Project #0

An Introductory Hello World Project! - Due Monday, 4/4 @ 11:59 PM

Android Development can be an exciting and engaging technology. Making use of the vast libraries, being in connected with the ever-growing community, and being able to produce something which you can truly call your own. But with all great things, they have small beginnings.

Technical Description

For this project, you will be installing Android Studio - the development environment for creating Android Applications. Additionally, you will be creating a basic Android app which displays your first and last name, as well as your student ID. This project serves to do the following:

- Ensuring that you have installed Android Studio so that you are ready to tackle the course in the coming weeks
- Ensuring that you know how to run and launch apps with the Android emulator
- Ensuring that you know how to use GitHub for version control
- Ensuring that you know how to perform project submissions via GradeScrope

Note

As android is an evolving language, at times you may get alerts from AndroidStudio saying certain portions are deprecated, however please don't try to update such areas since the project may not work as intended if you do.

Key Concepts

- Android Studio IDE
- Android emulator
- Android Layouts
- Views
- GradeScope

Requirements

Screen 1

- This is the homepage and only page of your app
- It will display 3 pieces of information
    - Your first and last name
    - Your student ID
   - The screen title should read "Hello World"

Phases

Phase 1 - Installing Android Studio

- Please follow official Android documentation for steps on installing Android Studio. https://developer.android.com/studio
   - Android Studio now natively supports M1 Mac devices
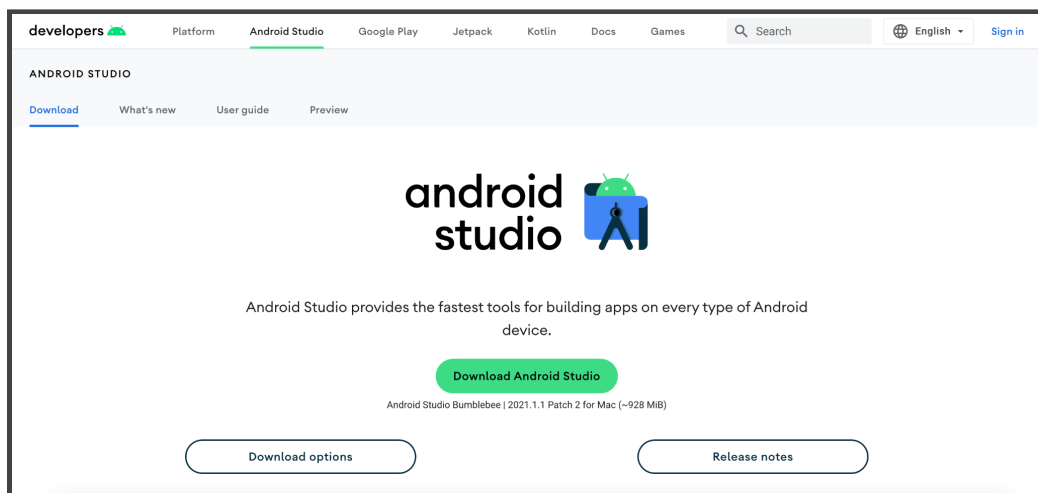
Phase 2 - Opening up Android Studio

- Launch Android Studio
- Select "New Project"
- Name your Application "Project #0"
  - The "package name" is automatically generated for us.
- For "Language", we will be developing in Kotlin for this course
- For the "Minimum SDK", we can use API 21
- Leave "Legacy" unchecked
- Click "Finish"
- Rest assured, you will learn what all of these names and options mean later on in the course
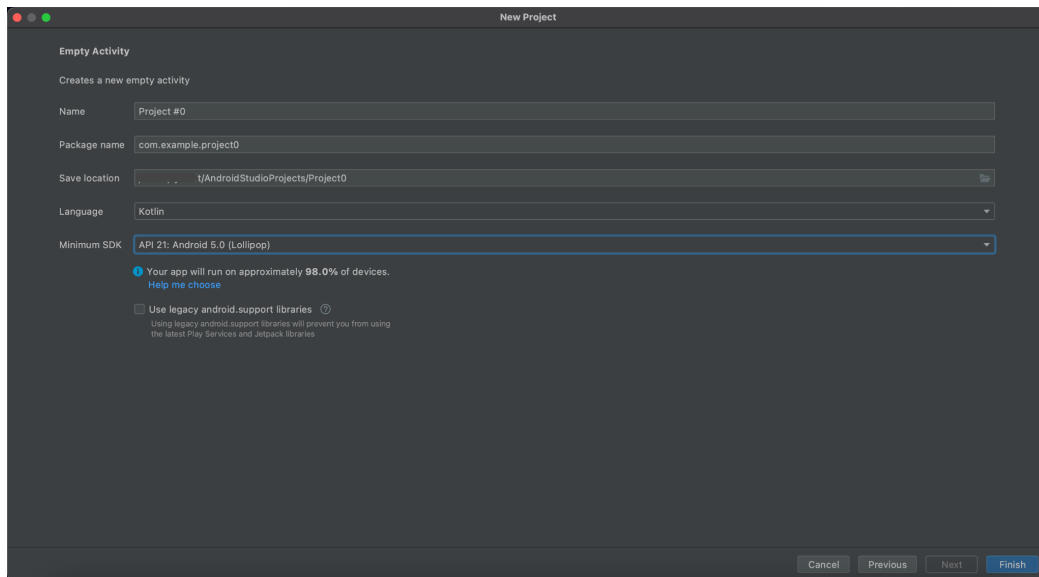
Phase 3 - Changing the Screen Title

