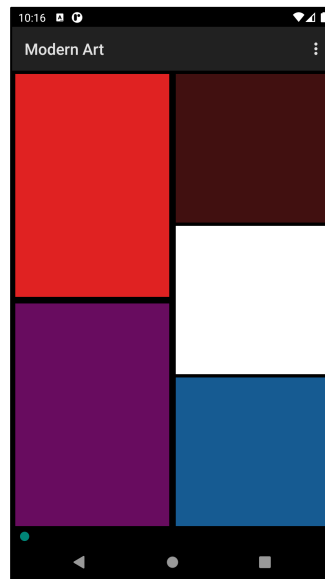# Midterm Assessment: Modern Art UI
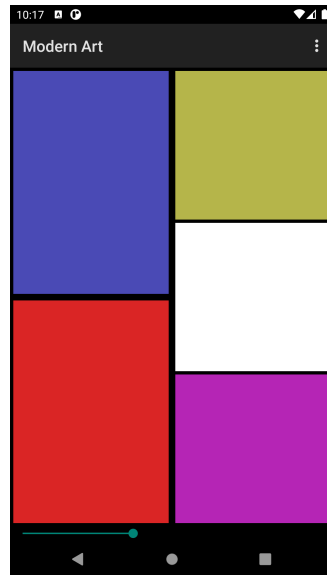
INDIVIDUAL EFFORT – You may not work with or discuss this assignment with anyone other than the class instructional staff.
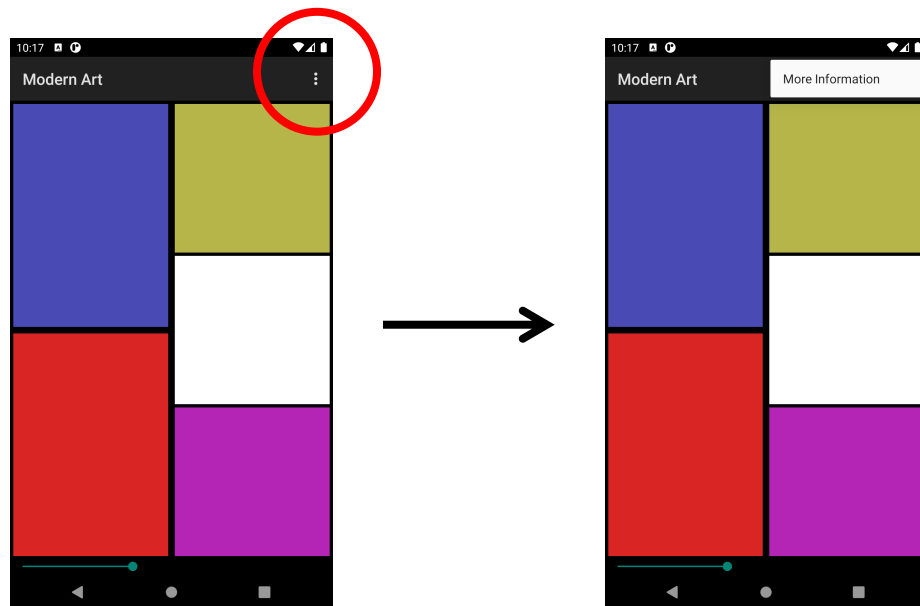
Objectives:

Create an application from scratch with an interesting user interface using what you learned in the first half of this course. For example, here's a screenshot of the sample app that I created.
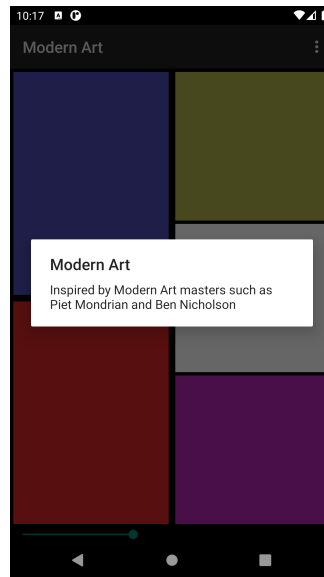

This application's user interface is composed of geometric shapes arranged in a particular order. Its layout inspired by the works of Modern Art masters such as Piet Mondrian and Ben Nicholson.
This application's user interface should be implemented within a ConstraintLayout. It should have one area containing multiple colored rectangles and another containing a SeekBar (sometimes called a Slider). All rectangles must have a colored background. Those backgrounds come in two types – 1) White or Multicolored. When the user drags the SeekBar, all non-White rectangles should gradually change their color. For example, in the screenshot above the SeekBar is at the leftmost position. In the screenshot below, however, it is further to the right. Note that the Multicolored rectangles have changed color, while the white rectangle has not.

The application should support an Options menu. When the user clicks on the menu a "More Information" option should appear.

When the user clicks on "More Information," a Dialog should appear displaying at least one line of text.

Use your creativity to design your user interface. Your application must implement all the functions shown above, but can vary in the visual layout as long as the user interface 1) is managed within a ConstraintLayout, 2) displays at least 5 separate rectangles (views within the ConstraintLayout), 3) at least one of these rectangles is White, 4) at least one of these rectangles is Multicolored, 5) moving the SeekBar changes the color of the MultiColor-type views, but does not change the color of the White-typed views, and 6) the application includes an options menu that pops up a menu saying "More information" and when the user clicks on menu option, the system displays a dialog containing at least one line of text.

Submission

You will find this writeup within the MidtermAssessment directory of your class repo. Your work is due by 12:15pm on Thursday, October 22.

Notes

Android uses a modified ARGB (alpha, red, green and blue) color model. Alpha refers to opacity. Each primary color channel value is represented by up to two hexadecimal numbers. At the beginning of a color definition you also put a pound character (#). For example, fully opaque white is specified as #FFFFFFFF is white. Fully opaque black is specified as #00000000.

Your app should be targeted at API 29.

You can find documentation for the SeekBar class at:
https://developer.android.com/reference/android/widget/SeekBar

You will need to include support for ConstraintLayouts, by adding something like,

"implementation **'androidx.constraintlayout:constraintlayout:2.0.2'**

to your build.gradle (Module:app) file