



FIT2081 Mobile Application Development

WEEK 4

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Semester 1, 2023
Monash University Malaysia



Announcement for Week 4

- 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 4

Simple UIs, Layouts & Broadcast Receiver

- Begin to examine a variety of UI elements available within Android
- Understand the design decisions relating to varying screen sizes & resolutions
- Examine a number of layout options, primarily the Constraint Layout
- Understand the Inter-component communication
- Understand Broadcast intent and receiver

Activities and Checklist for week 4

Activity	Notes	Checked?
Study the slide “FIT2081_Week4_Malaysia” & Week 4 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 4 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	

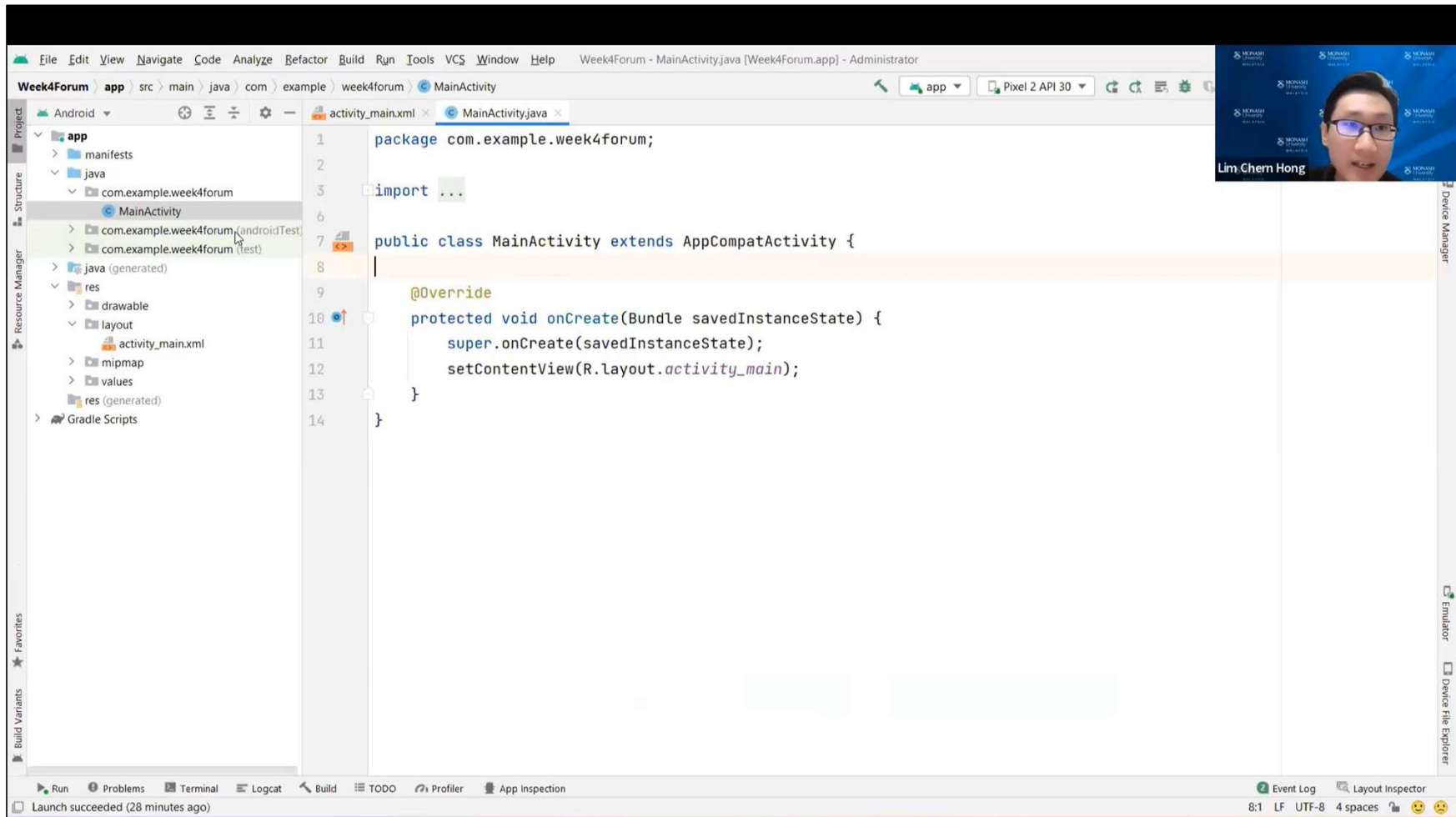
Tutorial time!



