

Lappeenranta teknillinen yliopisto  
School of Business and Management

Software Development Skills

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**LEARNING DIARY, MOBILE MODULE**

## LEARNING DIARY

21.11.2022

Today I started the course, I had to download Android Studio and Java, it was a straight forward download, and I had no serious issues with it.

I watched the first video and understood everything as I have used java before, and I have experience with object oriented programming. I learned how to set up a project in android studio and learned about basic stuff such as text views and buttons, I also learned how to set on click listeners to buttons.

Finally, the video ended showing how to use the debugger which was pretty easy to understand for me as it reminded me of NetBeans debugger for java.

18.12.2022

Today I learnt about Intents which are objects that are used to start another activity, also I learnt about the “putExtra” method, it has two parameters the key and a value which will be passed to the activity that will be launched.

The activity within our app was easy to set up, however I had to face a problem launching an activity outside the app. I used Android 11 which is a more recent version than the one used in the video, therefore when using the video explanation, I saw that “gotoGoogle.resolveActivity(getPackageManager())” is always null. I found out in stack overflow (<https://stackoverflow.com/questions/62535856/intent-resolveactivity-returns-null-in-api-30>) why it happened and the solution, which was added to the code. I included a queries element in the manifest and it worked. Other way to solve it is with a try-catch block.

25.12.2022

I watched the last video of the course. I learnt about list Views, and I personalized the list items, as well as I learnt how to add photos to the app using the drawable folder using the Image View component. Everything worked easily but the listview\_detail.xml file where the relative Layout worked different than the video, but I managed to follow the video.

25.12.2022

After finishing the last video, I was confident enough to start the project, project consists on two activities in the app and an external activity which is a link. I finished the main activity with 3 buttons adding the functionality. Two empty activities and a last button that has a link to my online portfolio which is the project of the course “Software Development Skills: Front-End”

26.12.2022

The first activity is a unit converter with a list View of the last conversions. The converter is between metric system and imperial system, but I also thought of possible future work which can be adding conversions in each system (e.g.: meters to kilometers).

I learnt about spinners (here: <https://stackoverflow.com/questions/13377361/how-to-create-a-drop-down-list>) as I thought it was a good way to show and choose the different types of conversions. I used a list View to show the conversions that were made after the app was initialized, here I faced another problem, every time I went back to the main activity the list was emptied as the array List I used was created empty every time the converter activity was launched.

27.12.2022

After thinking for several hours how to solve the problem I thought that using a class History which is a singleton would be the most accurate and easy way to do it, as I only want to keep the conversions while the app is running. After implementing it, it worked as expected. The List View thing was easy as I did it as the videos showed.

28.12.2022

I finished my project, however after seeing the requirements of the project task I saw the next one: "2. Multiple views" And I did not know whether one activity within the app was enough or not. So, I also created a basic calculator with the basic operations (multiplication, sum, division and subtraction). Again, I used the spinner to choose the operation.

After this the project was finished and ready to upload it.