Mobile Application Programming: Android

Fragments
Activities

- Apps are composed of activities.
- Activities are self-contained tasks made up of one screen-full of information.
- Activities start one another and are destroyed commonly.
- Apps can use activities belonging to another app.
Fragments

Mona Lisa
St. George and the Dragon
Campbells Soup
Self Portrait
Starry Night
The Scream
Last Supper
The Optometrist
The Great Wave off Kanagawa
The Persistence of Memory
Water Lilies
Fragments

LinearLayout

MainActivity

- Mona Lisa
- St. George and the Dragon
- Campbells Soup
- Self Portrait
- Starry Night
- The Scream
- Last Supper
- The Optometrist
- The Great Wave off Kanagawa
- The Persistence of Memory
- Water Lilies
Fragments

LinearLayout
FrameLayout
FrameLayout
Fragments

- **Tablet**
  - Selecting an item updates Fragment B
  - Activity A contains Fragment A and Fragment B

- **Handset**
  - Selecting an item starts Activity B
  - Activity A contains Fragment A
  - Activity B contains Fragment B
Fragments

- Acts like a sub-activity
- Attached and removed from an activity using the **FragmentManager**
- Attachment or removal of many fragments with **FragmentTransaction**
- Lifecycle tied to parent activity
- Adds `onAttach / onDetach` and `onCreateView / onDestroyView`
Back Stack

- **Back button** manipulates back stack
- Fragment transactions are **NOT** added to back stack automatically
- When fragment changes need to be inserted in the back stack
- See `FragmentManager.addBackStack` as well as `TaskStackBuilder`