

Overview

This assignment covers the concepts of android architecture components. The objective is to implement the binding adapter and bind the views in the fragment list. Using these concepts, an android application 'Rate a Cat' had to be developed that provides the user with the preview of images of various cats along with their names, and the user can vote for whether they find the cat cute or not.

Application Design

The home screen contains a start button. After pressing this button, the user will be shown one picture of a cat at a time along with the name of that cat. Below it, there are two buttons, 'NOT CUTE' and 'CUTE'. Initially, the count of both the options will be 0 and as soon as the user presses a button, the counter corresponding to that button will be incremented. The how-to process can be described in the following way:

Step 1: Start the application.

Step 2: Press the 'START' button.

Step 3: If you think that the cat is cute and its cuteness deserves your acknowledgement, press the 'CUTE' button. If you think that the cat is not so cute, just press 'NOT CUTE.'

While a picture of a cat along with its name appears on the screen, follow step 3 repeatedly.

Step 4: STOP

Layouts

Following are the screenshots that demonstrate the design layouts of the application.

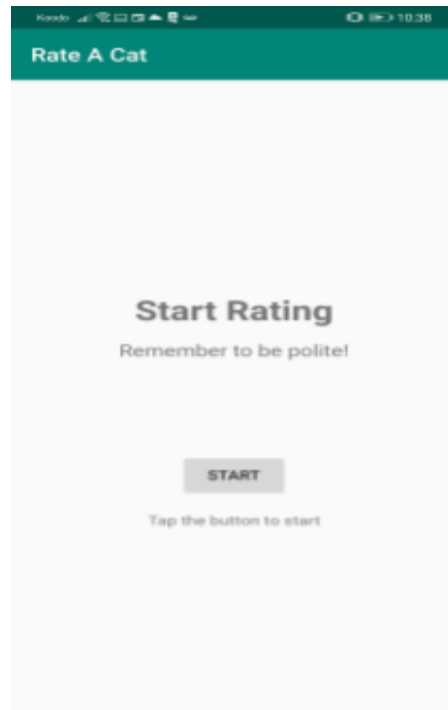


Figure 1: The home screen

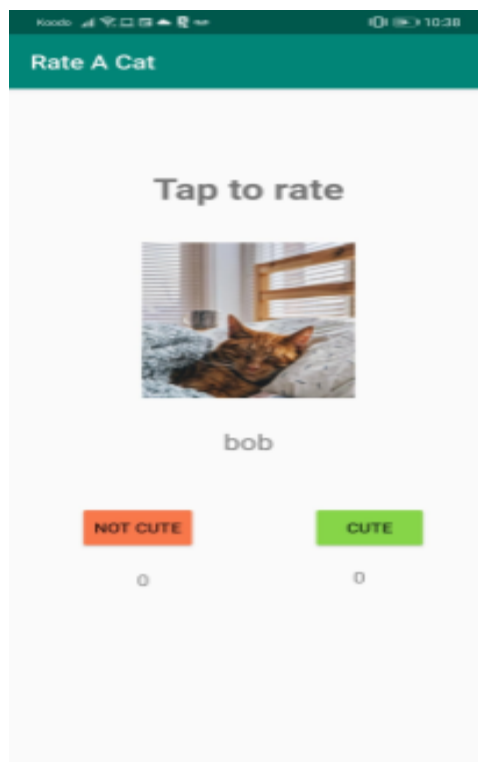


Figure 2: First image to be rated.

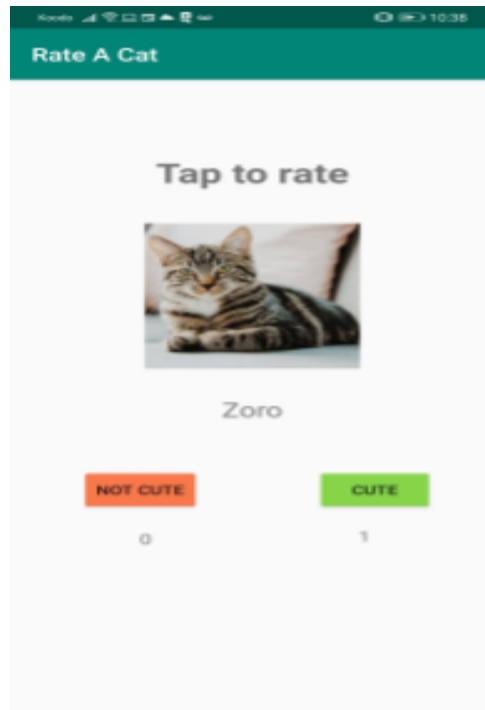


Figure 3: The cute vote counter incremented after the first vote.



Figure 4: Screen at the time when the last image has to be voted.

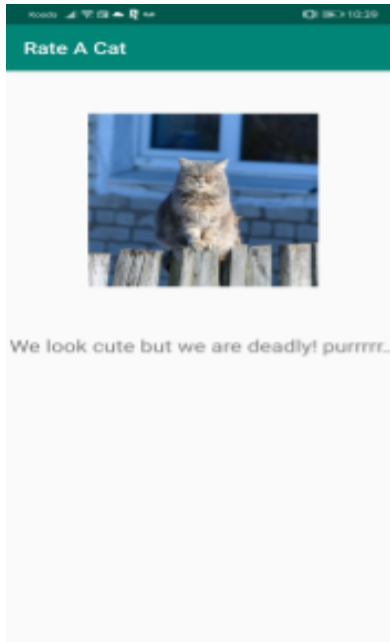


Figure 5: The final screen after all the images have been voted.

Tools and Technologies Used:

- Android Studio 3.6.1
Build #AI-192.7142.36.36.6241897, built on February 27, 2020
Runtime version: 1.8.0_212-release-1586-b04 amd64
VM: OpenJDK 64-Bit Server VM by JetBrains s.r.o
Windows 10 10.0
GC: ParNew, ConcurrentMarkSweep
Memory: 1246M
Cores: 4
- Operating System: Windows 10 Home Basic
- Programming Language: Kotlin
- Smartphone used for testing: Huawei P30

Test cases used:

1. Press the 'START' button on the home screen.
2. Press the 'CUTE' button on the first voting screen.
3. Press the 'NOT CUTE' button on the first voting screen.

4. Press the 'CUTE' button for every voting screen.
5. Press the 'NOT CUTE' button for every voting screen.
6. Try to go to the previous screen after starting the voting process.
7. After giving three votes, minimize the application and then open it again.
8. After giving three votes, close the application and then open it again.

References:

"Lab 5 - Android Architecture," *Brightspace - Dalhousie University*. [Online]. Available: <https://dal.brightspace.com/d2l/le/content/110356/viewContent/1611175/View>. [Accessed: 28-Mar-2020].

"Android Architecture Components : Android Developers," *Android Developers*. [Online]. Available: <https://developer.android.com/topic/libraries/architecture>. [Accessed: 28-Mar-2020].

"LiveData : Android Developers," *Android Developers*. [Online]. Available: <https://developer.android.com/reference/android/arch/lifecycle/LiveData>. [Accessed: 28-Mar-2020].