The X Course: Android

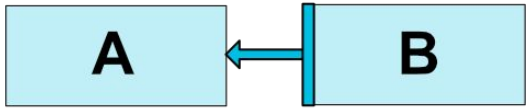
Session 3

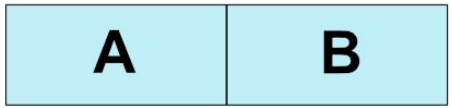
Agenda

- Constraint Layout.
- Let’s build The Cheating GeoQuiz !
    a. Cheating Screen - Exercise on ConstraintLayout
    b. Adding a Button in Quiz Screen to navigate to new screen.
    c. Passing data between activities.
- Using Logcat for checking lifecycle callbacks.

Constraint Layout: Relative Positioning

- Allows you to position and size widgets in a flexible way.
- **Relative positioning** is one of the basic building block of creating layouts in ConstraintLayout.





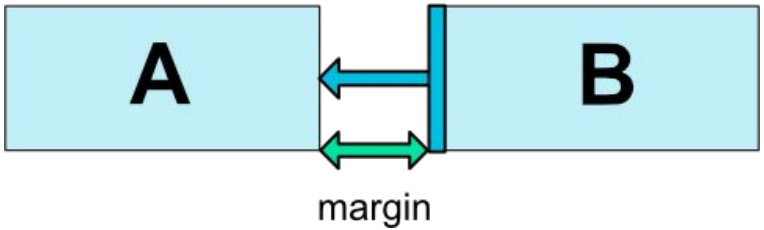

```
<Button android:id="@+id/buttonA" ... />

        <Button android:id="@+id/buttonB" ...

                app:layout_constraintLeft_toRightOf="@+id/buttonA" />
```

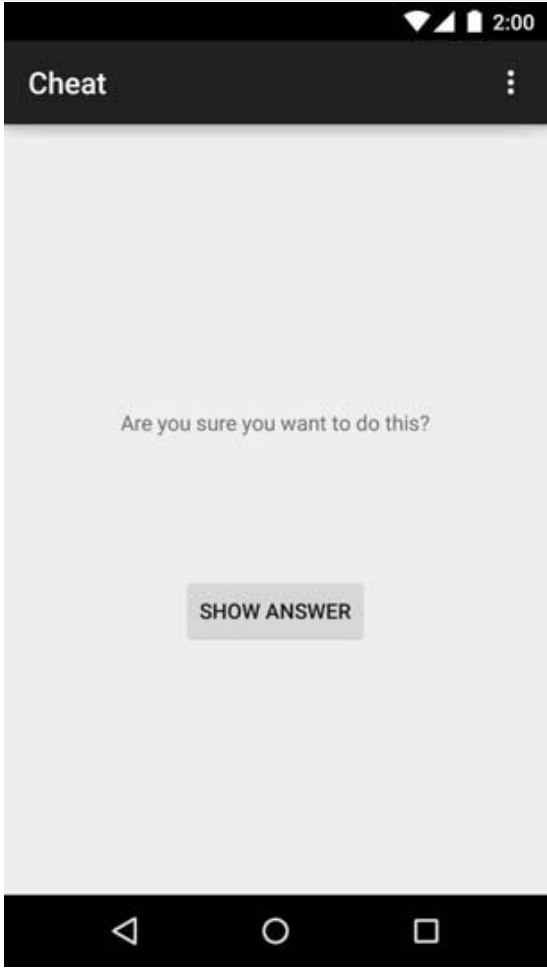
Constraint Layout: Margins

- They will be applied to the corresponding constraints
- A margin can only be positive or equals to zero, and takes a **Dimension**.



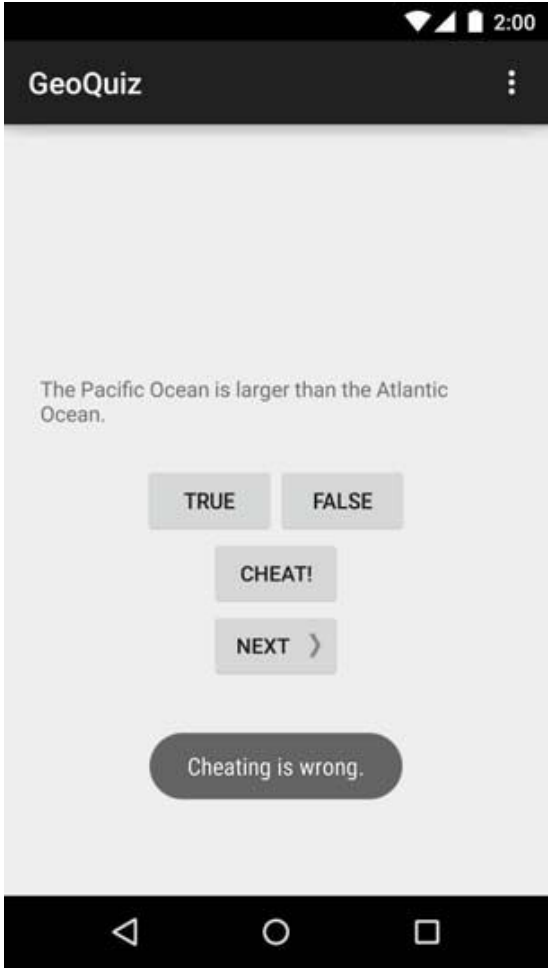
Example on Constraint Layout

- We will build UI for a new screen in our GeoQuiz application using constraint layout.
- We have a TextView and a Button.
- We will adjust their constraints and margins.



Navigation to new screen

- Intent.
- Start Activity with Intent.
- Send data with Intent. (Extra data)



Using Logcat for checking lifecycle callbacks

- We will use **Logging**. In Android, the android.util.Log class sends log messages to a shared system-level log.
- Logcat tab is located in the bottom toolbar in Android Studio.

Using Logcat for checking lifecycle callbacks

- ***Log.d(...)*** The **d** stands for "**debug**" and refers to the level of the log message.
- The first parameter identifies the source of the message, and the second is the contents of the message.
- To make your messages easier to find, you can filter the output using the TAG constant.

Exercise: Add Lifecycle callbacks to your app and check what happened in the log screen

- Press the Back button on the device and then check LogCat. Your activity received calls to **onPause() , onStop() , and onDestroy()**
- Press the Home button and then check LogCat. Your activity received calls to **onPause() and onStop() , but not onDestroy()**