GIF retrieved from <https://giphy.com>

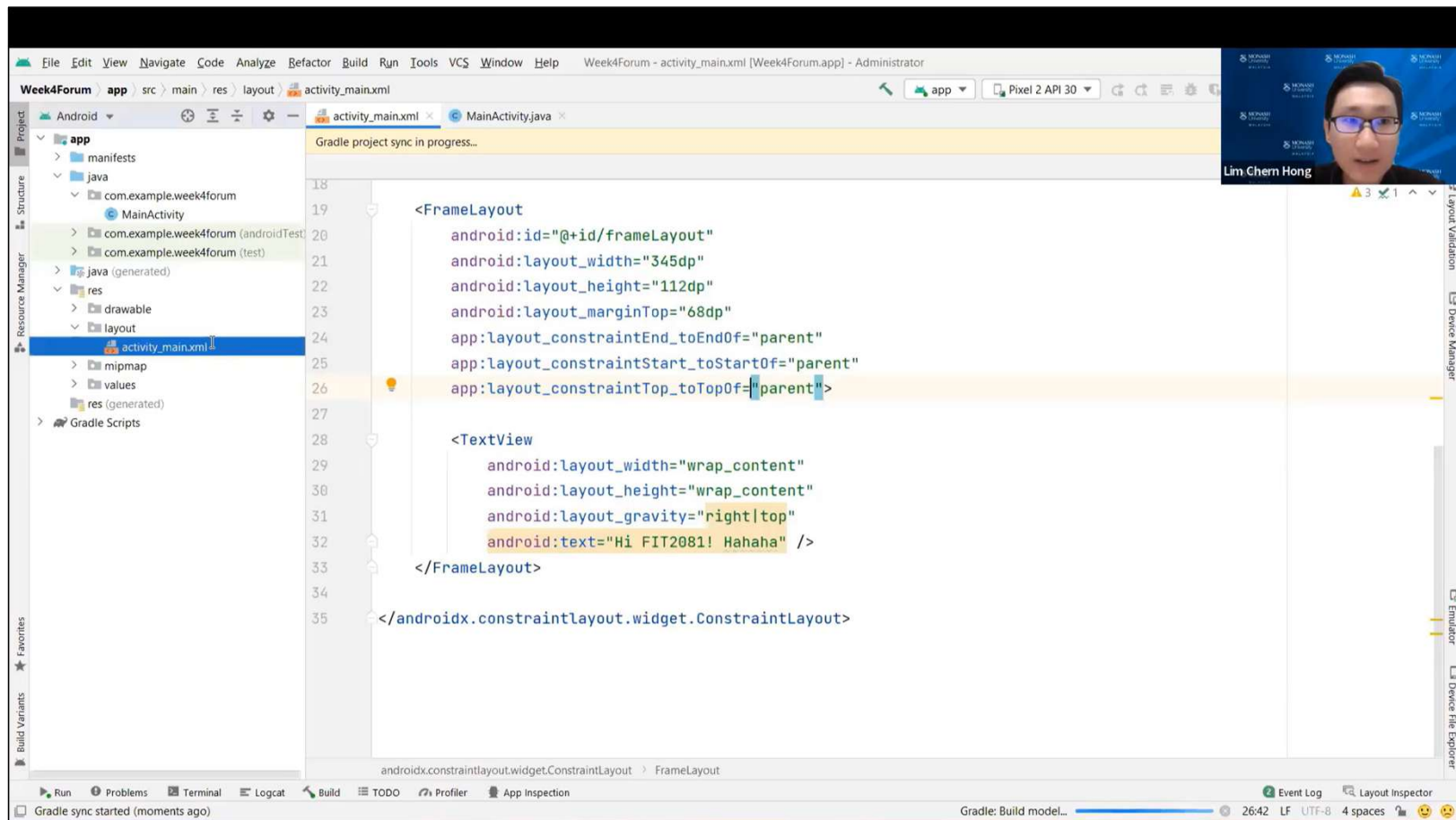
Video 1: Manipulate Layout in XML, Layout Hierarchy, and ViewGroup

