

# DAY 6

# ANDROID DEV FTC 9



### Fragment



- \* What is Fragments
- \* Static Fragments
- \* Dynamic Fragments
- \* Fragment Transitions
- \* Passing data to Fragments

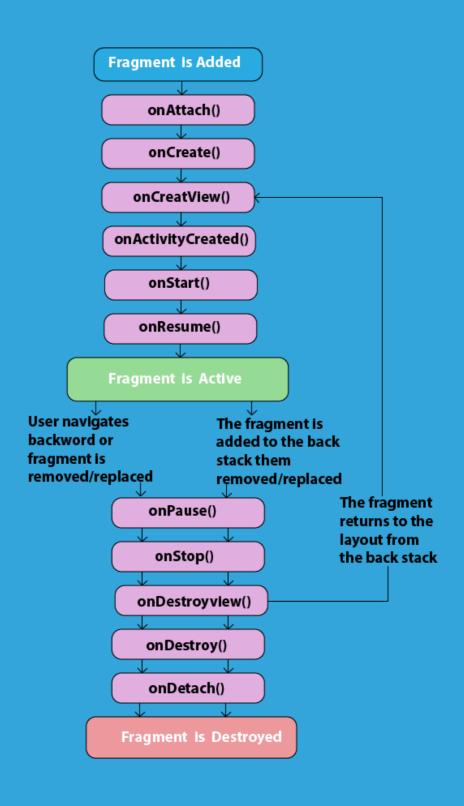
#### Fragment



- 🛊 လောလောဆည်မှာ JetPack ရဲ့ အစိတ်အပိုင်းတစ်ခု အနေနဲ့ ရှိနေ
- 🛊 Activity ရဲ့ UserInterface အစိတ်အပိုင်းတစ်ခု
- 🜟 ကိုယ်ပိုင် layout ၊ ကိုယ်ပိုင် lifecycle နဲ့ရှိနေ
- 🜟 Activity တစ်ခုမှာ Fragment အရေအတွက် တစ်ခုထက်ပိုပြီး ပါဝင်နေနိုင်တယ်။
- 🜟 Activity တစ်ခု Run နေတုန်းမှာ (dynamically) ထည့်နိုင် ဖြုတ်နိုင်တယ် ၊ (fragment transition)
- 🜟 Run တဲ့ device ရဲ့ form factor ပေါ်မူတည်ပြီး interface မှာပါဝင်မယ့် အစိတ်အပိုင်းတွေ ပြောင်းလဲ ဖွဲ့စည်း(ပြသ) လိုတဲ့အခါမှာ သုံးလေ့ရှိတယ်
- 🜟 Screen အစိတ်အပိုင်းတစ်ခုက Activity တော်တော်များများမှာ ပြန်ပါဝင်နေတယ်ဆိုရင်လည်း အဲဒီ အစိတ်အပိုင်းကို Fragment သုံးပြီး တည်ဆောက်လေ့ရှိတယ်။

### Fragment LifeCycle





# Fragment LifeCycle Methods



No.	Method	Description
1)	onAttach(Activity)	it is called only once when it is attached with activity.
2)	onCreate(Bundle)	It is used to initialize the fragment.
3)	onCreateView(LayoutInflater, ViewGroup, Bundle)	creates and returns view hierarchy.
4)	onActivityCreated(Bundle)	It is invoked after the completion of onCreate() method.
5)	onViewStateRestored(Bundle)	It provides information to the fragment that all the saved state of fragment view hierarchy has been restored.
6)	onStart()	makes the fragment visible.
7)	onResume()	makes the fragment interactive.
8)	onPause()	is called when fragment is no longer interactive.
9)	onStop()	is called when fragment is no longer visible.
10)	onDestroyView()	allows the fragment to clean up resources.
11)	onDestroy()	allows the fragment to do final clean up of fragment state.
12)	onDetach()	It is called immediately prior to the fragment no longer being associated with its activity.



## **Fragments**

</code>

### Services



- \* Service?
- \* What they can do?
- \* Service and IntentService

#### **Services**



- 🗱 User ရဲ့ Interaction မပါပဲ နောက်ကွယ်ကနေ ကိုယ်လုပ်စေချင်တဲ့ process တွေကို လုပ်ဆောင်ပေးနိုင်ဖို့ အသုံးပြု – User Interface မရှိ
- 🗱 Activity Lifecycle နဲ့ မပတ်သက်ဘူး
- \star Service ဆိုတဲ့ class ကို extend လုပ်
- \* (or) Intent Service



#### **Common UI elements**

- \* Material Chip
- \* Material Button
- \* Material CardView
- \* Bottom App bar
- \* TextInputLayout
- \* Coordinator Layout



#### **Material Button**

- \* Accent-color as background. White as button text
- \* app:icon, iconTint, iconTintMode, iconPadding, additionalPaddingLeftIcon
- \* app:rippleColor
- \* app:backgroundTint, backgroundTintMode
- \* App:storkeColor, strokeWidth
- \* cornerRadius

# O O

#### Chip & ChipGroup

- Text with rounded background.
- android:text.
- android:checkable.
- app:chiplcon, closelcon.
- Attaching listeners to the Chip check, tap closelcon.
- ChipGroup.
- app:chipSpacing, Horizontal, Vertical.
- app:singleLine.



This is a chip





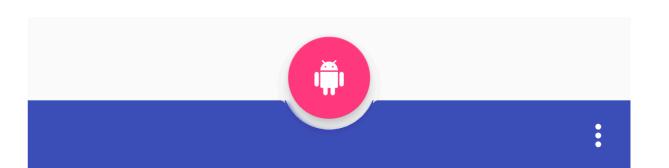
#### **Material Card View**

app:strokeColor, strokeWidth.

This is some text
This is some more text

#### **Bottom App Bar**

- Setting up menu to Bottom-App-Bar.
- Attaching FAB to Bottom-App-Bar.
- app:fabAlignmentMode.
- app:fabCradleVerticalOffset, fabCradleMargin, fabCradleRoundCornerRadius.



# O O

#### **TextInputLayout**

- Wrapping up EditText or TextInputEditText.
- app:hintEnabled, hintAnimationEnabled.
- hintTextAppearance.
- counterEnabled, counterMaxLength, counterTextAppearance.
- errorEnabled, errorTextAppearance, setError.
- Password Visibility Toggle.
  - passwordToggleEnabled, passwordToggleTint, passwordToggleDrawable.



#### CoordinatorLayout

- Coordinating the behaviors of the unrelated components.
- Snackbar + FAB.
- Scrolling of the content + AppBar.
  - Toolbar as an actionBar, wrap the ToolBar with AppBarLayout, put in layout\_scrollFlags in Toolbar.
  - scroll, enterAlways.
  - enterAlwaysCollapsed with minHeight, exitUntilCollapsed, snap.