



ACTIVITY, FRAGMENT, NAVIGATION

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Recap

- `res/drawable/` (required directory holding at least one graphic file, for the app's icon on Google Play)
- `res/layout/` (required directory holding an XML file that defines the default layout)
- `res/anim/` (required if you have any `res/anim-<qualifiers>` folders)
- `res/xml/` (required if you have any `res/xml-<qualifiers>` folders)
- `res/raw/` (required if you have any `res/raw-<qualifiers>` folders)

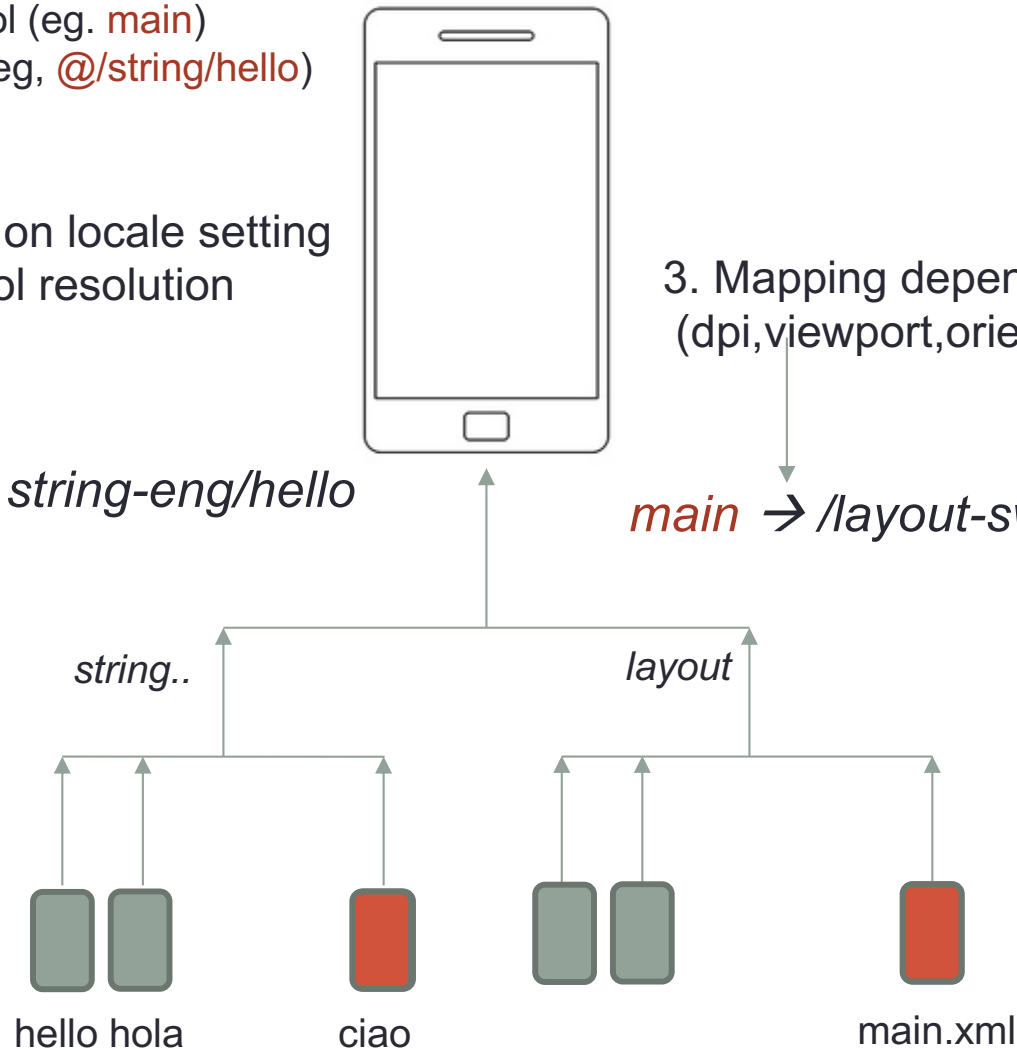
1. App refers to a symbol (eg. `main`)
2. xml refer to symbol (eg, `@/string/hello`)

