

Medical Image Management System

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Introduction

With the popularity of the Internet, an increasing numbers of hospitals have their own web pages and mobile apps. Our internship this time was mainly to build an Android application that allows doctors to upload medical records and materials. Meanwhile, patients can view the results of medical records. The user can log in to enter the patient or doctor client to implement their respective functions.

Therefore, the app produced by this project should have the following functions:

- ① Complete doctor and patient interfaces
- ② The doctor client can realize the function of uploading medical records
- ③ The patient client can retrieve medical records and diagnosis through personal information

Realization

Android Studio

The main software for developing app in this project is Android studio. The server was provided by Neusoft. Therefore, we mainly focused on the design of the front-end and the function of the back-end.



In the production of web pages, we mainly used HTML and PHP, however, when it

comes to mobile apps, we used XML which is also a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. Since I was mainly responsible for front-end design in this project, this article tends to be more focused on demonstrating my own work.

Front-end

I was mainly responsible for the design and beautification of the page. In addition, I also added some detailed functions to make the App look more refined.

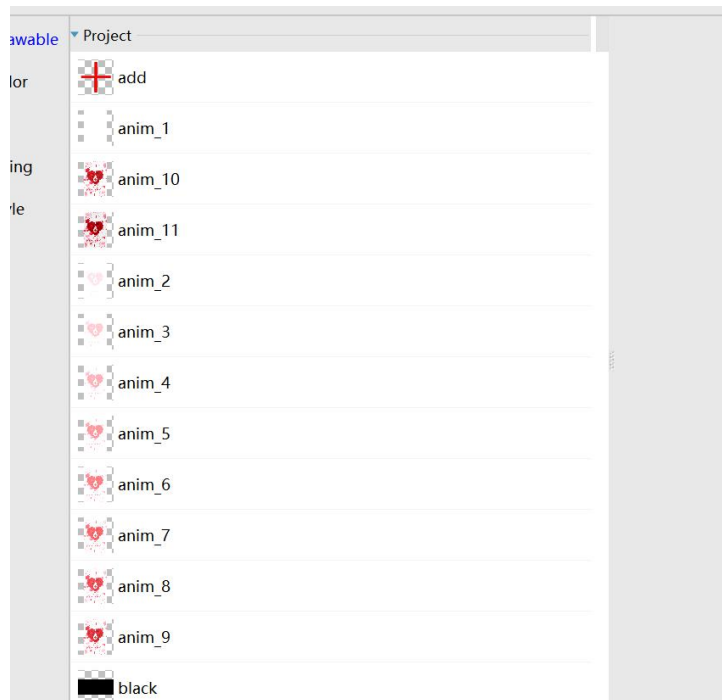
Many people may think that this is a relatively simple one. However, in fact, it requires absolute care and patience as well as an understanding of each layout. It requires careful design, extraordinary creativity, and a recognition of beauty. After the application is developed, it will eventually face the masses. The masses may not understand programming and algorithm. In their opinions, the definition of good or bad application is whether it is beautiful, whether it is smooth. Therefore, front-end design is also very important.

Our applications were divided into two categories, the patient client and the doctor client. As shown in the figures below, they are opening and welcoming interface. Hospitals can even add advertisements on opening interface, just like some applications now do.

