|
| Welcome | Yue Hu Jinxin Tian Callum Dowling Jiaqi Zhou | |
| Check the tasks assigned to every team member in the last meeting. | Jinxin Tian | <ol style="list-style-type: none">1. Callum Dowling: present api and the end-back of the MH APP,present the front end and the back end of the MH APP of the appointment function2. Jiaqi Li: Present the database part of our APP3. Yue Hu: Present the Jira part and risk part4. Jinxin Tian: Present sprint document part, meeting part and V&V part on the confluence |
| Minutes of previous meeting and review of the Action Items | Yue Hu Jinxin Tian Callum Dowling Jiaqi Zhou | <p>Code Review and testing</p> <p>Add some new functions for Sprint 3</p> |
| Progress update from team members | Yue Hu Jinxin Tian Callum Dowling Jiaqi Zhou | <ol style="list-style-type: none">1. Callum Dowling: Implement the api and the end-back of the MH APP2. Jiaqi Li: Complete the front end and the back end of the MH APP of the appointment function3. Yue Hu: Complete the front end of the MH APP of the appointment function and complete some of the document4. Jinxin Tian: Complete the front end of the MH APP of the appointment function and complete some of the document |

| | | |
|---|---|--|
| Planning the activities for the next submission | Yue Hu Jinxin TIAN Callum Dowling Jiaqi Li | 1. Update Jira 2. Update the documents on the confluence 3. Push the code on the Bitbucket |
|---|---|--|

Next meeting 2019-10-14

12 pm-5 pm

Balliue booth 7

Client meeting 1

Time

06 Sep 2019

6 pm- 7 pm

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou
- Mingye Li
- Another group

Location

Spot 3032

Target

- To show the work we have done in sprint 1 and ask questions .

Minutes

| Item | Who | Outcome |
|--|-------------------------------------|---|
| Welcome | All | |
| Join in Zoom | All | Everyone join in it |
| Each team presents their work done so far | Team MH-Quoll | The team MH-Quoll present their app to Susan but the team MH-Bilby does not show their work as they forgot to bring the laptop. |
| Figure out the problem of forgetting to bring laptop | Team MH-Bilby Mingye Li Susan | The team MH-Bilby decide to send the demo of the App via email. |
| Asking questions | Team MH-Quoll | No questions |
| Asking questions | Team MH-Bilb | Callum asks some questions about api and Genies |

Next client meeting Have not been decided, it depends on the next sprint

Client Meeting 2

Time

26 Sep 2019

7 am- 8 am

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Zhou
- Mingye Li
- Another group

Location

Old Engineering

Target

- To show the work we have done in sprint 2 and ask questions .

Minutes

| Item | Who | Outcome |
|---|----------------------------------|---|
| Welcome | All | |
| Each team presents their work done so far | Team MH-Quoll & Team MH-Bilby | The two teams present their app to Susan |
| Asking questions | Team MH-Quoll | No questions |
| Asking questions | Team MH-Bilb | Callum asks some questions about api and Genies |

| | | |
|--------------------------------------|-------|--|
| Client give us some new requirements | Susan | <ul style="list-style-type: none"> • Compatible with Android and iOS. • Patients register with the app using – <ul style="list-style-type: none"> • First name • Last name • Date of Birth • Email address <p>(There can be lots of patients with the same name)</p> <ul style="list-style-type: none"> • 'Push Notifications' to notify the patients of - • When a new appointment is added. • When a new 'resource' is added. • Appointment reminders/confirmations <ul style="list-style-type: none"> • Ability to share information with family/friends/carers. <ul style="list-style-type: none"> • Appointment details • Doctors details • Resources • Resources Page – this page is being used to communicate (one-way) with patients. We can send them useful information/links etc. They can't send anything back to us. <ul style="list-style-type: none"> • The ability to send other information to patients, like messages i.e. when Drs are on holidays and a locum is covering to let the patients know so they can reschedule if they like. • Patients have the ability to delete items on their resources page. • Ability to print information. • Linking to Calendar on phone. • Monthly, weekly, daily and list views - <ul style="list-style-type: none"> • Would like all the appointments listed for that day, week and month, depending what view has been selected. • Or just month and list views if appropriate. • Viewing forms through the app – under appointment details page, under the 'Forms' – forms can get added by clinic and viewed by patients, i.e. Scan request forms or blood request forms. <ul style="list-style-type: none"> • Open up in the app • Ability to print these forms • Viewing past, current and future appointments. • Maps – Maps to be viewed in Doctors, Pathology and Radiology pages. <ul style="list-style-type: none"> • Can click on the address listed and it show in maps. • Map in appointment details page.? The design shows this. |
|--------------------------------------|-------|--|

Next client meeting 2019 10.24 8 am

Client Meeting 3

Time

24 Oct 2019

8 am- 9 am

Attendance

- Yue Hu
- Jinxin TIAN
- @Callum Dowling
- @Jiaqi Zhou
- Mingye Li
- Susan
- Daniel
- Chris
- Another group

Location

Alan Gilbert Building Theatre 4

Target

- To demo the MHapp we have developed in this semester.

Minutes

| Item | Who | Outcome |
|--|-----------------|--|
| Welcome | All | |
| Team Bilby gave a presentation | Yue Hu | Team Bilby gave a presentation to introduce the MHapp. That includes the introduction of our app, key user cases and what functions have been completed. |
| Team Bilby demonstration | Callum Dowling | Demonstrate the MHapp to our client. |
| Asking questions | Susan and Chris | Susan and Chris asked some questions about the app, and those questions were answered by Callum. |
| Team Quoll gave a presentation | Team MH-Quoll | Team Bilby gave a presentation to introduce the MHapp. That includes the introduction of our app and how the deployment details. |
| Team Quoll demonstration | Team MH-Quoll | Demonstrate the MHapp to our client. |
| Asking questions | Susan and Chris | Susan and Chris asked some questions about the app, and those questions were answered by Quoll team. |
| Client give a conclusion about this semester | Susan | Thanks for the development team. |
| Tutor give a conclusion about this semester | Mingye Li | Give a feedback of what we have done in this semester. |
| Tutor give a conclusion about this semester | Daniel | Give some feedback about the technical part about the app developed by two teams. |
| Explain report requirements | Mingye Li | Explain requirements for individual and team reports. |

Feedback

Client's feedback for sprint 1

Login page -

- Should the front page have a logo? or the doctors bag symbol you have used for Radiology for example.
- Can it say 'My Medical Secretary' on the front page please instead of just 'Medical Secretary'. (I think I am going to purchase the domain 'mymedicalsecretary').

Answer: We believe that adding a logo at the front page provides a much better interface for the patient to use. We have updated the page to now say 'My Medical Secretary'.

- When you select 'Forgotten Password' - the pop up says to contact the clinic. Will this be the case or will it let them rest their password?

Answer: After discussing with the team we have decided that a patient who has forgotten their password can reset it themselves. (A password reset mail will be sent to the email that is tied to their username) A patient will still have to contact the clinic should they forget their username.

Menu Page -

- I love the symbols on the menu page for Appointments, Doctors, Hospital and Resources but is it possible to find one for Radiology and Pathology that might be a little closer to the meaning, like a camera or x-ray type picture for Radiology and maybe something else for pathology? I did think an injection or needle for pathology but lots of people hate needles, so maybe not the best idea! For example –

I'm not sure where you have gotten the little pictures from but I do like them.

o Are they free images for us to use in the final design of the app?

Answer: The images are free for us to use. We have changed the pictures to now better represent their categories.

- I don't know how involved you guys get with the design, so forgive me if I am going over the top here but I love the colours you have used on the menu page. It might look great if you can do a background colour on the front page (if you think it would work). Combining those 3 colours you have used blended together. Example -

like colour fading maybe. Thoughts?

Answer: We have tested around with the colour scheme and have added an appropriate blend of colours for the new background.

- I would like to have a notification detail on the app for new appointments and resources when they are sent to the app – like a red dot we discussed and then it disappears once the patient has seen it.

o Just to clarify – they won't get a notification pop up on their phone when

something new is added, it will just show up the dot when they go into the app and check, is that right?

Answer: Yes. There will be a red dot that will show up in the menu page as long as a patient has unopened appointments/resources. The red dot will disappear once all appointments/resources have been viewed.

Appointments Page -

- Can we have the appointments listed under the monthly calendar view? As discussed.

Answer: This has been implemented.

- Can we also have the option to view the appointment in a 'List' view, 'Weekly' view and the 'monthly' view that you already have? I think it would be great to give the patient the option of how they would like to see their upcoming appointments. I would be happy for the monthly view to be the default page.

o It automatically link with the calendar on the phone correct?

Answer: A button can be implemented at the top right corner that can alternate between the 'List' view and 'Monthly' view.

- Time frame to set the appointment reminders – Can this be changed on the back end if we change our mind? For example, I think to start with we can try a reminder 3 days ahead of the appointment, however, if we get feedback from patients over the year they would prefer a 2 day or 4 day reminder, can we change it?

Answer: Yes, it is easily changeable in the backend of the website.

Appointment Details Page -

- I notice that it has 'forms' under the map - that is fabulous! Can you clarify for me - Does it open up in the app or as a different window? When they close it, will they go back to the appointment details page? Would the secretary have to attach those forms for the patients in the back end of the app? (Sorry, I think we discussed this early on but I have forgotten).

Answer: Clicking on the forms will result in the user being redirected to the actual form in the app. (From there they can have the option of printing the form).

Doctors Page -

- **Can we please have a share button so patients can text or email people the doctor's details?**

Answer: Doctor's details are now shareable.

- **I think it would be worth having a Bio on the doctors age** - It could be a link to a bio on a website. It would draw traffic to their websites also! (Most would have this). For example - <https://www.darebinspecialistcentre.com.au/aprof-niall-tebbutt>

Answer: Doctor's now have a link on their information page that will redirect to their websites.

Resources Page –

- **Can we share resources page via messages and email?** As discussed. This would be great if we can.

Answer: Resources are now shareable.