3. Mapping depends on locale setting
7.0+ improved symbol resolution

`@string/hello` → `string-eng/hello`

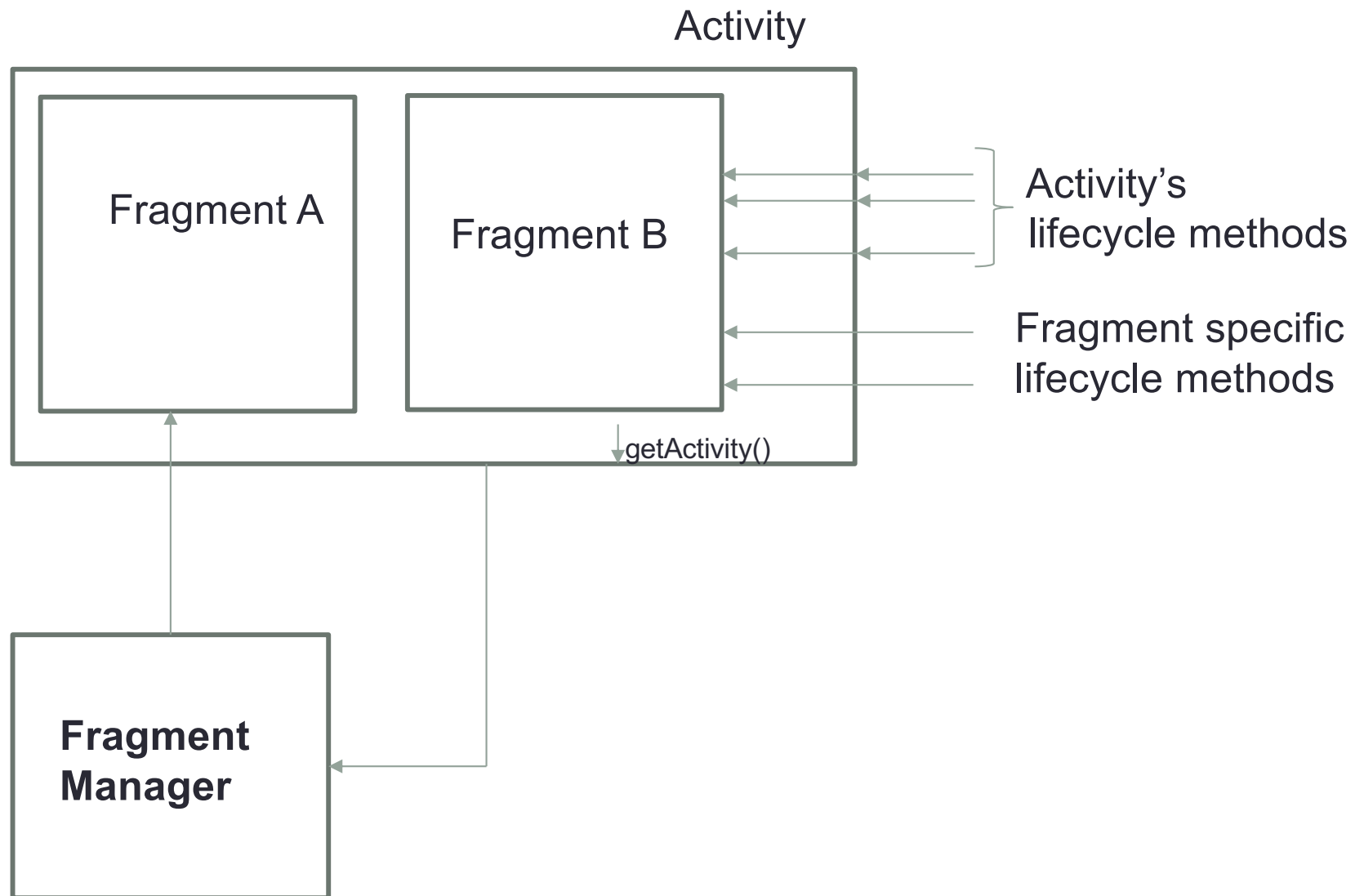
3. Mapping depends on screen properties
(dpi,viewport,orientation,...)