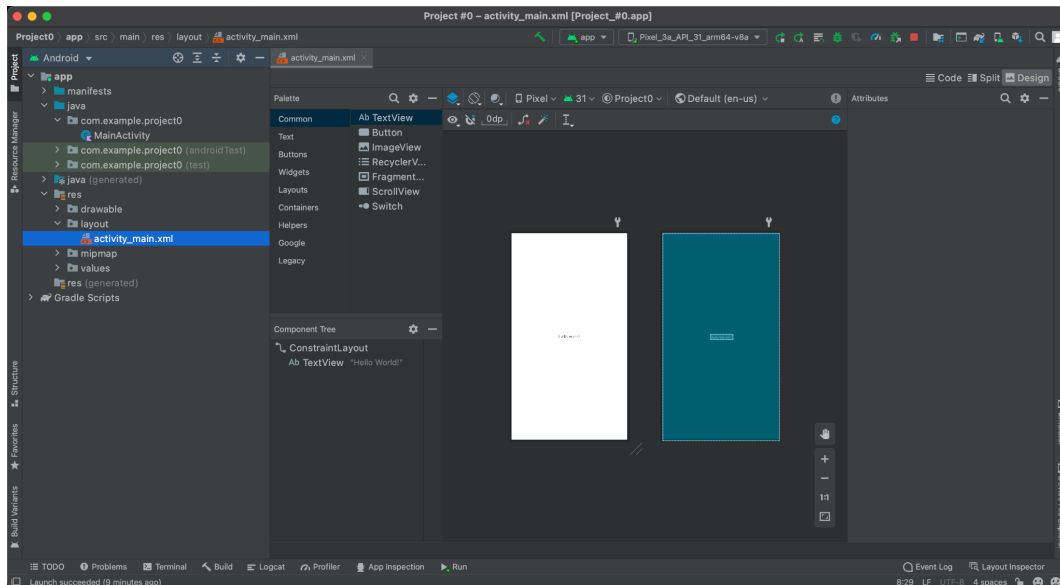- Navigate to the MainActivity.kt file
   - app -> java -> com.example.project0 -> MainActivity.kt
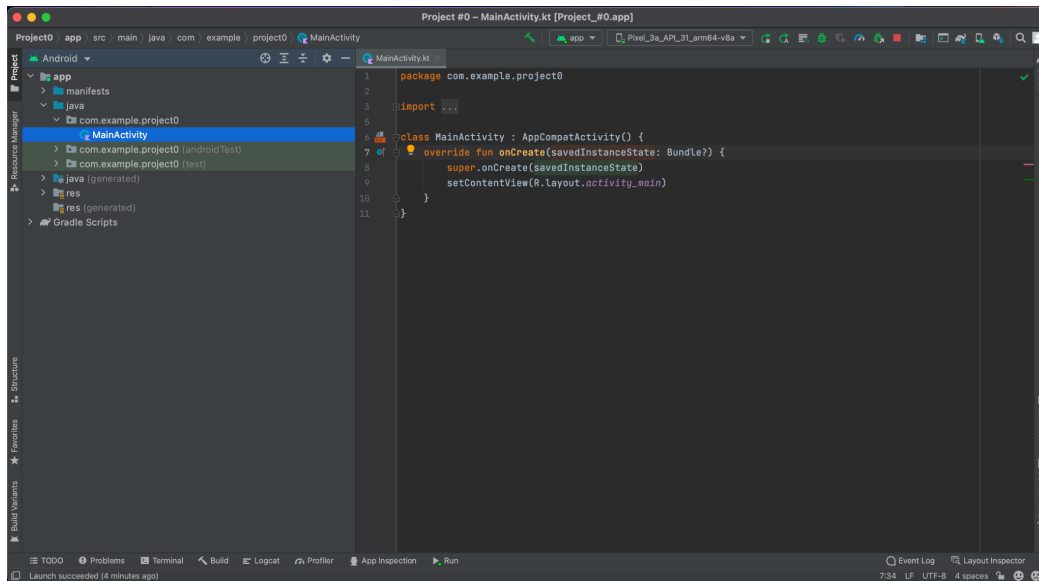
- Within the onCreate() method add, change the title of the MainActivity Screen by adding the line:
    - title = "Hello World"

