

Layouts

<http://developer.android.com/guide/topics/ui/declaring-layout.html>

Child views have “layout_*” attributes that specify how the containing layout should arrange them (see [layoutparams.png](#))

Universal layout attributes:

layout_width, layout_height

wrap_content, match_parent

specific values (e.g., 30dp)

LinearLayout

orientation

LinearLayout.LayoutParams:

<https://developer.android.com/reference/android/widget/LinearLayout.LayoutParams.html>

RelativeLayout

RelativeLayout.LayoutParams:

<https://developer.android.com/reference/android/widget/RelativeLayout.LayoutParams.html>

GridLayout

rowCount, columnCount

GridLayout.LayoutParams:

<https://developer.android.com/reference/android/widget/GridLayout.LayoutParams.html>

FrameLayout

Used as placeholder for dynamically created fragments

FrameLayout.LayoutParams:

<https://developer.android.com/reference/android/widget/FrameLayout.LayoutParams.html>

Layout Exercises

How would you create the following layouts (widgets and layouts)? [Widgets used are listed below]

Login Fragment

Map Fragment

Main Activity

Person Activity

Map Activity

Widgets / Attributes / Events

<http://developer.android.com/guide/topics/ui/controls.html>

TextView (text labels)

text, textAppearance
.setClickable(boolean) – make clickable
.setOnClickListener(View.OnClickListener)

EditText (text fields)

inputType, ems
.addTextChangedListener(TextWatcher)

Space (blank space)

set layout_width and layout_height to specific values (e.g., 30dp)

Button

text
.setOnClickListener(View.OnClickListener)

ImageView (display image)

.setClickable(boolean) – make clickable
.setImageDrawable(Drawable) – set icon to display
.setOnClickListener(View.OnClickListener)

Switch (on/off)

.setChecked(boolean) – set check state
.setOnCheckedChangeListener(CompoundButton.OnCheckedChangeListener)

Spinner (dropdown list)

.setAdapter(ArrayAdapter) – specify list values
.setSelection(int) – specify selected item
onItemSelectedListener(AdapterView.OnItemSelectedListener)

SearchView

.setFocusable(boolean) – accept key focus
.setIconified(boolean) – make always visible
.requestFocusFromTouch() – request focus when touched
.setQueryTextListener(SearchView.OnQueryTextListener)

ScrollView

Wrap around any view to make it scrollable

RecyclerView

Dynamic lists of items

* ListView / ExpandableListView