Client feedback for sprint 2

What is important

- Compatible with Android and iOS.
- Patients register with the app using –
 - First name
 - Last name
 - Date of Birth
 - Email address

(There can be lots of patients with the same name)

- ‘Push Notifications’ to notify the patients of -
 - When a new appointment is added.
 - When a new ‘resource’ is added.
 - Appointment reminders/confirmations
- Ability to share information with family/friends/carers.
 - Appointment details
 - Doctors details
 - Resources
- Resources Page – this page is being used to communicate (one-way) with patients. We can send them useful information/links etc. They can't send anything back to us.
 - The ability to send other information to patients, like messages i.e. when Drs are on holidays and a locum is covering to let the patients know so they can reschedule if they like.
 - Patients have the ability to delete items on their resources page.
 - Ability to print information.
- Linking to Calendar on phone.
- Monthly, weekly, daily and list views -
 - Would like all the appointments listed for that day, week and month, depending what view has been selected.
 - Or just month and list views if appropriate.
- Viewing forms through the app – under appointment details page, under the ‘Forms’ – forms can get added by clinic and viewed by patients, i.e. Scan request forms or blood request forms.
 - Open up in the app
 - Ability to print these forms
- Viewing past, current and future appointments.
- Maps – Maps to be viewed in Doctors, Pathology and Radiology pages.
 - Can click on the address listed and it show in maps.
 - Map in appointment details page.? The design shows this.

Multiple Clinic Use

- Is this possible?
- All clinics control their own servers (usually).
- Would I need my own server (cloud)?
- When patients see a new Dr at a new clinic, how do the drs details get added to the ‘Doctors’ page on the patient’s app?
 - What about their details for hospital/pathology/radiology etc.?
- Would each clinic need to control their own clinic details?
- Patients seeing multiple Drs at multiple clinics - If patient is attending multiple clinics, will it just add to their app because of their username /password? Will it recognise the patient already has an account?

Stakeholder correspondence

| Date | From->To | Content |
|----------|------------------|---|
| 22/08/19 | Callum->Eduardo | <p>Dear Eduardo,</p> <p>I am working in the Medical heal app project for SWEN90014 and was planning on meeting you this week.</p> <p>Perhaps we could resolve some of our problems via email if you are feeling better.</p> <p>My main concern right now is that we have a requirement to synchronize the GENIE database and a database that we own.</p> <p>Do you have any guide as to how to achieve this? this is a core requirement and we are a bit lost with this aspect.</p> <p>I have set up GENIE on my computer and tried to start a mysql connection but couldn't connect to the database.</p> <p>What are the technical details of the GENIE backend? Mingye told us that you were the person to ask.</p> <p>Thanks,</p> <p>Callum</p> |
| 24/08/19 | Meeting | <p>Minutes:</p> <ul style="list-style-type: none"> -Eduardo has already made a script to scrape data from genie for each computer that it is installed on, the data is then inserted into a database -The script is only one way (from genie instance to database), is installed on every doctors desktop, and is called every hour or so, 2 observations: <ul style="list-style-type: none"> 1. The data is not live but delayed by however much time the script interval is 2. There is no clear way to insert back into the genie database and thus, unless the REST api included these functions, our app will only display information from the database rather than insert or update any db state -There is also a server backend that contains a REST api which then interacts with the database -Eduardo will publish the code for these elements as well as the update script that is installed on each computer -The only part of the process that is in scope for us is the front end connection(the ios and android apps) to the apii there is issues with any other element it is not our problem according to himl will get to work on the EA as soon as Eduardo sends me the code and database details and schema etc. |
| 26/08/19 | Eduardo ->Callum | <p>Hi Callum,</p> <p>Confluence is down atm so I can't send you the DB schema and API. I'll keep trying to access the tool today/next few days.</p> <p>As soon as I have access to it, I'll share it with you.</p> <p>And, your understanding is correct. You just need to present the data (already available on the DB and mapped through the API) in the best possible way on mobile devices. And you can explore push notifications and other features on the phones to enrich the user experience while checking their appointments/calendar.</p> <p>Best, Eduardo.</p> |
| 28/08/19 | Callum->Eduardo | <p>Hi Eduardo,</p> <p>I'd hate to be a thorn in your side because you have been so helpful to us, but we have our executable architecture sprint due this weekend, so time is of the essence for the DB schema, API and script documents.</p> <p>I have made POC's for our app but would like to get the schema and database version because we can't really make an executable architecture without it.</p> <p>Thanks,</p> <p>Callum</p> |

| | | |
|--------------|---------------------|---|
| 28/08 /19 | Eduardo ->Callum | <p>Hi Callum,</p> <p>Thank you very much for getting in touch again. Confluence is up again. I just download a bunch of documents for you. Hopefully they'll help you heaps.</p> <p>Please find attached: the specifications from last year's project, the SQL script (with data so you can use that to populate the front-end, which is the scope of your project) and a bunch of other documents shows the API.</p> <p>I'm cc'ing Mingye here so he can share the documents with the other team as well.</p> <p>Please let me know if you want to meet again next week.</p> <p>Best, Eduardo.</p> <p>(Attached = sql dump file, specification for api, report pdf)</p> |
| 29/08 /19 | Callum->Eduardo | <p>Hi Eduadro,</p> <p>I have set up the backend server, could I have access to the .war file and /or source code for api?</p> <p>Thanks,</p> <p>Callum</p> |
| 30/08 /19 | Eduardo ->Callum | <p>Hi Callum,</p> <p>I'll share the source code with you ASAP (I'm not in my office now).</p> <p>Best, Eduardo</p> |
| 02/09 /19 | Callum->Eduardo | <p>Hi Eduardo,</p> <p>Did you get a chance to share the code ?</p> <p>Further from our discussion the other day where you said that the data will only flow one way(no user inserts or deletes)</p> <p>Here is our functional reqs from the client</p> <ul style="list-style-type: none"> 1. Users are able to log in and out of their account. 2. The login details can be changed by the user who has higher level permission. 3. The system should show the list of all the appointments and match them with the calendar. 4. The date of the appointment can be changed by the user who has higher level permission. 5. Users are able to share the appointment information with others. 6. Users are able to view doctors and hospital information. 7. The resources provided by the clinic should be published to the system. 8. Users are able to view information on pathology and radiology. 9. The forms should be listed on the application and users are able to view and print them. 10. The system should show the route to the hospital on the map. 11. The system should automatically prompt the user for the visit time 3 days before. 12. Once the information is changed, such as password or date of appointment, or the new information of resources are updated, the system should remind users <p>How do I reconcile 2, 4 while not being able to update database state?</p> <p>Thanks,</p> <p>Callum</p> |

| | | |
|--------------|---------------------|---|
| 03/09 /19 | Eduardo ->Callum | <p>Hi Callum,</p> <p>Please find the source code for the front-end, back-end and genie script here: https://www.dropbox.com/sh/85hhf0sse68mfp/AAAa3IJGsZ4Jt7j5pP7Y7kda?dl=0 (we cannot share this externally).</p> <p>And, yes, you are only focusing on displaying the data from Genie (already on the DB) on the mobile device. That's the scope of your project.</p> <p>No user inserts or deletes. The App is just a client, retrieving and displaying contents to users.</p> <p>For REQ 2 and 4, if I'm not wrong, the login of the user exists on the DB (pulled from Genie). The user has to come up with a passwd only.</p> <p>As part of your validation, you need to make sure that the user's email exists in the DB. That's all.</p> <p>I hope this helps.</p> <p>Best,</p> |
| 04/03 /19 | Callum->Eduardo | <p>Hi Eduardo,</p> <p>Thanks for sending those files.</p> <p>I have got the api built and running, I was just wondering:</p> <p>Are you aware that there is only a hello world & email resource for the api (see attached)?</p> <p>I thought that the api is complete. Was I wrong or is there another version floating around?</p> <p>Thanks,</p> <p>Callum</p> <p>Preview attachment Screenshot from 2019-09-04 15-20-16.png</p> <p>Screenshot from 2019-09-04 15-20-16.png 82 KB</p> <p>Preview attachment screenshot_20190904_153747.png</p> <p>screenshot_20190904_153747.png 137 KB</p> |

Requirements Artefacts

Acceptance Tests

The acceptance tests are created to check if the application runs as intended using several possible scenarios that will most likely occur while using this program.

Possible Scenarios

- 1) View information about an appointment for Friday 17 May with Dr Belinda Yeo at the Warringal Private Hospital and share this information with family.

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|---|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User Logs In | x | | x | | |
| 2 | User clicks the 'Appointment' button | x | | x | | |
| 3 | User selects the 'List' view | | x | x | | |
| 4 | User scrolls to the date | x | | x | | |
| 5 | User clicks on the specific appointment | x | | x | | |
| 6 | Information about the appointment is displayed | x | | x | | |
| 7 | View the necessary forms for this appointment | | x | x | | |
| 8 | View maps to see the best possible way to get to the hospital | | x | x | | |
| 9 | User shares the information with family | x | | x | | |

- 2) View information about Dr Belinda Yeo and share this information with family.

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User Logs In | x | | x | | |
| 2 | User clicks the 'Doctor' button | x | | x | | |
| 3 | User selects the 'Dr Belinda Yeo' | x | | x | | |
| 4 | Information about Dr Yeo is displayed | x | | x | | |
| 5 | User shares this information with family | x | | x | | |

- 3) View more information about the patient's condition and treatment that the patient is going to receive.