1) Please play the video (3 minutes 23 seconds)



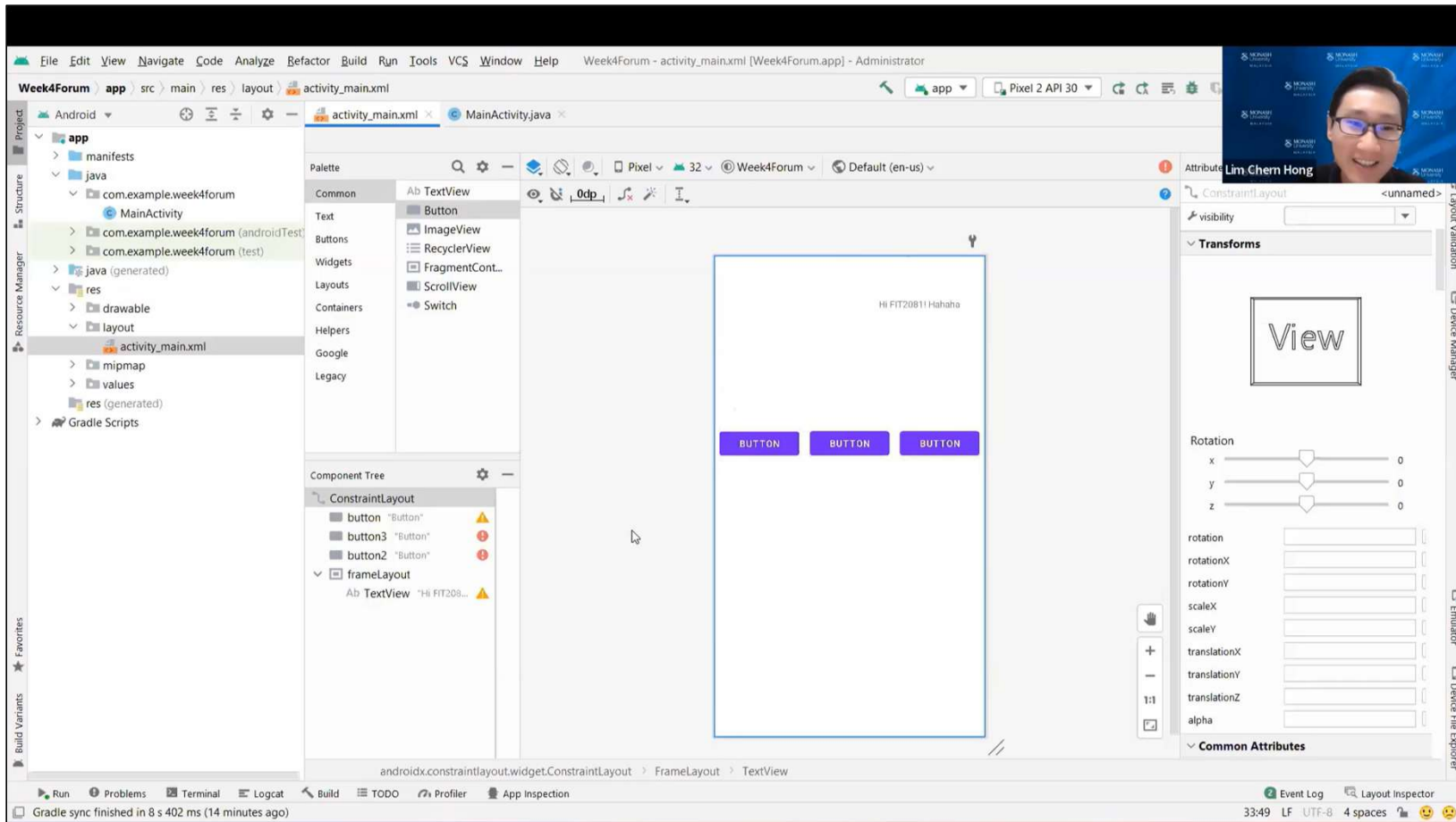
Video 2: LayoutParams and manipulating view components in Constraint Layout (Chain, alignments, and Constraint Widget)

1) Please play the video (6 minutes 36 Seconds)