Phase 4 - Adding Our Own Name

- Navigate to the activity_main..xml file
 - app -> res -> layout -> activity_main.xml

- If you haven't done so already, open up the Design Tab in the upper right corner
- Click on the center text, so that we can begin editing to say our name
- In the attributes pane on the right-hand side, we can see an attribute called "text". Change it to your own name
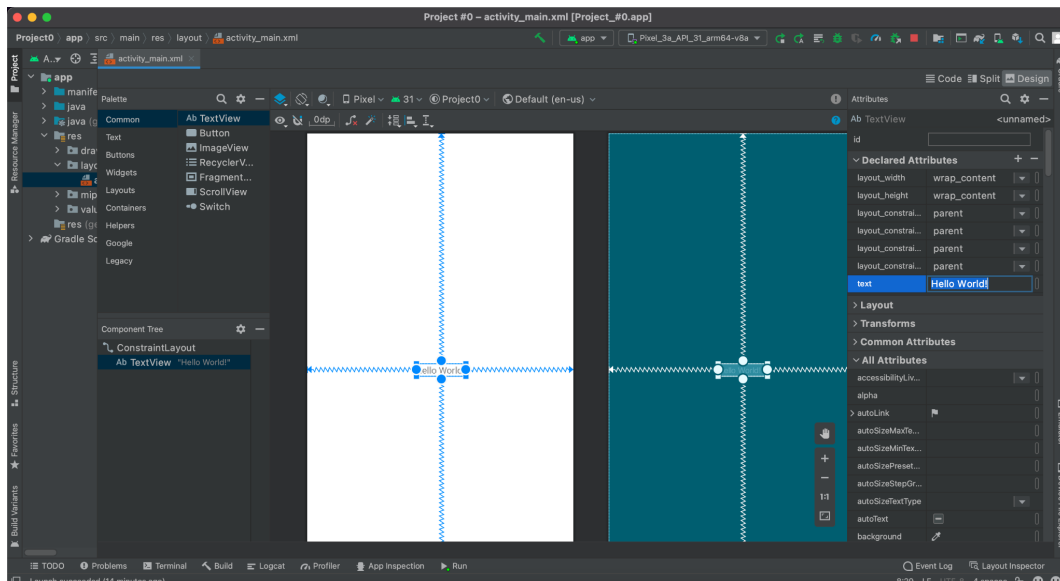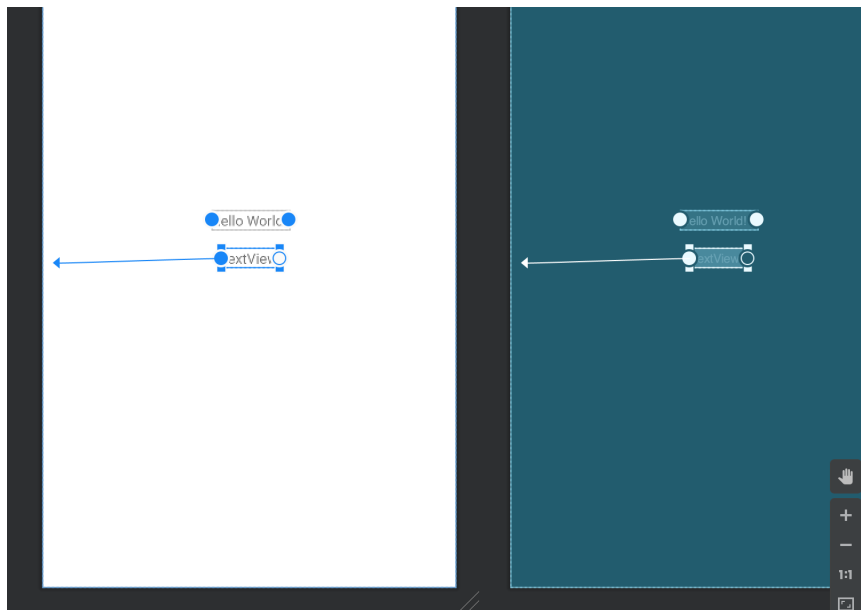
Phase 5 - Adding Our Student ID