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User accesses the app that remembered the user's login | | x | x | | |
| 2 | User clicks the 'Pathology' button | x | | x | | |
| 3 | User selects and views the relevant information | x | | x | | |
| 4 | User goes back to the menu page | | x | x | | |
| 5 | User clicks the 'Radiology' button | x | | x | | |
| 6 | User selects and views the relevant information | x | | x | | |
| 7 | User goes back to the menu page | | x | x | | |
| 8 | User clicks the 'Resources' button | x | | x | | |
| 9 | User selects and views the relevant information | x | | x | | |

- 4) Use the app to navigate to Warringal Private Hospital

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User accesses the app that remembered the user's login | | x | x | | |
| 2 | User clicks the 'Hospital' button | x | | x | | |
| 3 | User selects Warringal Private Hospital | x | | x | | |
| 4 | User clicks on the map | x | | x | | |
| 5 | User navigates from current location | x | | x | | |

5) User prints a form for an appointment for Friday 17th May

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User accesses the app that remembered the user's login | | x | x | | |
| 2 | User clicks the 'Appointment' button | x | | x | | |
| 3 | User selects the appointment | x | | x | | |
| 4 | User clicks on the relevant form | x | | x | | |
| 5 | User prints the form | x | | x | | |

6) User forgets their login credentials

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User attempts to log in and fails | | x | x | | |
| 2 | User clicks 'Forgot Password' | x | | x | | |
| 3 | Application requires user's login username | x | | x | | |
| 4 | User clicks on 'Forgot Username' | x | | x | | |
| 5 | A popup appears, indicating the user to contact the clinic to recover their username | x | | x | | |

Background

What is Medical Secretary?

The healthcare system in Australia can be a confusing one for many people. People are often confused about what their private health fund will and won't cover, what is covered by Medicare, why they need a referral, what is considered inpatient and outpatient services and so on. A lot of working on the frontline in the health sector and dealing with patients is helping them to understand how the system and processes work.

Medical Heal, as a cross-platform mobile application, aims to help patients organise and manage all of the information and appointments surrounding their diagnosis by enabling presentation of clear and concise information in an effective and efficient manner. The MH app can be adapted to many different clinical settings and modalities, it is not just aimed purely at cancer patients. It has the ability to be far reaching in terms of the number of patients and medical clinics that can utilise the app.

What is the scope of Medical Secretary Project?

Medical Heal App is a mobile application designed for iOS, android and tablet users. It is being designed for patients who have been diagnosed with a serious illness, such as Cancer, and help them organise and understand all of the information and appointments surrounding their diagnosis, which, in return, reduce patient confusion and queries.

The app was also designed for medical clinics, utilising (but not limiting to) the medical software, [GENIE](#), to enable them to present clear and concise information to their patients and their families in an efficient and effective manner. It was designed to help clinics reduce the increasing costs of running a business by reducing expenses such as, printing, paperwork and postage.

What is the aim of the mobile application?

Most patients, when diagnosed with a serious illness, will tend to be upset and shocked, and as a result, be unable to retain any information given by the doctor. Additionally, there will be a lot of paperwork required for the patients to fill in, and with the numerous amounts of forms, patients will tend to misplace them or forget to fill them in. The main aim of the mobile application is to create a central hub for patients to access all their medical information, fill out the necessary documents, and keep track of their appointments.

Who can use Medical Secretary?

This application has been designed with patients' needs in mind, especially for patients who:

- See a Specialist, GP and/or Allied Health provider.
- May have been diagnosed with a serious illness.
- want to have a better understanding of what to do, and when, in terms of appointments and tests to be done.

Demo

Presentation



App demo

Digital Prototype

According to the [client feedback](#), the following changes are made:

- **Log in**
 - Have a logo at the front page
 - Change to 'My Medical Secretary' on the front page
 - When you select 'Forgotten Password', they can reset their password
- **Menu**
 - Find one for Radiology and Pathology that might be a little closer to the meaning, like a camera or x-ray type picture for Radiology and maybe something else for pathology.
 - Do a background colour on the front page
 - New appointments and resources when they are sent to the app – like a red dot
- **Appointment**
 - Have the appointments listed under the monthly calendar view
 - Make forms for each appointment clickable
- **Doctors**
 - Have a share button so patients can text or email people the doctor's details?
 - Have a Bio on the doctors age
- **Resource**
 - Share resources page via messages and email

Goal Model

Goal Model Diagram

Do-Be-Feel-Who List

| Do (Functional goal) | | Be (Quality Goal) | Feel (Emotional goal) | Who (Role) | | |
|----------------------------|----------------------------------|--|--|--|--|--|
| Notification | Appointment | <ul style="list-style-type: none"> Send confirmation message when a new appointment is created over the phone. Send remainder message of upcoming appointments Send reschedule messages to patients | <ul style="list-style-type: none"> Easy-to-use Lightweight Generic design (no clinic logo) Reliable & Secure Realtime Considerate for the elderly Reusability | <ul style="list-style-type: none"> convenient relieved safe connected self-sufficient comfortable (to share information) understanding satisfied | | |
| | Resources | <ul style="list-style-type: none"> send a message when a new resource is added | | | | |
| Display | Donation links on resources page | | | <ul style="list-style-type: none"> Patient Doctor Receptionist | | |
| | Medical information | | | | | |
| | Doctor details | | | | | |
| | Appointment | <ul style="list-style-type: none"> Each appointment details The history of all appointments appointment time on calendar on phone | | | | |
| | Locations | <ul style="list-style-type: none"> Pathologies places Scan/Radiology places Hospital places | | | | |
| | Check-up Items | <ul style="list-style-type: none"> Pathologies test Scan/Radiology test | | | | |
| Print | Appointment details | | | | | |
| | Forms for future appointments | | | | | |
| Share | Doctor details | | | | | |
| | Appointment details | | | | | |
| | Medical Information | | | | | |
| Upload forms | | | | | | |
| Multi-clinics usage | | | | | | |

Personas

Persona 1: Patient

Persona 2: Patient

Persona 3: Family member

Persona 4: Receptionist

Quality Requirements

Functional Requirements:

1. Users are able to log in and out of their account.
2. The login details can be changed by the user who has higher level permission.
3. The system should show the list of all the appointments and match them with the calendar.
4. The date of the appointment can be changed by the user who has higher level permission.
5. Users are able to share the appointment information with others.
6. Users are able to view doctors and hospital information.
7. The resources provided by the clinic should be published to the system.
8. Users are able to view information on pathology and radiology.
9. The forms should be listed on the application and users are able to view and print them.
10. The system should show the route to the hospital on the map.
11. The system should automatically prompt the user for the visit time 3 days before.
12. Once the information is changed, such as password or date of appointment, or the new information of resources are updated, the system should remind users.

Non-functional Requirements:

The quality requirements for our product are structured around the ISO/IEC standards.

Product quality

- Functional suitability
 - The mobile application will fully meet the functional needs of Susan ("the client") in helping the patient organise and understand information and appointments surrounding a condition, situation or to simply keep track of medical appointments they may have.
 - These needs are outlined in the User Stories document.
- Reliability
 - During 'uptime', the system will adhere to all other functional and non-functional requirements.
 - No single period of system 'downtime' will exceed 24 hours.
 - The system will not exhibit periods of downtime over thirty minutes in excess of once per month.
- Operability
 - No additional software needs to be installed to access and use the program.
 - Users will be able to easily understand and use the application with minimal guidance or information.
- Performance efficiency
 - The application requires to be performed in iOS or Android system.

Quality in use

- Effectiveness
 - During uptime, the application should faultlessly and completely achieve user goals as outlined in the User Stories.
- Efficiency
 - The user must be able to achieve all user stories with minimal perceived effort.
 - User stories shall take no longer than 5 minutes.
- Satisfaction
 - The user should perceive their use of the application as easy and comfortable.
 - The application must appear trustworthy and reliable.
- Usability
 - See *Operability*.

Roles and Responsibility

Yue Hu (Product Owner):

- Representing the interests of the client
- Maximizing the value of the product
- Providing the ultimate opinion
- Managing the product backlog
- Write user stories and acceptance criteria
- Ensure items are clear and well understood
- Prioritize the backlog

Jinxin Tian (Scrum Master)

- Listens, committed to growth, foresight, has the ability to build community, collaboration, trust, empathy, and the ethical use of power
- Expect people will deliver unless an issue is raised.
- The team determines the action plan to achieve max value product (high value + high quality + high productivity)

Jiaqi Zhou (Quality Assurance Leader)

- Ensure processes are defined to achieve fitness-for-purpose
- Ensure processes are followed (or modified if not working)
- Meeting processes (team, client)
- Development management processes (e.g. for BitBucket)
- Testing policy and practices
- Code reviewing policy/practices (standards/checklists)
- Anything else needed to be sure that the product is acceptable

Callum Dowling (Development Environment Leader & Architecture Leader)

- Understands the technology & Development environment
- Manages development configuration
- Supports the setup and maintenance of development environments in team members' computers
- Provide resources for tool/technology learning
- Leads and coordinates technology research and reuse
- Understands the complete architecture at all times
- Ensuring that architectural requirements are met
- Coordinates efforts between sub-teams (e.g. front- end and back-end)
- Ensures integration of sub-systems and components is possible

User stories

User Stories (Story points is the amount of effort required)

| ID | User Stories | Story Points |
|-----------------|--|--------------|
| 1) Account | | |
| 1.1 | As a patient, I want to log in and out of my account, so that I can access information about myself. | 2 |
| 1.2 | As a receptionist, I want to be able to reset the login details of an account so that patients can access their accounts again. | 2 |
| 2) Appointments | | |
| 2.1 | As a patient, I want to be able to see my upcoming appointments so that I can keep track of them. | 4 |
| 2.2 | As a patient, I want to be able to see my past appointments so that I can see the progress of my condition over the years. | 3 |
| 2.3 | As a receptionist, I want to be able to change the date of the appointment so that rescheduling can be possible for patients. | 2 |
| 2.4 | As a patient, I want to be able to share my appointment information with my friends and family so that they can be at ease knowing my situation. | 5 |
| 3) Information | | |
| 3.1 | As a patient, I want to be able to view information about my hospital so that I can know more about my treatment. | 3 |
| 3.2 | As a patient, I want to be able to view information about my doctors so that I know that I am in safe hands. | 3 |
| 3.3 | As a patient, I want to be able to view the resources provided by the clinic so that I receive important information. | 4 |
| 3.4 | As a receptionist, I want to be able to send patients resources so that they can be more up to date on their situation. | 4 |
| 3.5 | As a patient, I want to be able to view information on pathology so that I can better understand my condition. | 3 |
| 3.6 | As a patient, I want to be able to view information on radiology so that I can better understand my treatment. | 3 |
| 3.7 | As a patient, I want to be able to view and print forms so that I can easily replace lost forms | 3 |
| Miscellaneous | | |
| 4.1 | As a patient, I want to be redirected to Maps after clicking on an address so that I can easily navigate to the destination. | 2 |
| 4.2 | As a patient, I want to be able to set up my own profile so that I can check if my current information is up to date. | 6 |
| 4.3 | As a patient, I want to be able to customize my profile picture so that I feel the account is personalized | 3 |

