



CS/SE Individual Practical

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Manifest files

The manifest editor

Adding extras

Labels and icons

Application nodes and intents

Attributes for an action

1-level components contained in the package, as well as general application attributes.

idManifest.xml

ion.

Browse...	Debuggable
Browse...	Vm safe mode
Browse...	Manage space
Browse...	android.app.action.ADD_DEVICE_ADMIN
Browse...	android.app.action.SET_NEW_PASSWORD
Browse...	android.bluetooth.adapter.action.REQUEST_DISCOVERABLE
Browse...	android.bluetooth.adapter.action.REQUEST_ENABLE
Browse...	android.intent.action.ALL_APPS
Backup app	android.intent.action.ANSWER
Browse...	android.intent.action.ATTACH_DATA
Browse...	android.intent.action.BUG_REPORT
Browse...	android.intent.action.CALL
Restore ne	android.intent.action.CALL_BUTTON
Restore any	android.intent.action.CHOOSER
Never ency	android.intent.action.CREATE_LIVE_FOLDER
Cart save	android.intent.action.DELETE
	android.intent.action.DIAL
	android.intent.action.EDIT
	android.intent.action.GET_CONTENT
	android.intent.action.INSERT
	Name
	android.intent.action.MAIN

Attributes: S P A R M U Az

Add... Remove... Up Down

Add permissions

Android Manifest Permissions

Permissions

Add... Up Down

Create a new element at the top level, in

- Permission
- Permission Group
- Permission Tree
- Uses Permission

Add instrumentation

Android Manifest Instrumentation

Instrumentation

Add... Up Down

Create a new element at the top level,

- Instrumentation

Source code view

```

<?xml version="1.0" encoding="utf-8"?>
<!-- Copyright (C) 2007 The Android Open Source Project

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    http://www.apache.org/licenses/LICENSE-2.0

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

-->
<!-- Declare the contents of this Android application. The namespace
attribute brings in the Android platform namespace, and the package
supplies a unique name for the application. When writing your
own application, the package name must be changed from "com.example.**"
to come from a domain that you own or have control over. -->
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.android.notepad" >

    <application android:icon="@drawable/app_notes"
        android:label="@string/app_name" >
        <provider android:name="NotePadProvider"
            android:authorities="com.example.notepad.provider.NotePad" />

        <activity android:name="NotesList"
            android:label="@string/title_notes_list" >
            <intent-filter >
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter >
            <intent-filter >
                <action android:name="android.intent.action.VIEW" />
                <action android:name="android.intent.action.EDIT" />
                <action android:name="android.intent.action.PICK" />
                <category android:name="android.intent.category.DEFAULT" />
                <data android:mimeType="vnd.android.cursor.dir/vnd.google.note" />
            </intent-filter >
            <intent-filter >
                <action android:name="android.intent.action.GET_CONTENT" />
                <category android:name="android.intent.category.DEFAULT" />
                <data android:mimeType="vnd.android.cursor.dir/vnd.google.note" />
            </intent-filter >
        </activity >
    </application >
</manifest >

```

Source code tab

```

<!-- Declare the contents of this Android application. The namespace
attribute brings in the Android platform namespace, and the package
supplies a unique name for the application. When writing your
own application, the package name must be changed from "com.example.**"
to come from a domain that you own or have control over. -->
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.android.notepad" >

    <application android:icon="@drawable/app_notes"
        android:label="@string/app_name" >
        <provider android:name="NotePadProvider"
            android:authorities="com.example.notepad.provider.NotePad" />

        <activity android:name="NotesList"
            android:label="@string/title_notes_list" >
            <intent-filter >
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter >
            <intent-filter >
                <action android:name="android.intent.action.VIEW" />
                <action android:name="android.intent.action.EDIT" />
                <action android:name="android.intent.action.PICK" />
                <category android:name="android.intent.category.DEFAULT" />
                <data android:mimeType="vnd.android.cursor.dir/vnd.google.note" />
            </intent-filter >
            <intent-filter >
                <action android:name="android.intent.action.GET_CONTENT" />
                <category android:name="android.intent.category.DEFAULT" />
                <data android:mimeType="vnd.android.cursor.dir/vnd.google.note" />
            </intent-filter >
        </activity >
    </application >
</manifest >