`main` → `/layout-sw800dp/main`



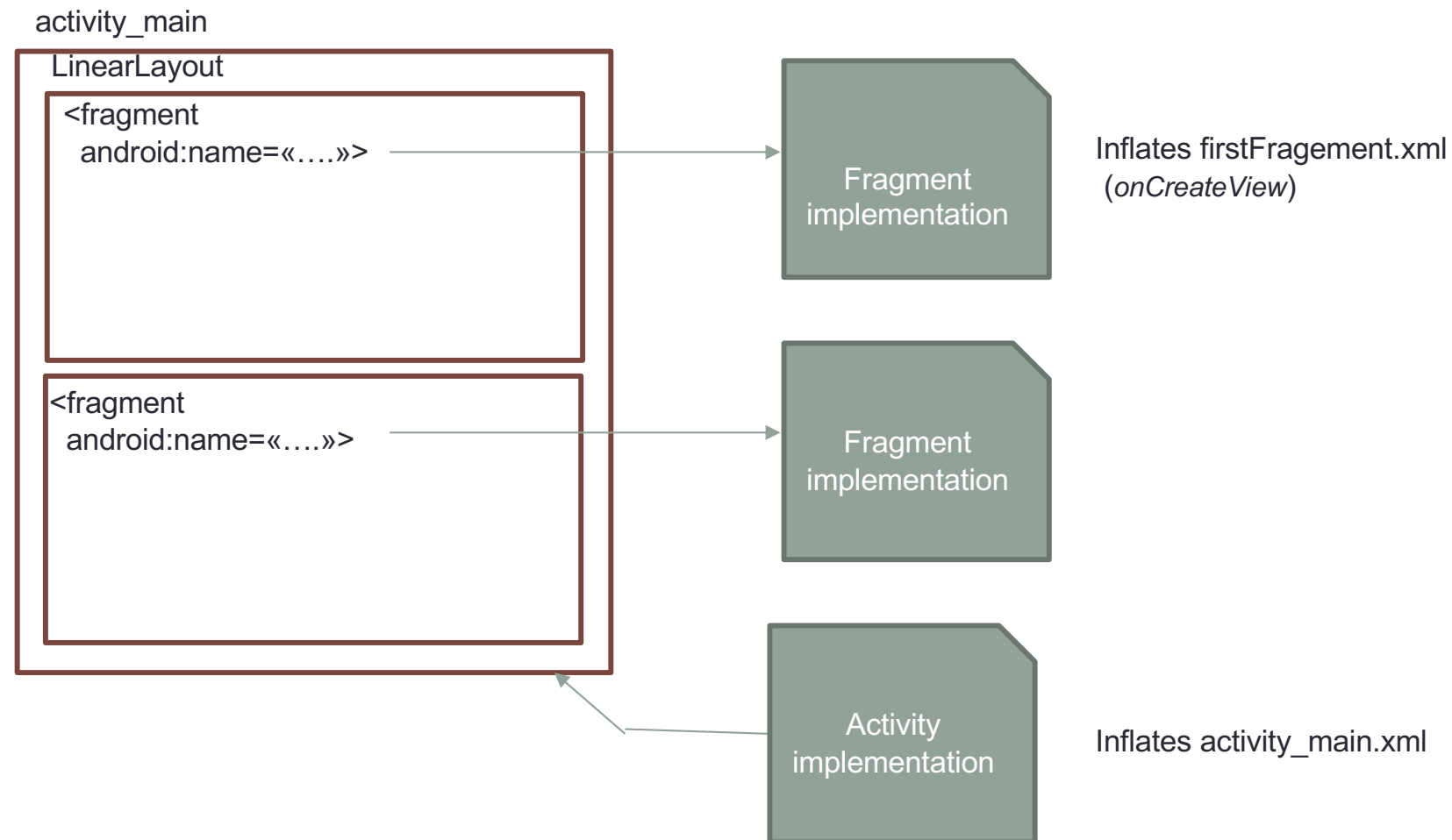
Fragments and activity

- Useful for large screen (like tablet)
- or as navigation tools
- Fragments are hosted inside an Activity
 - A fragment is 'attached' to a View
 - It must create its view (from an XML file)
- Fragments have their own lifecycle (which is more complex than the activity)
- Can be added via XML file or programmatically



