

Lab 5

Lab 5a

Build project F5Bundle (files F5) and run it.

Click on the button "CHANGE TEXT AND IMAGE" (Figure 1). Texts and images will be changed (Figure 2). Then rotate the phone to landscape and back to portrait again.

As you can see, the components in MainActivity preserve their values while those in the F5Fragment are lost (Figure 3).

- Use the same technique as in MainActivity, so that the components of F5Fragment keep their values after rotating the device.

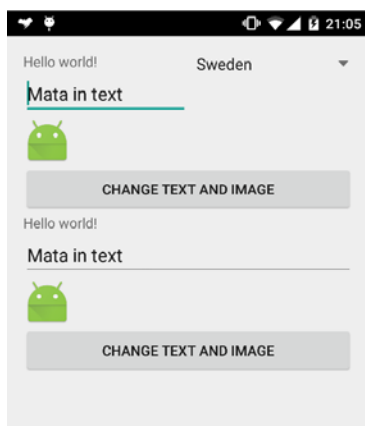


Figure 1

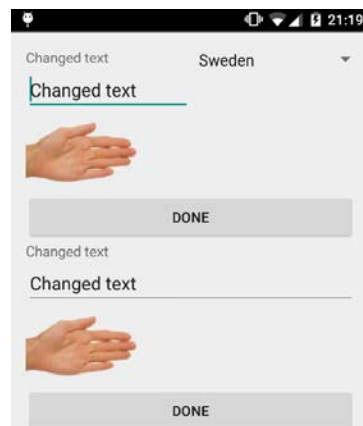


Figure 2

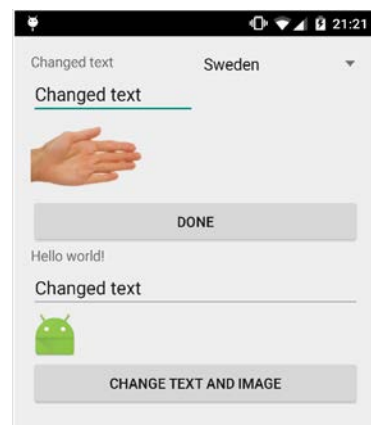


Figure 3

Lab 5b

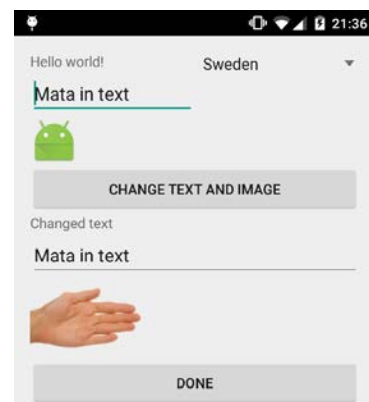
Build project F5SharedPreferences (files F5) and run it.

The first time you run the application, a window like the one in Figure 1 is displayed.

Click on the button "CHANGE TEXT AND IMAGE" and texts and images will be changed. Rotate the phone to landscape and back to portrait will keep all the values in the components.

Then, if you exit the app and then start it again, the UI will look like in Figure 4. The components of the Fragment are preserved between executions while the components in the Activity lose their values. This is directly related to using SharedPreferences for the Fragment.

- Make sure that the components retain their values between runs even in the Activity section. You should use SharedPreferences in your solution.
- How would you make the app behave in the same way as in Exercise 5a, but using SharedPreferences?



Figur 4

Lab 5c

Build project F5RetainedFragment (files F5) and run it.

Using DataFragments you can hold values in Main Activity during rotations. And SharedPreferences can handle that all in the F5Fragment.

- Replace SharedPreferences in F5Fragment with DataFragments, so that screen rotations are managed without losing values. However, the values will be lost between executions of the app.