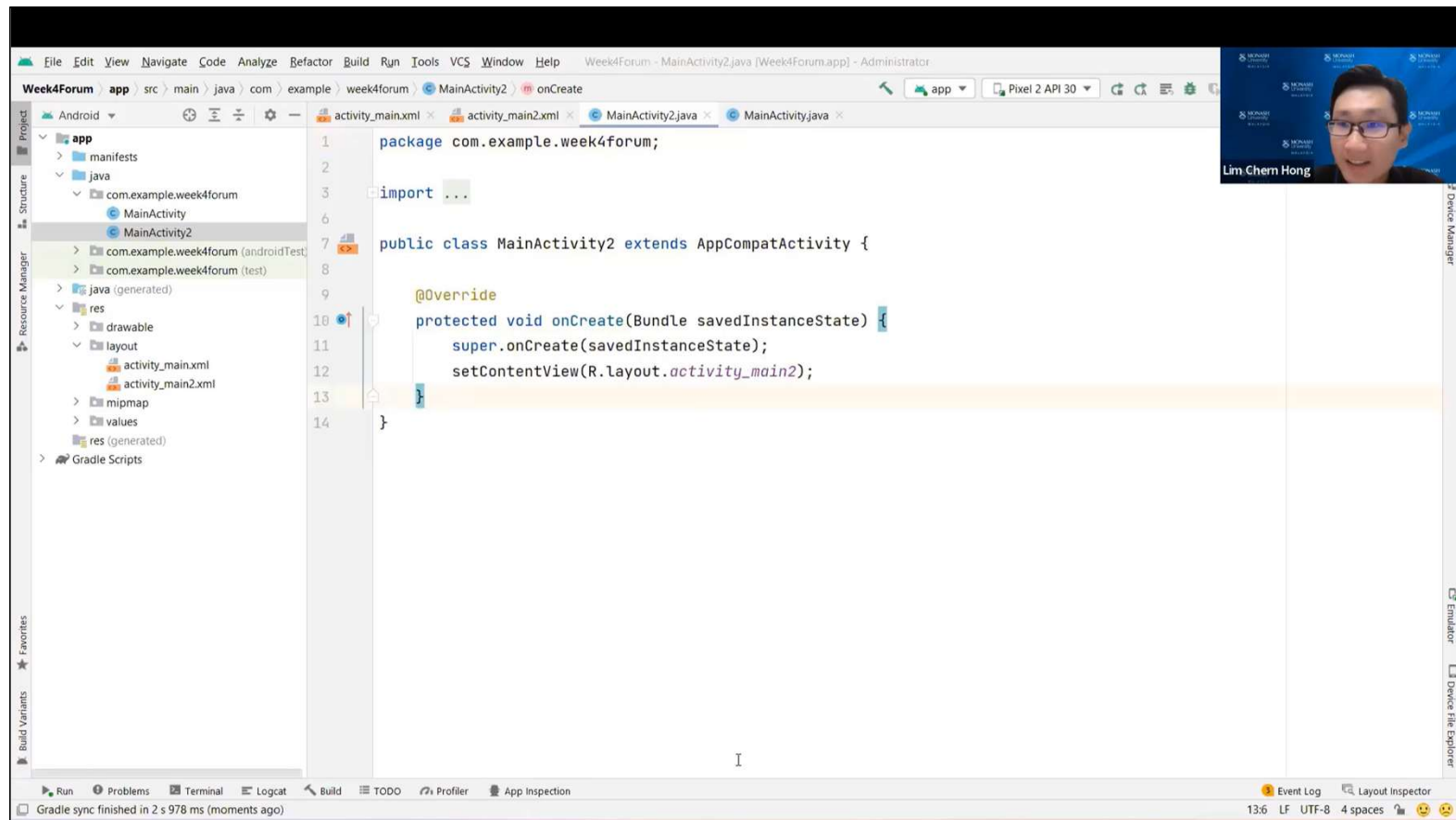
Video 3: Constraint biases and Guidelines

1) Please play the video (5 minutes 55 Seconds)