Fragment via XML

fragments are attached to the activity that inflates the main layout

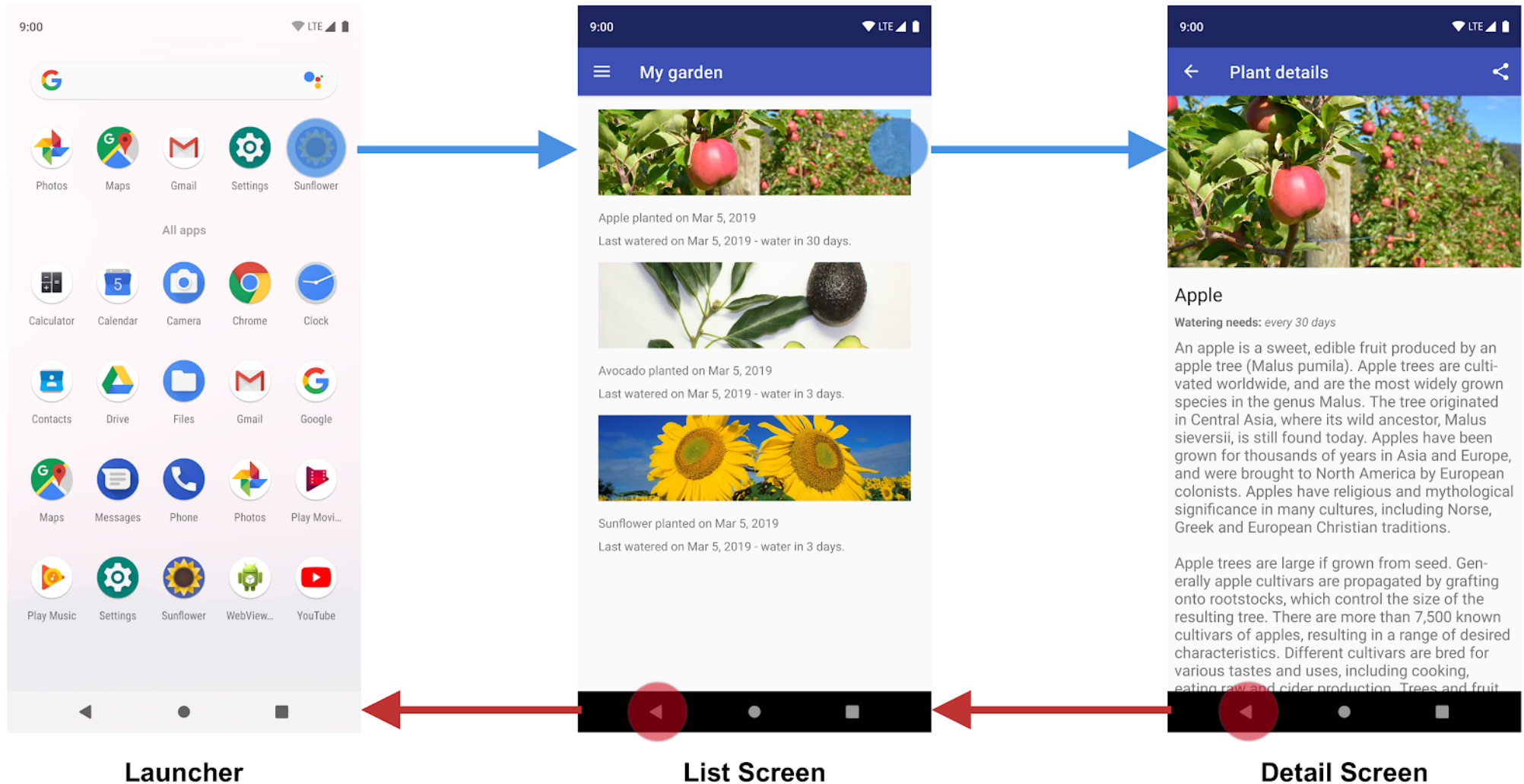


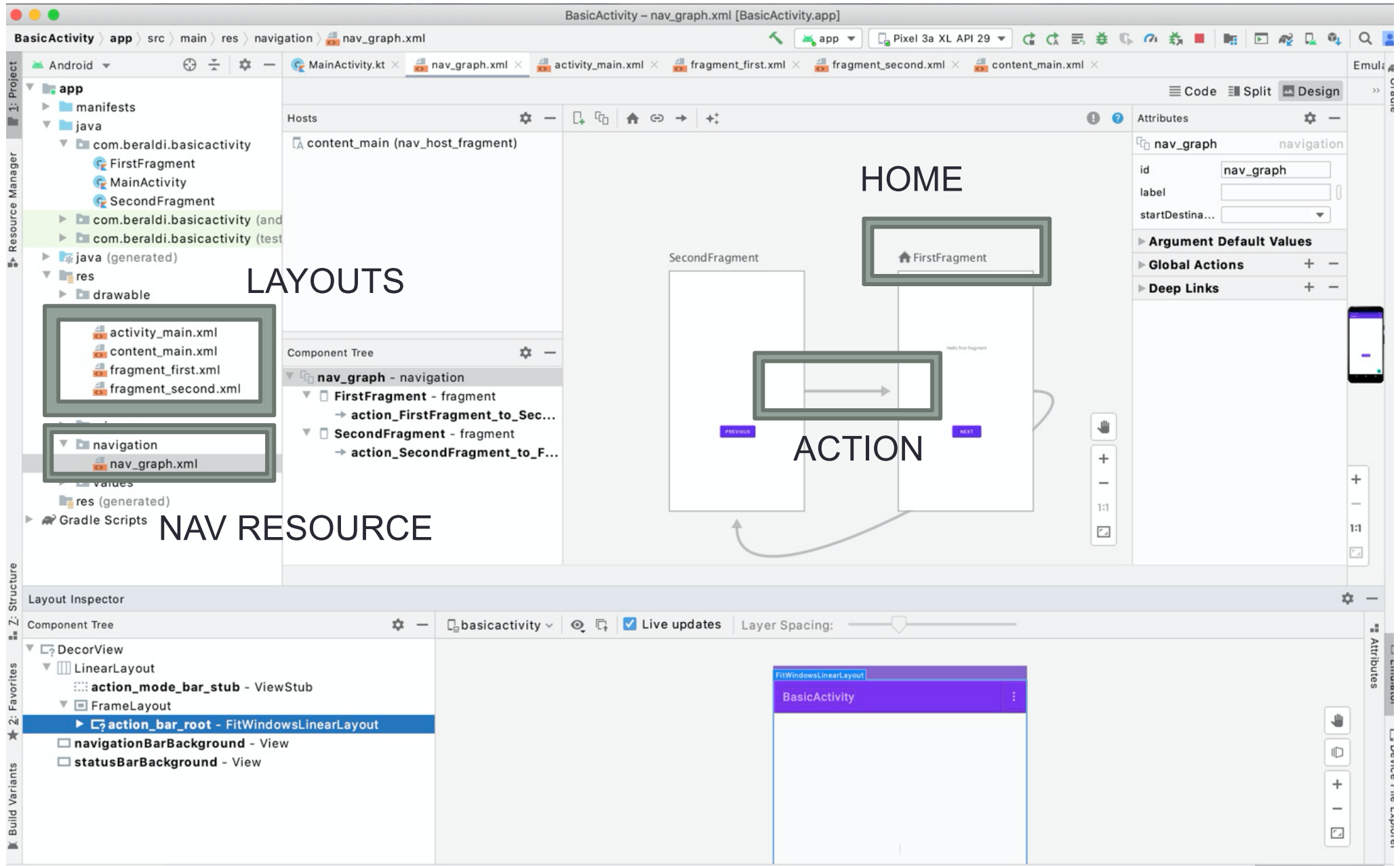
the **fragment** tag provides to the fragment implementation the view where the view will be rendered