```

Manifest Application Permissions Instrumentation AndroidManifest.xml

Resources and strings

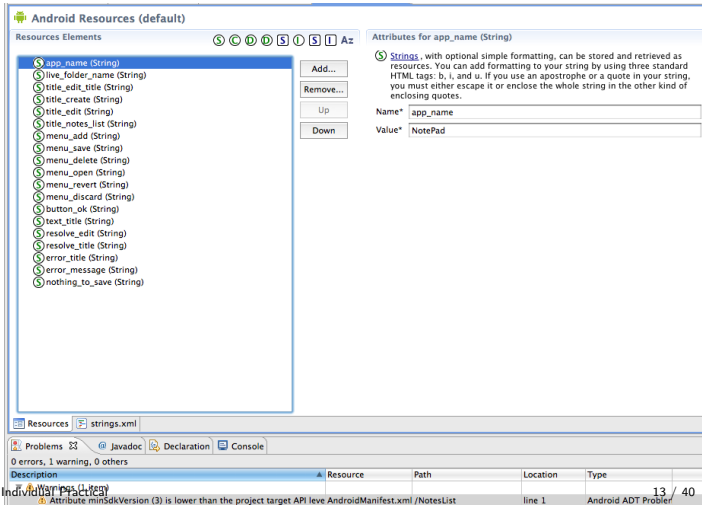
Package Explorer

Resources Elements

- app_name (String)
- live_folder_name (String)
- title_edit_title (String)
- title_create (String)
- title_edit (String)
- title_notes_list (String)
- menu_add (String)
- menu_save (String)
- menu_delete (String)
- menu_open (String)
- menu_revert (String)
- menu_discard (String)
- button_ok (String)
- text_title (String)
- resolve_edit (String)
- resolve_title (String)
- error_title (String)
- error_message (String)
- nothing_to_save (String)

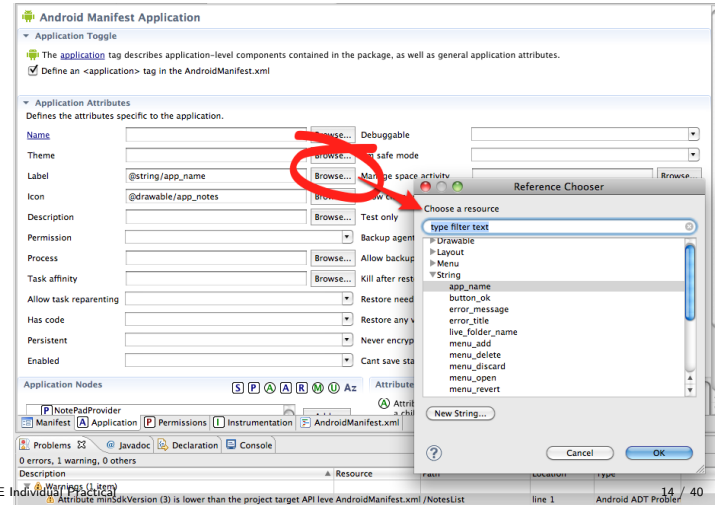
strings.xml

A String resource, app_name



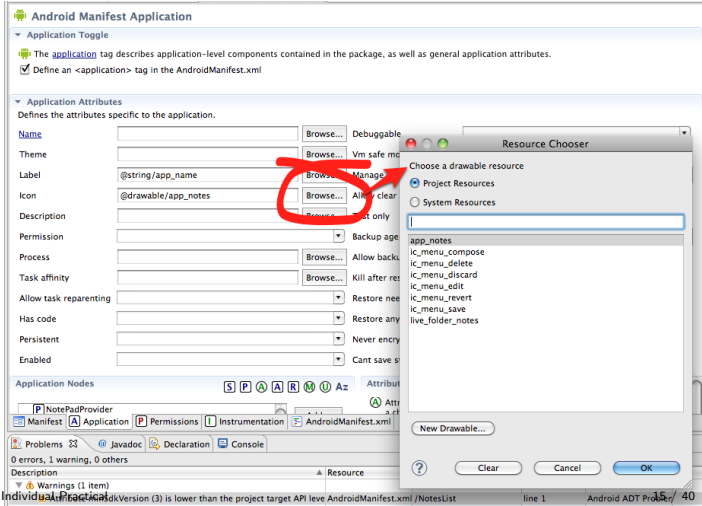
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Managing string resources