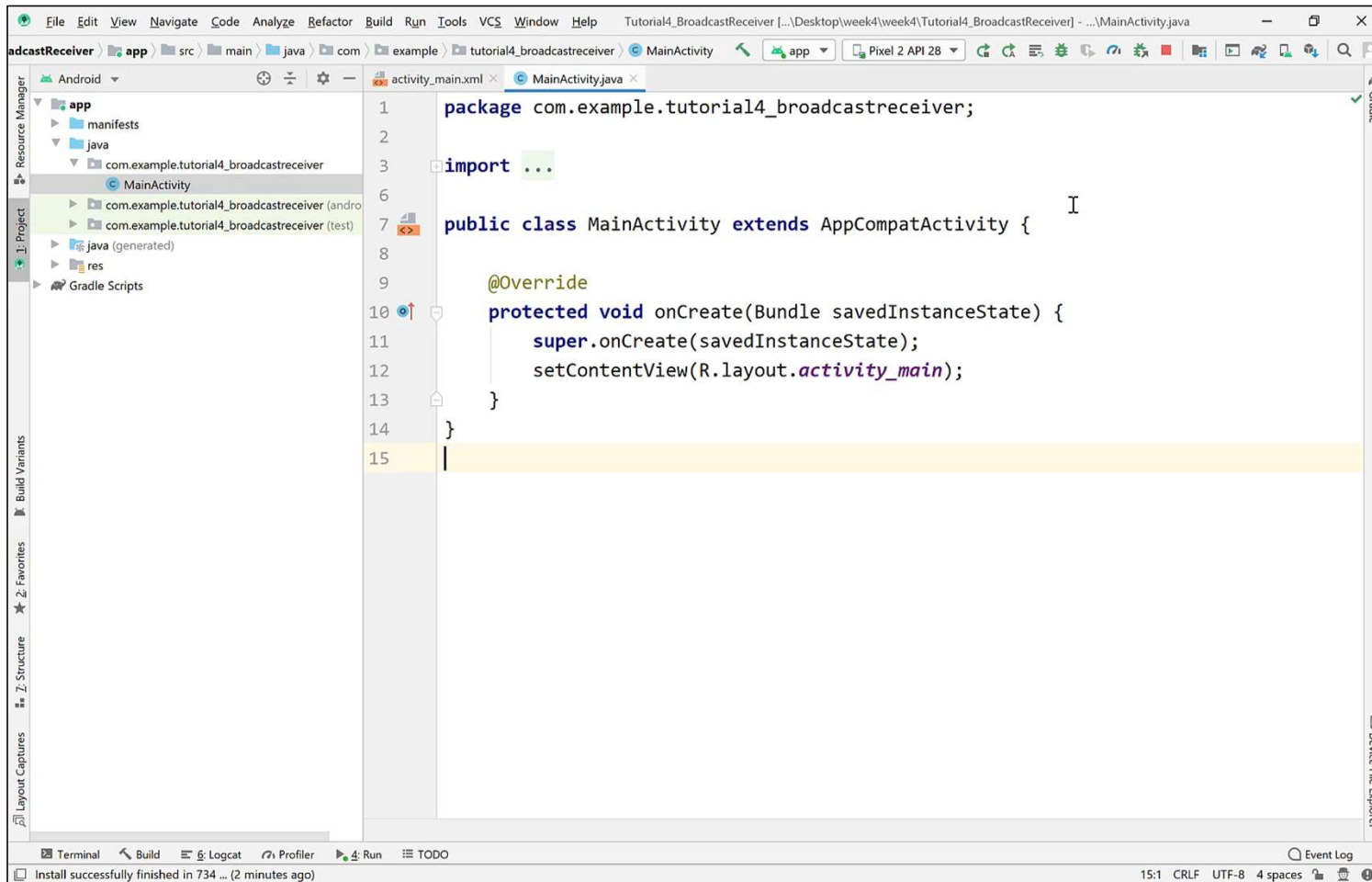
Video 4: Barriers

1) Please play the video (3 minutes 7 Seconds)