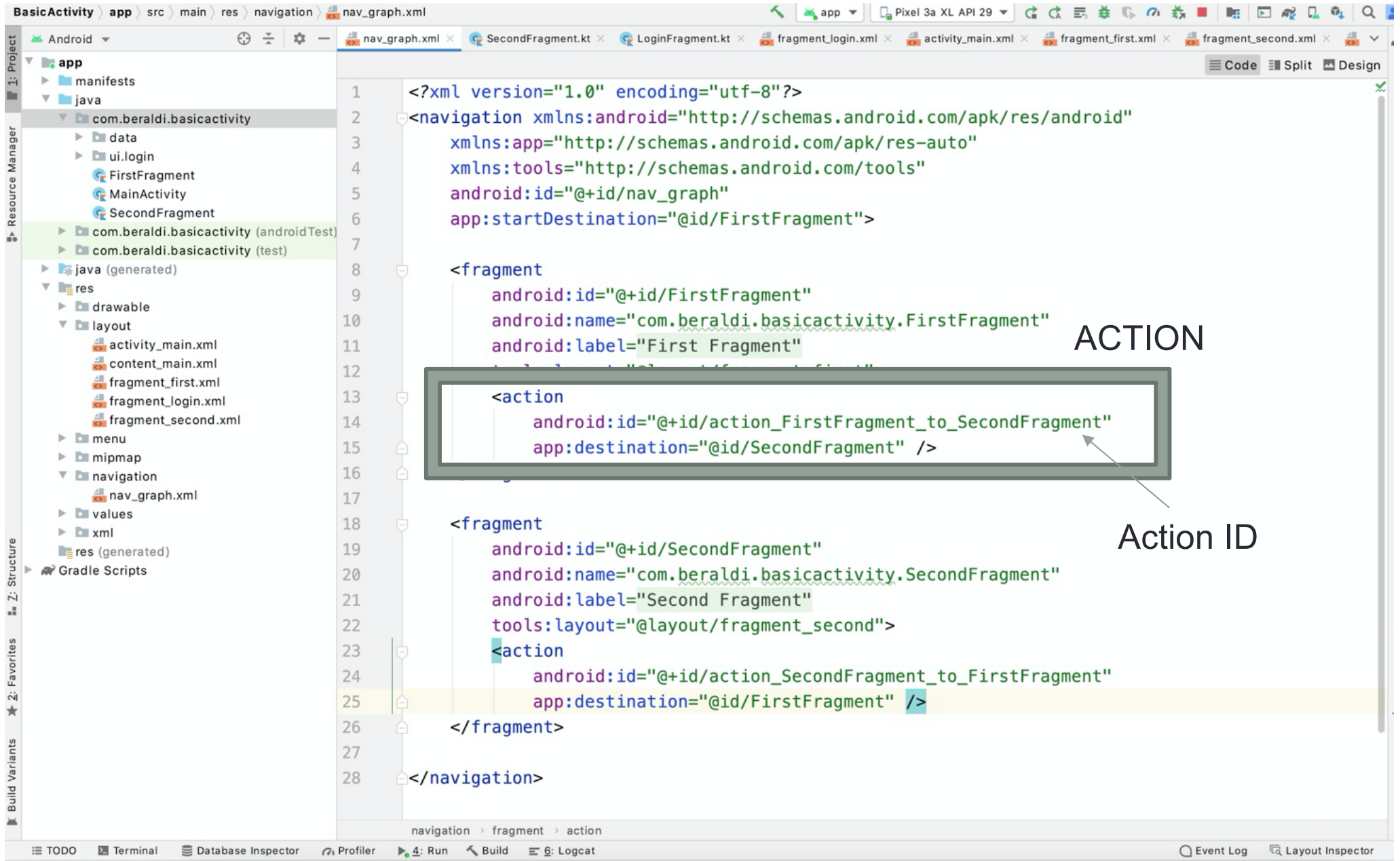
Navigation

- Single Activity many fragments
- **Forward/Backward** navigation
- **Lateral** navigation, main paradigms:
 - Tab navigation
 - Bottom navigation
 - Drawer navigation
 - Menu navigation