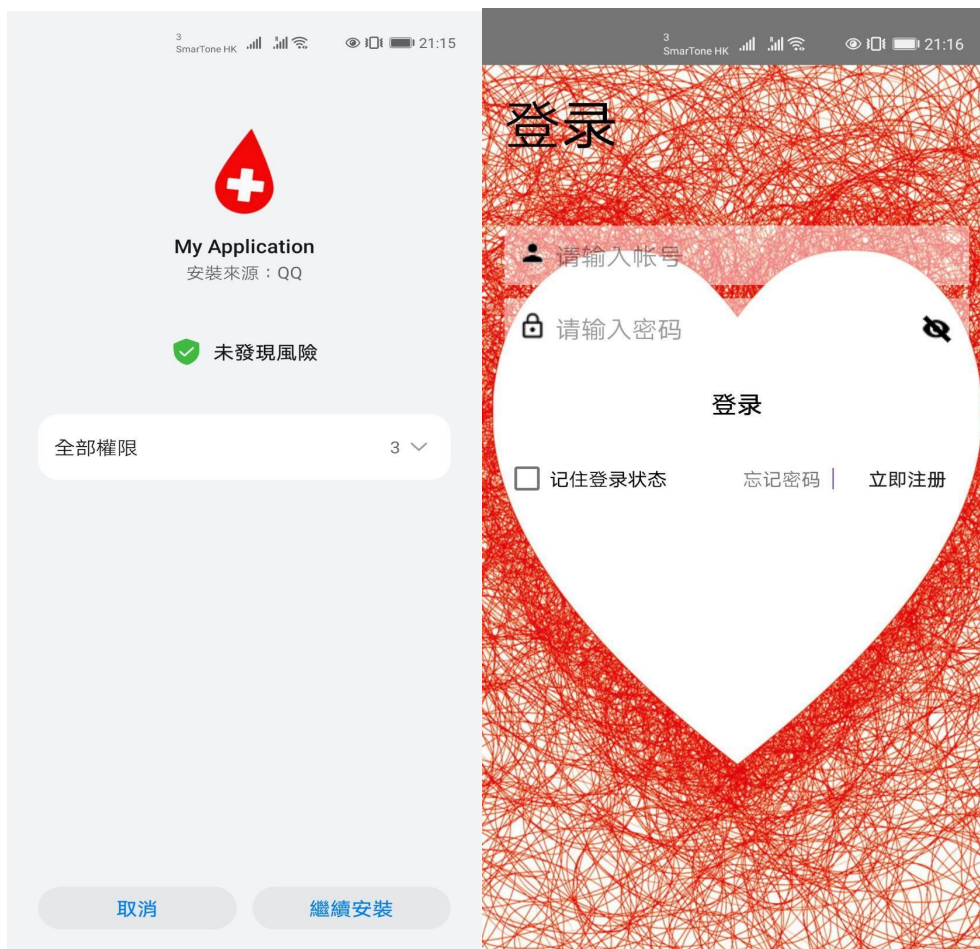
Patient Client

The main principle I follow to design the patient client is aesthetics. Therefore the welcoming interface used red rose cross which was my selection of three beautiful pictures. They are multi-layered and transparent. Finally, a warm red background is finally synthesized by adjusting the brightness and color.



