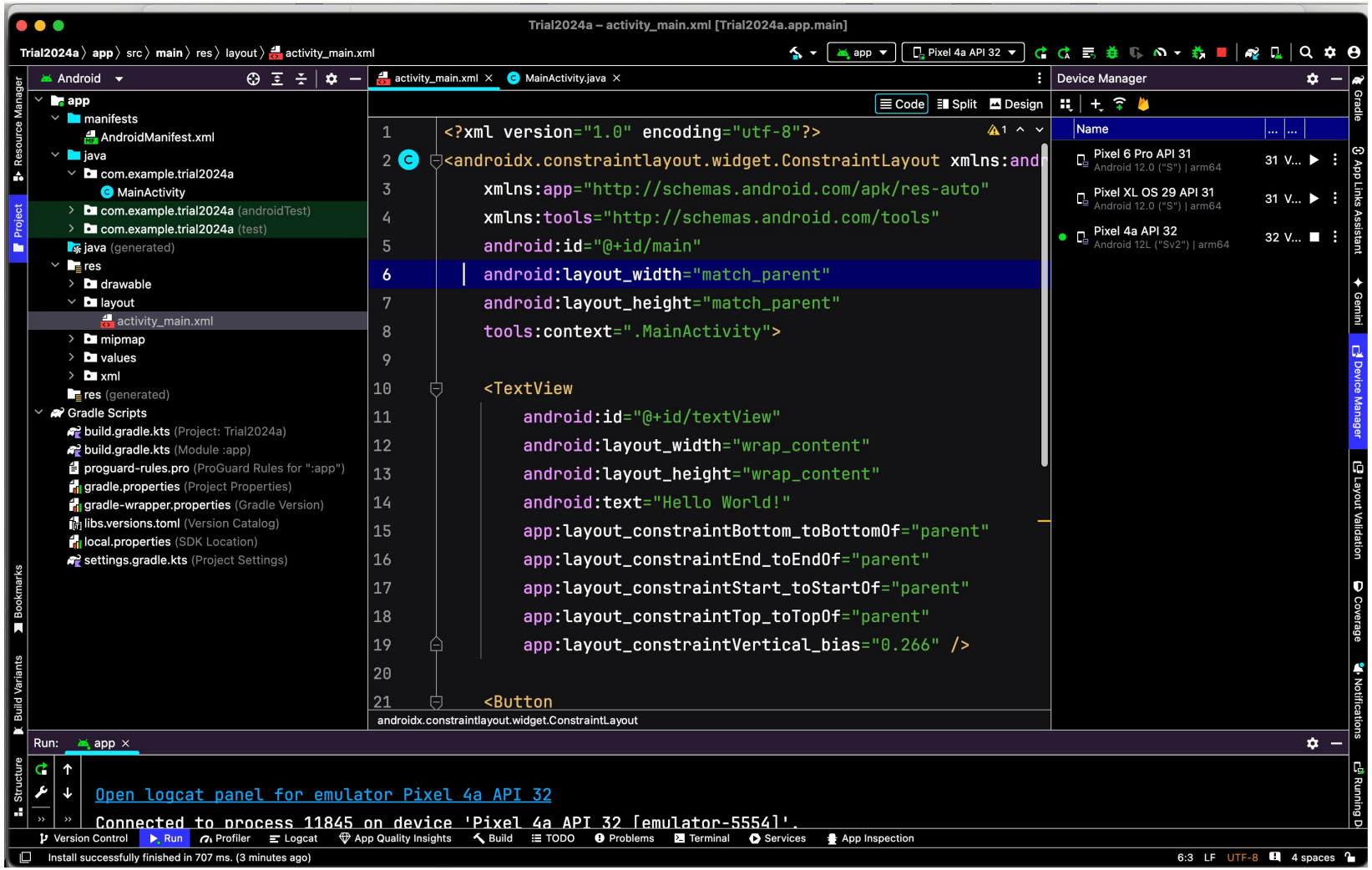
Android Studio - Tour

Mobile Computing - Android

Android Studio

- There are a lot of pieces that make up the Android Studio IDE. This is a brief introduction to the parts we will use consistently. You should explore though.

