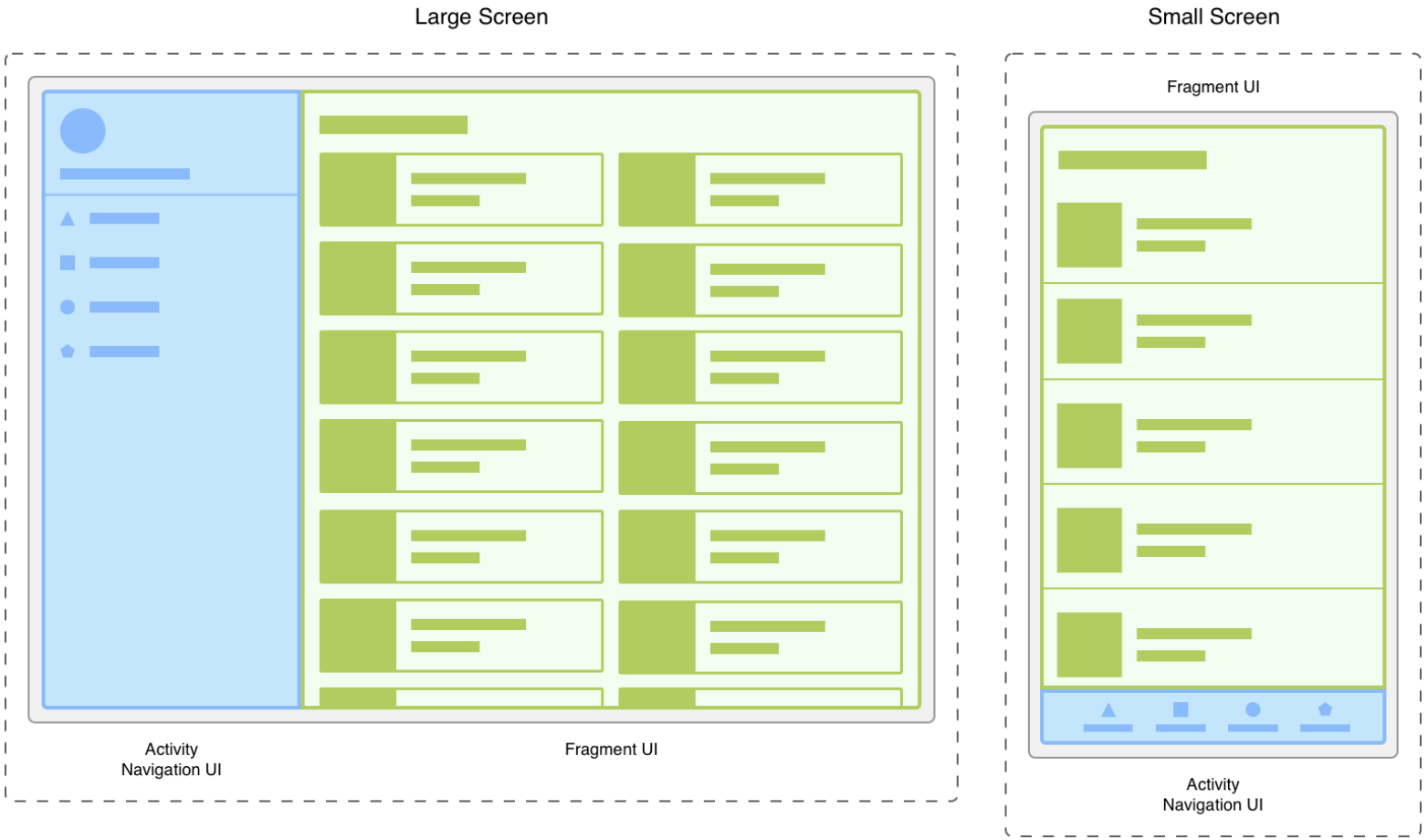
LAB 03

RecyclerView

RECAP

Fragments and Nav

Fragments



https://developer.android.com/guide/fragments

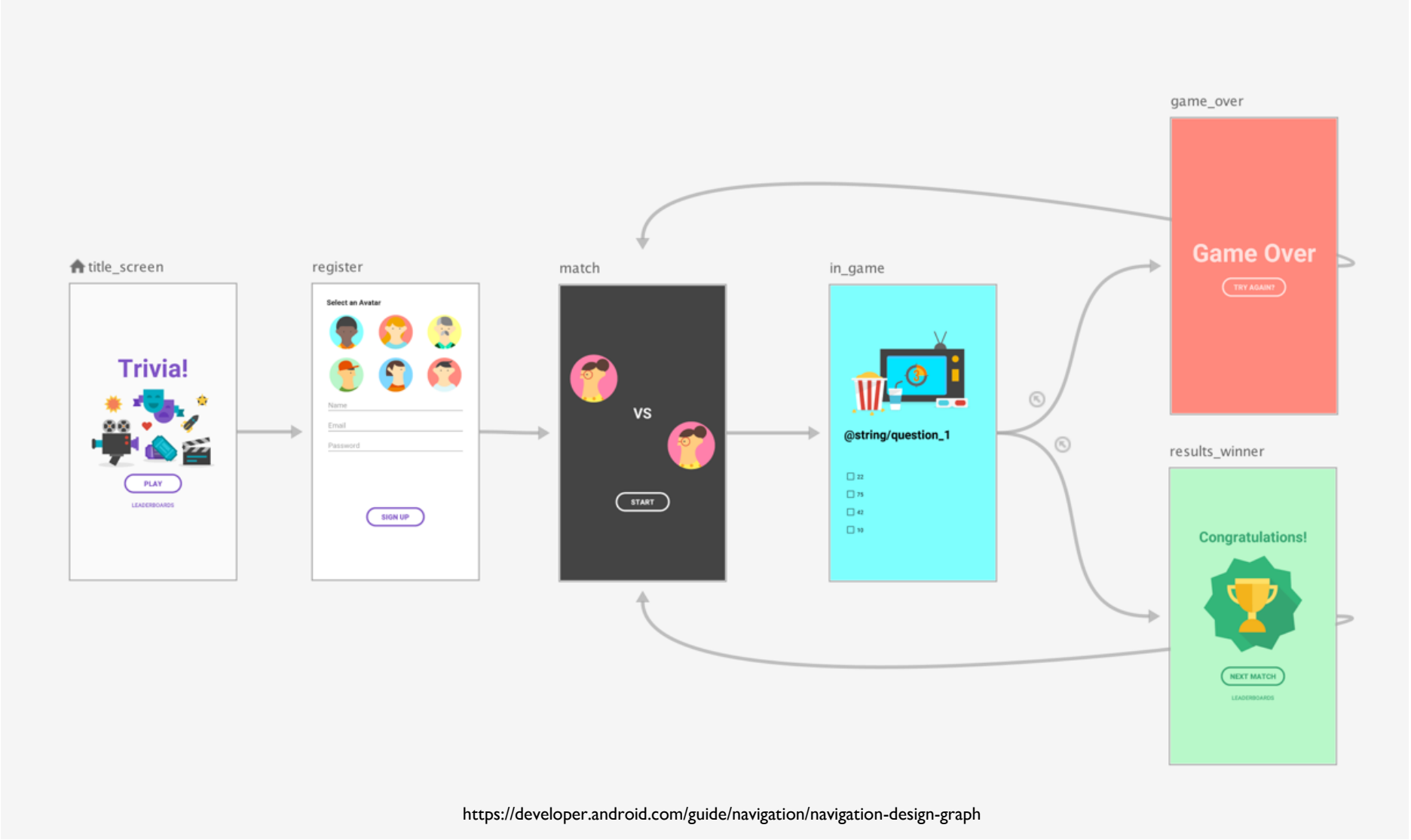
Navigation

- Three main components of navigation: destinations, actions, and navigation graphs.

- Navigation takes place between your app's **destinations**—that is, wherever in your app that users may travel to. These locations are linked together via **actions**.

- A **navigation graph** is a resource file that contains all of your destinations and actions. The graph represents all of your app's navigation paths.

