Master - Android - TP1

2h

Objectif

Prendre en main l'IDE, manipuler les layouts et l'interaction view/code.

Technical base

The main docs : https://developer.android.com/guide/index.html

Kotlin docs : https://kotlinlang.org/docs/reference/

openium
créateur d'applications

15 rue Jean Claret
63 000 Clermont-Ferrand

64 rue Lamarck
75 018 Paris

Tél • 04 82 53 01 10
www.openium.fr

Initialization

2. **Workspace**

    a. <u>At home:</u>

- Start Android Studio

- Use Standard initialization, SDK

- To run the Android emulator :
https://developer.android.com/studio/run/emulator

- on an Intel CPU use Intel HAXM

- On AMD, you'll need to enable SVM in your BIOS

- You can also use your personal Android phone
https://developer.android.com/studio/run/device

    b. <u>(in ISIMA):</u>

- Start Android Studio

- If it asks you to Import Settings, choose No

- Open the project (not Import)

- Start it in the default Android 11 or 12, Pixel emulator.

- If the computer requires admin rights ask to the teacher

3. **Create a project**

- Use **No Activity** to start fresh.

- Leave the checkbox unchecked

☐ Use legacy android.support libraries ⦿

Using legacy android.support libraries will prevent you from using
the latest Play Services and Jetpack libraries

4. **Android emulator creation**

- If you want to create differents size of devices to test your application on multiple resolutions

- Go into Tools -> Android -> AVD Manager

- Choose an existing emulator or create one
- Press OK

First Activity

- Create a new Activity class and display a TextView with a text in it.
- Add a button, which when pressed, will display the text of your choice.
- Add an EditText, and when the button is pressed, replace the TextView's text by the EditText content.
- Use Log class to display logs in the onCreate, onStart, onResume, onPause, onStop, onDestroy of your Activity
- Try to figure out what triggers each methods (like enable rotation on your device and rotate your device)

Resources

- Add a new color and use it in your code to change the button background
- Display a Toast when the button is pressed with a string from the resources

Intent

- Add a second activity and try to display it with your button
- Ask the system to display the camera app with a second button
- Handle correctly the back stack
- Try to pass data from your first activity to your second activity using the Intent bundle

Bonus :data sharing

- Display the same data on two different
  - With a Button, generate a random string list within the first activity and display them. Each button click, add a item to the list and display it
  - Transfer all strings in the second activity and display them on the screen. This screen also have a Button to add data to the list. Each button click, add a item to the list and display it.
  - When I go back to the first activity, I want to see all the data generated.

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