Wireframe and Moodboard

Risk Management

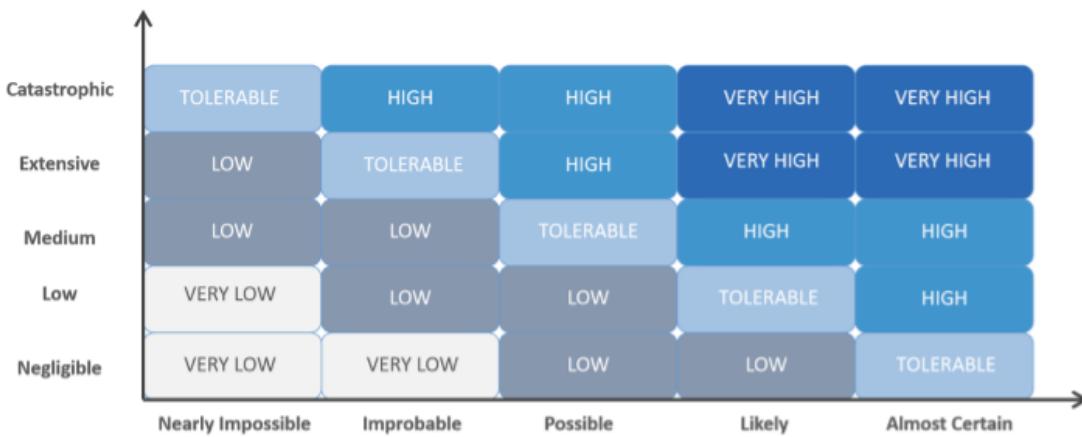
Risk Monitoring and Control

| Risk ID | Occurred Risk | Description and Impact | The approach to mitigate the risk |
|---------|---|---|--|
| 1 | No experience for using new project development tools, including Flutter and Docker | Most of the team members are not familiar with Flutter and Docker which lead to the speed of coding is low and we need more time to learn and discuss with each other | Members with more experience can teach others and we need to watch some more videos to learn. |
| 3 | Our weekly meeting can only happen during the tutorial | We do not have a lot of meetings besides the weekly tutorial and lectures which makes the communication can only through the internet. | Talk more on slack and meeting through applications such as slack or facebook. |
| 4 | The client do not have time to meet with the development team | The client did not have time to meet with us during the first sprint review. This risk will affect the feedback of our product from the client. | We change the face-to-face meeting to the video meeting by using the team viewer app. |
| 8 | The lack of communication between team members | The members are all new to each other so it is hard for us to communicate at first. | We tried to get to know each other very quickly, and schedule the meeting for sufficient discussion and communication. |
| 11 | Some tasks could not be finished in the due time | Some small features are too hard for us and did not finish in the end. The impact depends on the importance of the feature. | Try to finish it, and learn it hard from the Internet or books. If still failed to do so, just accept the risk. |

Risk Register Table

Version 2.0:

| Level of Probability (Percentage) | Level of Impact (Score) |
|-----------------------------------|-------------------------|
| Nearly impossible (10%) | negligible (1) |
| Improbable (10% < & 25%) | Low (2) |
| Possible (25% < & 50%) | Medium (3) |
| Likely (50% < & 80%) | Extensive (4) |
| Almost Certain (80% < & < 100%) | Catastrophic (5) |
| | |



*The chart was described (Institute of Chartered Accountants Australia 2013).

| Risk ID | Risk description | Type | Date identify | Sverity | Pri ority | Mitigation behaviour | Probability | Impact | Score |
|---------|---|------------|---------------|---------|-----------|---|-------------|--------|-------|
| 1 | No experience for using new project development tools, including Flutter and Docker | project | 2019 /8/12 | High | High | Watching vedio online to learn these new tools | 80% | 4 | 3.2 |
| 2 | Failure of push and pull code from gitbucket because all members are not familiar with gitbucket | project | 2019 /8/12 | High | High | Working together and learn online | 40% | 5 | 2 |
| 3 | Unable to hold on the weekly meeting for the whole team because some members maybe unavailable | project | 2019 /8/5 | Me dian | Me dian | Making good meeting notes and share these notes to the members who cannot come | 60% | 3 | 1.8 |
| 4 | The client do not have time to meet with the development team | project | 2019 /8/20 | Me dian | High | Trying to communicate with the client and confirm the meeting time | 80% | 3 | 2.4 |
| 5 | Misunderstand of some requirements | project | 2019 /8/25 | High | me dian | Confirm every requirement before develop the requirement | 30% | 5 | 1.5 |
| 6 | The software may breaks down as the extensible and inappropriate architectural design. | techn ical | 2019 /8/28 | High | High | Designing the architecture should be careful for the purpose of extensibility and performance. | 20% | 4 | 0.8 |
| 7 | The unsafe database may result in information leaking | techn ical | 2019 /8/28 | High | Me dian | More carefully when building the database | 30% | 4 | 1.2 |
| 8 | The communication between team members is lacked; Group performance is far from satisfactory; Misunderstand | project | 2019 /8/20 | High | Me dian | The communication issue usually affects the final results of the project and whether the project can success. | 50% | 5 | 2.5 |
| 9 | The business owner may adds or changes some features leading to more work need to be done and late delivery of the product. | pro duct | 2019 /8/5 | High | Me dian | More communications to reduce the risk of late delivery | 30% | 4 | 1.2 |
| 10 | The scope and features chosen is not properly. Therefore, the product needs to be redeveloped. | pro duct | 2019 /8/5 | Me dian | High | The user stories may not be divided to tasks appropriately. | 30% | 5 | 1.5 |

| | | | | | | | | | |
|-------------|--|---------|-----------|------|------|--------------------------------|-----|---|-----|
| 11 (New) | The tasks can not be finished in the due time and make the product may be delayed. | project | 2019/9/20 | High | High | Spend more time on the project | 60% | 4 | 2.4 |
|-------------|--|---------|-----------|------|------|--------------------------------|-----|---|-----|

Version 1.0:

Risk Tracking Table

| Risk ID | Risk description | Date identify | Severity | Priority | Mitigation behaviour | Probability |
|---------|---|---------------|----------|----------|---|-------------|
| 1 | No experience for using new project development tools, including Flutter and Docker | 2019/8/12 | High | High | Watching vedio online to learn these new tools | 80% |
| 2 | Failure of push and pull code from gitbucket because all members are not familiar with gitbucket | 2019/8/12 | High | High | Working together and learn online | 40% |
| 3 | Unable to hold on the weekly meeting for the whole team because some members maybe unavailable | 2019/8/5 | Median | Median | Making good meeting notes and share these notes to the members who cannot come | 60% |
| 4 | The client do not have time to meet with the development team | 2019/8/20 | Median | High | Trying to communicate with the client and confirm the meeting time | 80% |
| 5 | Misunderstand of some requirements | 2019/8/25 | High | Median | Confirm every requirement before develop the requirement | 30% |
| 6 | The software may breaks down as the extensible and inappropriate architectural design. | 2019/8/28 | High | High | Designing the architecture should be careful for the purpose of extensibility and performance. | 20% |
| 7 | The unsafe database may result in information leaking | 2019/8/28 | High | Median | More carefully when building the database | 30% |
| 8 | The communication between team members is lacked; Group performance is far from satisfactory; Misunderstand | 2019/8/20 | High | Median | The communication issue usually affects the final results of the project and whether the project can success. | 50% |
| 9 | The business owner may adds or changes some features leading to more work need to be done and late delivery of the product. | 2019/8/5 | High | Median | More communications to reduce the risk of late delivery | 30% |
| 10 | The scope and features chosen is not properly. Therefore, the product needs to be redeveloped. | 2019/8/5 | Median | High | The user stories may not be divided to tasks appropriately. | 30% |

Sprint Documentations

Demo vedio

[sprint3_demo_vedio.mp4](#)

Product Backlog

| Userstory | Tasks | Time | Total time |
|---|--|------------------------------|------------|
| 1.1 As a patient, I want to log in and out of my account, so that I can access information about myself. | 1 Create the login page in front end 2.Create the secure database for user profile 3.Create the log out button for logout 4.Verify the user login information | 2 8 1 3 | 14 hours |
| 1.2 As a receptionist, I want to be able to reset the login details of an account so that patients can access their accounts again. | 1. The front end page enable to reset login detail 2. Able to change the information of users in the database | 2 3 | 5 hours |
| 2.1 As a patient, I want to be able to see my upcoming appointments so that I can keep track of them. | 1. Create the page for appointment list 2. Create the page for represent one appointment detail 3.Link the previous pages together 4.Access the appointment information from the database | 2 2 1 3 | 8 hours |
| 2.2 As a patient, I want to be able to see my past appointments so that I can see the progress of my condition over the years. | 1. Create the front-end page for appointment list 2.Access the information from the database and illustrate them on the front end pages. | 2 3 | 5 hours |
| 2.3 As a receptionist, I want to be able to change the date of the appointment so that rescheduling can be possible for patients. | 1. Front-end page for reschedule 2. Change appointment the information in database | 2 3 | 5 hours |
| 2.4 As a patient, I want to be able to share my appointment information with my friends and family so that they can be at ease knowing my situation. | 1. Front end pages for group list 2. Front end pages for chat 3. Link the pages to the servers so that messages can be shared in groups. | 2 3 5 | 10 hours |
| 3.1 As a patient, I want to be able to view information about my hospital so that I can know more about my treatment. | 1. Create front end pages for details of hospital 2.Create hospital profiles in database 3.Access the information for the back end | 2 3 3 | 8 hours |
| 3.2 As a patient, I want to be able to view information about my doctors so that I know that I am in safe hands. | 1.Create front end pages for details of doctor 2. Create doctor profiles in database | 3 4 | 10 hours |