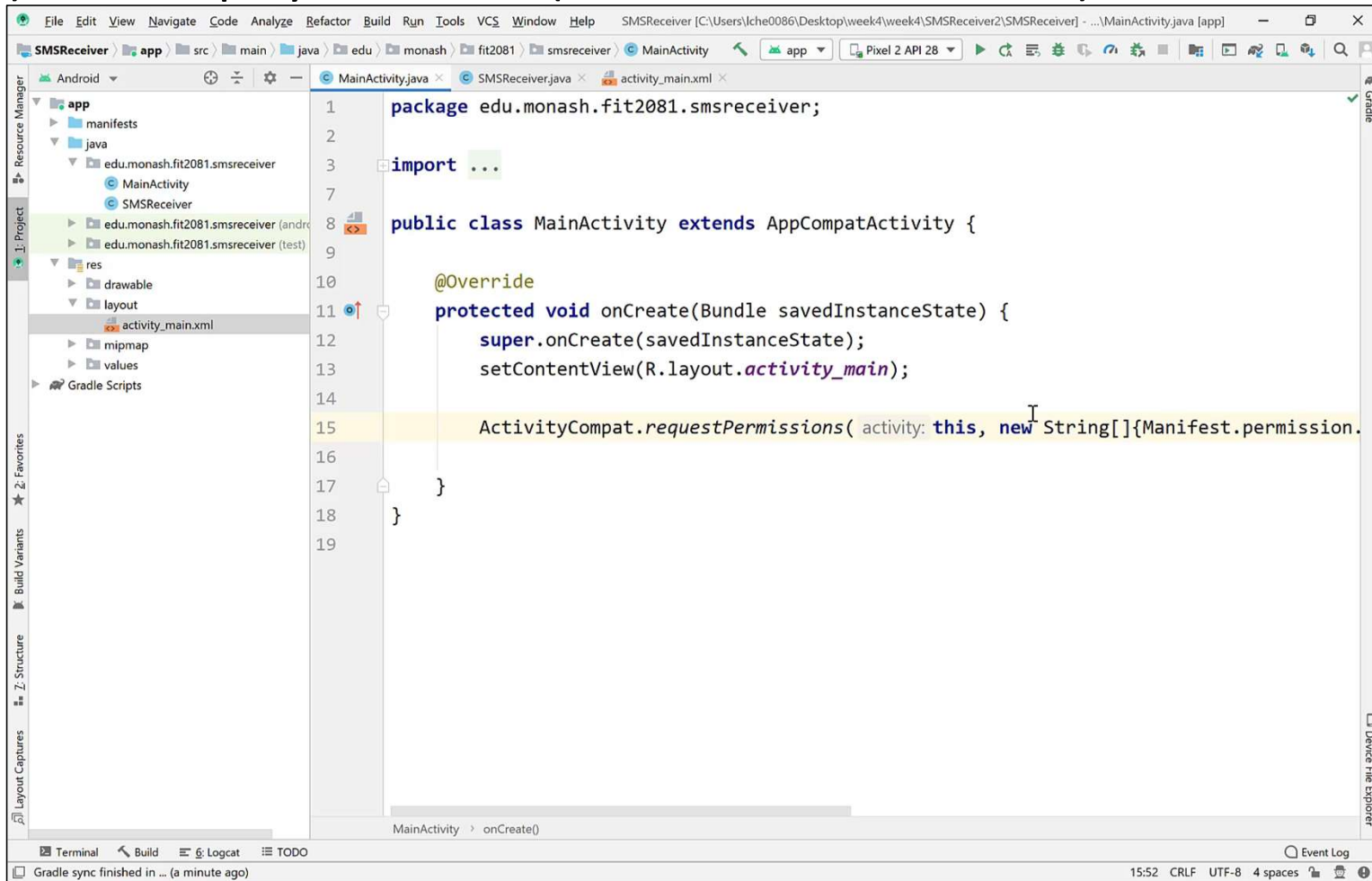
Video 5: Create your own broadcast and Broadcast receiver

1) Please play the video (15 minutes 32 seconds)



Video 6: Broadcast receiver for SMS

1) Please play the video (12 minutes 28 seconds)



Correction:
10:40:00, it is not required to create an instance of the SMSReceiver class, as the broadcast receiver is in the MainActivity.java

Lab time!



Gif retrieved from <https://giphy.com/>

Lab 4 – Instructions

Lab Specifications

Add the following features to the week 3 Books Library application:

Task 1: Position all the UI elements using Guidelines.

Task 2: The app must listen to and catch all incoming SMS messages.

