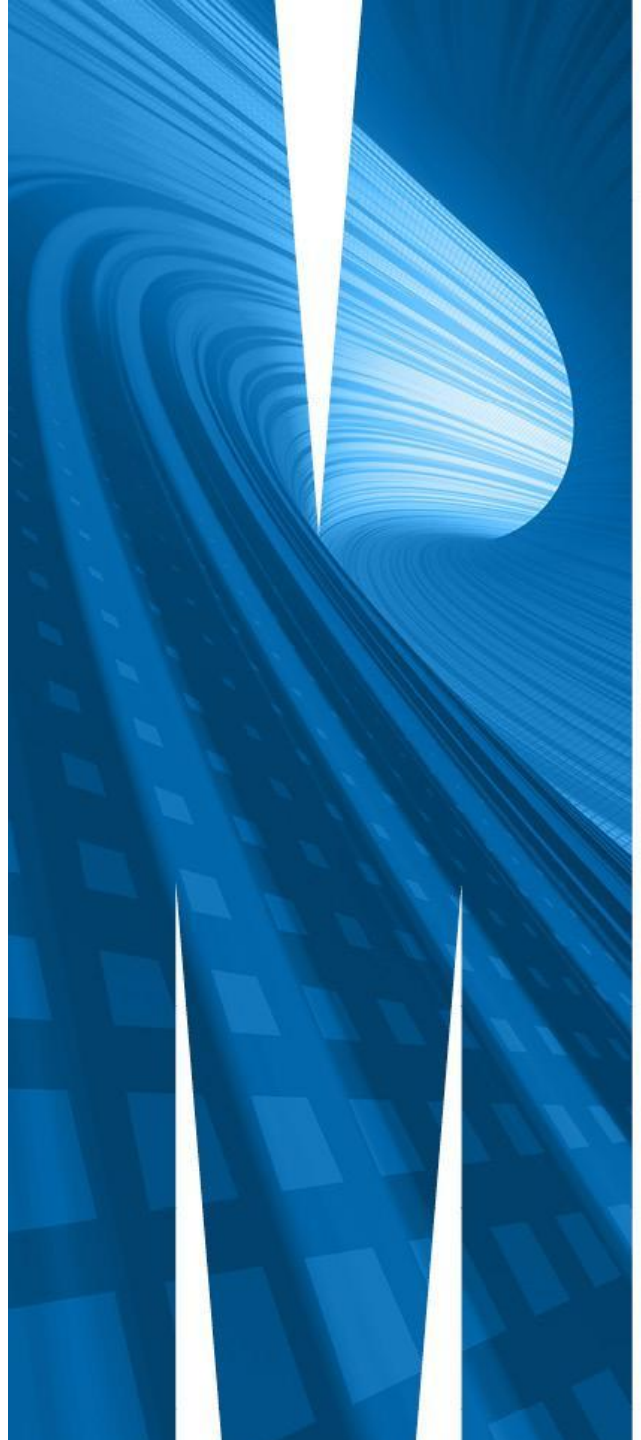


FIT2081 Mobile Application Development

WEEK 3

Dr. Lim Chern Hong

Semester 1, 2023

Monash University Malaysia

Announcement for Week 3

- Please complete your pre-reading quiz and submit by Monday 4pm. You can find the pre-reading quiz link at moodle “assessment” section.

- You will have to complete and submit the workshop quiz which will make available after the forum by Wednesday 11.55pm.

- Please complete your lab tasks before joining your lab session. Your lab solution must be submitted to moodle by Friday 11.55pm.

Learning Outcomes for Week 3

- Life Cycles, Persistence & Activities
- Examine and understand the structure of the Android Life cycle
- Look at varying degrees of data persistence
- Work with Intents & multiple activities