| | | | |
|---|---|---|----------|
| | 3. Access the doctor information from the back end | 3 | |
| 3.3 As a patient, I want to be able to view the resources provided by the clinic so that I receive important information. | 1. Able to store the clinic resource in database | 3 | 8 hours |
| | 2. Create front-end pages for clinic resources | 2 | |
| | 3. Link the database to front end | 3 | |
| 3.4 As a receptionist, I want to be able to send patients resources so that they can be more up to date on their situation. | 1. Create the list of patients in the front page | 3 | 10 hours |
| | 2. Create a button of share resources | 1 | |
| | 3. Create pages for choosing what to share | 2 | |
| | 4. Connect the server so that the resources can be sent | 4 | |
| 3.5 As a patient, I want to be able to view information on pathology so that I can better understand my condition. | 1. Create the front end page for pathology information | 2 | 5 hours |
| | 2. Access the database to get information about the patient's pathology | 3 | |
| 3.6 As a patient, I want to be able to view information on radiology so that I can better understand my treatment. | 1. Create the front end page for radiology information | 2 | 5 hours |
| | 2. Access the database to get information about the patient's radiology | 3 | |
| 3.7 As a patient, I want to be able to view and print forms so that I can easily replace lost forms | 1. Front page for view | 2 | 6 hours |
| | 2. Add the button for print | 1 | |
| | 3. Able to link the printer | 3 | |
| 4.1 As a patient, I want to be redirected to Maps after clicking on an address so that I can easily navigate to the destination. | 1. Front page for navigation | 2 | 9 hours |
| | 2. Access the google map | 4 | |
| | 3. Show path in map | 3 | |
| 4.2 As a patient, I want to be able to set up my own profile so that I can check if my current information is up to date. | 1. Front end page for user profile | 2 | 5 hours |
| | 2. Access the database and able to change | 3 | |
| 4.3 As a patient, I want to be able to customise my profile picture so that I feel the account is personalised | 1. Access to the phone photos | 3 | 5 hours |
| | 2. Front end pages to customise my profile picture | 2 | |

sprint 2

sprint backlog 2

Total Story Points: 24

Total Hours: 48

Deadline: 24 Sep 2019

Story 04: track of upcoming appointments

| Task ID | Task Description | Estimate | Taken |
|---------|--|-----------------|-------|
| T41 | Create the page for appointment list | 2 | N/A |
| T42 | Create the page for represent one appointment detail | 2 | N/A |
| T43 | Link the previous pages together | 1 | N/A |
| T44 | Access the appointment information from the database | 3 | N/A |
| T45 | Implement the UI design in HTML, CSS, and JavaScript | 4 | |
| | Story Points: 12 | Total Hours: 24 | 12 |
| | | | N/A |

Story 05: see my past appointments

| Task ID | Task Description | Estimate | Taken |
|---------|--|----------------|-------|
| T51 | Create the front-end page for appointment list | 2 | N/A |
| T52 | Access the information form the database and illustrate them on the front end pages. | 2 | N/A |
| T53 | Implement the UI design in HTML, CSS, and JavaScript | 4 | N/A |
| | Story Points: 8 | Total Hours:16 | 11 |
| | | | N/A |

Story 06: change the date of the appointment

| Task ID | Task Description | Estimate | Taken |
|---------|--|----------------|-------|
| T61 | Front-end page for reschedule | 2 | N/A |
| T62 | Access the information form the database and illustrate them on the front end pages. | 2 | N/A |
| T63 | Implement the UI design in HTML, CSS, and JavaScript | 4 | N/A |
| | Story Points: 8 | Total Hours:16 | 11 |
| | | | N/A |

Story 07: share my appointment information

| Task ID | Task Description | Estimate | Taken |
|---------|--|----------------|-------|
| T71 | Front end pages for group list | 2 | N/A |
| T72 | Implement the UI design in HTML, CSS, and JavaScript | 4 | N/A |
| | Story Points: 6 | Total Hours:12 | 10 |
| | | | N/A |

sprint planning meeting 2

Attendance

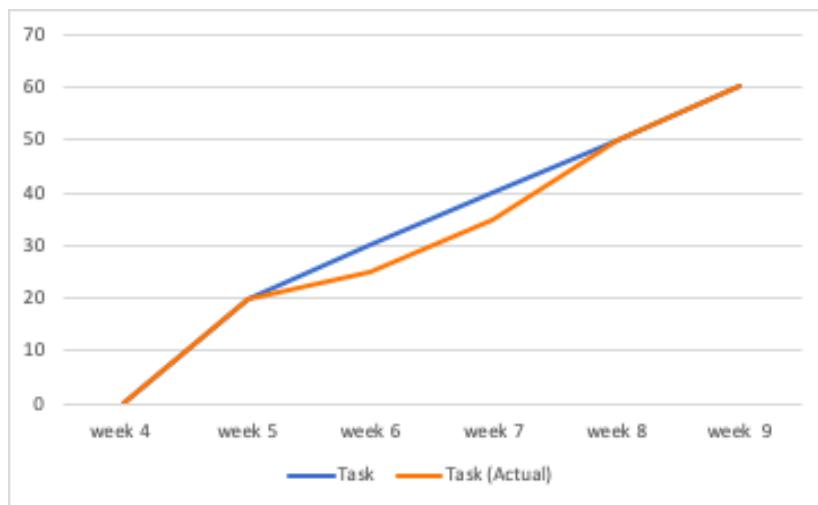
- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

Location

Booth 2, ERC Library

Burn Down Chart

Burn down chart shown below compares the ideal rate of progress to the actual rate of progress. Since the team members are not familiar with the flutter, project was way behind schedule in the sprint 2



User story should be completed

| | |
|----|--|
| 1 | As a patient, I want to be able to see my upcoming appointments so that I can keep track of them. |
| 2 | As a patient, I want to be able to see my past appointments so that I can see the progress of my condition over the years. |
| 3 | As a receptionist, I want to be able to change the date of the appointment so that rescheduling can be possible for patients. |
| 4 | As a patient, I want to be able to share my appointment information with my friends and family so that they can be at ease knowing my situation. |
| 5 | As a patient, I want to be able to view information about my hospital so that I can know more about my treatment. |
| 6 | As a patient, I want to be able to view information about my doctors so that I know that I am in safe hands. |
| 7 | As a patient, I want to be able to view the resources provided by the clinic so that I receive important information. |
| 8 | As a receptionist, I want to be able to send patients resources so that they can be more up to date on their situation. |
| 9 | As a patient, I want to be able to view information on pathology so that I can better understand my condition. |
| 10 | As a patient, I want to be able to view information on radiology so that I can better understand my treatment. |
| 11 | As a patient, I want to be able to view and print forms so that I can easily replace lost forms |

Sprint Retrospective Meeting 2

The Sprint Retrospective occurs after the **Sprint Review** and prior to the next **Sprint Planning**. This is at most a three-hour meeting for one-month Sprints. For shorter Sprints, the event is usually shorter. The **Scrum Master** ensures that the event takes place and that attendants understand its purpose. This is the opportunity for the Scrum Team to improve and all member should be in attendance.

During the Sprint Retrospective, the team discusses:

- What went well in the Sprint
- What could be improved
- What will we commit to improve in the next Sprint

Attendance

- Yue Hu
- Jinxin TIAN
- @Callum Dowling
- @Jiaqi Li

MHBI1419 board - Agile Board

小白必看|申请香港留学... DIY香港留学申请... 香港理工大学 (Pol... 剑桥雅思听力1-10... 信软学院卓越工程... CSS Id 和 Class选... HTML <!DOCTYPE... [Mac][Dash]D...

Jira Software Dashboards Projects Issues Boards Structure Portfolio Create Search

MHBI1419 board

MHBI1419 Sprint 2

① 5 days remaining Complete Sprint Board

QUICK FILTERS: Only My Issues Recently Updated

TO DO

MHBI1419-12
As a patient, I want to be able to view information on pathology so that I can better understand my condition.
3

MHBI1419-13
As a patient, I want to be able to view information on radiology so that I can better understand my treatment.
3

MHBI1419-24
API code
3

MHBI1419-25
Link to db
2

IN PROGRESS

MHBI1419-4
As a patient, I want to be able to see my upcoming appointments so that I can keep track of them.
4

MHBI1419-5
As a patient, I want to be able to see my past appointments so that I can see the progress of my condition over the years.
3

MHBI1419-6
As a receptionist, I want to be able to change the date of the appointment so that rescheduling can be possible for patients.
2

DONE

MHBI1419-3
As a receptionist, I want to be able to reset the login details of an account so that patients can access their accounts again.
2

MHBI1419-8
As a patient, I want to be able to view information about my hospital so that I can know more about my treatment.
3

Location

ERC

| What went well during the sprint | What could be improved in the next sprint |
|--|---|
| The communication is good. Team members are quickly responsible and available if needed. All of the team members are motivated and efficient and the cooperation between teammates is pleasant. This makes our work effectively and efficiently. | Group meetings became less. There were only two meetings during this sprint. Face-to-face communication is less than the previous sprint. |
| Everyone started their own tasks early and finished on time. Many tasks were done well during such a short-term sprint. | Jira is not updated in time. |
| Tasks are assigned properly. The development process is efficient . | Some planned tasks are behind schedule. The tasks delayed after last week is not finished and we still need to work on these difficult tasks in order to have a satisfied product |
| Callum helped a lot on the development of product. | The communication this week is not that enough, maybe next week we can have more time to work together |

| | |
|--|--|
| The discussion of everyone's technical bottleneck is valuable. Other team members can provide a few useful advice. | |
| Everyone is very conscientious and responsible. | |
| Many functions of this website have been improved because of the familiarity of the tools. | |

Sprint Review Meeting 2

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

Location

ERC

- We identified new user stories and decomposed corresponding tasks. All must-to-have features were completed. The good-to-have task which is customer reminder was left for the next sprint, but it is optional and prioritised low. Improvements on both UI design and functions were needed continuously. We followed the sprint review agenda to execute the plan. At this stage, our development team identified user stories and decomposed the product backlog corresponding tasks. At the sprint review, we decided the scope of features of sprint 2, then followed the sprint review agenda to execute the plan. Each use case reflect one or more user stories. According to each user story, our development team achieve the product functions. Moreover, during this meeting, we find that more functions are expected to improve the website.