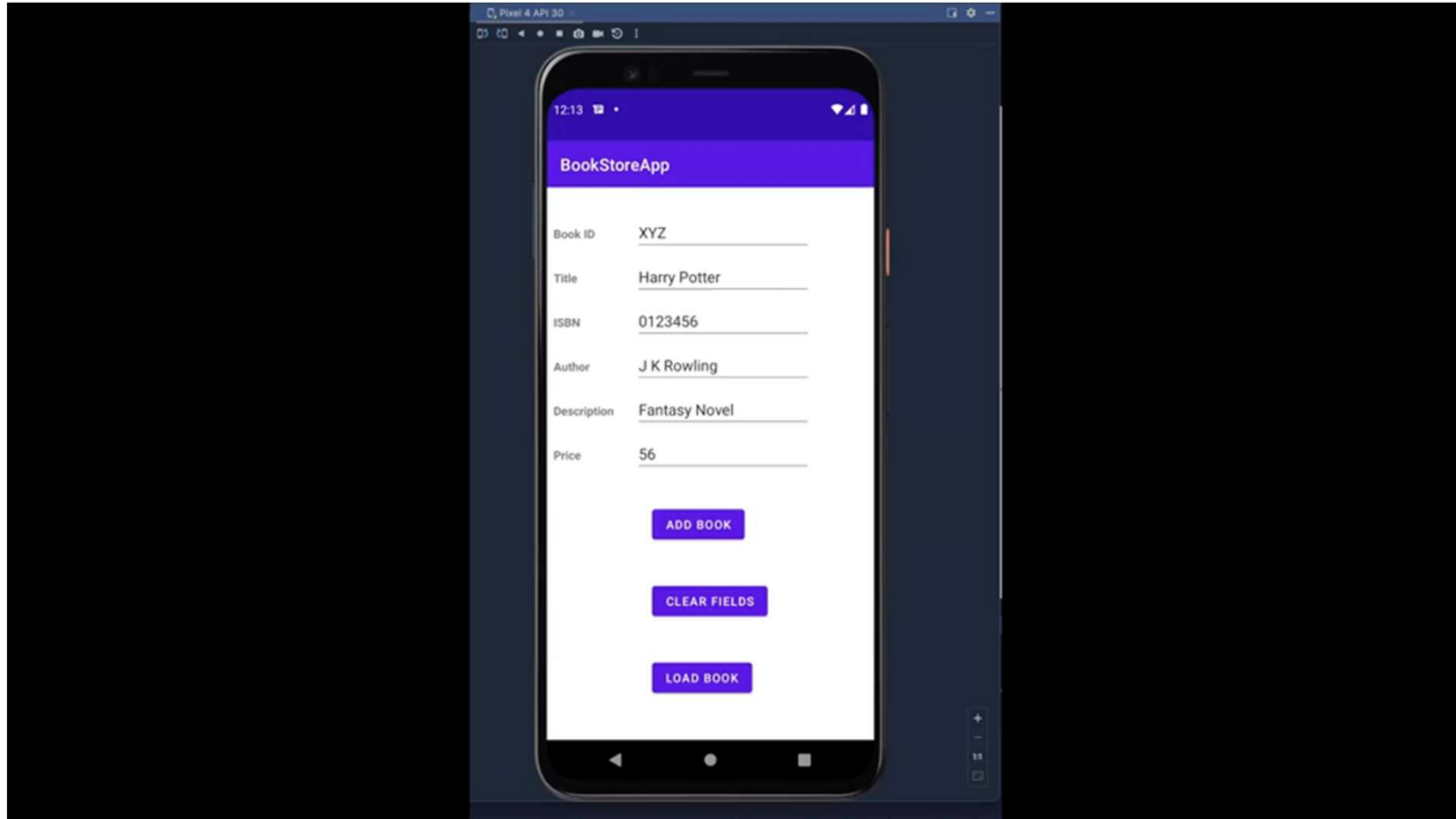
Task 3: The app must:

1. tokenize the incoming messages into six components: ID, Title, ISBN, Author, Description, and Price.
 2. display the values of the six components in their corresponding views.
 3. The SMS must be one line with the five components separated by '|'. For example: "12|Harry Potter|32451|J. K. Rowling|Fantasy|45"
- You can assume that all the incoming SMS messages are valid

Hint: To complete this task, check the ***SMSTokenizer*** application, which can be found on Week 4 Supplementary material.

The expected output is depicted below:

Lab 4 – Instructions



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

Thank you!