

BCS 371 Lab – Animation

Overview

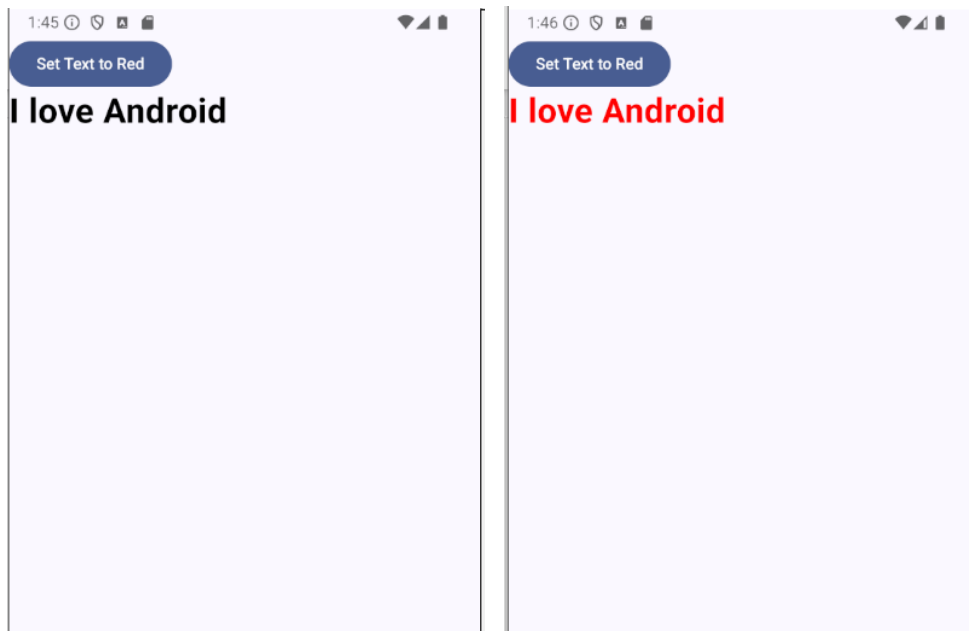
In this lab you will write an app that uses animations.

Create a project

Create a new Android application in Android Studio. Choose the **Empty Activity** type to create an empty activity that uses Jetpack Compose.

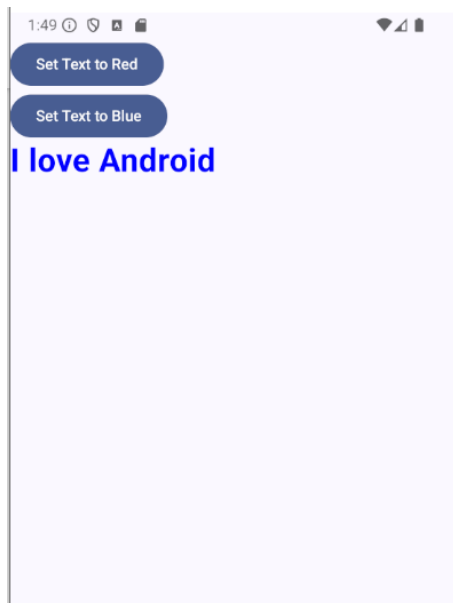
Setup the Main Screen

Create the following screen. When the user presses the Set Text to Red button it should color the text red using an animation. The default text color should be black.



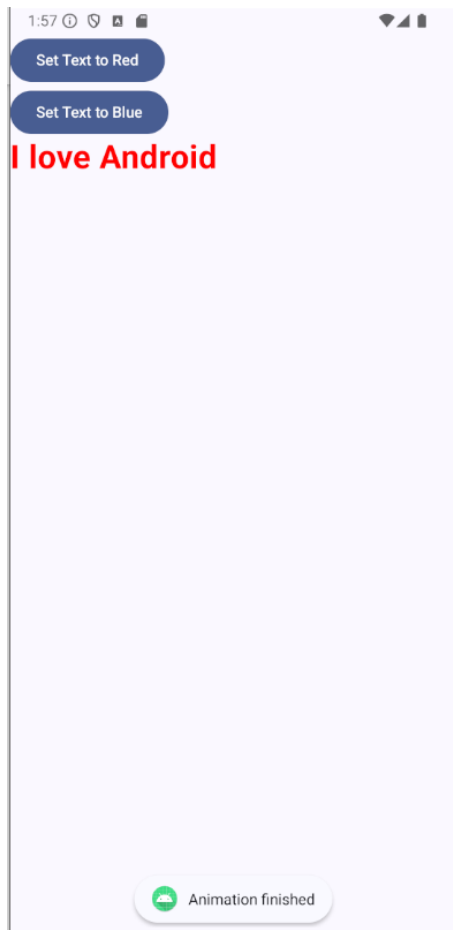
Add a button for Blue Text

Add another button that will cause the text to change to blue using an animation. Here is a screenshot:



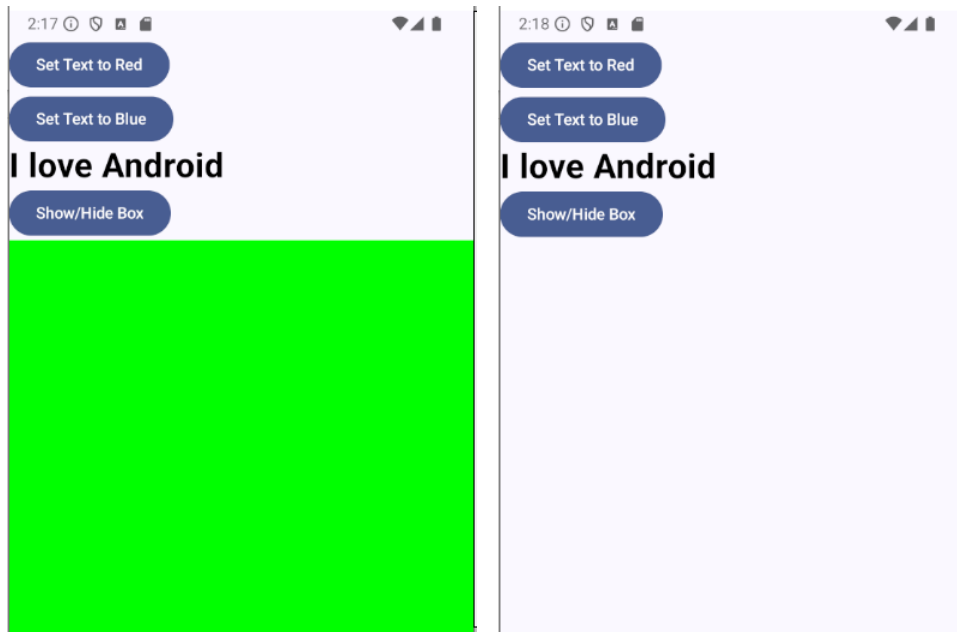
Show Toast When Animation Finishes

Show a toast message when either of the animations finishes. Here is a screenshot:



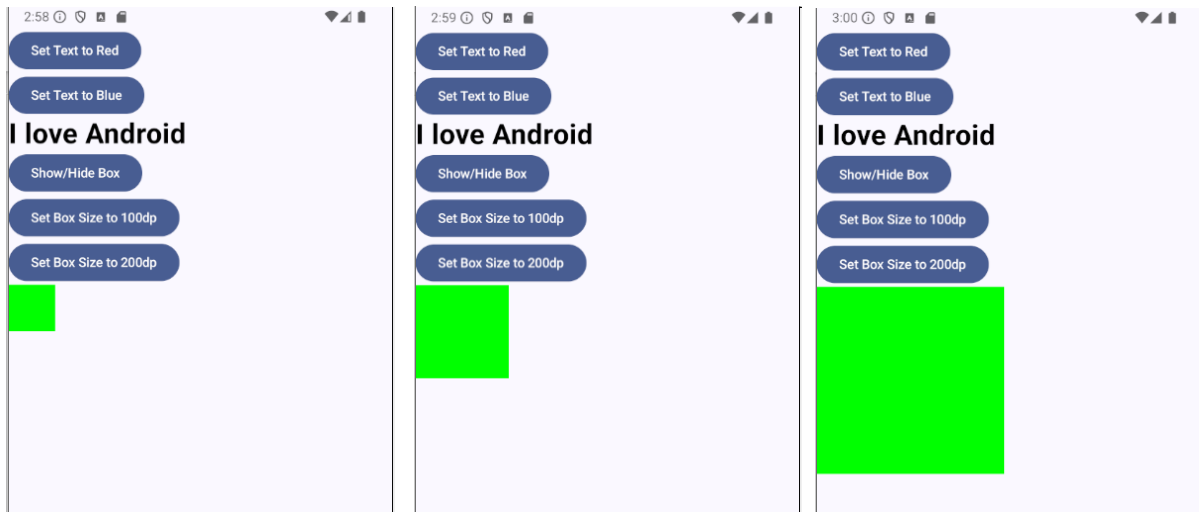
Animate Visibility

Add a Button and Box (green) to the screen. When the button is pressed it should show/hide the Box. Declare a Boolean variable to keep track of the Box's visibility. When the button is pressed it should toggle the value of the Boolean variable which should in turn should show/hide the Box. The Box should slide in vertically when becoming visible and slide out horizontally when becoming invisible. Here are screenshots after showing and hiding the Box:



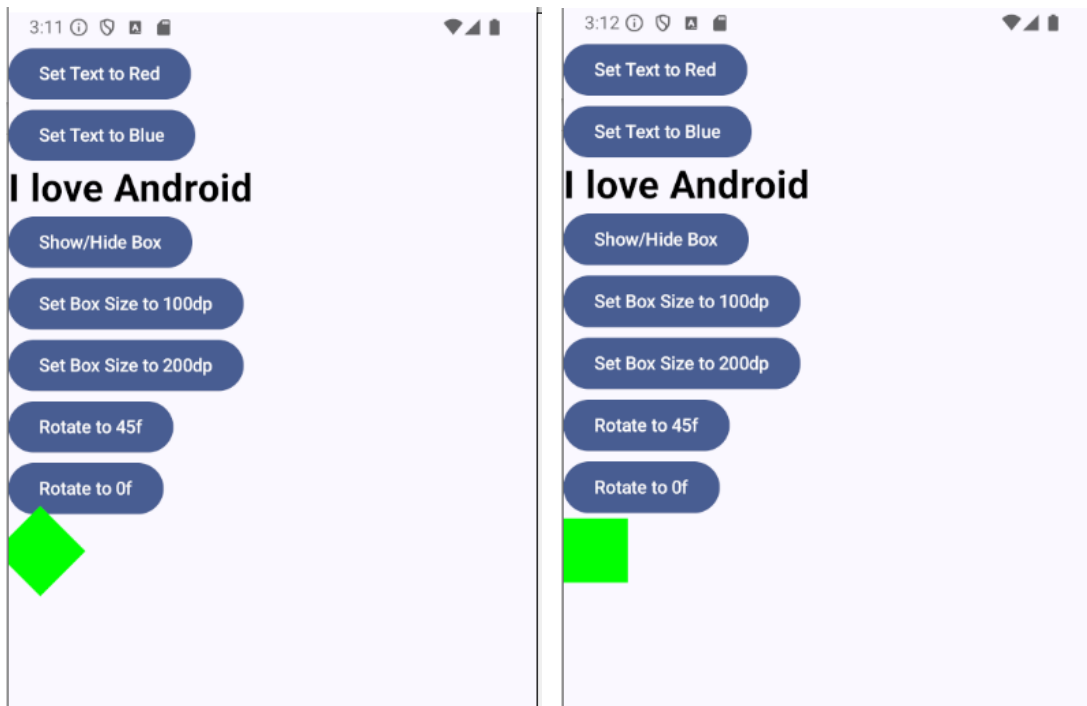
Animate Box Size

Add a two Buttons to the screen. One button should set the Box size to 100dp and the other should set it to 200dp. Set the default Box size to 50.dp. Important! The AnimatedVisibility composable should NOT set fillMaxWidth() or weight on its modifier since the size is being set directly on the Box (just remove the modifier line from AnimatedVisibility if you are using sample code from the slides). Make sure to press the button to show the Box before pressing the button to set the size otherwise the Box will be invisible. Here screenshots showing the Box with the default size and after pressing to set the size to 100.dp and 200.dp:



Rotate Box

Add a two Buttons to the screen. One button should set the rotate value to 45f and the other should set it to 0f. Show the Box rotate using an animation. Here are screenshots of rotating to 45f following by rotating to 0f:



Update the Box Color

Make the Box also use the color variable used for the Text. Pressing the buttons to change the Text color should now also change the Box color. The default Box color should now be black (same as for the text). Here are screenshots showing the Box default color, then pressing to change it to red and finally pressing to change it to blue:

