Introduction
Medical imaging is now playing a central role in the global healthcare system because of its wide use in medical diagnosis and treatment. Moreover, it could be integrated with other kinds of data like words and sound to form a multimedia electronic health record.

Traditionally medical images can only be accessed at hospital or on a computer server. With the rapid growth of smart phone platforms, physicians could have easier means to have real time access to patients’ medical images and records in remote places, and therefore provide faster and better decisions.

In this project, we’ve been focusing on developing a medical image viewer on the android smart phone platform. The result shows that our image viewer can provide a convenient way for users to view and comment on the medical image, and more opportunity for patients to receive a better healthcare.

Methodology
We use the Eclipse with android SDK 3.0 and ADT plugin as our programming platform, testing the application with the android emulator, and debugging with the android DDMS.

We separate the project into several parts each of which is implemented by one group member:
- The main view of the application including a menubar at the top of the viewer, each menu item will lead to one of the following actions.
- The individual image show including basic image operations (rotation, zoom in/out). The physician can also specify the image displayed via several means.
- The grid view showing multiple images simultaneously in one screen, allowing physicians to have an overview of all the medical images.
- The note widget with which the physician can easily make comments based on the medical image and the patient’s medical record.

Aim
Our goal is to create a medical imaging application on Android platform to exchange medical information, such as brain MRI images, between doctors and their patients. Specifically, we are focusing on creating the following functionalities:
- A variety of operations on the medical image, like zoom in/out and rotation
- A grid view to view multiple medical images at the same time
- A notes widget to accommodate any comments the physicians make on one particular image

Main functionalities of the Application
- Providing several modes for physicians to select and see slices of MRI
- Displaying the patient information and medical records together with the medical image
- Allowing doctors the opportunity to make notes and comments on the scan results

Results
Main View
- The default view when the application is started
- Including the menu bar on top which have several menu items
- Each menu item can trigger one specific functionality

Note Widget
- Display the medical image and the patients information (basic information like name and gender, and other medical information like illness history)
- A textbox below that allow physician to add notes and comments on this image.

Individual Image View
- Afullscreen medical image view with some basic image operations
- The previous and next button with a textbox in the middle for the physician to select one particular image

Conclusion
In this project we build a medical image viewer on the Android smart phone platform. We hope that our effort will help improve the efficiency of medical healthcare.
What we have taken away from this experience is knowledge regarding computer programming and how to use logical thinking to solve problems.

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