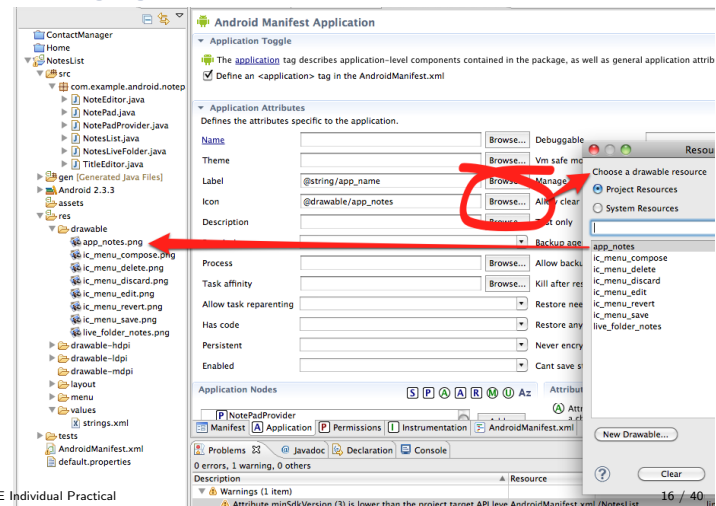
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Drawable resources



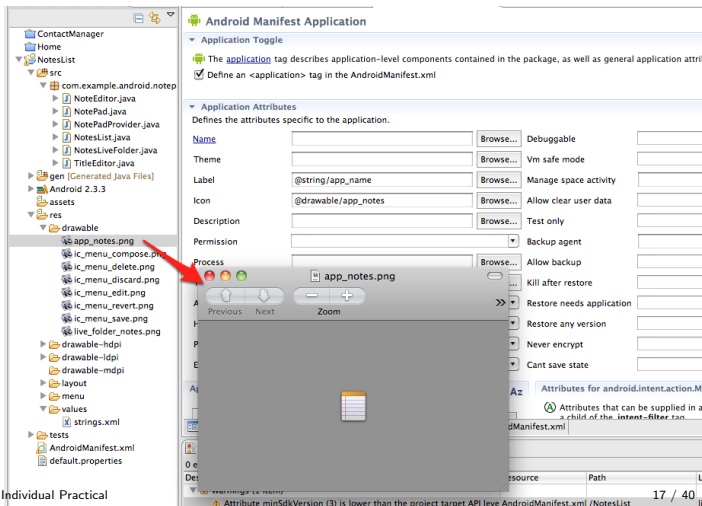
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Managing drawable resources



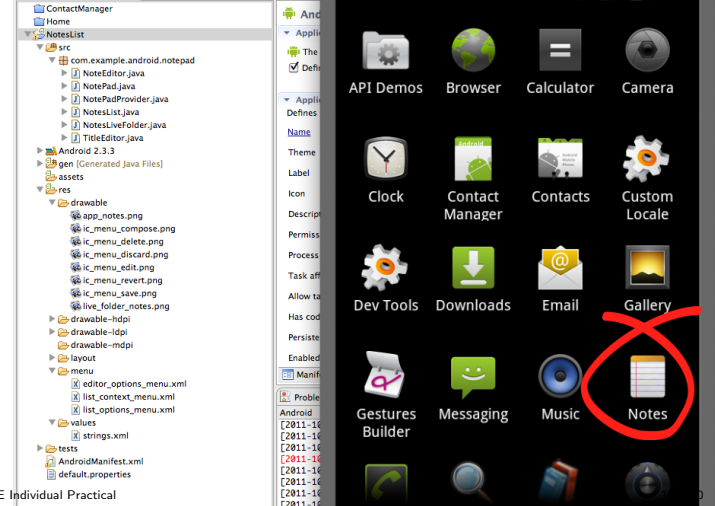
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Contents of app_notes.png



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The icon in the launcher view



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Application nodes

Application Attributes dialog showing the 'Application Nodes' section. The 'TitleEditor (Activity)' node is selected, and its attributes are being viewed. The 'Attributes for @string/resolve_title (Intent Filter)' section is visible below.

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Browsing

Reference Chooser dialog showing a list of resources. A red arrow points to the 'type filter text' field. The 'Attributes for @string/resolve_title (Intent Filter)' section is visible below, with a red circle highlighting the 'Browse...' button.

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Editing strings

Android Resources (default) view showing the 'Resources Elements' list. Red circles highlight the 'strings.xml' file in the project tree and the 'resolve_title' resource in the list.

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Updating a string

Android Resources (default) view showing the 'Attributes for resolve_title (String)' dialog. The 'Name' and 'Value' fields are visible.

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Text in the XML view

XML view of the strings.xml file. The XML code is displayed, and a red box highlights the <string name='resolve_title'>Edit titles</string> line.

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Updating a string in the Resources view

Android Resources (default) view showing the 'Attributes for resolve_title (String)' dialog. The 'Value' field is being updated, and a red box highlights the 'Value' field.

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The XML text is updated automatically

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```

<resources>
  <string name="app_name">NotePad</string>
  <string name="live_folder_name">Notes</string>
  <string name="title_edit_title">Note title</string>
  <string name="title_create">Create notes</string>
  <string name="title_edit">Edit: \\\k1s\</string>
  <string name="title_notes_list">Notes</string>
  <string name="menu_add">Add note</string>
  <string name="menu_save">Save</string>
  <string name="menu_delete">Delete</string>
  <string name="menu_open">Open</string>
  <string name="menu_revert">Revert changes</string>
  <string name="menu_discard">Discard</string>
  <string name="button_ok">OK</string>
  <string name="text_title">Title</string>
  <string name="resolve_edit">Edit note</string>
  <string name="resolve_title">&lt;b>Edit title</b></string>
  <string name="error_title">Error</string>
  <string name="error_message">Error loading note</string>
  <string name="nothing_to_save">There is nothing to save</string>
</resources>
    
```

Resources | strings.xml

Android

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Getting it wrong: editing the XML

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```

<resources>
  <string name="app_name">NotePad</string>
  <string name="live_folder_name">Notes</string>
  <string name="title_edit_title">Note title</string>
  <string name="title_create">Create notes</string>
  <string name="title_edit">Edit: \\\k1s\</string>
  <string name="title_notes_list">Notes</string>
  <string name="menu_add">Add note</string>
  <string name="menu_save">Save</string>
  <string name="menu_delete">Delete</string>
  <string name="menu_open">Open</string>
  <string name="menu_revert">Revert changes</string>
  <string name="menu_discard">Discard</string>
  <string name="button_ok">OK</string>
  <string name="text_title">Title</string>
  <string name="resolve_edit">Edit note</string>
  <string name="resolve_title">&lt;b>Edit title</b></string>
  <string name="error_title">Error</string>
  <string name="error_message">Error loading note</string>
  <string name="nothing_to_save">There is nothing to save</string>
</resources>
    
```

Resources | strings.xml

Android

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The bug shows up in the resources view

Android Resources (default)

Resources Elements

- app_name (String)
- live_folder_name (String)
- title_edit_title (String)
- title_create (String)
- title_edit (String)
- title_notes_list (String)
- menu_add (String)
- menu_save (String)
- menu_delete (String)
- menu_open (String)
- menu_revert (String)
- menu_discard (String)
- button_ok (String)
- text_title (String)
- resolve_edit (String)
- resolve_title (String)
- error_title (String)
- error_message (String)
- nothing_to_save (String)

Attributes for resolve_title (String)

Name: resolve_title

Value:

Oh no, where has our string gone?

Resources | strings.xml

Android

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Oh dear

Android Resources (default)

Resources Elements

- app_name (String)
- live_folder_name (String)
- title_edit_title (String)
- title_create (String)
- title_edit (String)
- title_notes_list (String)
- menu_add (String)
- menu_save (String)
- menu_delete (String)
- menu_open (String)
- menu_revert (String)
- menu_discard (String)
- button_ok (String)
- text_title (String)
- resolve_edit (String)
- resolve_title (String)
- error_title (String)
- error_message (String)
- nothing_to_save (String)

Attributes for resolve_title (String)

Name: resolve_title

Value:

There is another subtree here. I feel very sad ... make a mental note not to edit XML by hand.

Resources | strings.xml

Android

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Oh no, Java problems ...

```

} else {
    // Whoops, unknown action! Bail.
    Log.d(TAG, "Unknown action, exiting");
    finish();
    return;
}

// Set the layout for this activity. You can find it in res/layout/note_editor.xml
setContentView(R.layout.note_editor);

// The text view for our note, identified by its ID in the XML file.
mText = (EditText) findViewById(R.id.note_edit);

// Get the note!
mCursor = managedQuery(Uri, PROJECTION, null, null, null);

// If an instance of this activity had previously stopped, we can
// get the original text it started with.
if (savedInstanceState != null) {
    mOriginalContent = savedInstanceState.getString(ORIGINAL_CONTENT);
}

@Override
protected void onResume() {
    super.onResume();
    // If we didn't have any trouble retrieving the data, it is now
    // time to get at the stuff.
    if (mCursor != null) {
        // Query in case something changed while paused (such as the title)
        mCursor.requery();
        // Make sure we are at the one and only row in the cursor.
        mCursor.moveToFirst();

        // Modify our overall title depending on the mode we are running in.
        if (mState == STATE_EDIT) {
    
```

