Lappeenrannan teknillinen yliopisto
School of Engineering Science
Software Development Skills Mobile, Online course

LEARNING DIARY

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Learning Diary

Exercises:

29.04

By following a video tutorial "Android Studio For Beginners Part 1":

- Creating a new GitHub repository, testing it with first commits.
- Downloading Android Studio
- Creating a first empty project

12.05

By following a video tutorial "Android Studio For Beginners Part 1":

- Creating basic elements of the application
- First push of the application
- Adding a functioning Java code to the application

13.05

By following a video tutorial "Android Studio For Beginners Part 2":

- Creating a new project "Quicklauncher"
- Creating a second view and a corresponding button
- Creating a google button with activity bringing the user to the google webpage
- Fixing some issues with file placement

15.05

By following a video tutorial "Android Studio For Beginners Part 3":

- Creating a project "ListApp"
- Adding elements, prices and details to the list (using constraint layout)
- Testing empty detail activity without any images
- Adding images to the detail activity and scaling them properly

Project:

18.05

- Creating a project "PlantTracker"
- Creating a Plant class to hold name, description, water amount, image and Wikipedia URL
- Adding plant names, descriptions and wiki links to strings.xml as string arrays
- Creating plant_list_item.xml layout to display plant info
- Creating a custom adapter PlantAdapter extending BaseAdapter
- Setting up activity_main.xml with a ListView to display plants
- Loading data in MainActivity from resources and binding it with adapter
- Creating a detail activity layout activity_plant_detail.xml with image, description, water input and buttons
- Creating PlantDetailActivity to show plant details, allow adding water, and open Wikipedia link
- Connecting activities via Intent and passing selected plant index
- Making the water counter update in the main list view using onActivityResult() and notifyDataSetChanged()

Learning Outcomes:

- Practicing project setup and structure in Android Studio using Java
- Implementing navigation between multiple views using Intent
- Designing layouts with LinearLayout and ConstraintLayout
- Creating a ListView with a custom BaseAdapter to display dynamic data
- Loading and combining data from strings.xml and image resources
- Handling user interaction with EditText, Button, and conditional logic
- Opening external links using implicit intents with ACTION_VIEW
- Applying startActivityForResult and notifyDataSetChanged to refresh UI
- Registering activities in AndroidManifest.xml for proper navigation
- Improving debugging skills by resolving layout, activity, and runtime errors