3) View more information about the patient's condition and treatment that the patient is going to receive.

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User accesses the app that remembered the user's login | | x | x | | |
| 2 | User clicks the 'Pathology' button | x | | x | | |
| 3 | User selects and views the relevant information | x | | x | | |
| 4 | User goes back to the menu page | | x | x | | |
| 5 | User clicks the 'Radiology' button | x | | x | | |
| 6 | User selects and views the relevant information | x | | x | | |
| 7 | User goes back to the menu page | | x | x | | |
| 8 | User clicks the 'Resources' button | x | | x | | |
| 9 | User selects and views the relevant information | x | | x | | |

Sprint 1

Sprint Backlog

Total Story Points: **17**

Total Hours: **34**

Deadline: 5 Sep 2019

Story 01:Design the user database

| Task ID | Task Description | Estimate | Taken |
|------------|--|----------------|-------|
| T01 | Design database table for storing the information of user | 1 | N/A |
| T02 | Write a SQL query to store username, and password for user | 1 | N/A |
| | Story Points: 1 | Total Hours: 2 | 2 |

Story 02: Create the login function of users

| Task ID | Task Description | Estimate | Taken |
|------------|--|----------------|-------|
| T11 | Design the UI for the login page | 2 | N/A |
| T12 | Implement the UI design in HTML, CSS, and JavaScript | 4 | N/A |
| T13 | Design database table for storing the information of login history | 1 | N/A |
| T14 | Write code to implement the logic of login function | 4 | N/A |
| | Story Points: 6 | Total Hours:12 | 11 |

Story 03: Create the reset the login details of an account

| Task ID | Task Description | Estimate | Taken |
|------------|--|----------------|-------|
| T21 | Design the UI for reset page | 2 | N/A |
| T22 | Implement the UI design in HTML, CSS, and JavaScript | 4 | N/A |
| T23 | Design database table for storing the information of reset information | 1 | N/A |
| T24 | Write code to implement the logic of reset function | 4 | N/A |
| | Story Points: 6 | Total Hours:12 | 11 |

Story 04: Create the menu page

| Task ID | Task Description | Estimate | Taken |
|------------|--|---------------|-------|
| T31 | Design the UI for menu page | 2 | N/A |
| T32 | Implement the UI design in HTML, CSS, and JavaScript | 4 | N/A |
| T33 | Write code to implement the logic of meun | 4 | N/A |
| | Story Points: 4 | Total Hours:8 | 10 |

Sprint Planning Meeting

Attendance

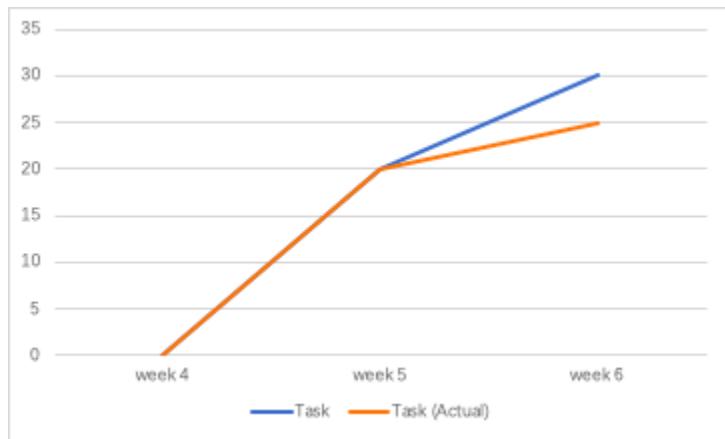
- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

Location

Booth 2, Baillieu Library

Burn Down Chart

Burn down chart shown below compares the ideal rate of progress to the actual rate of progress. Since the team members are not familiar with the flutter, project was way behind schedule in the sprint 1.



User story should be completed

| No. | User Stories |
|-----|---|
| 1 | As a user, I want to log in and out of my account, so that I can access information about myself. |
| 2 | As a receptionist, I want to be able to reset the login details of an account so that patients can access their accounts again. |
| 3 | As a user, I want to be able to view information about my hospital so that I can know more about my treatment. |
| 4 | As a user, I want to be able to view information on pathology so that I can better understand my condition. |
| 5 | As a user, I want to be able to view information on radiology so that I can better understand my treatment. |
| 6 | As a user, I want to be able to view the resources provided by the clinic so that I receive important information. |

Sprint Retrospective Meeting

The Sprint Retrospective occurs after the Sprint Review and prior to the next Sprint Planning. This is at most a three-hour meeting for one-month Sprints. For shorter Sprints, the event is usually shorter. The Scrum Master ensures that the event takes place and that attendants understand its purpose. This is the opportunity for the Scrum Team to improve and all member should be in attendance.

During the Sprint Retrospective, the team discusses:

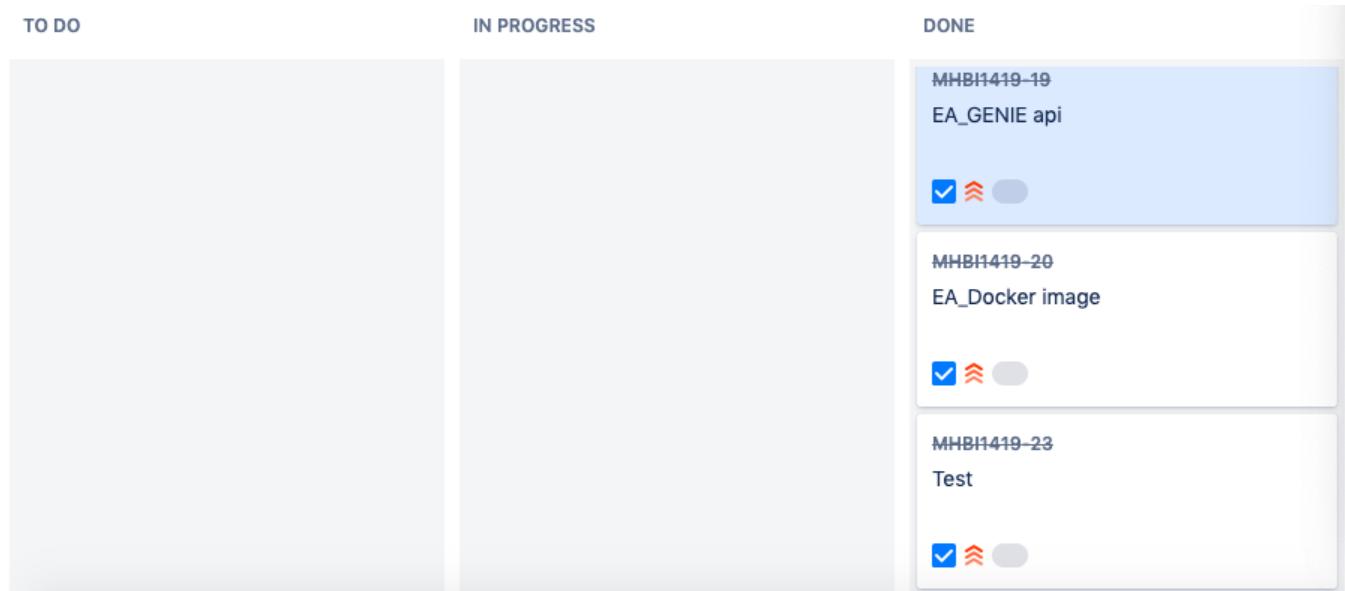
- What went well in the Sprint
- What could be improved
- What will we commit to improve in the next Sprint

Attendance

- Yue Hu
- Jinxin TIAN
- @Callum Dowling
- @Jiaqi Li

Location

Booth 2, Baillieu Library



| No | What went well during the sprint | What could be improved in the next sprint |
|----|---|---|
| 1 | During the development process, team communication is good. Team members are promptly accountable and on standby whenever necessary. | Team members are new and unfamiliar with the flutter. It is time consuming to learn and get familiar with the tools. |
| 2 | Members of the development team regularly attend meetings on time to ensure the progress of the project. | Some of team members are new to Agile, so Jira is not updated frequently. |
| 3 | The members of the development team are responsible for their own tasks and complete them on time to ensure the development progress. | Some tasks planned before failed to be done because the priority of them are not clear enough. |
| 4 | Product design is excellent and well planned. Task assignment is correct. | The final paperwork cost much more time than we expected before. Maybe having some preparation in advance is a good idea. |
| 5 | The task distribution is reasonable. Everyone is got involved in website construction and paperwork. | We can asked some experienced people to help complete some functions of the website. |

| | | |
|---|--|--|
| 6 | Team members get along well, and everyone is full of enthusiasm. | Did not finish all the tasks we planned, it will be better if we can start from easy tasks to difficult tasks. So that we will solve the technical problems in a more quick speed. |
|---|--|--|

Sprint Review Meeting

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

Location

Booth 6, Baillieu Library

- At this stage, our development team identified user stories and decomposed the product backlog corresponding tasks. At the sprint review, we decided the scope of features of sprint 1, then followed the sprint review agenda to execute the plan. Each use case reflect one or more user stories. According to each user story, our development team achieve the product functions. Moreover, during this meeting, we find that more functions are expected to improve the website.

| No. | User Stories | Acceptance Criteria | Priority |
|-----|---|---|----------|
| 1 | As a user, I want to log in and out of my account, so that I can access information about myself. | -The username can be entered -The password can be entered -the login button display -the login button can be clicked -User Logs In | High |
| 2 | As a receptionist, I want to be able to reset the login details of an account so that patients can access their accounts again. | - User has logged in -User has opened the menu page - The receptionist has logged in | High |
| 3 | As a user, I want to be able to view information about my hospital so that I can know more about my treatment. | - User has logged in -User has opened the menu page - The hospital button displays - The hospital icon displays - The hospital button can be clicked | High |
| 4 | As a user, I want to be able to view information on pathology so that I can better understand my condition. | - User has logged in -User has opened the menu page - The pathology button displays - The pathology icon displays - The pathology button can be clicked | High |
| 5 | As a user, I want to be able to view information on radiology so that I can better understand my treatment. | - User has logged in -User has opened the menu page - The radiology button displays - The radiology icon displays - The radiology button can be clicked | High |
| 6 | As a user, I want to be able to view the resources provided by the clinic so that I receive important information. | - User has logged in -User has opened the menu page - The resources button displays - The resources icon displays - The resources button can be clicked | High |