- In the Pallete pane on the right-hand side, drag and drop a new TextView onto the screen
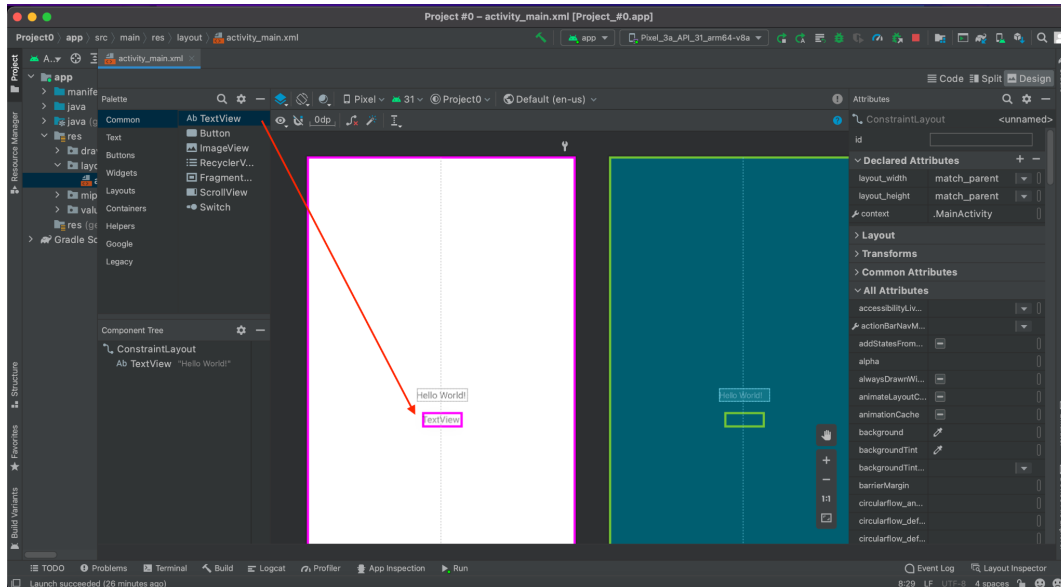
- Hover over the white circles at the edge of the TextView we just drag in
- Click and hold the circle and drag it to the edge of the screen
  - Repeat this process for the right sides (ignore the top and bottom for now)

- Constrain the top of the new TextView to the bottom of the old TextView
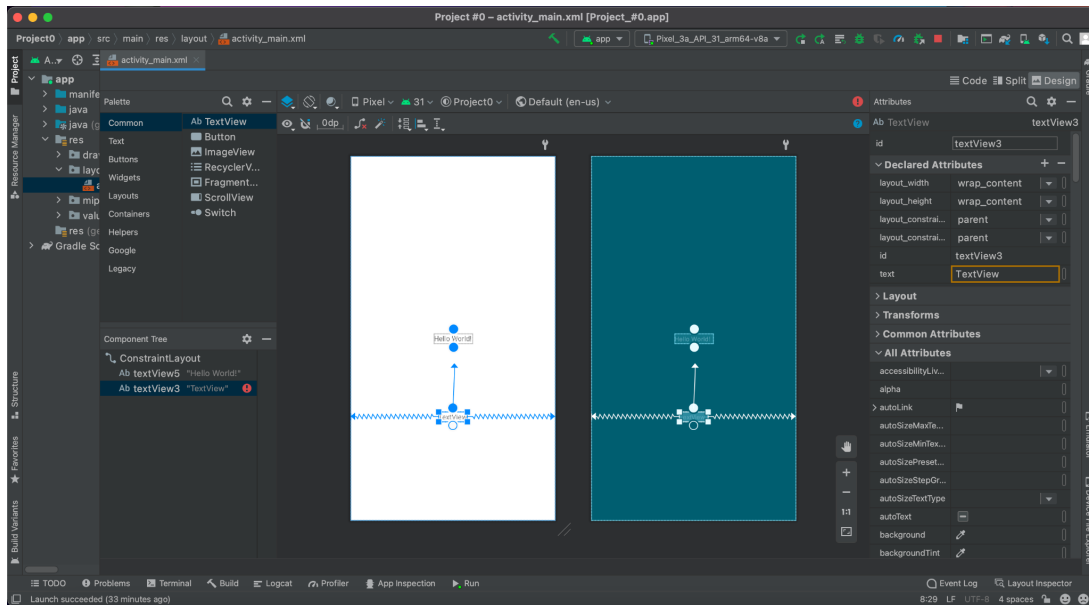
- Change the TextView to be your student ID
- These types of drag and connect constraints are typically hard for beginners to understand, and they can only be learned through trying it
  - So go ahead and play around with constraining your text around the screen

Submission

Projects will be submitted through GradeScope via GitHub. You can access GradeScope through the tabs in Canvas.
Your final app should look similar to this: