

Step 1:

Designing Screens

First convert your wireframes into activities supporting styles for a minimum of two resolutions. (Please refer to link -

<http://developer.android.com/about/dashboards/index.html> for popular screen sizes and densities.

If you are creating your activities using WYSIWYG editor then make sure of the following:

All Android Resources are identified by their id in Java source code.

Declarative approach on Resources

`@+id/tableRow1`

Means – that ID tableRow1 will create if it does not already exist.

Formal structure

`@[package:]type/name`

type refers to drawable, attr, id, layout, etc in R.java

Be careful not to use duplicate names in entire project as these are declared static.

Declare each referenceable User Interface and Activity with its own String

Declarative

For e.g. -

`android:text="@string/billTotal" android:textColor="#000"`

```
<TextView android:id="@+id/billTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/billTotal"
android:textColor="#000"
    android:gravity="right"
android:paddingRight="5dp"></TextView>
```

Use the following convention to name each activity:

PackageName_ActivityName.xml

Step 2:

Designing Presentation Tier (Mainly for Input/Output)

Determine Intents for each activity based on your Navigation Flow. It is a good idea to organize code for each intent using a separate file for each defined activity. If an intent involves usage of two activities the presentation code then

the code can be placed in either activity file. If it makes sense you can / should create sub packages for application sub components.

Step 3:

Designing Content Provider(For Storage)

Create DB Schema (if one is required) for storing data locally. Represent the schema using Crow Notation or UML Notation (Refer to document #1 in zip file located at following [location](#)).

Please make sure you are following rules of normalization (Refer to document - (2) Introduction to RDBMS at [location](#).)

Setup a package called DBLayout in `/src` folder and add a class for each entities CRUD (Create, Read, Update, Delete Operation). You are expected to use Java Coding Standards.

Step 4:

Designing Application Tier(For business logic)

Design entities and relationship between them. These would be placed in `/entities` folder.

This step should create objects to be utilized in presentation tier. The object should be exposed to presentation tier using a set of business method. I encourage you to not ignore this hard design requirements. I have seen several Android Apps that look like scripts with a single file populated with inner classes and methods that belong to business logic layer.

You should think about using interfaces and abstract classes as appropriate to expose functionality to presentation layer.

Step 5:

Designing Integration Tier

Separate out interactions with applications on same device or remote devices.

Create a package called `/ws` for organizing your Integration Tier.

Create subpackages called `/local` or `/remote` for local and remote services.

Create interfaces for local and remote services for both client and server side. If you are accessing an existing service like Facebook then write interfaces for local service(s).

Package your design in a single document and submit.