

UNIVERSITY OF SYDNEY
SCHOOL OF INFORMATION TECHNOLOGY

COMP5216
MOBILE COMPUTING

Project Report

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1 Background

1.1 Motivation

With the development of technology, companies like Apple, Samsung, Lenovo and so on release various computers for consumers to purchase. However, facing such abundant choices makes people who have no knowledge of computers hardware confused to buy a suitable computer. On one hand, as we all know, a high performance computer is relatively expensive than a common one, and most consumers do not need such high performance as they use PC for normal daily uses. On the other hand, some consumers also find that their newly purchased PC cannot run the application they would like to use, which makes them annoyed. Based on this situation, we build up an android application to help the consumers to search for a proper computer according to the software that they want to use.

1.2 Significance

Firstly, this application provides convenience to customers so they do not have to spend such long time to consider or hesitate. In this way, people can make choices in an easier way. Secondly, this product will also contribute to protect customers from wasting money on unnecessary performance or specs. For example, if you are looking for a laptop for normal daily use like watching videos and browsing the web, you would not need to buy an Allienware. Lastly, this application can also be a profitable one, as we can rank advertiser's products on top of the recommendation list. This kind of advertising will be like Google's advertising placed in searching result instead of annoying pop-up ads.

1.3 Solution

At the initial stage, we decided to develop our application on Android platform, because Android is the most popular platform around the world. The tool we choose

to utilize is Android Studio which is the official developing tool of Android. As the update of our data is rapid, we stored the data of computers' hardware into an online database supplied by Microsoft. Therefore, once we change the data in the database, users could see the change, which is better to release a new version application.

2 Implementation

In total, there are 8 class in our report. As our destination is to find computers by software that users choose, there are two classes in our project, respectively "Software" and "Computer". Each class has seven parameters, which are used to compare to get the result. Moreover, there are also two adapters for that two classes and each one contains 3 different kinds of widgets. The "TodoItem" class is used to write and get data from the database. With all the classes above, the "MainActivity" and "ResultAcitivity" classes are used to realize the logic function of our project. Moreover, the MainActivity shows the content from the software adapter and the ResultActivity shows the computers'. There is also a "Splash" class to make an animation every time when users open the application. The flow chart is shown below in Figure1

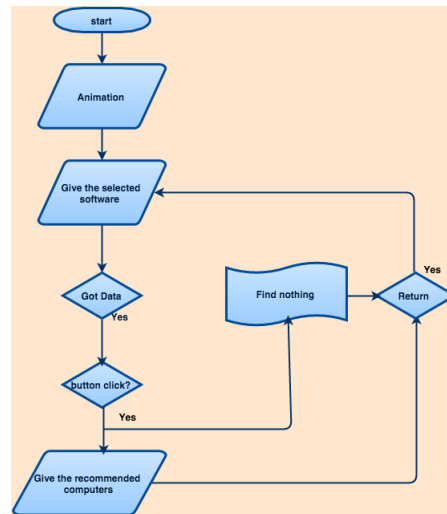


Figure 1: Flowchart

2.1 How does the application work

When you open the application, it will firstly try to retrieve the data from the online database. If it successfully gets the data, the application will show the software on the android activity. After that, users could click the check-box widget to select the software that they want to use. Subsequently, users could click the “search” button and get the results. Moreover, click one of the items in result list, you will be redirected to a web page in which you can check the price and even buy this PC directly online.

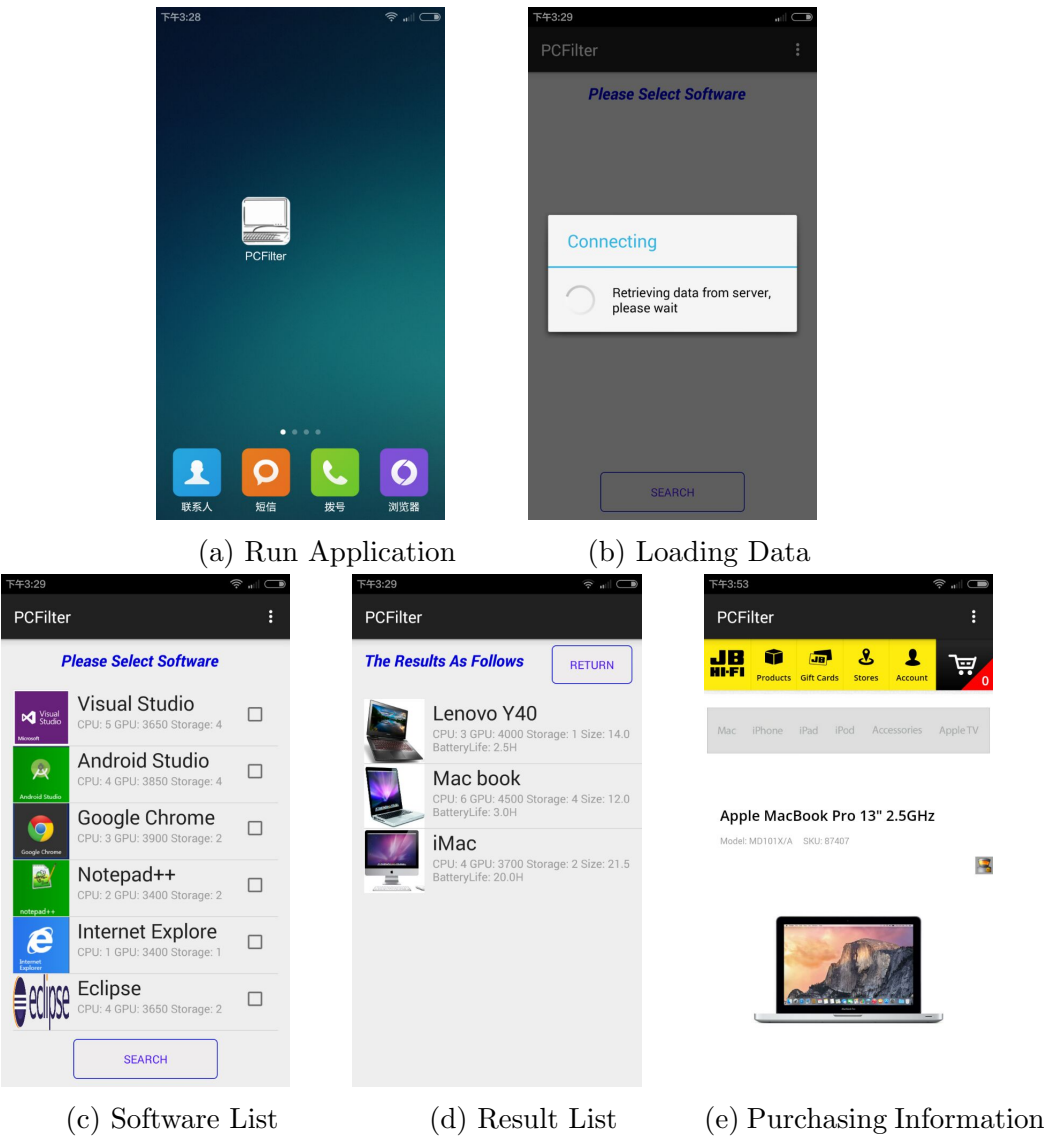


Figure 2: Procedures of Utilizing