Activities and Checklist for week 3

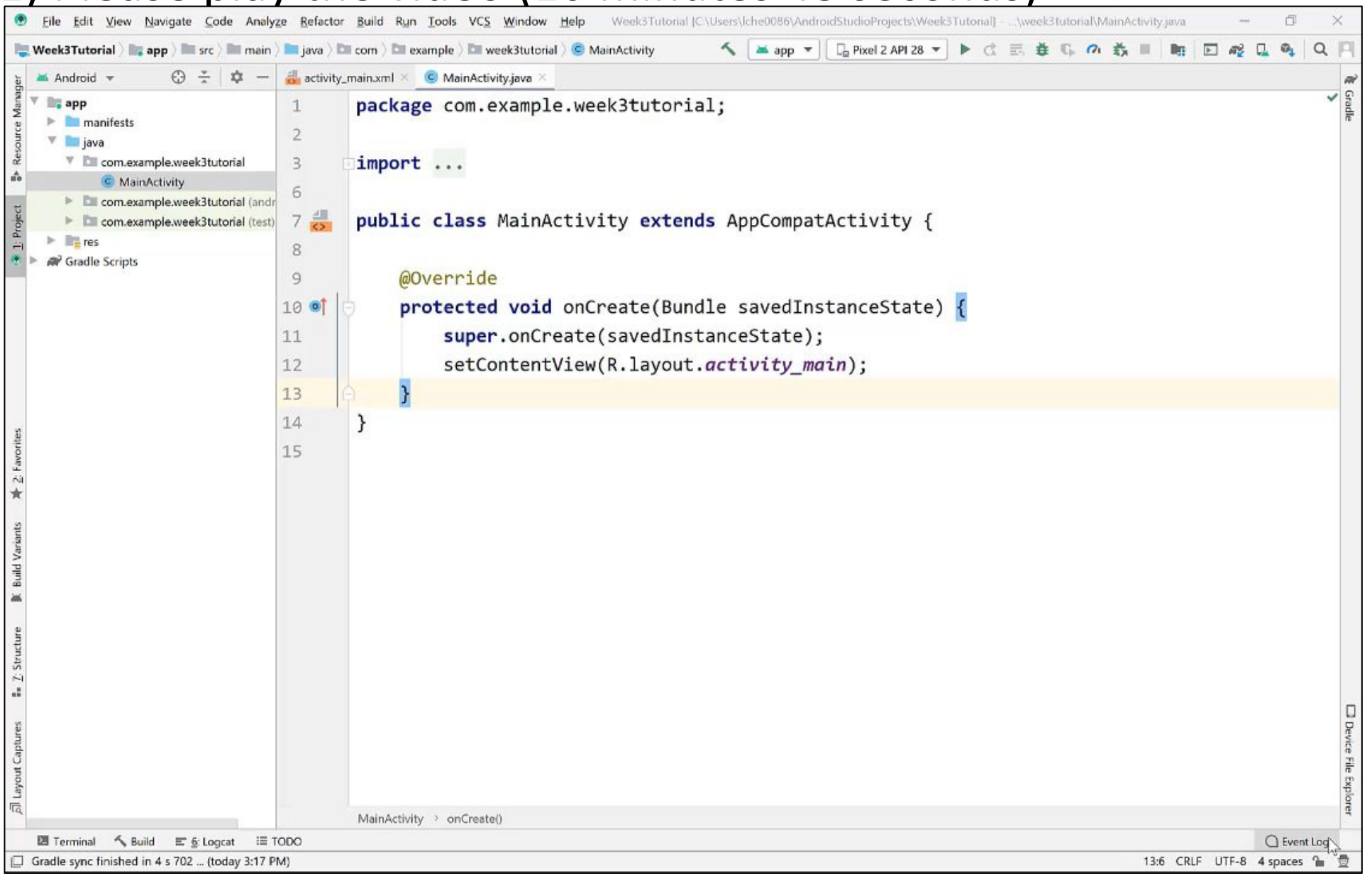
Activity	Notes	Checked?
Study the slide “FIT2081_Week3_Malaysia” & Week 3 Slide set	Useful to complete your lab tasks.	
Complete the pre-reading quiz	Access it from the “assessment section” in moodle. Submit by Monday 4pm.	
Attend Forum	Online, for topics wrap-up.	
Complete Workshop quiz	Workshop quiz questions will be uploaded after the Forum on Monday. Submit by Wednesday 11.55pm.	
Complete lab task	Please refer to the complete section in week 3 moodle	
Attend tutorial	OPTIONAL – if you have issue regarding the lab tasks	
Attend Lab	COMPULSORY – You have to complete the lab tasks before coming to the lab. Submit your lab tasks (including the extra task) on Friday 11.55pm	

Tutorial time!

Gif retrieved from https://gifer.com/en/74Zm

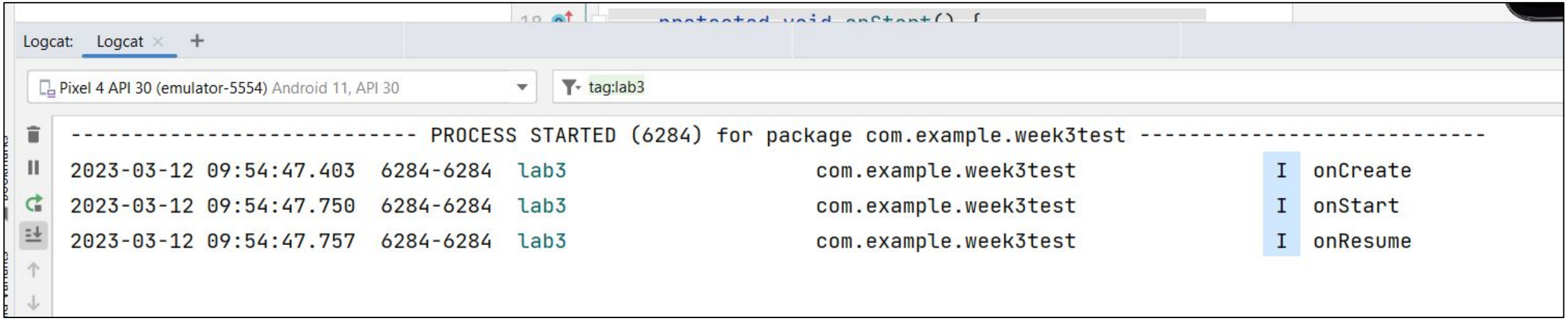
Video 1: Logcat Lifecycles and save instance view data

1) Please play the video (10 minutes 48 seconds)