The full screen

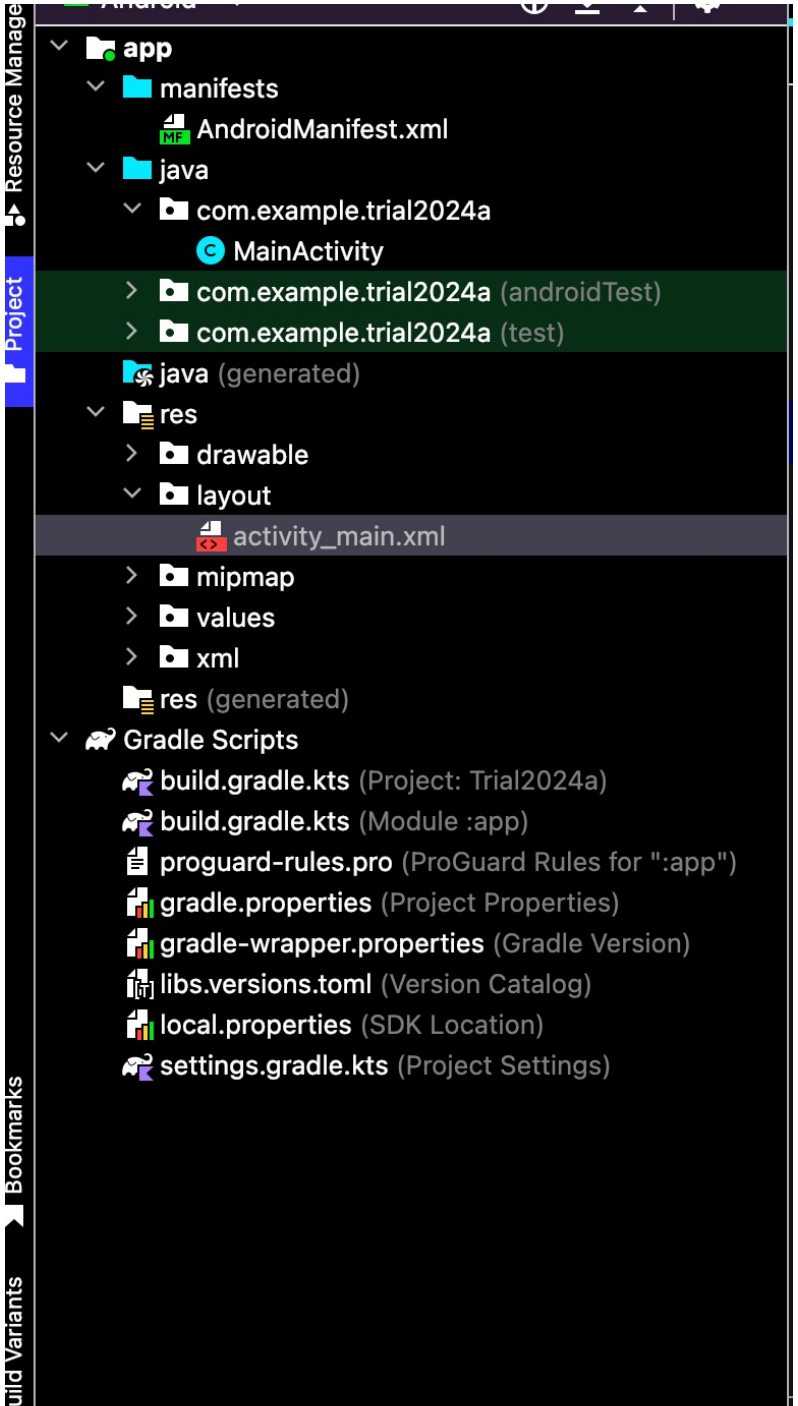


Menubar

Basic IDE controls, but mostly we will work directly through other windows.

