# 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 / Atrributes / 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(IconDrawable) – 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

 .setOnQueryTextListener(SearchView.OnQueryTextListener)

ScrollView

 Wrap around any view to make it scrollable

RecyclerView

 Dynamic lists of items

\* ListView / ExpandableListView