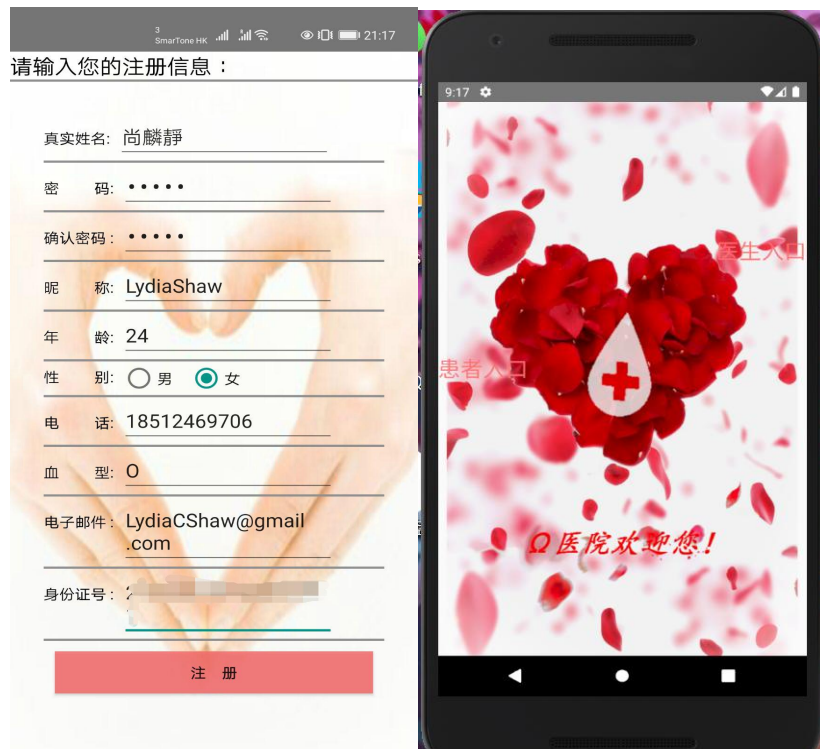


That was animation list which can realize animation effect. These pictures came from a screenshot of my phone instead of a virtual machine. We encapsulated the program into an apk format file so that the phone can be downloaded and installed.



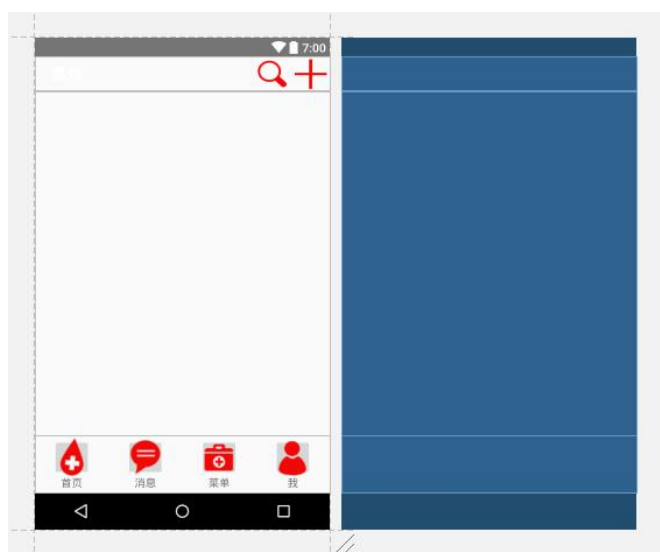
I referenced the logos of many hospitals and finally made a red raindrop with white cross icon. When designing the login interface, taking into account the previous warm style, I continued to use red and chose a heart-shaped picture. Subsequently, a transparent login box was set, and the visualization function of the password was realized.

Click the register button and we can create a new account. Since the training project was over when I took the screenshot and the server was not open, the account registration cannot be successful.

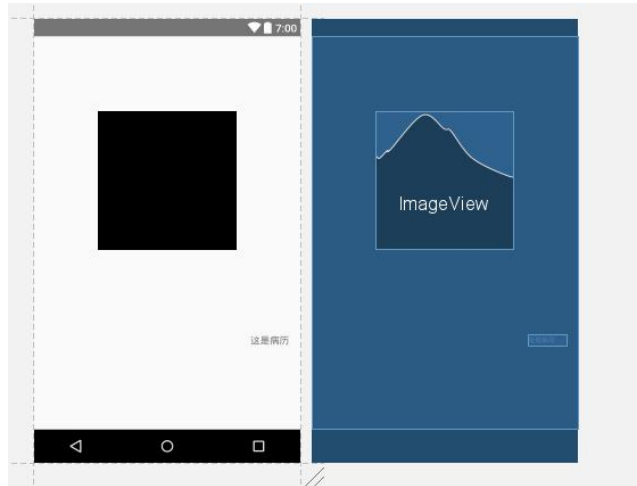


Doctor Client

The upper right picture was taken from the virtual device that comes with Android studio. You can click to enter the doctor client on the welcome interface.



Using Android studio we can see the layout design. The bottom layout is divided into four tabs. The home page can place hospital news and advertisements; the news tab realizes real-time communication between doctors and patients; the menu contains some small tools where patients can view medical records; tab 'I' can view personal information.



In the doctor client, the menu tab provides the function of uploading cases. The above is a brief introduction of this project. The specific internship report can be viewed by clicking the link below.

internship report

<https://cdn.jsdelivr.net/gh/HEU-F8-PRACTICE/stor@master/20210624/1c0d43374d65bfd7b917ad0e12c204da/1c0d43374d65bfd7b917ad0e12c204da.pdf>