Android Navigation

Quick start

Agenda

- Visual navigation graph
- Navigation by destination and action
- Transition animations
- Menu navigation and menu drawer navigation
- Type safe argument passing
- Deep links
- Demo

3 key parts of navigation component

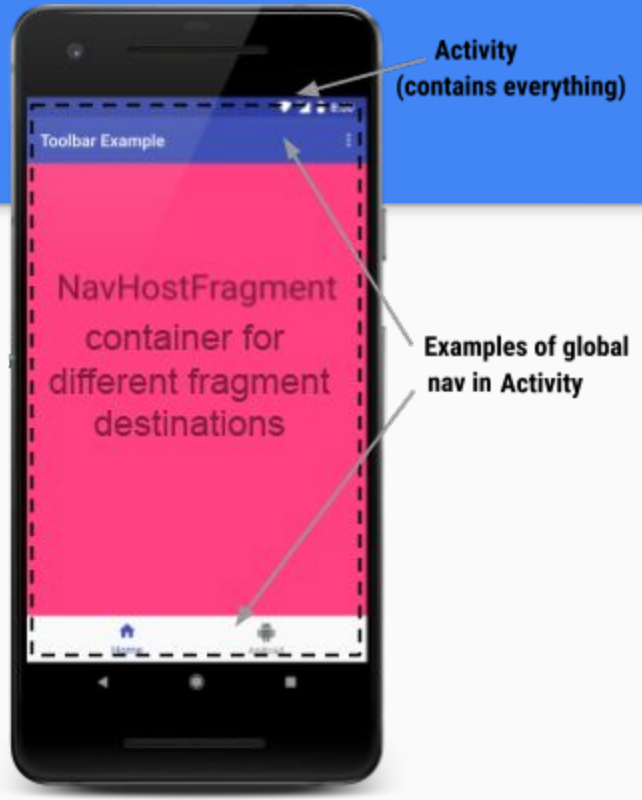
1. Navigation Graph (New XML resource)
2. NavHostFragment (Layout XML view)
3. NavController (Kotlin/Java object)

Principles of navigation

1. Fixed start destination
2. Navigation state is represented as a stack of destinations
3. Up and Back are identical within your app's task (1 exception)
4. The Up button never exits your app
5. Deep linking simulates manual navigation

NavHostFragment

```
<fragment
  android:layout_width="match_parent"
  android:layout_height="0dp"
  android:layout_weight="1"
  android:id="@+id/my_nav_host_fragment"
  android:name="androidx.navigation.fragment.NavHostFragment"
  app:navGraph="@navigation/mobile_navigation"
  app:defaultNavHost="true"
  />
```



Deep Links

Inside navigation xml

```
<fragment
  android:id="@+id/deeplink_dest"
  android:name="com.fairtiq.nav.DeepLinkFragment"
  android:label="@string/deeplink"
  tools:layout="@layout/deeplink_fragment">

  <argument
     android:name="args"
     android:defaultValue="Default"/>

  <deepLink app:uri="www.fairtiq.com/{args}" />
</fragment>
```

Inside manifest

```
<activity android:name=".MainActivity">
  <intent-filter>
     <action android:name="android.intent.action.MAIN" />
     <category android:name="android.intent.category.DEFAULT" />
     <category android:name="android.intent.category.LAUNCHER" />
  </intent-filter>

  <nav-graph android:value="@navigation/main_navigation" />
</activity>
```

This will ensure the appropriate intent filter is generated

It’s a demo time!

Just switch to Android Studio

Summary

- Encapsulates navigation logic
- Adds an abstraction layer
- Removes boilerplate code
- Provides visual representation
- You say

References

1. https://developer.android.com/guide/navigation/
2. https://developer.android.com/guide/navigation/navigation-principles
3. https://codelabs.developers.google.com/codelabs/android-navigation/

Run Q&A

```
fun qA(questions: Stack<Question>) {
    If (questions.isNotEmpty()) {
        questions.pop().answerThen { qA(questions) }
    } else {
        sayThankYou()
    }
}
```

Thanks!