

MCA253 - Mobile Applications

Unit:3.1 Displaying Pictures and Menus with Views

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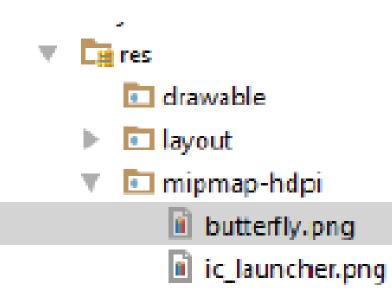
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Using Image Views to Display Pictures Groups

- So far, all the views seen till now are used to display text information.
- However, you can use the ImageView, ImageSwitcher, and GridView views for displaying images.

ImageView View

- The ImageView is a view that shows images on the device screen.
- To add an image drag and drop the images into the res/mipmap folder.



Program: ImageView

ImageSwitcher

- To apply some animation to an image when it transitions from one image to another.
- In this case, the ImageSwitcher is used.

Program: ImageSwitcher

- To use the ImageSwitcher view, the ViewFactory interface need to be implemented, which creates the views for use with the ImageSwitcher view.
- For this, implement the makeView() method need to be implemented
- This method creates a new View to be added in the ImageSwitcher view, which in this case is an ImageView.
- In the onCreate() method, you get a reference to the ImageSwitcher view and set the animation, specifying how images should "fade" in and out of the view.
- Finally, when an image is selected from the Gallery view, the image is displayed in the ImageSwitcher view.

GridView

- The GridView shows items in a two-dimensional scrolling grid.
- We can be use the GridView together with an ImageView to display a series of images.

Program: MyGridView

Using Menus with Views

- Menus are useful for displaying additional options that are not directly visible on the main user interface (UI) of an application.
- There are two main types of menus in Android:
 - Options menu—This menu displays information related to the current activity. In Android, you activate the options menu by pressing the Menu button.
 - Context menu—This menu displays information related to a particular view on an activity. In Android, you tap and hold a context menu to activate it.

Creating the Helper Methods

- Before you go ahead and create your options and context menus, you need to create two helper methods.
- One creates a list of items to show inside a menu, whereas the other handles the event that is fired when the user selects an item inside the menu.

Program: MyMenus

- The preceding example creates two methods:
 - createMenu()
 - menuChoice()
- The createMenu() method adds a series of menu items to a Menu argument.

Creating the Helper Methods

 To add a menu item to the menu, you create an instance of the MenuItem class and use the Menu object's add() method:

```
MenuItem mnu1 = menu.add(0, 0, 0, "Item 1");
{
mnu1.setAlphabeticShortcut('a');
mnu1.setIcon(R.mipmap.ic_launcher);
}
```

- The four arguments of the add() method are
 - groupId—The group identifier of which the menu item should be a part.
 Use 0 if an item is not in a group.
 - itemId—A unique item ID.
 - order—The order in which the item should be displayed.
 - title—The text to display for the menu item.

Context Menu

- In addition to the options menu, you can also display a context menu.
- A context menu is usually associated with a view on an activity.
- A context menu is displayed when the user taps and holds an item.
 For example, if the user taps a Button view and holds it for a few seconds, a context menu can be displayed.
- If you want to associate a context menu with a view on an activity, you need to call the setOnCreateContextMenuListener() method of that particular view.

Context Menu

- In the preceding example, you call the setOnCreateContextMenuListener()
 method of the Button view to associate it with a context menu.
- When the user taps and holds the Button view, the onCreateContextMenu()
 method is called.
- In this method, you call the createMenu() method to display the context menu.
- Similarly, when an item inside the context menu is selected, the onContextItemSelected() method is called, where you call the menuChoice() method to display a message to the user.
- Notice that the shortcut keys for the menu items do not work. To enable the shortcuts keys, you need to call the setQuertyMode() method of the Menu object

Using WebView

 Android SDK provides some additional views that make your applications much more interesting.

WebView:

- The WebView enables you to embed a web browser in your activity.
- This is very useful if your application needs to embed some web content, such as maps from some other providers, and so on.

Program: WebView

- To use the WebView to load a web page, you use the loadUrl()
 method and pass a URL to it.
- To display the built-in zoom controls, you need to first get the WebSettings property from the WebView and then call its setBuiltInZoomControls() method.