1. Hello, my name is Anastasia Repina. I am the student of the group BSE143. Today I would like to give you the general overview of my diploma which main goal is to create an android application for young mother.
2. I’m going to develop four main points. First, I’ll tell you about related works which were already done by other people. Then, I’ll speak about the survey which I had done before the coding has started. Next point is connected with application itself and the final one is the technologies which are used for the project creation. If you have any questions I’d be grateful if you could leave them until the end.
3. In the research work the preparatory step is very important. During this step it is necessary to analyze the already existing projects and understand why they are good or bad, what are their advantages and disadvantages. So, later, you will be able to create your own work taking the problems of competitors into account. None of the products which I have looked at (you can see them on the slide) solve the problem which I would like to solve via my app. The existing projects usually just monitor mother’s OR baby’s health whereas I want to do these two parts inside one work. This step will let young mother to analyze not only her child but also her own health, so it will be possible to see the correlation between the changes of mood, health, nutrition of mother and baby. That is why I decided to include monitoring of baby’s and mother’s health as well as opportunities to analyze the data and collect information from wearable devices. However, it is also necessary to choose the parameters which will be collected and analyzed.
4. That is why the next step was to conduct a survey. 40 young parents have answered several questions connected with their health and nutrition as well as their baby’s. On the slide you can see the aggregated results which show the most claimed characteristics, which were later decided to add to the application.
5. This leads me to a point connected with app architecture and design. On the slide the DB diagram is presented together with the primitive scheme of the data flow inside the app. As you can see the Firebase service was chosen as the data storage, here I save all the information related to health and nutrition. The main data source for mother is wearable devices whereas the baby’s data is added manually. There are a lot of different wearable devices and trying to connect all of them inside the project will be very complicated, so I decided to solve this problem with the help of Google Fit service, which already has functionality which connects bands and watches and downloads some data from them. So, I use Fitness and History APIs in order to collect all the necessary parameters.
6. Of course, all the mentioned steps will be impossible to perform without the help of a variety of technologies. Now we are moving on to them. In order not to lose anything I use GitHub. The programming language is Java and I use Android studio to write my code. I have already mentioned Google Fit and Firebase during my speech. And the MPAndroidChart is a fantastic library for graphs and charts drawing.
7. Let me summarize what we have looked at today. To sum up, I am creating an Android application for both young mother and her baby which will help to monitor their health and nutrition. The practical applicability of my work is beyond doubt as it will really help to improve people’s lives in the health and nutrition field. It is obvious that baby’s health is being highly linked to the mothers, so it may be really helpful to see the correlation inside one application. With the help of the technologies like Google Fit, Google Firebase and MPAndroidChart the main goal of this project will definitely be achieved.
8. Here you can see the literature and Internet resources I have already used during my work.
9. Thank you for your attention.