Forward/Backward navigation







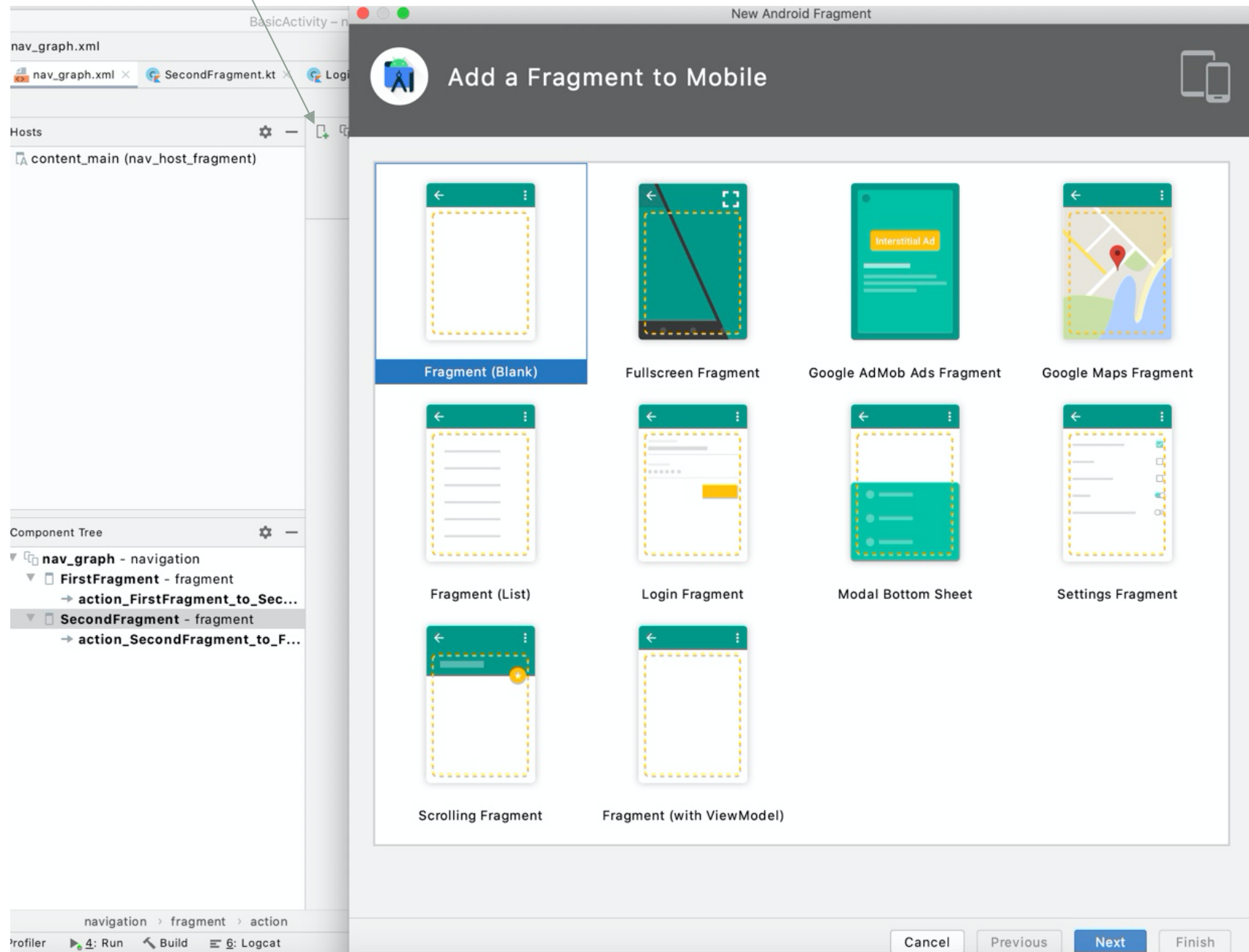
```

13
14 class SecondFragment : Fragment() {
15
16     override fun onCreateView(
17         inflater: LayoutInflater, container: ViewGroup?,
18         savedInstanceState: Bundle?
19     ): View? {
20         // Inflate the layout for this fragment
21         return inflater.inflate(R.layout.fragment_second, container, attachToRoot: false)