Sprint 3

Sprint Backlog 3

Total Story Points: **56**

Total Hours: **56**

Deadline: 22 Oct 2019

Story 08 view information about my hospital

| Task ID | Task Description | Estimate | Taken |
|------------|--|----------------|-------|
| T81 | Create front end pages for details of hospital | 2 | N/A |
| T82 | Create hospital profiles in database | 3 | N/A |
| T83 | Access the information for the back end | 3 | |
| | Story Points: 8 | Total Hours: 8 | N/A |

Story 09: view information about my doctors

| Task ID | Task Description | Estimate | Taken |
|------------|---|----------------|-------|
| T91 | Create front end pages for details of doctor | 3 | N/A |
| T92 | Create doctor profiles in database | 4 | N/A |
| T93 | Access the doctor information from the back end | 3 | N/A |
| | Story Points: 10 | Total Hours:10 | 10 |

Story 10: view the resources

| Task ID | Task Description | Estimate | Taken |
|-------------|---|---------------|-------|
| T101 | Able to store the clinic resource in database | 3 | N/A |
| T102 | Create front-end pages for clinic resources | 2 | N/A |
| T103 | Link the database to front end | 3 | N/A |
| | Story Points: 8 | Total Hours:8 | 8 |

Story 11: view information on pathology

| Task ID | Task Description | Estimate | Taken |
|-------------|--|----------------|-------|
| T111 | Create the front end page for pathology information | 5 | N/A |
| T112 | Access the database to get information about the patient's pathology | 6 | N/A |
| | Story Points: 10 | Total Hours:10 | 10 |

Story 12: view information on radiology

| Task ID | Task Description | Estimate | Taken |
|-------------|--|----------------|-------|
| T121 | Create the front end page for pathology information | 5 | N/A |
| T122 | Access the database to get information about the patient's radiology | 6 | N/A |
| | Story Points: 10 | Total Hours:10 | 10 |

Story 13: redirected to Maps after clicking on an address

| Task ID | Task Description | Estimate | Taken |
|-------------|---------------------------|----------------|-------|
| T131 | Front page for navigation | 3 | N/A |
| T132 | Access the google map | 4 | N/A |
| T133 | Show path in map | 3 | |
| | Story Points: 10 | Total Hours:10 | 910 |

Sprint Planning Meeting 3

Attendance

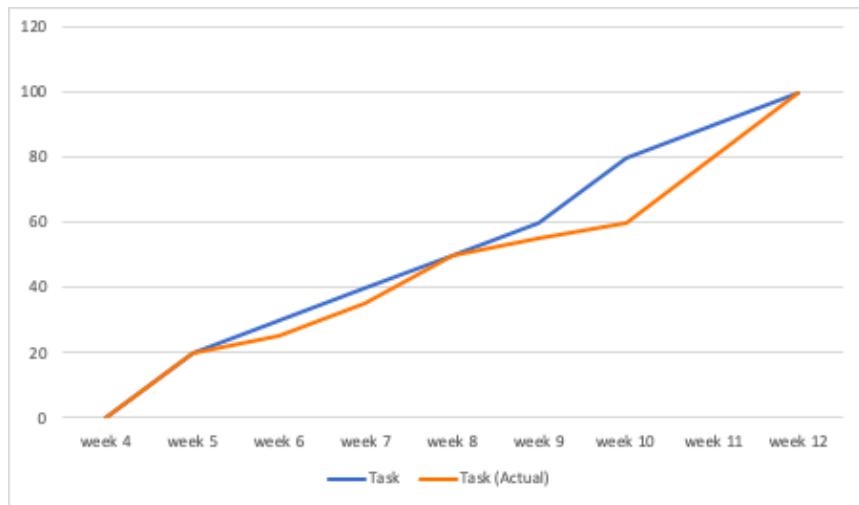
- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

Location

ERC

Burn Down Chart

Burn down chart shown below compares the ideal rate of progress to the actual rate of progress. Since the team members are not familiar with the flutter, project was way behind schedule in the sprint 3



User story should be completed

| | |
|---|--|
| 1 | As a patient, I want to be able to view information about my hospital so that I can know more about my treatment. |
| 2 | As a patient, I want to be able to view information about my doctors so that I know that I am in safe hands. |
| 3 | As a patient, I want to be able to view the resources provided by the clinic so that I receive important information. |
| 4 | As a receptionist, I want to be able to send patients resources so that they can be more up to date on their situation. |
| 5 | As a patient, I want to be able to view information on pathology so that I can better understand my condition. |
| 6 | As a patient, I want to be able to view information on radiology so that I can better understand my treatment. |
| 7 | As a patient, I want to be redirected to Maps after clicking on an address so that I can easily navigate to the destination. |

Sprint Retrospective Meeting 3

The Sprint Retrospective occurs after the [Sprint Review](#) and prior to the next [Sprint Planning](#). This is a long-term sprint. In general, our project is in a comparably healthy status. Our goal for this MHapp is almost achieved. During this sprint, the majority of the tasks were completed appropriately. The teamwork is productive and tight although the duration of this sprint is relatively short. Time spent on finished tasks is slightly less than planned. The velocity is higher than sprint 1 and sprint 2.

During the Sprint Retrospective, the team discusses:

- What went well in the Sprint
- What could be improved
- What will we commit to improve in the next Sprint

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

The screenshot shows a Jira Agile board titled "MHBI1419 Sprint 3". The board has three columns: "TO DO", "IN PROGRESS", and "DONE".

- TO DO:**
 - MHBI1419-35
As a patient, I want to be redirected to Maps after clicking on an address so that I can easily navigate to the destination.
 - MHBI1419-37
Access the information for the back end
 - MHBI1419-39
Show path in map
- IN PROGRESS:**
 - MHBI1419-36
Create all UI
 - MHBI1419-38
Access the google map
- DONE:**
 - MHBI1419-29
As a patient, I want to be able to view information about my hospital so that I can know more about my treatment.
 - MHBI1419-30
As a patient, I want to be able to view information about my doctors so that I know that I am in safe hands.
 - MHBI1419-31
As a patient, I want to be able to view the resources provided by the clinic so that I receive important information.

A yellow banner at the bottom right of the board area says: "This board has been updated: Refresh • Ignore".

Screenshot of a Jira Software board titled "MHBI1419 Sprint 3". The board has three columns: "TO DO", "IN PROGRESS", and "DONE".

- TO DO:** An empty column.
- IN PROGRESS:** An empty column.
- DONE:**
 - MHBI1419-32:** As a receptionist, I want to be able to send patients resources so that they can be more up to date on their situation. Status: In Progress.
 - MHBI1419-33:** As a patient, I want to be able to view information on pathology so that I can better understand my condition. Status: In Progress.
 - MHBI1419-34:** As a patient, I want to be able to view info radiology so that I can better understand treatment. Status: In Progress. Includes a screenshot of the Jira interface showing the board.

At the bottom right of the board area, there is a yellow box containing the text: "This board has been updated: Refresh • Ignore".

Location

ERC

| What went well in the Sprint | What could be improved in the next sprint |
|--|---|
| The communication is good. No communication gaps. | At the deployment stage, due to the characteristic of Flutter (a cross-platform UI frame), it occurs some errors when build our App in iOS. |
| Team members are quickly responsible and available if needed. | Due to technical problems, we still cannot implement reminder function. |
| Tasks are assigned properly | Jira is not updated in time. |
| Main focus is on testing and UI improvement. | Some planned tasks are behind schedule at the first stage of this sprint. |
| Everything is under control. | |
| We have regular meetings and everyone do their jobs efficiently. | |
| Everyone is very conscientious and responsible. | |
| The incompatible in IOS have been fix under teamwork. | |
| For the last sprint, all of the necessary functions are completed due to everyone's hard work. | |
| Most of the risks are handled well. | |
| Team members give feedback to each other once members finish some tasks and mistakes can be fixed as soon as possible. | |

Sprint Review Meeting 3

Attendance

- [Yue Hu](#)
- [Jinxin TIAN](#)
- @Callum Dowling
- @Jiaqi Li

Location

ERC

- We identified new user stories and decomposed corresponding tasks. All must-to-have features were completed. We followed the sprint review agenda to execute the plan. At this stage, our development team identified user stories and decomposed the product backlog corresponding tasks. According to each user story, our development team achieve the product functions. Moreover, during this meeting, we find that more functions are expected to improve the website.

| Number | Acceptance Requirement | Critical | | Test Results | | Comments |
|--------|--|----------|----|--------------|--------|----------|
| | | Yes | No | Accept | Reject | |
| 1 | User accesses the app that remembered the user's login | | x | x | | |
| 2 | User clicks the 'Doctor' button | x | | x | | |
| 3 | User clicks the 'Appointment' button | x | | x | | |
| 4 | User choose a date to make an appointment | x | | x | | |
| 5 | User clicks the 'Hospital' button | x | | x | | |
| 6 | User selects test hospital | x | | x | | |
| 7 | User clicks the LogOut' button | x | | x | | |

Verification & Validation

Test

Purpose

1. Through the analysis of test results, the evaluation of software quality is obtained.
2. Analyzing the testing process, products, resources and information to provide references for future test planning.
3. Evaluating the conformity of test execution and test plan.
4. Analyzing the defects of the system and provide suggestions for repairing and preventing bugs.

Testing items:

Functional Requirements:

| No | Item |
|----|--|
| 1 | Users are able to log in and out of their account. |
| 2 | The login details can be changed by the user who has higher level permission. |
| 3 | The system should show the list of all the appointments and match them with the calendar. |
| 4 | The date of the appointment can be changed by the user who has higher level permission. |
| 5 | Users are able to share the appointment information with others. |
| 6 | Users are able to view doctors and hospital information. |
| 7 | The resources provided by the clinic should be published to the system. |
| 8 | Users are able to view information on pathology and radiology. |
| 9 | The forms should be listed on the application and users are able to view and print them. |
| 10 | The system should show the route to the hospital on the map. |
| 11 | The system should automatically prompt the user for the visit time 3 days before. |
| 12 | Once the information is changed, such as password or date of appointment, or the new information of resources are updated, the system should remind users. |

Non-functional Requirements:

| No | Item |
|----|------------------------|
| 1 | Effectiveness |
| 2 | Efficiency |
| 3 | Satisfaction |
| 4 | Usability |
| 5 | Performance efficiency |
| 6 | Operability |
| 7 | Reliability |
| 8 | Functional suitability |

Testing tools:

PC, Android phone, iphone

Testing methods:

- *Unit* tests focus on verifying the smallest piece of testable software, such as a function, method, or class. Your test suites should have more unit tests than other kinds of tests.
- *Component* tests verify that a component (which usually consists of multiple classes) behaves as expected. A component test often requires the use of mock objects that can mimic user actions, events, perform layout, and instantiate child components.
- *Integration* and *end-to-end* tests verify the behavior of an entire app, or a large chunk of an app. An integration test generally runs on a real device or OS simulator (for mobile) or on a browser (for the web) and consists of two pieces: the app itself, and the test app that puts the app through its paces. An integration test often measures performance, so the test app generally runs on a different device or OS than the app being tested.

Classification of bugs:

Serious bugs: Tests are defined as serious bugs with the following defects

1. Class A: The system has no response and is in a crash state. It needs other manual repairs to restore the system.
2. Class B: Click on a menu to appear "The page cannot be displayed" or return an exception error. After an operation (add, modify, delete, etc.), the page cannot be displayed or an exception error is returned.
3. Class C: When checking the required fields, the required fields are not entered, and "The page cannot be displayed" or an exception error is returned.
4. Class D: "The page cannot be displayed" or an exception error is returned when a field that cannot be duplicated by the system definition enters duplicate data.

2019.9.2

- Data9.2
- Participants: Development team and testing leader
- Location: Baillieu Library

Summary

The testing of the MH APP project started on September 2, 2019 and ended in October, 2019. Because of the agile development adopted in this project, the development process is divided into three Sprints, so in this project, at least three unit tests have been executed, one integration test and one acceptance test.

Progress Review:

| Vision | Time | Class A | Class B | Class C | Class D | Outcome |
|--------|----------|---------|---------|---------|---------|---------|
| 1.0 | 2019.9.2 | 0 | 0 | 0 | 0 | Pass |

Test execution

The test was carried out strictly in accordance with the project plan and test plan, and the test objects specified in the test plan were completed on time. According to the test plan, the test strategy is embodied in the test execution. In the process of test execution, according to the test plan and test cases, the system is tested completely.

• Functionality

The main functions of the system include user login and query menu.

| test case | Expected Outcome | Actual Outcome | Status |
|---|---|---|--------|
| Enter username and password Username: Yue Hu Password:***** | Login | Login | Pass |
| Select the menu page Select the clinic information menu | Display the menu functions on the cellphone | Display the menu functions on the cellphone | Pass |

• Non-functionality

Operating button prompts information correctness, consistency, understandability restrictions prompt information correctness, consistency,

| Item | Status |
|---------------|--------|
| Security | Pass |
| usability | Pass |
| Performance | Pass |
| Reliability | Pass |
| Compatibility | Pass |
| Database | Pass |
| Interface | Pass |

2019.10.23

- Data10.23
- Participants:
 - [Yue Hu](#)
 - [Jinxin TIAN](#)
 - @Callum Dowling
 - @Jiaqi Zhou
- Location: ERC

Summary

The testing 3 of the MHapp project started on September 21, 2019 and ended on the October 23, 2019

Progress Review:

| Vision | Time | Class A | Class B | Class C | Class D | Outcome |
|--------|------------|---------|---------|---------|---------|---------|
| 1.0 | 2019.9.2 | 0 | 0 | 0 | 0 | Pass |
| 2.0 | 2019.9.21 | 0 | 0 | 0 | 0 | Pass |
| 3.0 | 2019.10.23 | 0 | 0 | 0 | 0 | Pass |

Test execution

The test was carried out strictly in accordance with the project plan and test plan, and the test objects specified in the test plan were completed on time. According to the test plan, the test strategy is embodied in the test execution. In the process of test execution, according to the test plan and test cases, the system is tested completely.

- **Functionality**

The main functions of the system include user login and query menu.

| No. | test case | Expected Outcome | Actual Outcome | Status |
|-----|---|---|---|--------|
| 1 | 1. Login with the username: callum.dowling@gmail.com password:1 2. click the button of appointment in menu page | The available date has been displayed. | The available date has been displayed. | Pass |
| 2 | Choose the "Oct 22 "for the date of an appointment. | A new appointment on Oct 22 have been successfully made. | A new appointment on Oct 22 have been successfully made. | Pass |
| 3 | 1. Login with the username: callum.dowling@gmail.com password:1 2. click the button of doctor in menu page | The names of doctors who have been registered on this app have shown on the Doctor page. | The names of doctors who have been registered on this app have shown on the Doctor page. | Pass |
| 4 | 1. Login with the username: callum.dowling@gmail.com password:1 2. click the button of hospital in menu page | The names of hospitals who have been registered on this app have shown on the Hospital page. | The names of hospitals who have been registered on this app have shown on the Hospital page. | Pass |
| 5 | Choose the of hospital named "test hospital" | The details of the hospital display. Information includes: address, contact details, fax and type. | The details of the hospital display. Information includes: address, contact details, fax and type. | Pass |

- **Non-functionality**

Operating button prompts information correctness, consistency, understandability restrictions prompt information correctness, consistency,

| N o. | Item | Description | St at us |
|------|---------------|--|----------|
| 1 | Effectiveness | • During uptime, the application should faultlessly and completely achieve user goals as outlined in the User Stories. | Pass |

| | | | |
|---|------------------------|---|------|
| 2 | Efficiency | <ul style="list-style-type: none"> The user must be able to achieve all user stories with minimal perceived effort. User stories shall take no longer than 5 minutes. | Pass |
| 3 | Satisfaction | <ul style="list-style-type: none"> The user should perceive their use of the application as easy and comfortable. The application must appear trustworthy and reliable. | Pass |
| 4 | Usability | <ul style="list-style-type: none"> See Operability. | Pass |
| 5 | Performance efficiency | <ul style="list-style-type: none"> The application requires to be performed in iOS or Android system. | Pass |
| 6 | Operability | <ul style="list-style-type: none"> No additional software needs to be installed to access and use the program. Users will be able to easily understand and use the application with minimal guidance or information. | Pass |
| 7 | Reliability | <ul style="list-style-type: none"> During 'uptime', the system will adhere to all other functional and non-functional requirements. No single period of system 'downtime' will exceed 24 hours. The system will not exhibit periods of downtime over thirty minutes in excess of once per month. | Pass |
| 8 | Functional suitability | <ul style="list-style-type: none"> The mobile application will fully meet the functional needs of Susan ("the client") in helping the patient organise and understand information and appointments surrounding a condition, situation or to simply keep track of medical appointments they may have. These needs are outlined in the User Stories document. | Pass |

2019. 9. 22

- Data9.22
- Participants: Development team and testing leader
- Location: ERC Library

Summary

The testing 2 of the MH APP project started on September 21, 2019

Progress Review:

| Vision | Time | Class A | Class B | Class C | Class D | Outcome |
|--------|-----------|---------|---------|---------|---------|---------|
| 1.0 | 2019.9.2 | 0 | 0 | 0 | 0 | Pass |
| 2.0 | 2019.9.21 | 0 | 0 | 0 | 0 | Pass |

Test execution

The test was carried out strictly in accordance with the project plan and test plan, and the test objects specified in the test plan were completed on time. According to the test plan, the test strategy is embodied in the test execution. In the process of test execution, according to the test plan and test cases, the system is tested completely.

• Functionality

The main functions of the system include user login and query menu.

| No. | test case | Expected Outcome | Actual Outcome | Status |
|-----|--|---------------------|---------------------|--------|
| 1 | Search the information | Information display | Information display | Pass |
| 2 | Select the information (The appointment history) Select the people to share the information (Yue Hu) The sharing button display Click the sharing button | Information share | Information share | Pass |

• Non-functionality

Operating button prompts information correctness, consistency, understandability restrictions prompt information correctness, consistency,

| N o. | Item | Description | St at us |
|------|------------------------|---|----------|
| 1 | Effectiveness | <ul style="list-style-type: none">During uptime, the application should faultlessly and completely achieve user goals as outlined in the User Stories. | Pass |
| 2 | Efficiency | <ul style="list-style-type: none">The user must be able to achieve all user stories with minimal perceived effort.User stories shall take no longer than 5 minutes. | Pass |
| 3 | Satisfaction | <ul style="list-style-type: none">The user should perceive their use of the application as easy and comfortable.The application must appear trustworthy and reliable. | Pass |
| 4 | Usability | <ul style="list-style-type: none">See <i>Operability</i>. | Pass |
| 5 | Performance efficiency | <ul style="list-style-type: none">The application requires to be performed in iOS or Android system. | Pass |
| 6 | Operability | <ul style="list-style-type: none">No additional software needs to be installed to access and use the program.Users will be able to easily understand and use the application with minimal guidance or information. | Pass |
| 7 | Reliability | <ul style="list-style-type: none">During 'uptime', the system will adhere to all other functional and non-functional requirements.No single period of system 'downtime' will exceed 24 hours.The system will not exhibit periods of downtime over thirty minutes in excess of once per month. | Pass |

| | | | |
|---|------------------------|--|------|
| 8 | Functional suitability | <ul style="list-style-type: none">• The mobile application will fully meet the functional needs of Susan ("the client") in helping the patient organise and understand information and appointments surrounding a condition, situation or to simply keep track of medical appointments they may have.• These needs are outlined in the User Stories document. | Pass |
|---|------------------------|--|------|