

Android for .NET Developers Series

Adopting the Android Mindset


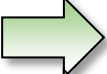



Understanding the navigation drawer

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Outline

-  **Introducing the navigation drawer**
-  **Creating a simple navigation drawer**
-  **Providing navigation drawer options**
-  **Connecting the navigation drawer to the ActionBar**
-  **Creating consistent navigation across Activities**

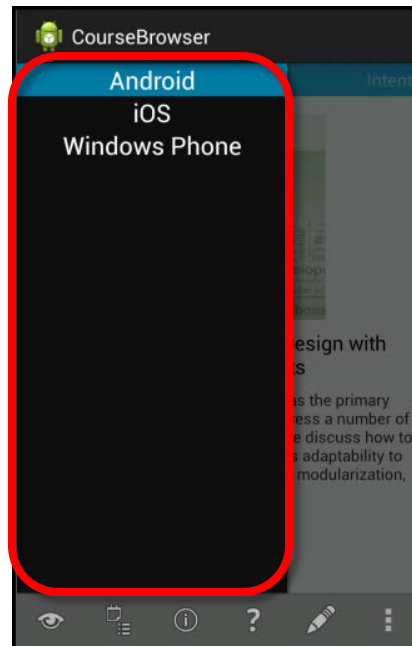
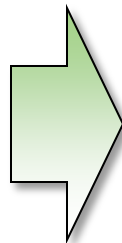


Adopting the android mindset

*Make app navigation
easy*

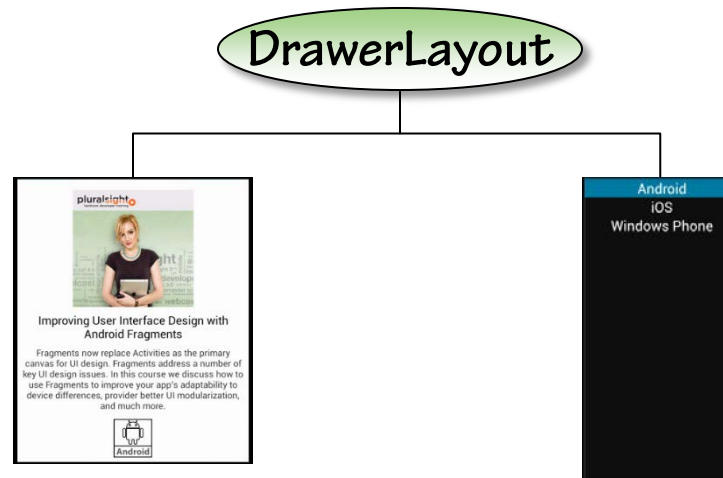
Navigation drawer

- ➡ **Navigation drawer provides a pull-out selection pane**
- ➡ Fundamentally is just a View that can be slid from the side of the screen
- ➡ In practice, Android provides very specific guidelines for use
 - ❑ If pulls out from left, application wide navigation or behavior
 - ❑ If pulls out from right, screen specific behavior
- ➡ Application-wide drawer should be consistent for all screens



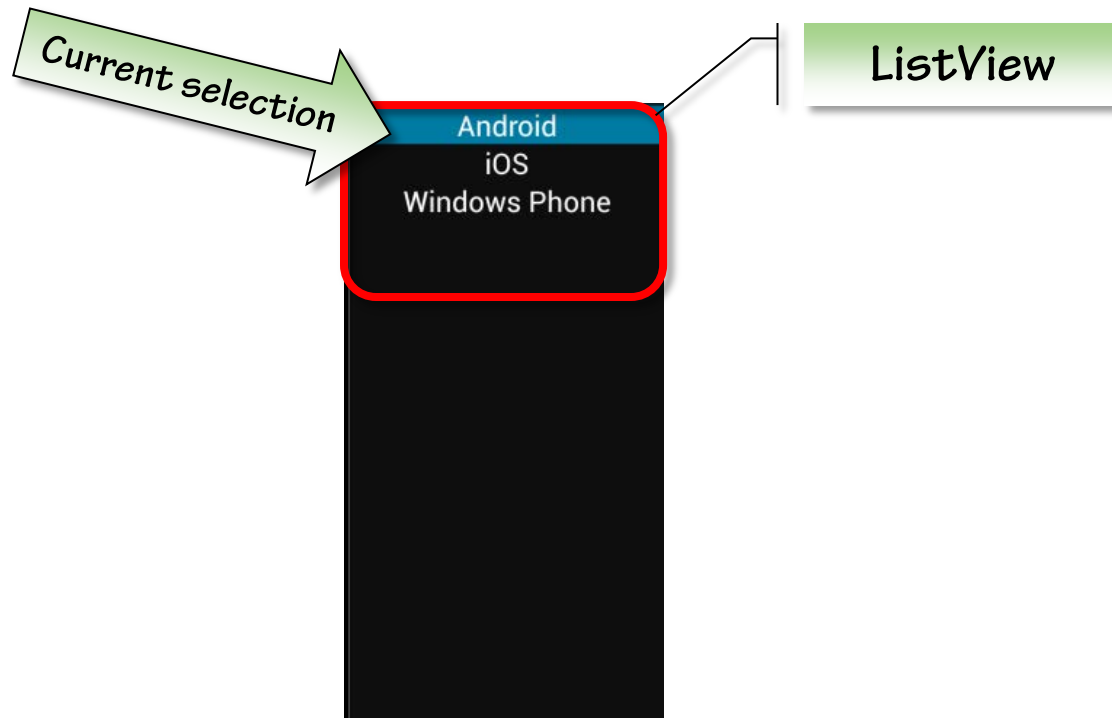
Adding a navigation drawer

- ➔ **DrawerLayout class provides a navigation drawer**
- ➔ Is the root of the Activity layout
- ➔ Accepts two children
- ➔ First child displays as the main View
- ➔ Second child is the pull-out drawer
 - ❑ Use `layout_gravity` attribute to specify pull out position
 - ❑ Use `layout_gravity` of 'left' or 'start' for app-wide navigation
- ➔ Provides “swipe to open” behavior
- ➔ If using app-wide navigation, all Activity layouts will need a DrawerLayout



Providing the drawer options

- ➡ **Most commonly, navigation drawer is implemented as a ListView**
- ➡ ListView acts as a menu
- ➡ Implement `ListView.OnItemClickListener` to handle user selections
- ➡ When opened, ListView should reflect the user's current selection



ActionBar tie-in

- ➔ **ActionBarDrawerToggle class ties navigation drawer to action bar**
- ➔ Enables ActionBar icon to open and close navigation drawer
 - ❑ Must call `ActionBar.setDisplayHomeAsUpEnabled`
 - ❑ Must call `ActionBarDrawerToggle.syncState` from Activity's `onPostCreate`
- ➔ When drawer open, should disable any action items tied to screen context
 - ❑ Override Activity's `onPrepareOptionsMenu` to hide/disable menu option
 - ❑ Call `invalidateOptionsMenu` method on Activity to trigger menu update
- ➔ Activity needs to inform `ActionBarDrawerToggle` of significant events
 - ❑ Need to inform of users selection in `onOptionsItemSelected`
 - ❑ Need to inform of layout changes in `onConfigurationChanged`



Summary

- ➡ **Navigation drawer provides a pull out selection pane**
- ➡ **DrawerLayout class provides navigation drawer implementation**
 - ❑ First child acts as main View
 - ❑ Second child acts as pull-out drawer
- ➡ **Control drawer location with layout_gravity**
 - ❑ Right-side pull out for screen specific operations
 - ❑ Left-side pull out for application wide navigation
 - ❑ Application wide navigation should be consistent for all screens
- ➡ **Use ListView class to provide menu-like behavior on drawer**
- ➡ **Use ActionBarDrawerToggle class to tie drawer to the ActionBar**
 - ❑ Needs to closely cooperate with Activity callbacks