Menu Bar – IDE controls

Build the app.
Select the target.
Run/Debug

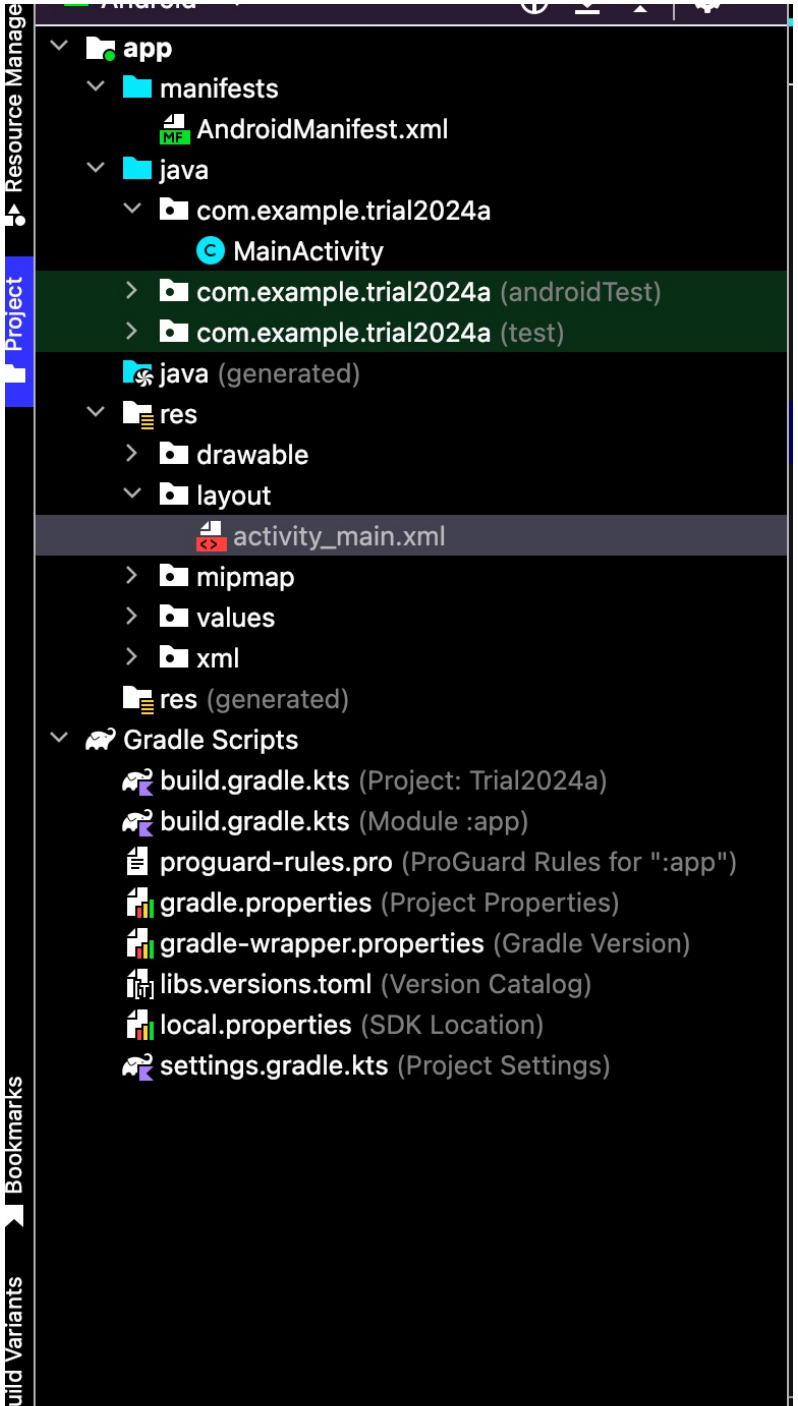


Left Area-Project

Different ways of interacting with your project files/definitions.

I usually use the Android view (as shown).

Dash control will hide and clicking on any of the tabs will bring it back.



Left Area-Project

The manifests folder has your manifest file. This has basic information about the project.