22     }
23
24     override fun onViewCreated(view: View, savedInstanceState: Bundle?) {
25         super.onViewCreated(view, savedInstanceState)
26
27         view.findViewById<Button>(R.id.button_second).setOnClickListener { it: View!
28             findNavController().navigate(R.id.action_SecondFragment_to_FirstFragment)
29         }
30     }
31 }

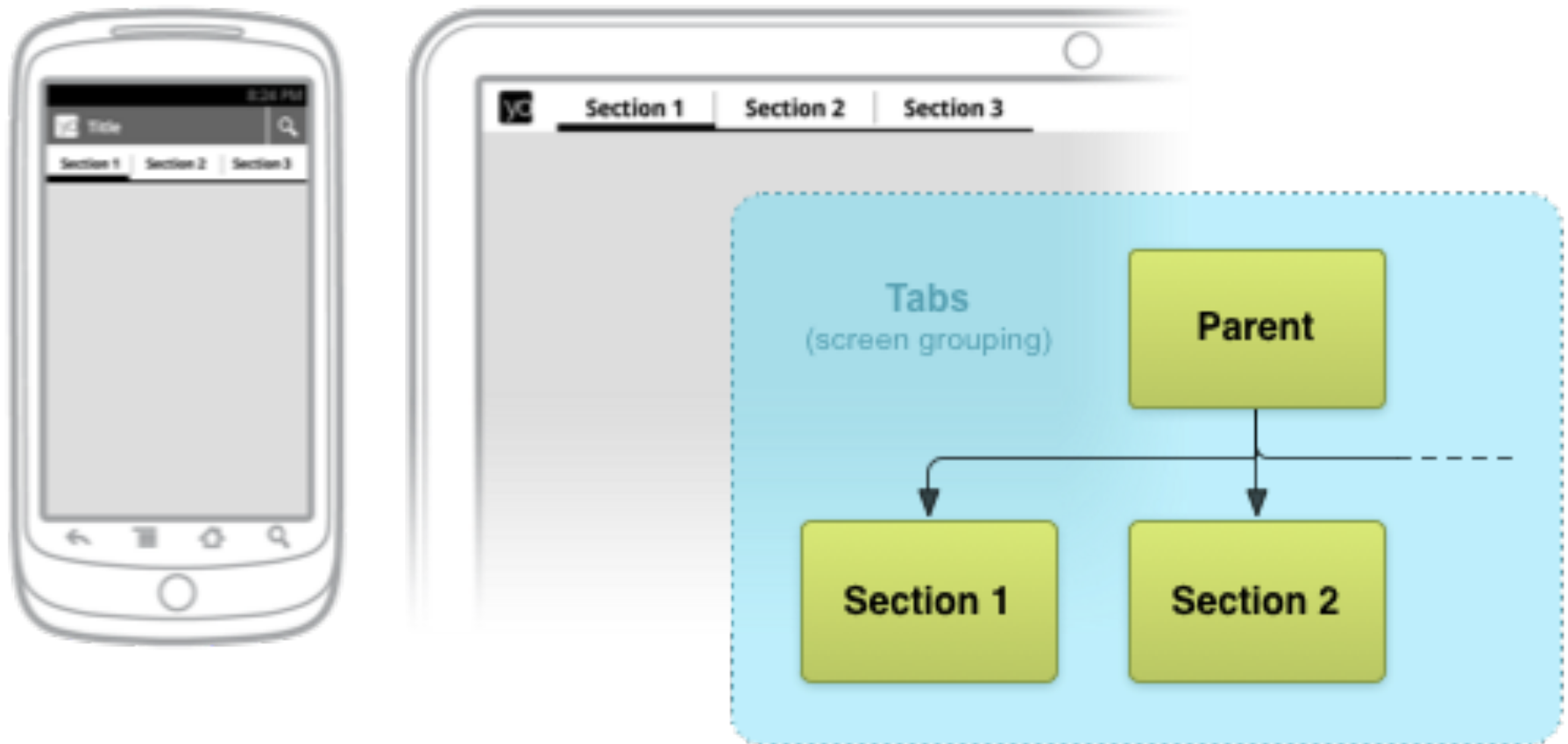
```