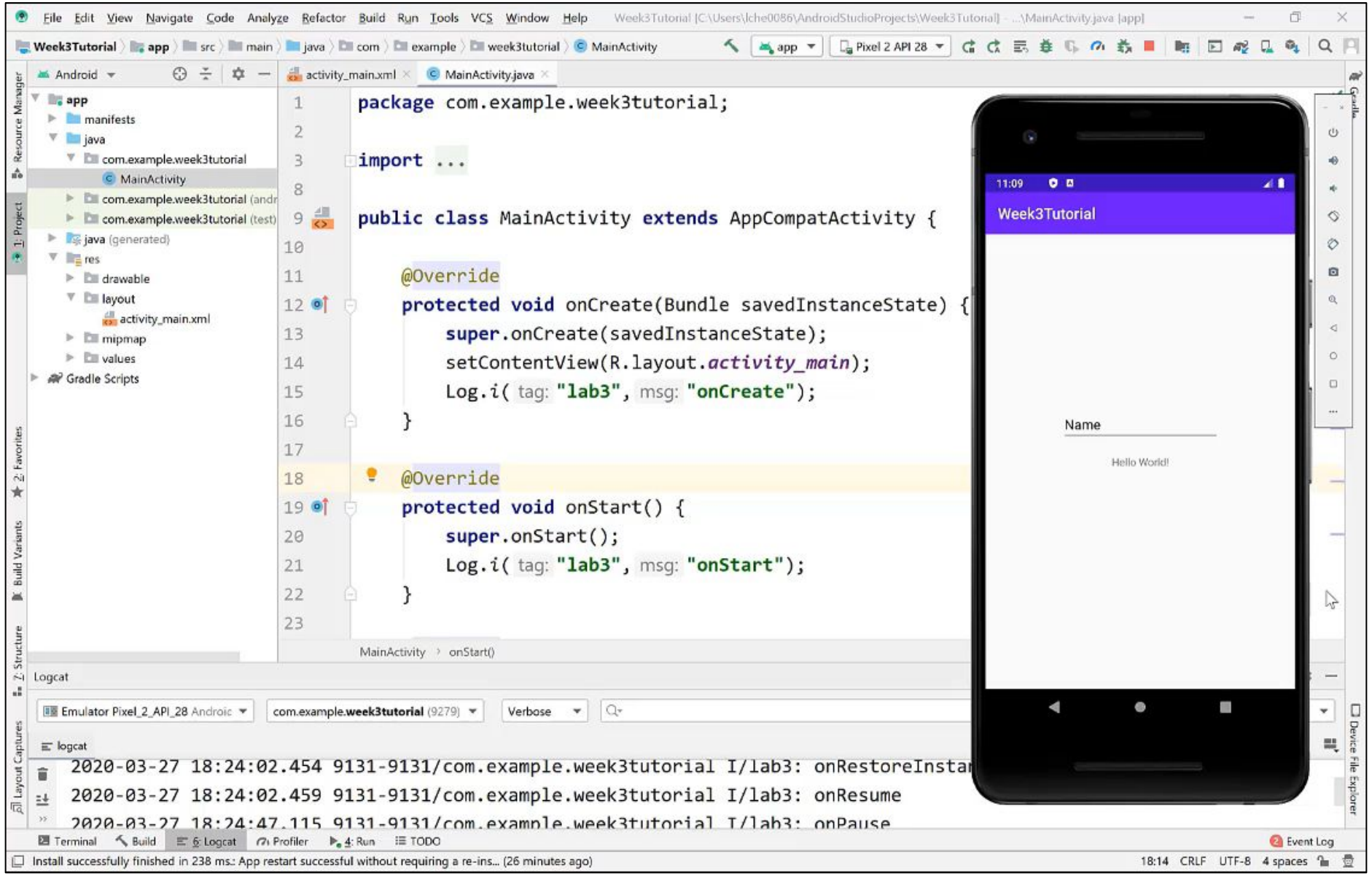
Video 1: Logcat Lifecycles and save instance view data

In newer android studio version, you may filter the log info using "tag:lab3"



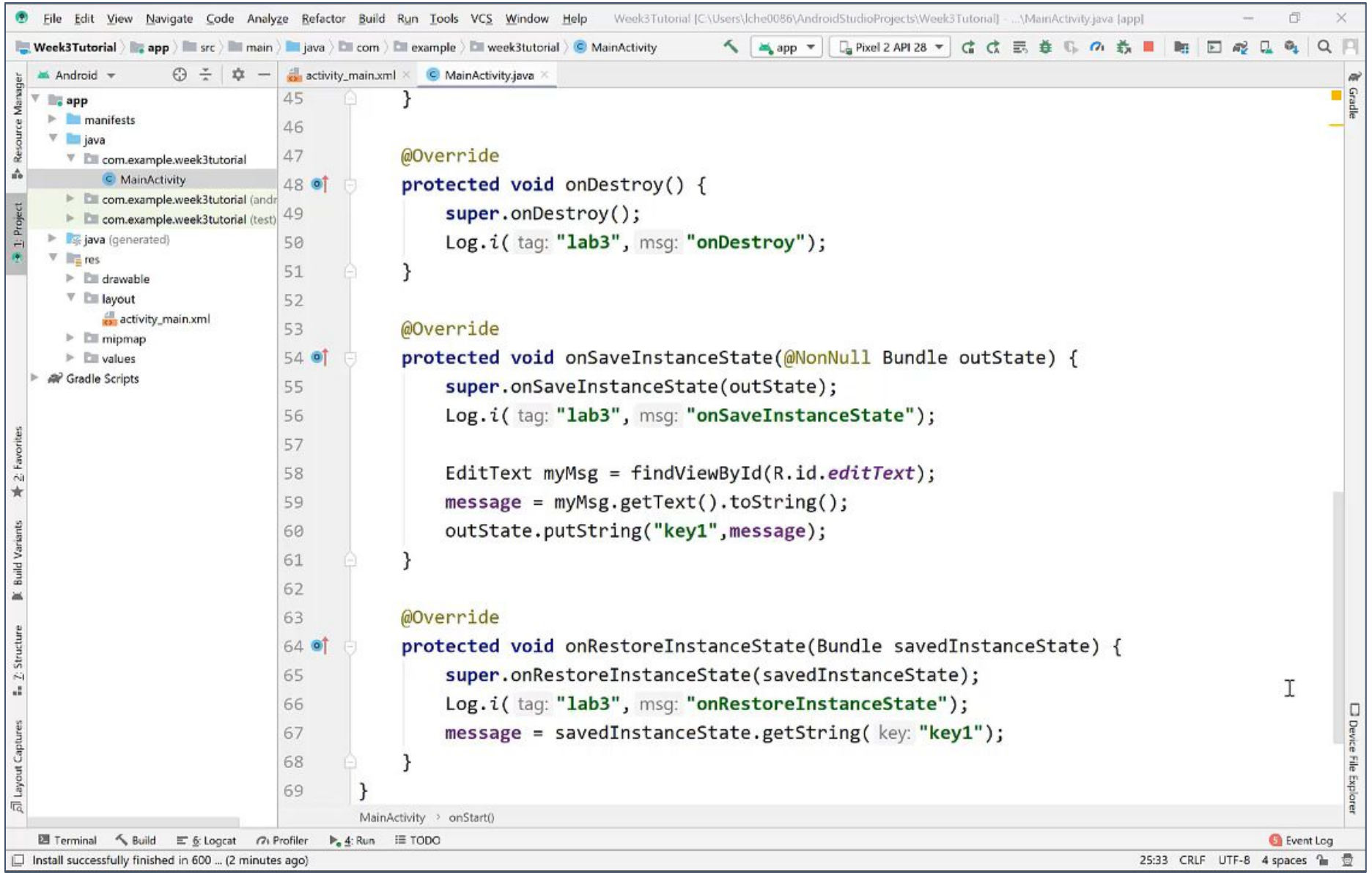
Video 2: Save instance non-view data

1) Please play the video (8 minutes 12 Seconds)



Video 3: Save persistence data

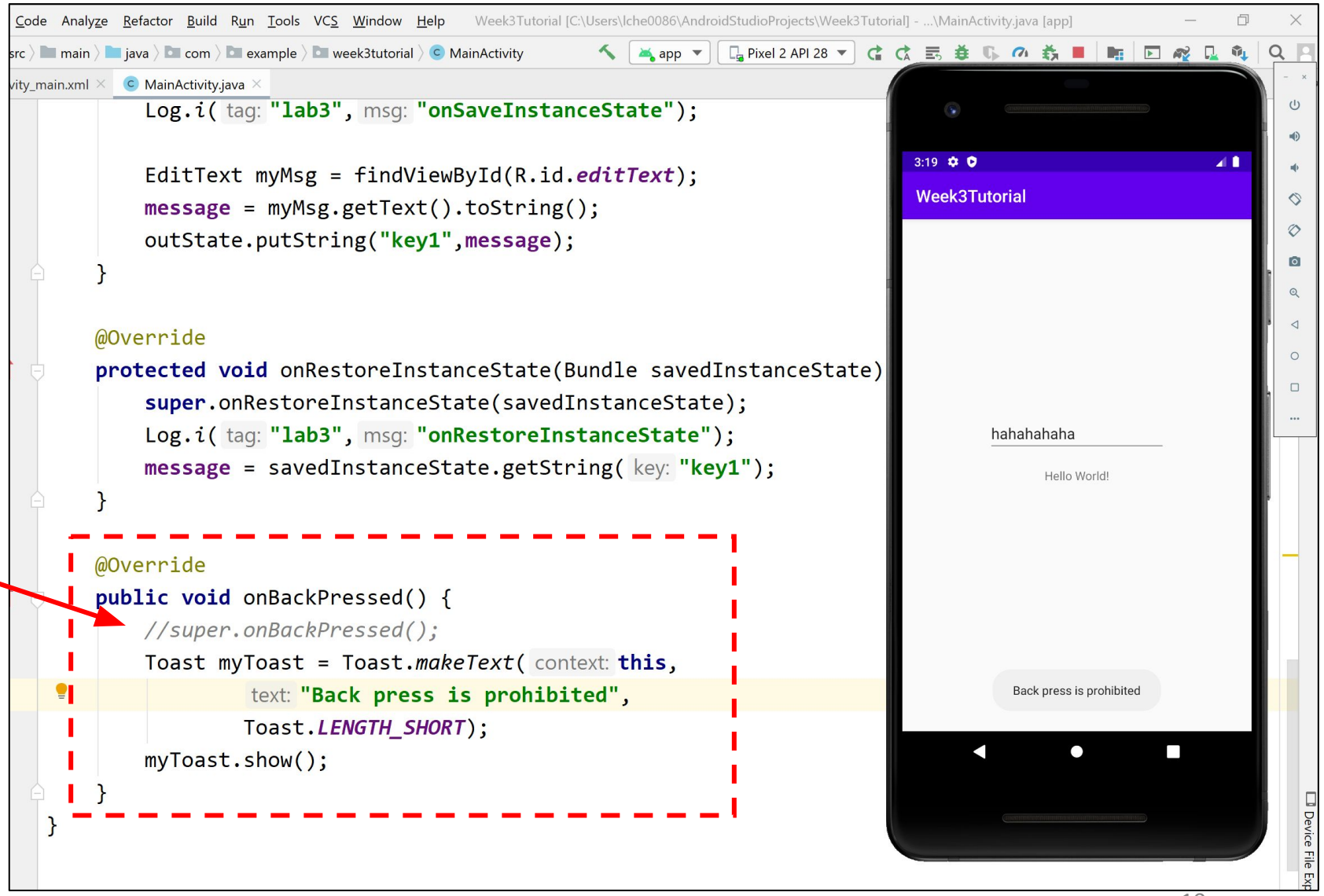
1) Please play the video (9 minutes 23 seconds)



Extra info 1: how disable the back button

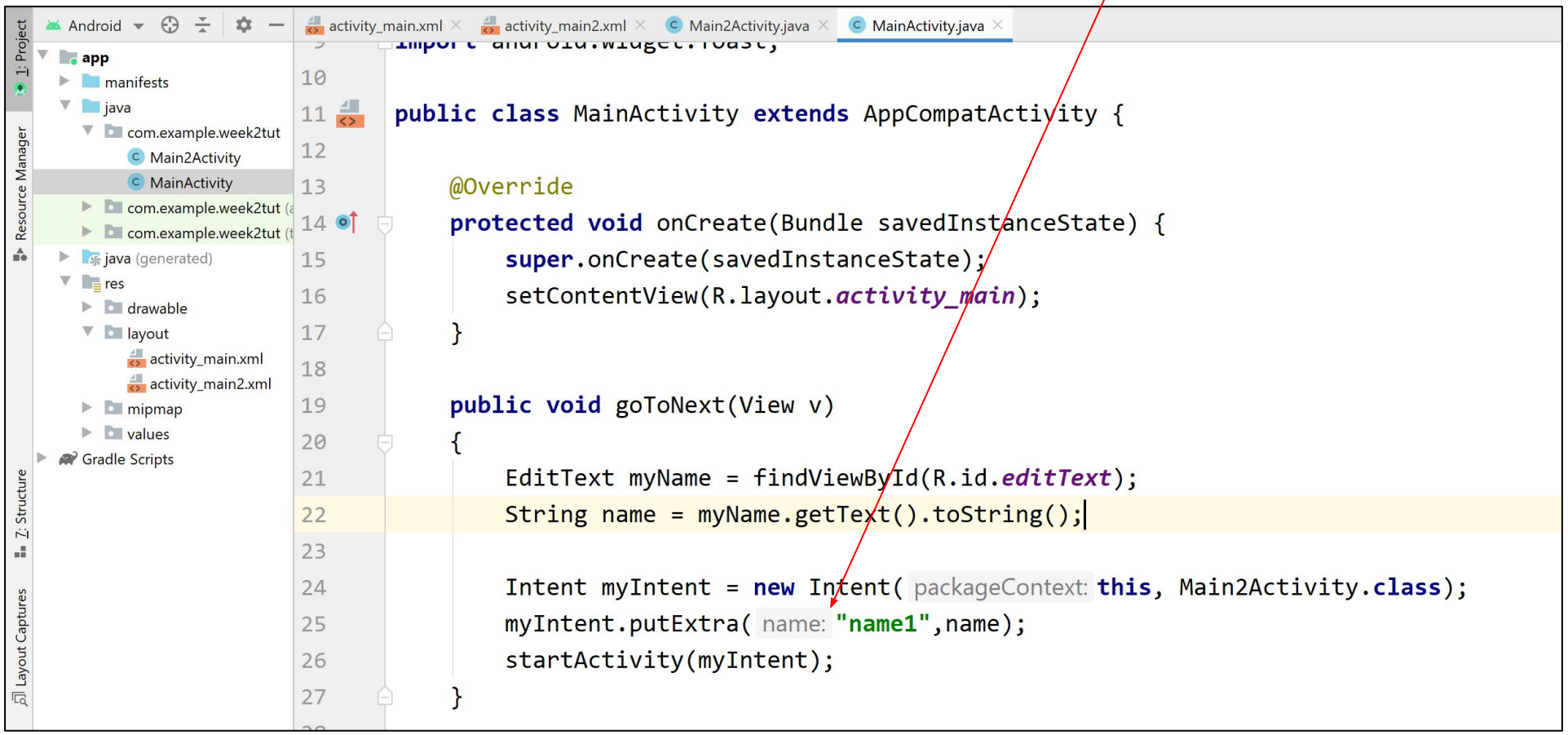
1) There are times where you want to prevent the user from pressing the back button. E.g online banking App.

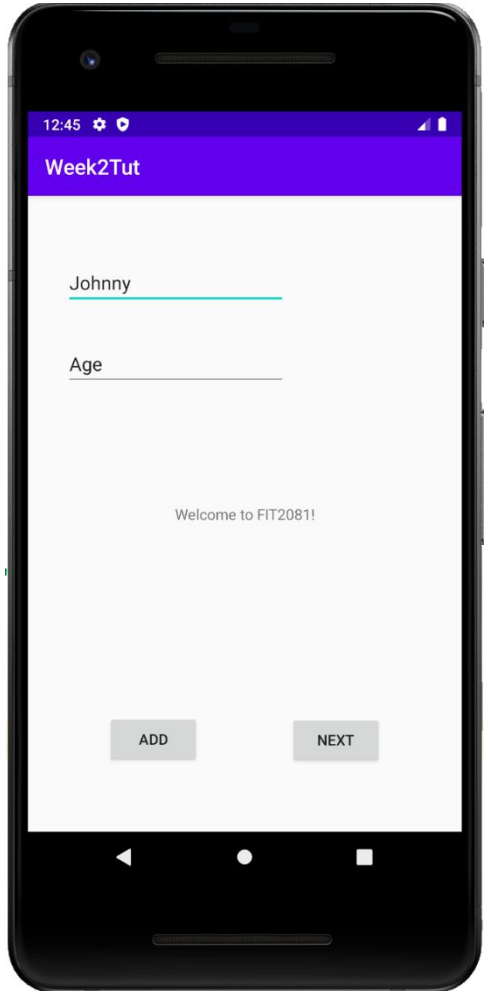
2) You may override the onBackPressed() callback by removing the super.onBackPressed().



Extra info 2: how to pass data to another activity (1)

1) Similar concept with using bundle, you may pass the data to another activity (refer to tutorial 2 on how to navigate to another activity) by using **dictionary concept** (provide key and data).

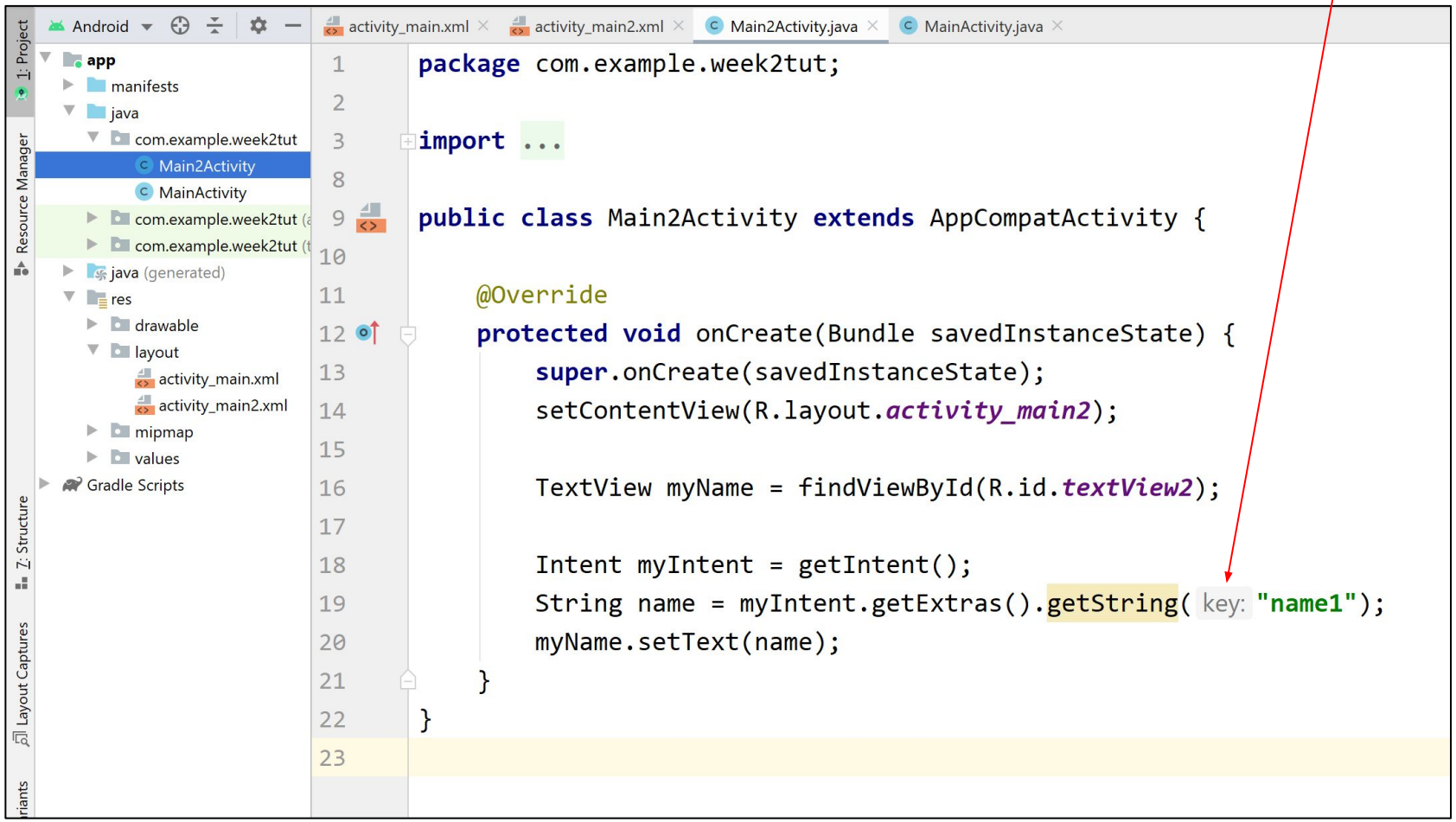


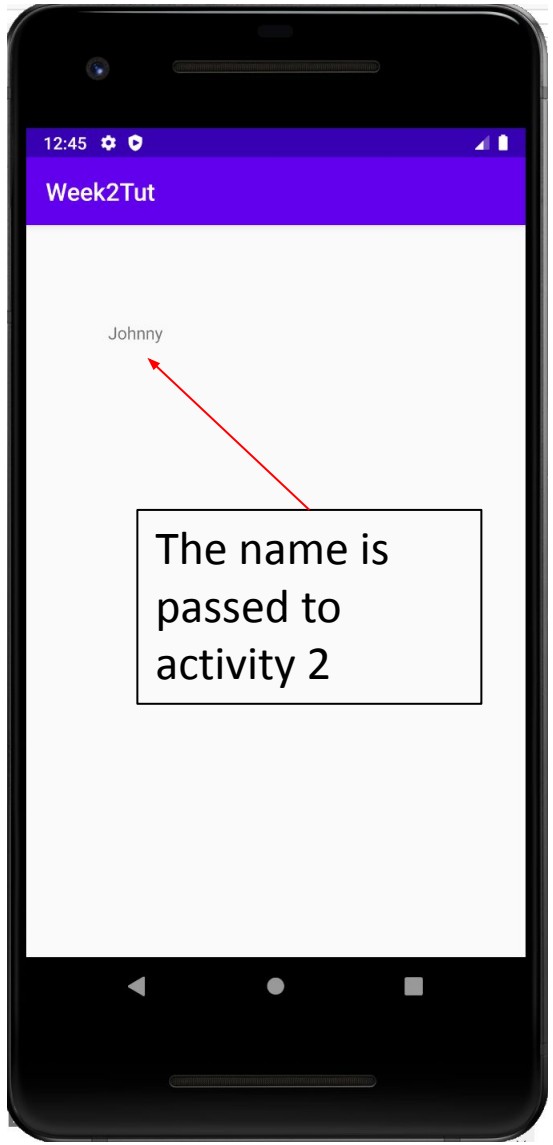


Objective: to pass the name to activity 2

Extra info 2: how to pass data to another activity (2)

2) In another activity, you may retrieve that data by just **providing the key**.





Extra info 3: how to make a scrollable layout

1) To make your constraint layout scrollable, all you need is to wrap it by a ScrollView as shown below

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:fillViewport="true"
    android:layout_height="match_parent">


<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:gravity="start|top"
        android:inputType="textMultiLine"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>


</ScrollView>
```

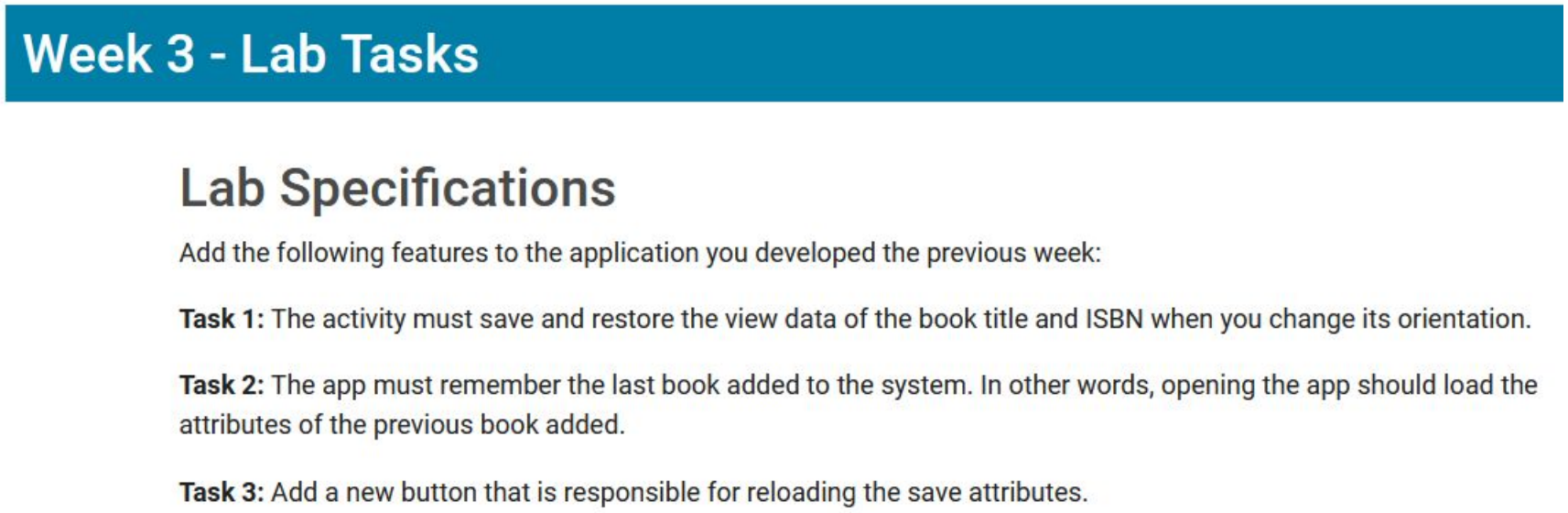
Wrap the layout with a ScrollView

Lab time!

Gif retrieved from https://giphy.com/

Lab 3 – Instructions

Please follow the instructions posted on the moodle.



Week 3 - Lab Tasks

Lab Specifications

Add the following features to the application you developed the previous week:

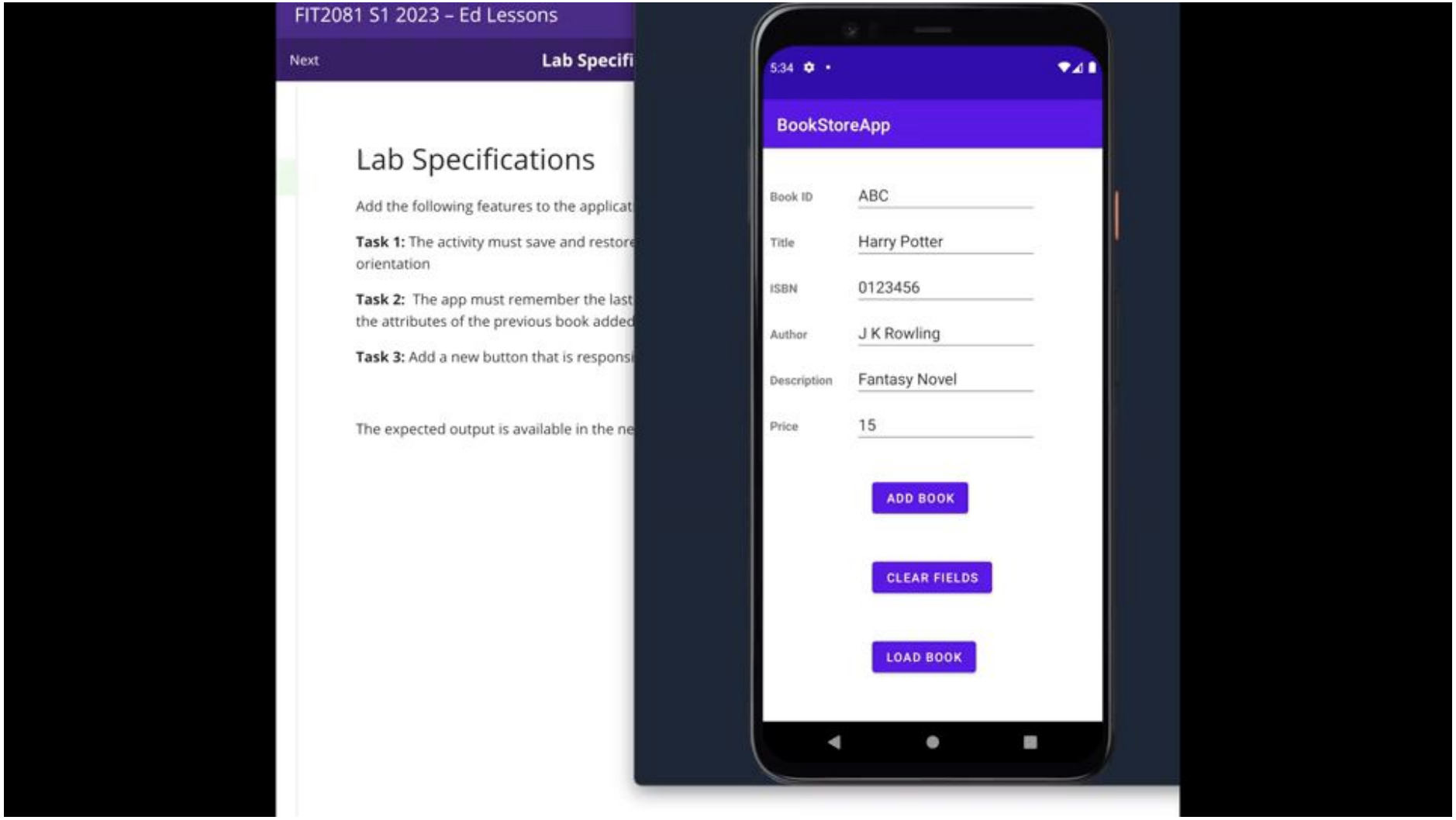
Task 1: The activity must save and restore the view data of the book title and ISBN when you change its orientation.

Task 2: The app must remember the last book added to the system. In other words, opening the app should load the attributes of the previous book added.

Task 3: Add a new button that is responsible for reloading the save attributes.

Lab 3 – Instructions

Expected outcome:



***Please join your tutorial class if you have any queries regarding the lab tasks.

Thank you!