Navigation Graph Example



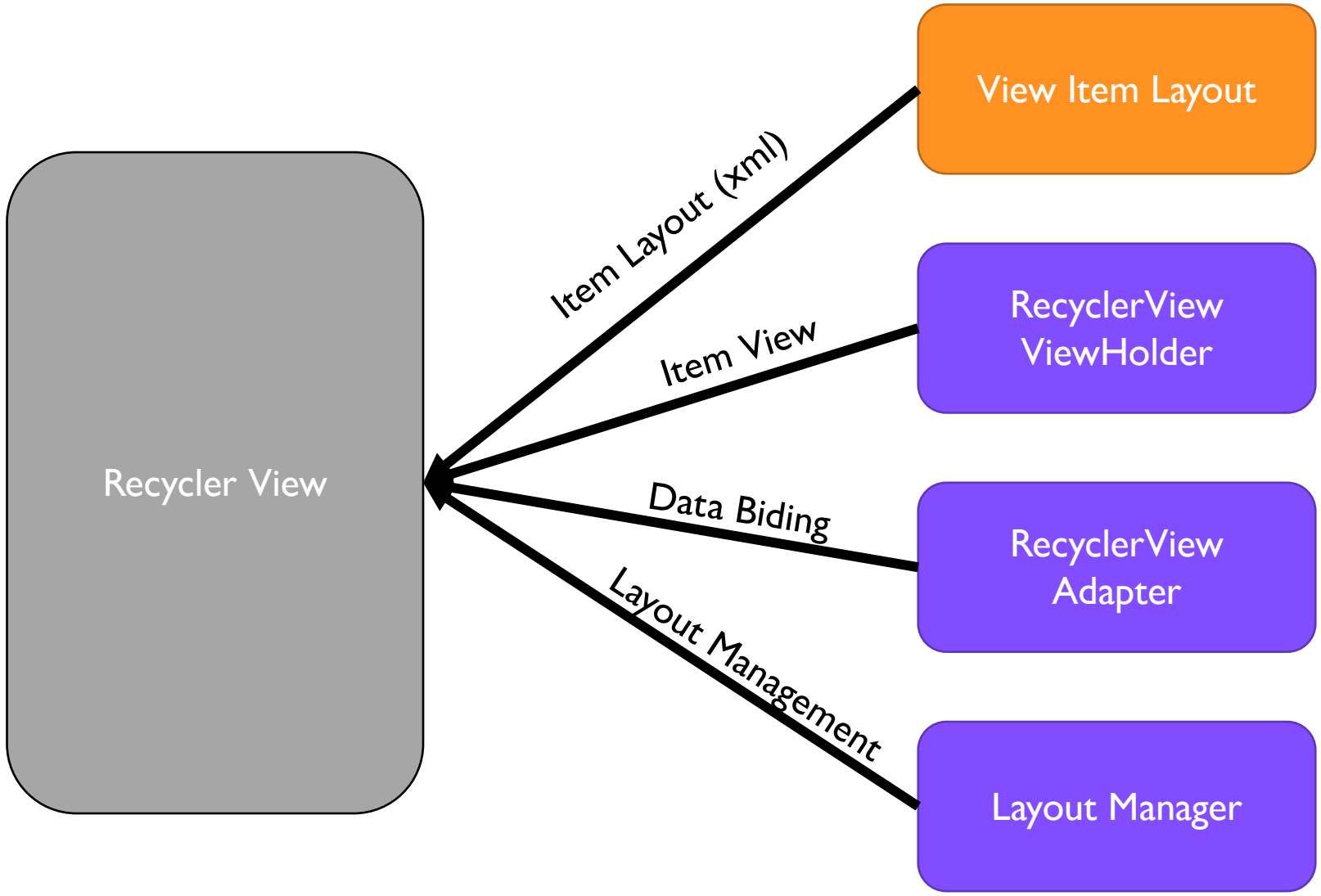
https://developer.android.com/guide/navigation/navigation-design-graph

RecyclerView

- “RecyclerView makes it easy to efficiently display large sets of data. You supply the data and define how each item looks, and the RecyclerView library dynamically creates the elements when they're needed."

  https://developer.android.com/develop/ui/views/layout/recyclerview

RecyclerView



RecyclerView

1. Define a model class for data
   - e.g., Contact.kt
2. Create the Layout for each Item
   - Use FrameLayout
3. Create your ViewHolder class (connects data to the layout)
4. Created your Adapter to bind the RecyclerView to your data storage
   - Firebase, MySQL, Room, an ArrayList
5. Profit!

The ViewHolder and Adapter classes

- ViewHolder
  - Inherits from `RecyclerView.ViewHolder`

- Adapter
  - Inherits from `RecyclerView.Adapter<T>`
  - Where T is your ViewHolder class

Lab Assignment 03

- This assignment target's Android.
  - Kotlin only!
  - You will have to use the emulator or your phone

- Starter Code?
  - None, start from scratch
  - Git repo is empty. You have to initialize it
    - Do not forget the README and GITIGNORE

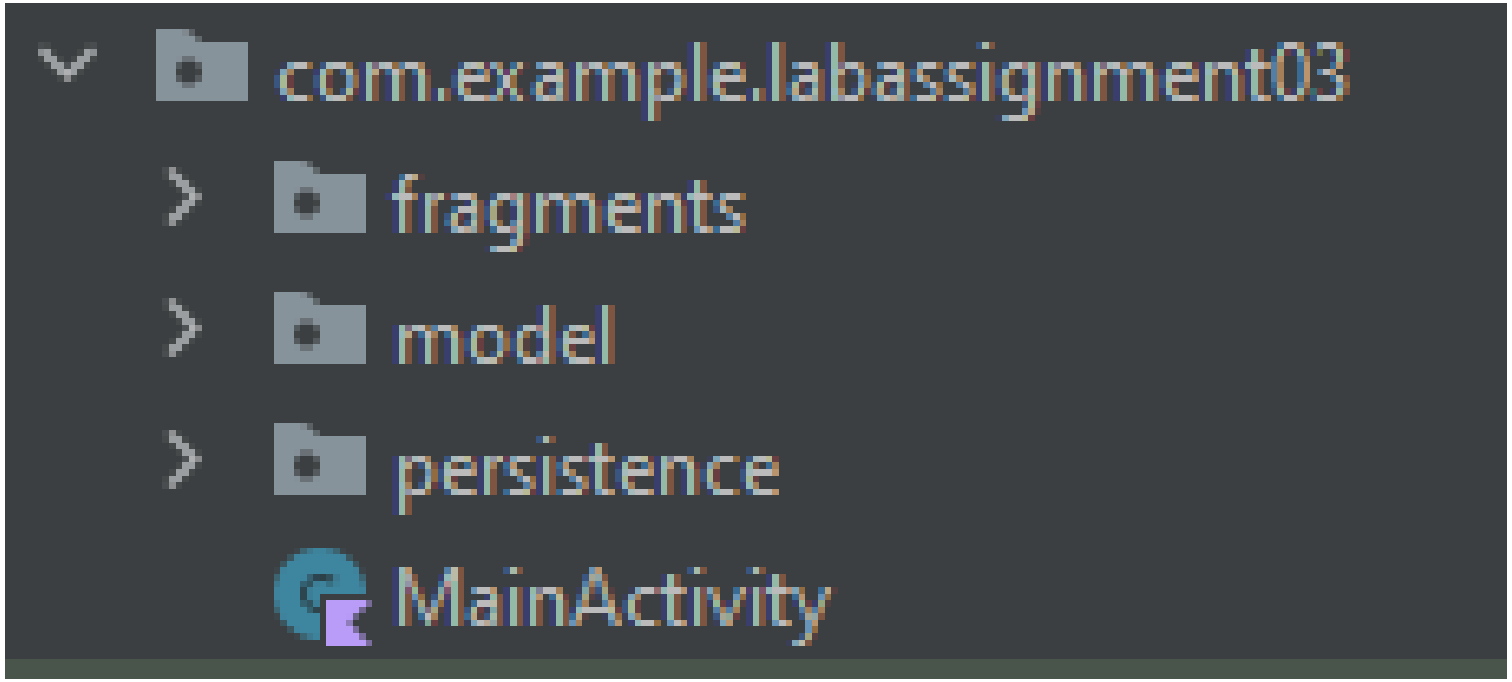
Lab Assignment 03

- Useful Resources
  - https://developer.android.com/guide/navigation
  - https://developer.android.com/guide/fragments
  - https://developer.android.com/develop/ui/views/layout/recyclerview