- Nav Controller is in charge of managing fragments
- *navigate(action)* says where to go

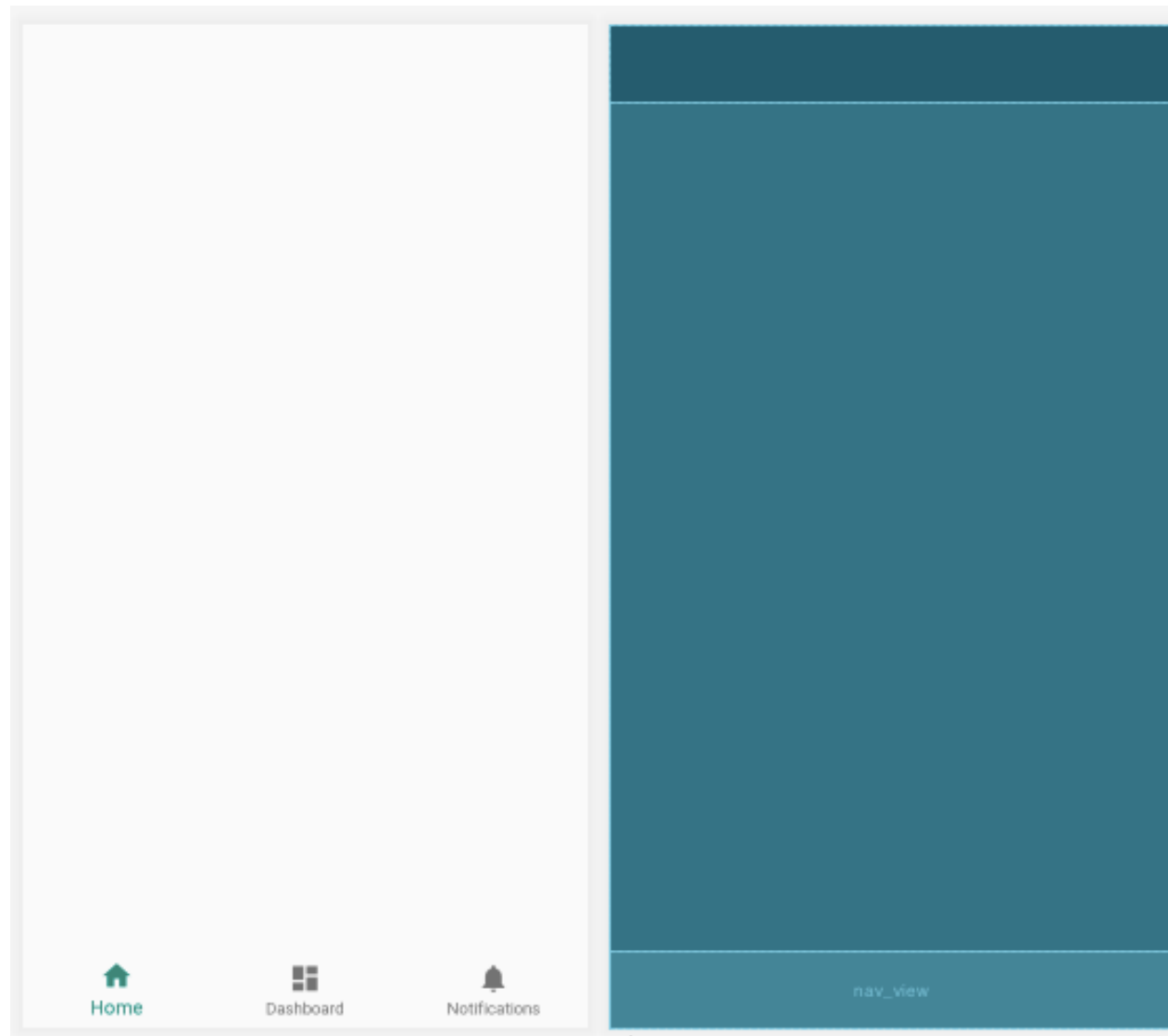
ADD



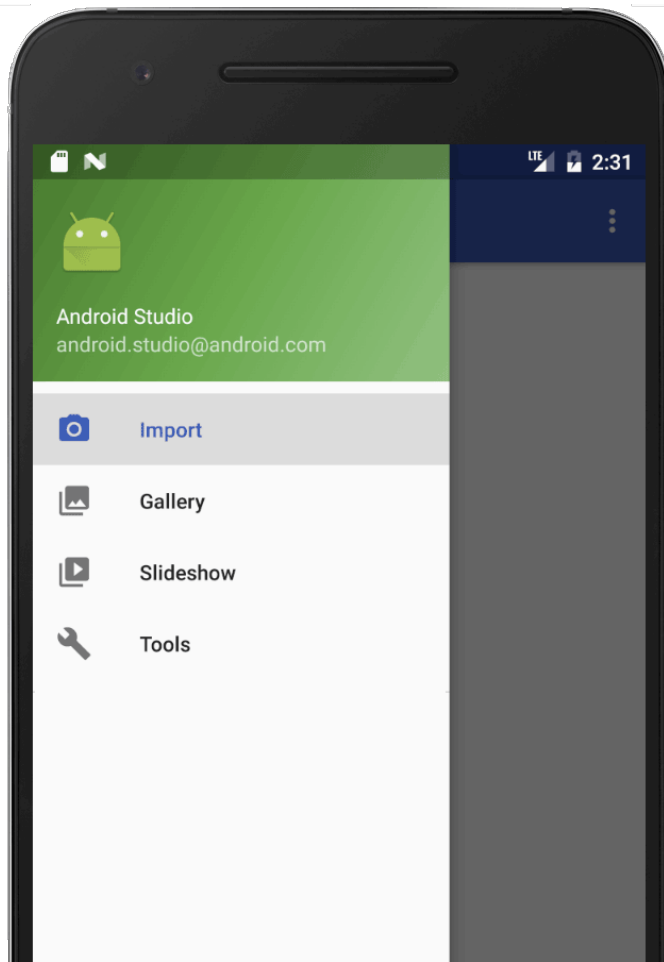
Tab navigation



Bottom navigation



Drawer navigation



Menu navigation