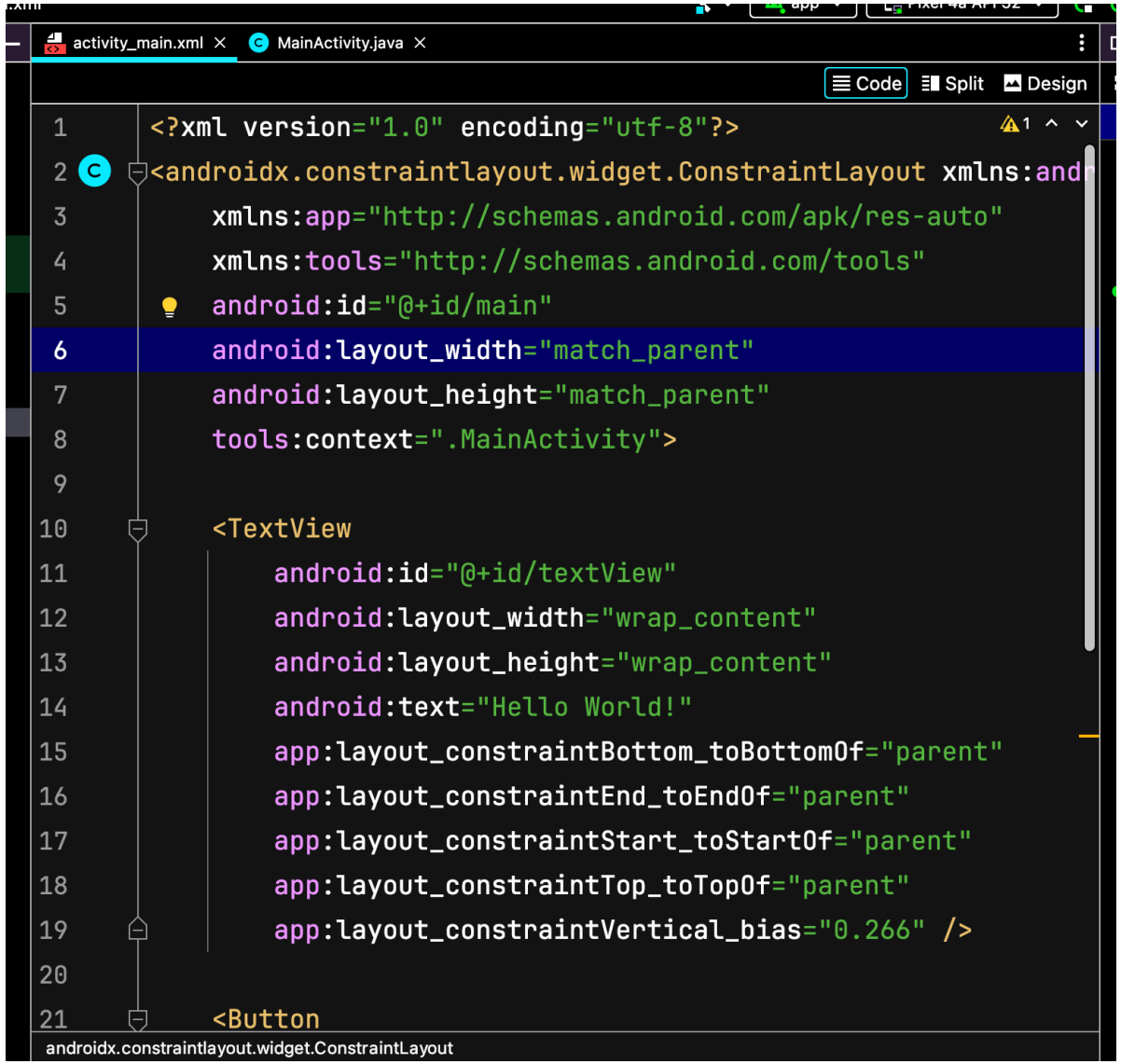
The java folder contains your java code. The first folder contains the code for the app, the other two are used for testing (Unit tests for example)

The res folder holds other folders that contain the resources for your App.

The Gradle scripts folder has basic build instructions and the location of packages that will be used in your project.

Mostly, we directly manipulate java/res.

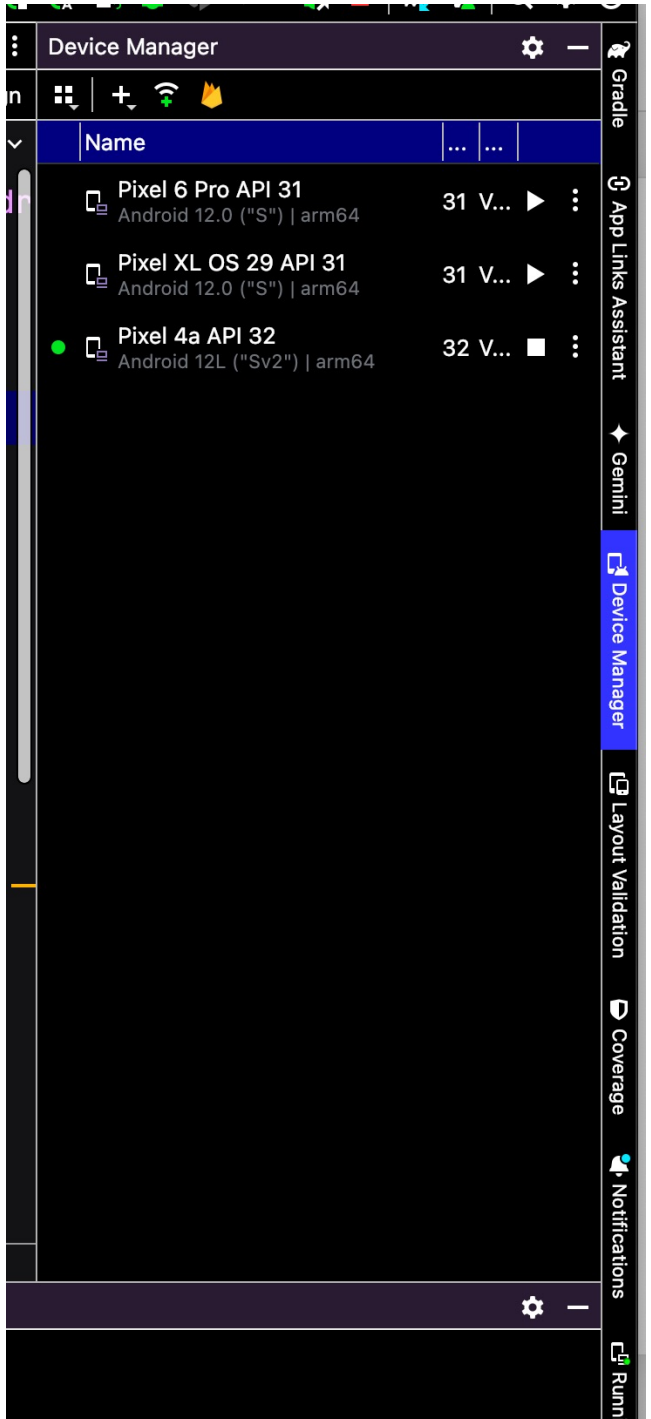
Center Area-Code



Bar shows the open files. In this case the main activity java code (not visible) and the Main Activity XML layout (visible)

Display is typically showing java or XML.

If the XML is being used to specify a layout, we also can get a graphical editor or edit the text. We also will have a property editor for working with the XML.



