**Reflection on the software engineering process**

Quality

* How does the process you follow permit to improve the quality of the product you will deliver?

During the development period, we used Scrum methodology to manage our developing. In order to make sure that everyone finish his own task in time rather than delaying the whole process, we kept the Scrum standing meeting every two weeks, when we joined in the meeting, we shared own achievement to each other and listened to the others’ advices.

In addition, we divided all the function of BabyFun into four parts and assigned them to each member. According to the Sprint Planning 1 to 3, everybody had his target and every Sprint would output a demo which was updated and enriched.

Requirements

* Description of the process and tools

We searched for software designed for babies, found that there were too many choices but most of software only have one or two main functions. They were simplex. So we considered to develop an app which consists of more functions so that users may not need to install many different apps.

* What worked well? What did not work well? What could be improved?

These three questions I think can be combined into one.

When we worked on the requirements, we did some questionnaires for certain raw data, that was, how many people maybe would like to install one app which included four functions and, how many people prefer to install some different apps for their specific function. This made the requirements more clarified.

But we couldn’t entirely follow the origin product backlog, during the developing process, we changed the requirements twice. And this may not accord with the initial idea.

So I think what can be improved is the completely confirm the main requirements.

Design

* Description of the process and tools

We used Visio and Painter to design our product. As the requirements changed, the architecture and design be modified too.

* What worked well? What did not work well? What could be improved?

These three questions I think can be combined into one.

At first, buttons, texts and images were small, and teacher told us that, babies’ fingers cannot control neatly. She suggested that we could make the components’ size bigger, this can bring convenience for babies. We totally accepted her suggestion and changed the relevant components’ size.

Latterly, in order to keep the style of this app consistent, we changed some color in some graphical user interface.

Implementation

* What we really proud and excited was that though each of us was busy, we still efficiently accomplished the functions’ implementation. Maybe it should be attributed to the two-weekly meeting.
* Nevertheless, there was a part of functions we couldn’t work out. They needed more knowledge of android development, or needed more algorithm thinking. So we had to give up them.

Testing

* Now that we developed the app through Android Studio, we can use it to do testing on our BabyFun.
* As we divided the whole app into four main functions, we tested a part of the app when the function finished. What we paid attention to was that if the app consistently implement the origin requirements, and can the app run safely and quickly.

Evolution

* How did you plan for evolution and maintenance?

Beautify the whole APP.

Change the settings of components to improve degree of satisfaction about users.

Keep enriching the cradle songs database to provide users with more choices.

Add new functions such as playing cartoon videos and so on.

Changes

* How does the team handle changes?

All of us understand that, changes are unavoidable. Once we had changes, no matter the change was about design, or about requirement, or even about source code, we discussed with the changes’ presenter, got to know why these should be changed, and reached an agreement on these changes.

Team

* Our team insisted on the values of cooperation and unanimity. For every key story, only we came to an agreement, could we write codes. If someone had questions on other people’s code, she would propose and gave her modifying advice.
* And our team loves learning. We usually visited some beneficial websites, like stack\_overflow, to study other people’s idea and creative coding, then trying to apply to our project.

Communication

* Communication made us closer. Once we found something need to be modified or updated, we told other team members by QQ, Wechat or mobile phone. Moreover, as we four are live in the same dormitory, we often exchanged our opinions face to face.

General process

* Every one week, we had a standing-up meeting for about 15 minutes, put forward the difficulties on the project.
* Every two weeks, we summarized the achievements of prior Sprint, and planned the next Sprint’s target and tasks.
* As the developing process goes, we update the latest document and mark down logs.