Android Notes 01/24/19

Strings:

-all strings should be located in the strings resource directory, not hardcoded anywhere

Alignment:

-using marginStart/marginEnd is better than marginLeft/Right bc start/end will still look the same even in languages that read right to left

OnCreate:

-we can do all of our findViewById() calls in the onCreate method for any views we want to be able to access in the java so that we don’t have to make those calls an unnecessary amount of times

-until setContentView has been called, your layout has not been created, or “inflated”, and thus there are no IDs to be found. So, if you attempt a findViewByID, it’ll give you a really obscure error and leave you stuck.

-you can also use the saveInstance method to prevent the app from calling onCreate again when the orientation changes (this is important for apps such as games since we don’t want to lose our progress just because we changed the orientation)

View Types

* EditText
  + Used to allow the user to enter data
  + inputType can be specified so that you can validate what they enter (name, ssn, date, email, phone number, etc. (LOTS))
* ImageView
  + Used to display images
  + Again, lots of options for describing the size and location of the image
* SeekBar
  + Slider bar for sifting through a list or for changing a setting (NOT a switch – has many settings, not just 0 or 1)
* FrameLayout
  + Lets you block out a section of the screen to display one single item
  + Should contain a single child view
* And many more!!

Event-Driven Programming:

* The design pattern is referred to as “Publish-Subscribe”: events are always being published (occurring), but whether or not you receive any notification or input from it is dependent on whether you subscribe to that kind of event (whether you are listening for a click for example).

Sidenote: the mipmap folder contains the app icon XML stuff, here is where you can change what the icon looks like. Best practice is to find a high quality image, and if needed, reduce the quality to match the device (you can always remove extra pixels but it is really hard to produce them out of thin-air).