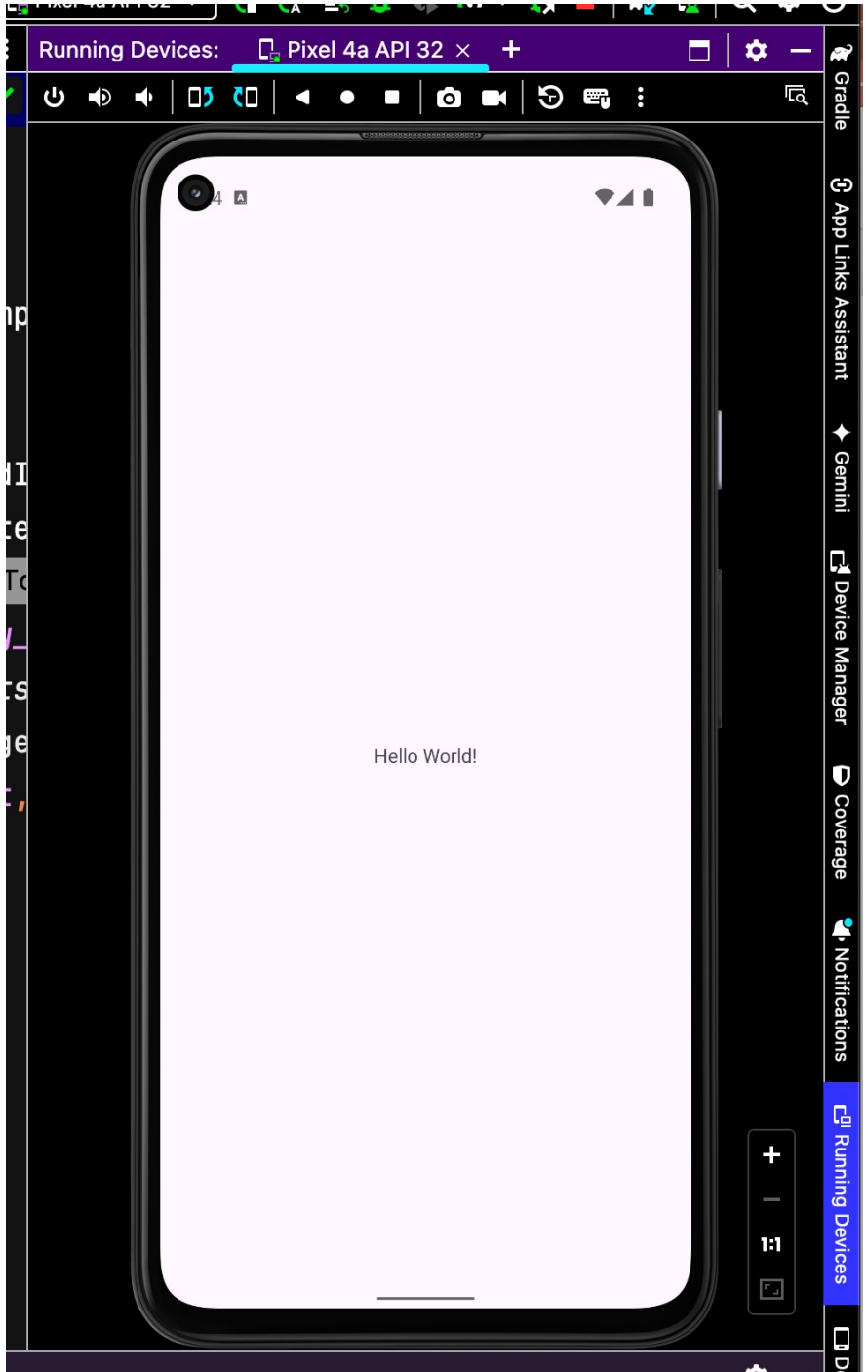
Right Area-Emulator

Mostly, this is where the emulator and related objects show up.

At the moment it is showing the emulator devices that you have installed. Currently one is running.

When you are not actively running the App, you can hide the emulator.

It is possible to change the settings so that the built in emulator will run in its own window.



One of my created emulators.

Pixel 4a

Running version 32 of the operating system.

There are controls across the top with extra controls from the three dot menu. Mostly we would use the rotate and the camera.

