

<Lappeenrannan teknillinen yliopisto
School of Business and Management

Software Development Skills

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LEARNING DIARY, Software Development Skills: Mobile

LEARNING DIARY

22.05.2022

Started this course today so the 60 day completion timer has started ticking and everything should be done by July 21st. Let's make it 19th to be safe.

So I started by going over the Environment Setup module. I made sure Git is up to date on my computer and went ahead and made Git repository for my project (<https://github.com/aholainenviivi/Software-Development-Skills-Mobile.git>). I also looked up what Sourcetree is but as a Linux user I won't be needing it. I also created an account in bitbucket.

From the recommended code editors I've used VSCode, SublimeText and Android Studio before and I'll most probably be using at least VSCode and Android Studio to complete this course's work too.

I moved on to the Android mobile development module and started with the Introduction. I've used Android Studio before in the Object Orientated Programming course so I'm somewhat familiar with the basics. Almost everything in the first video was something I knew before but I also picked up on some things I had missed before. One such thing was the values folder in the resource file and, oh, how much I wish I knew about it before. Other bigger one was how to use the debugger and breakpoints.

After watching the first video I created a similar app to one shown in video with couple more functions that have their own methods. I made the calculator app its own github repository and then committed that to the main repository as a submodule.

Next up is the second part, Core Elements. The app I made for Object Orientated Programming course made me very familiar with Activities and I learned something about Intents too. The other two core elements in this part, IntentService and BroadcastReceiver, are not something I've worked with before.

After watching the video I started to work on an app with the same elements as the project in the video. I also experimented with RadioGroup and RadioButtons a bit.

24.05.2022

I continued working on the app with Activities and Intents and stumbled across a problem with opening a web page using Intents and Uri. I couldn't get it done the way shown in the video but with the help of Android Studio's documentation everything is working as it should be.

In the first view user has to use an option (if nothing is chosen, a message will pop up telling nothing was chosen). After confirming the choice with a button click, user is taken to another view which displays a text depending on the choice user made. Below is a button that opens another app and takes user to Youtube.

The app can be found in the Git repository with name "SDSM-AppLauncher".

Moving on to the third video. I don't think I've used ImageView before so this video should be interesting. I have some knowledge about how the layout components and ListView work but I'm very excited to learn more.

For the strings, the video used the res files, which I had no idea about before watching the first video. I learned more about how to use the file and now I'm more equipped to create an app with more accessibility such as possibility for multiple languages.

26.04.2022

Again, after watching the video I created a simple app using the elements used in the video. In this case lists, layout and images. I created an app that shows some info about ironmen in runescape. I incorporated images both in the list and in the view that open up when item in list is clicked. In the second view the icon is scaled up to fit the screen which makes it super bad quality but the main point was to learn about scaling.

The app can be found in the Git repository with name "SDSM-ListApp".

30.04.2022

For the past few days I've worked on the project task. The instructions were to make the app look like me so, of course, I made it all about me. This choice made it fun and non-stressful as I could focus on things I enjoy.

Basic idea of the app is that it generates a random number between 1 and 3 (oh, how random), and starts an activity according to the number. I made came up with 3 different activities which display my skills in different areas the course focused on.

First activity (randomNum=1) is about my favorite things on the internet which implements app launching and simple buttons. Clicking the buttons take the user to either Google or Youtube depending on the content.

Second activity (randomNum=2) has my favorite mokkapala recipe shown in listview. This is the part of the app I had most trouble with as listviews shouldn't apparently go inside scrollview. I decided to do it anyways and had to do some tricks and hardcoding to get everything to work. Not the best practice for sure but it works as I want it to.

The third activity (randomNum=3) has some pictures from my phone's camera roll. The activity has two buttons to go to next and previous pictures. If there's no next picture, the next button disappears and the same goes with the previous button. That's a function I'd never tried before and I'm actually pretty pleased with how the buttons work. It was also my first time to use icons in buttons. One thing I didn't implement in this activity was the possibility to use the app in landscape mode. I could've played around with the imageview's height and width to make the landscape mode work but I didn't feel like doing it. The landscape mode works everywhere else in the app though!

What I learned from the Object Orientated Programming course was the importance of naming conventions of layout files and the ids there. In this project every activity has a keyword in the XML files so everything is nice and organised. The keywords used in this project are launcher, recipe and gallery. Each id in the layout and strings files starts with one of those.

Other new thing for me was the use of the resource's string file. It made everything so easy! I have every string in the app in one place and changing any text was super easy. I could also be fancy and translate everything to Finnish too and give the user the possibility to switch languages. I won't do it but I could.

Final tweak was to restrict the randomness a bit by making sure the same activity can't come up twice in a row. This choice was made when testing the app and getting frustrated because I was thrown into the same activity too many times in a row.

During this course, it was nice to see how much better and more confident I've gotten with Android Studio and Java. This course was a great opportunity for me to experiment with new things and refine my workflow. I learned about new components and aspects of Android Studio and learned how to use Git a lot more. I think I will continue to work with Android Studio in the future in my own projects to take my skills to the next level.