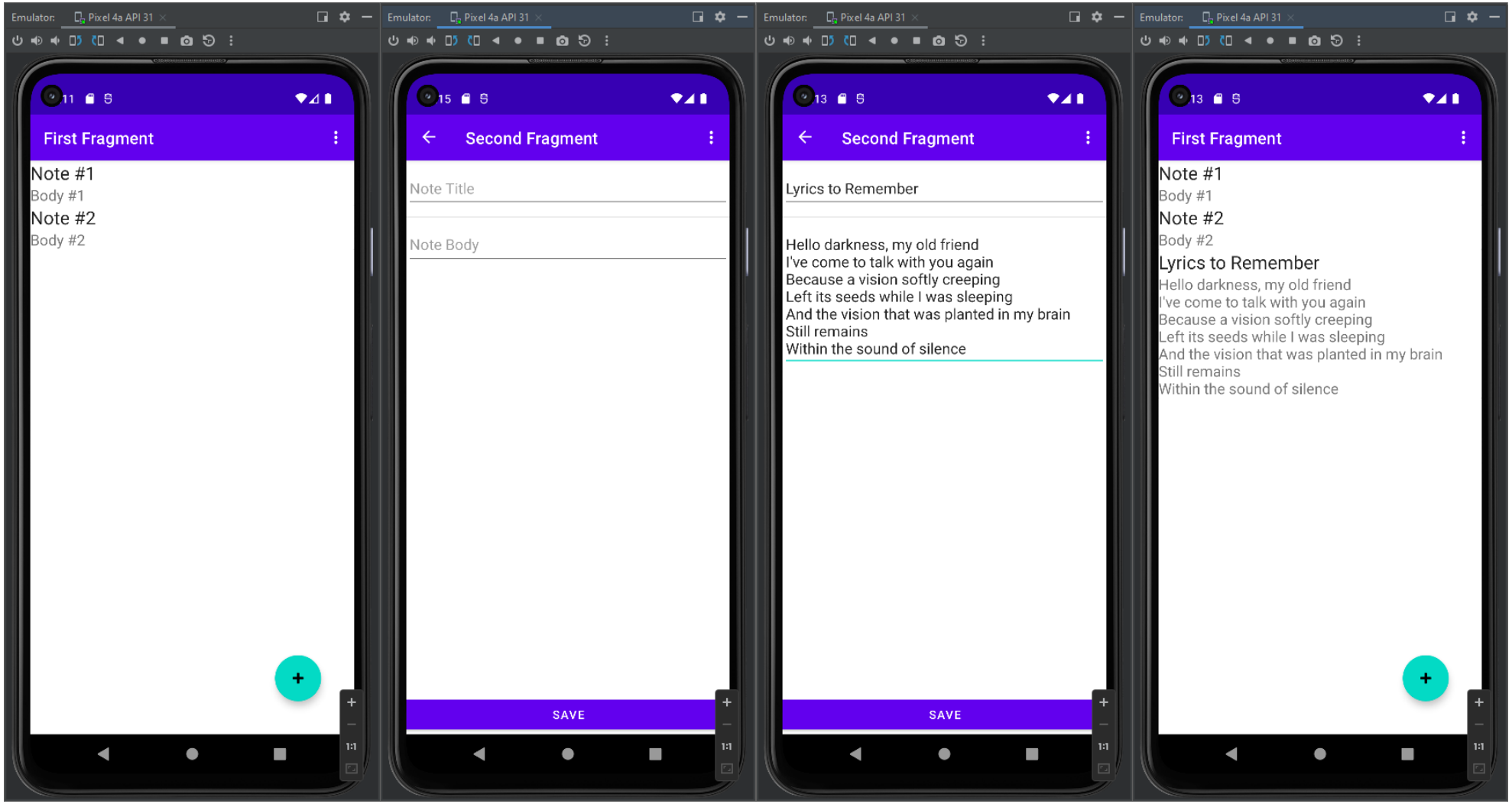
Lab Assignment 03

- Two Fragments
- Create a Notes application using the RecyclerView
  - For now, store your notes (persistence) in an a ArrayList
  - Create a class to model your storage
  - We will switch to “true” persistence in the near future
- User can create new notes
- How are you going to pass information (access to storage) between fragments?

Package Suggestion



Lab Assignment 03



Lab Assignment 03

- More details in the pdf

- *Hint: the Singleton pattern might be your friend here*

WE ARE HERE TO HELP