Bottom Bar – Progress

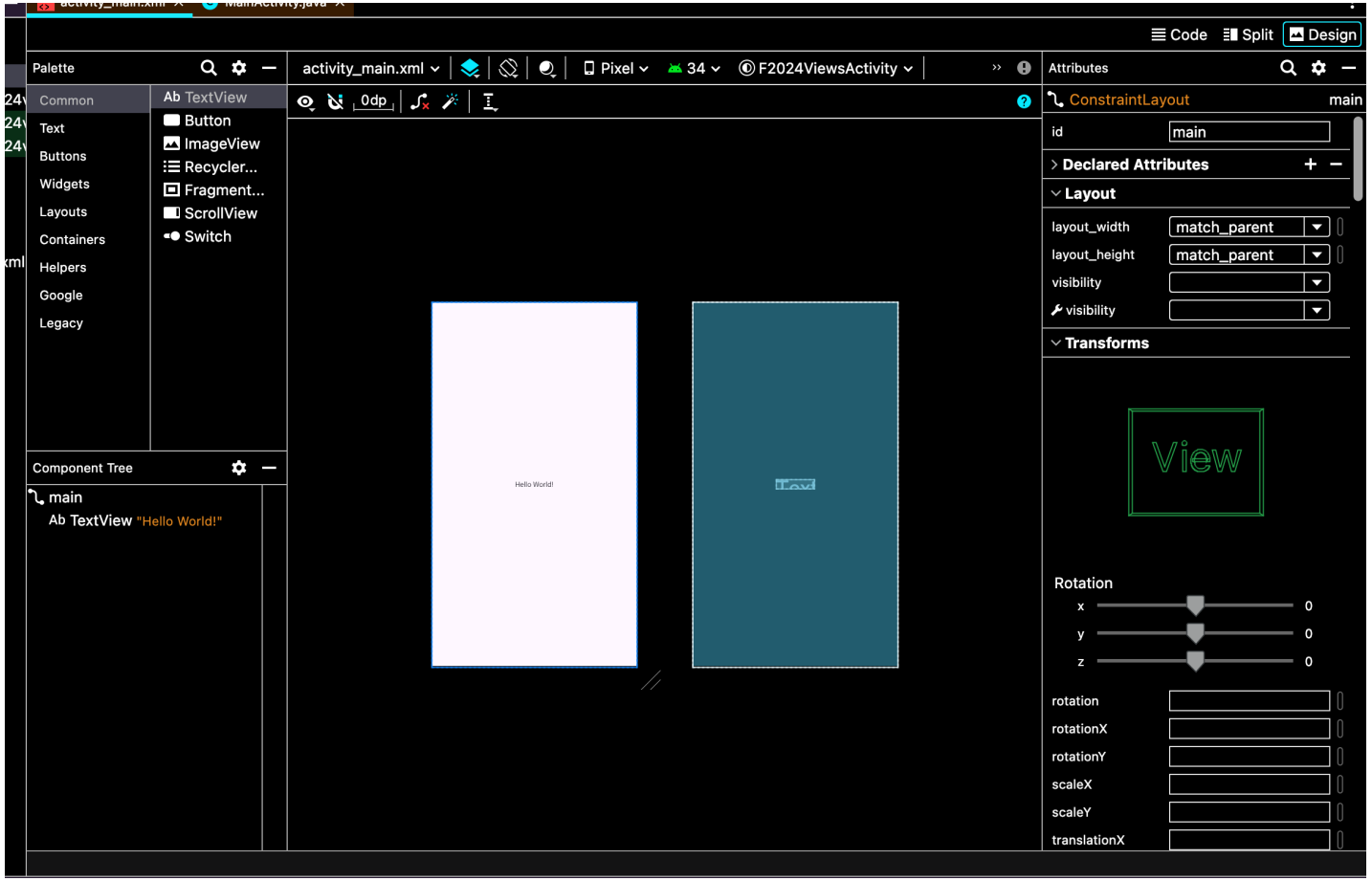
Progress reporting/notifications

Across the top are tabs for different views

Mostly, we are interested in the Logcat where log messages show up and the progress of the builds.

If we pull up, we can see more of the view

Layout: Design View



Palette on the left has widgets we can drag and drop on the design area.