Resources | strings.xml

Android

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"Layout cannot be resolved ..."

```

// Set the layout for this activity. You can find it in res/layout/note_editor.xml
setContentView(R.layout.note_editor);

// The text view for our note, identified by its ID in the XML file.
mText = (EditText) findViewById(R.id.note_edit);

// Get the note!
mCursor = managedQuery(Uri, PROJECTION, null, null, null);

// If an instance of this activity had previously stopped, we can
// get the original text it started with.
if (savedInstanceState != null) {
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@Override
protected void onResume() {
    super.onResume();
    // If we didn't have any trouble retrieving the data, it is now
    // time to get at the stuff.
    if (mCursor != null) {
        // Query in case something changed while paused (such as the title)
        mCursor.requery();
        // Make sure we are at the one and only row in the cursor.
        mCursor.moveToFirst();

        // Modify our overall title depending on the mode we are running in.
        if (mState == STATE_EDIT) {
    
```

Problems | Javadoc | Declaration | Console

6 errors, 1 warning, 0 others

Description	Resource	Path	Location	Type
layout cannot be resolved or is not a field	NoteEditor.java	/NotesList/src/com/example/android/notes	line 147	Java Problem
layout cannot be resolved or is not a field	NotesList.java	/NotesList/src/com/example/android/notes	line 80	Java Problem
layout cannot be resolved or is not a field	TitleEditor.java	/NotesList/src/com/example/android/notes	line 71	Java Problem
note cannot be resolved or is not a field	NoteEditor.java	/NotesList/src/com/example/android/notes	line 150	Java Problem
ok cannot be resolved or is not a field	TitleEditor.java	/NotesList/src/com/example/android/notes	line 83	Java Problem

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R.java is generated so clean the project?

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Clean will discard all build problems and built states. The projects will be rebuilt from scratch.

Clean all projects Clean projects selected below

Resources strings.xml

Description	Resource	Path	Loc
6 errors, 1 warning, 0 others			
Errors (6 items)			31 / 40
layout cannot be resolved or is not a field	NoteEditor.java	/NotesList/src/com/example/lin	

No good. Delete R.java and try again?

Are you sure you want to delete file 'R.java'?

Preview > Cancel **OK**

Resources strings.xml

Description	Resource	Path	Location
6 errors, 1 warning, 0 others			
Errors (6 items)			32 / 40
layout cannot be resolved or is not a field	NoteEditor.java	/NotesList/src/com/example/lin	147

R.java is regenerated but errors remain

Resources strings.xml

Description	Resource	Path	Location
2011-10-20 14:33:20 - NotesList			
(new resource id ic_menu_save from /Users/stephengilmore/Doc			
2011-10-20 14:33:20 - NotesList			
(new resource id live_folder_notes from /Users/stephengilmore			
2011-10-20 14:33:20 - NotesList			
(new resource id live_folder_notes from /Users/stephengilmore			

Refresh the view?

Refresh F5

Resources strings.xml

Description	Resource	Path	Location
2011-10-20 14:33:20 - NotesList			
(new resource id ic_menu_save from /Users/stephengilmore/Doc			
2011-10-20 14:33:20 - NotesList			
(new resource id live_folder_notes from /Users/stephengilmore			
2011-10-20 14:33:20 - NotesList			
(new resource id live_folder_notes from /Users/stephengilmore			

No good. What now?

```

} else {
    // Whoops, unknown action! Bail.
    Log.e(TAG, "Unknown action, exiting");
    finish();
    return;
}

// Set the layout for this activity. You can find it in res/layout/note_editor.xml
setContentView(R.layout.note_editor);

// The text view for our note, identified by its ID in the XML file.
mText = (EditText) findViewById(R.id.mText);

// Get the note!
mCursor = managedQuery(Uri, PROJECTION, null, null, null);

// If an instance of this activity had previously stopped, we can
// get the original text it started with.
if (savedInstanceState != null) {
    mOriginalContent = savedInstanceState.getString(ORIGINAL_CONTENT);
}

@Override
protected void onResume() {
    super.onResume();
    // If we didn't have any trouble retrieving the data, it is now
    // time to get at the stuff.
    if (mCursor != null) {
        // Requery in case something changed while paused (such as the title)
        mCursor.requery();
        // Make sure we are at the one and only row in the cursor.
        mCursor.moveToFirst();

        // Modify our overall title depending on the mode we are running in.
        if (mState == STATE_EDIT) {
    
```