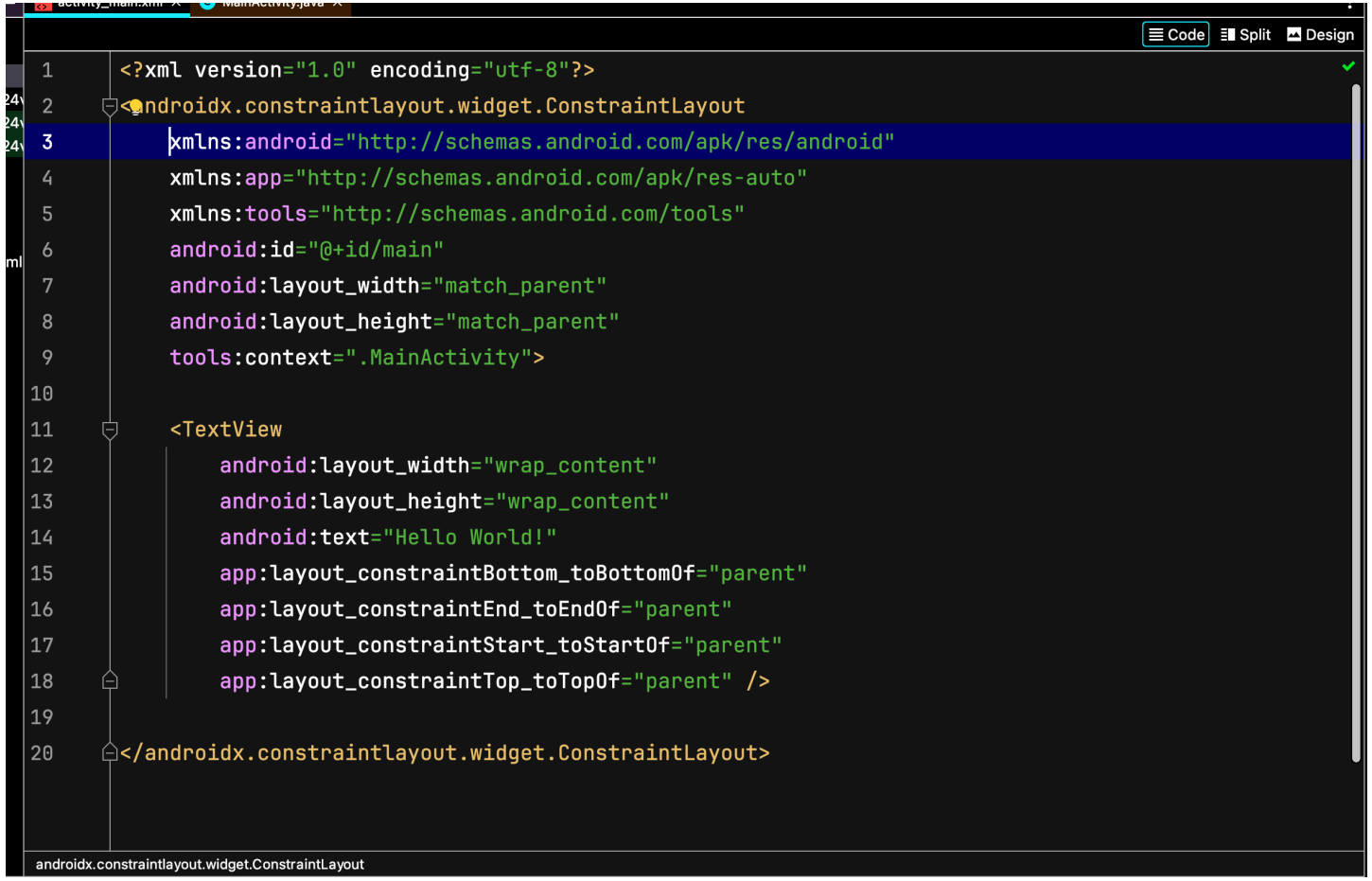
Component tree shows all the widgets in the layout

Center area has day/night views. We can just focus on and expand so just day is visible.

Right side has a property editor for the currently selected component.

The search feature is especially useful.

Layout: Code View



The XML for the entire layout.

It is common to switch back and forth between the views depending on what you are trying to accomplish.

Example: Create a number of related buttons by making one using the design view and the copy/paste/edit the rest in the code view.

I usually don't use the split view, but might if I had a larger screen

Questions

Be able to identify where in the IDE you can:

1. Run the App.
2. Select a target.
3. Create an emulator.
4. Get status updates.
5. Get log messages.
6. Find a dragable component.
7. Edit the code for a widget.
8. Edit code.
9. Interact with the emulator.
10. Find a file in the project
11. Find a Java file.
12. Find a resource file.
13. Edit properties of a component
14. Find the manifest
15. Find a build file

Context Menus

If you right click, for most areas/items you will get a pop up menu that displays menu items that are important for that context. Menu items may be prioritized so more relevant items are at the top.