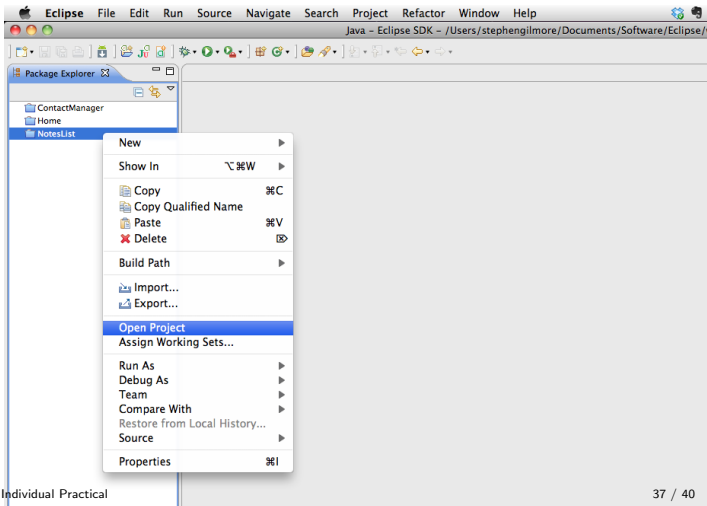
Close the project and reopen it?

Package Explorer

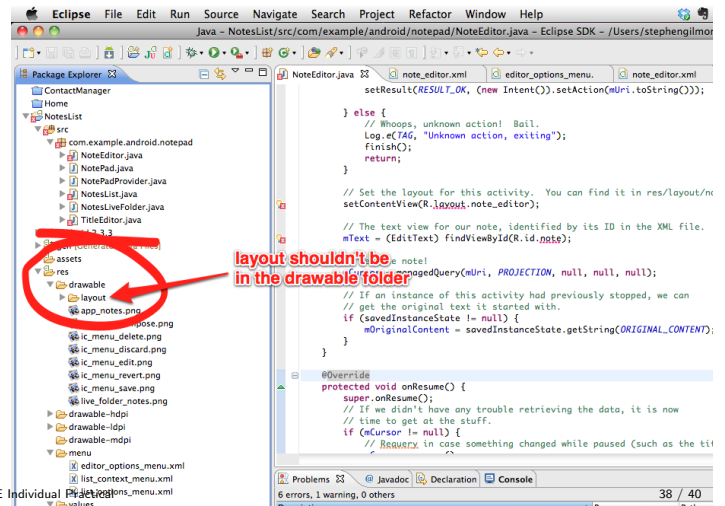
Resources strings.xml

Description	Resource	Path	Location
2011-10-20 14:33:20 - NotesList			
(new resource id ic_menu_save from /Users/stephengilmore/Doc			
2011-10-20 14:33:20 - NotesList			
(new resource id live_folder_notes from /Users/stephengilmore			
2011-10-20 14:33:20 - NotesList			
(new resource id live_folder_notes from /Users/stephengilmore			

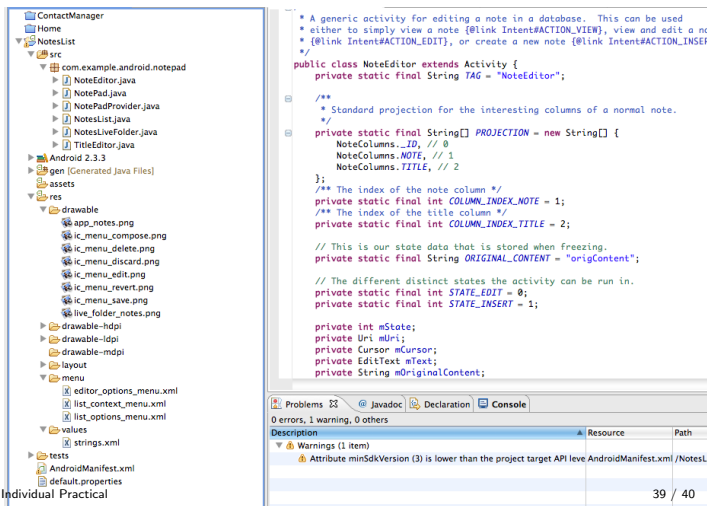
Reopening the project. Praying ...



Didn't work :(but look at this ...



Moving the folder fixes the problem :-)



Moving the folder fixes the problem :-)

