

FIT2081 Mobile Application Development

WEEK 11

Dr. Lim Chern Hong Semester 1, 2023 Monash University Malaysia



Announcement for Week 11

- 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 11

User Interaction: Multi-Touch Gestures

- Convenience Class
- GestureDetector
- Scroll, Zoom, Double Tap, and Long Press gestures
- Multiple pointers

Activities and Checklist for week 11

Activity	Notes	Checked?
Study the slide "FIT2081_Week11_Malaysia" & All the reading material in the moodle	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 11 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	

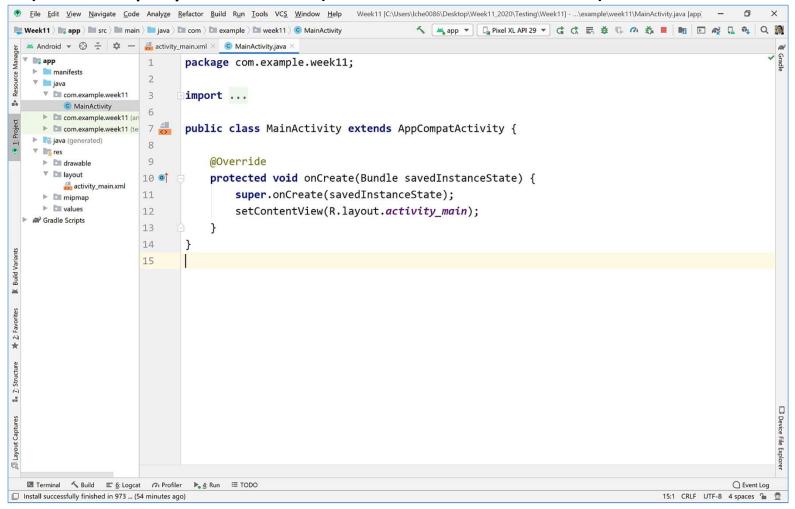
Tutorial time!



Gif retrieved from https://gifer.com/en/CAvP

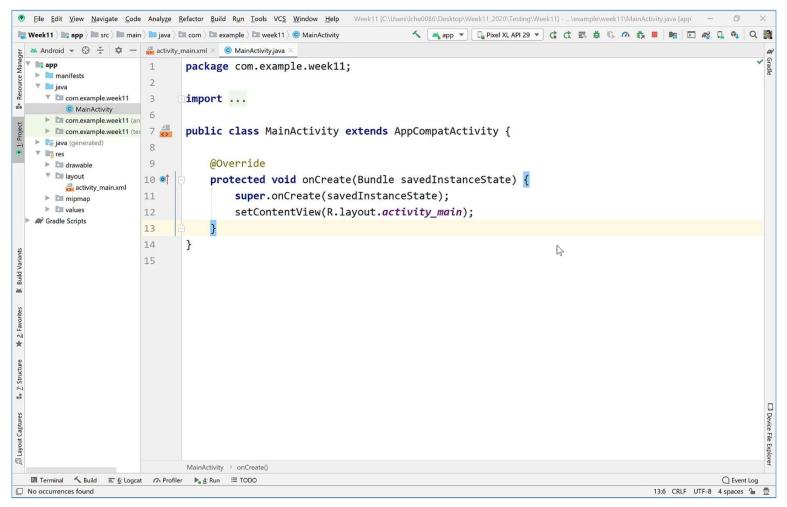
Video 1: Convenience class in JAVA

1) Please play the video (7 minutes 17 seconds)



Video 2: GestureDetector class

1) Please play the video (17 minutes 53 Seconds)



Video 3: ScaleGestureDetector class

1) Please play the video (7 minutes 09 Seconds)

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                                                                   Week11 [C:\Users\lche0086\Desktop\Week11_2020\Testing\Week11] - ...\example\week11\MainActivity.java [app]
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          MainActivity
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                                       GestureDetector gestureDetector;
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                                            setContentView(R.layout.activity_main);
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                                            constraint layout = findViewById(R.id.constraint id);
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                                            gestureDetector = new GestureDetector( context: this, new MyGestureDetector());
                         26
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                                            constraint_layout.setOnTouchListener(new View.OnTouchListener() {
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                         30 1
                                                public boolean onTouch(View view, MotionEvent motionEvent) {
                         31
                                                     gestureDetector.onTouchEvent(motionEvent);
                         32
                                                     return true;
                         33
                                           });
                         35
                         36

☐ Terminal 
☐ Build 
☐ 6: Logcat 
☐ Profiler 
☐ 4: Run 
☐ TODO

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Video 4: Multiple pointers detection

1) Please play the video (8 minutes 15 Seconds)

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File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
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   арр
   manifests
                                     protected void onCreate(Bundle savedInstanceState) {
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                        27
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                                          scaleGestureDetector = new ScaleGestureDetector( context: this, new MyScaleGestureDetecto
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                                          constraint_layout.setOnTouchListener(new View.OnTouchListener() {
                                              @Override
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                                              public boolean onTouch(View view, MotionEvent motionEvent) {
                        35 1
                                                   gestureDetector.onTouchEvent(motionEvent);
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                                                   scaleGestureDetector.onTouchEvent(motionEvent);
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                                                   return true;
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                                         });
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                                     class MyGestureDetector extends GestureDetector.SimpleOnGestureListener{
                        44
                                          @Override
                                          public boolean onDoubleTap(MotionEvent e) {
                                  MainActivity > onCreate() > new OnTouchListener > onTouch()

☐ Terminal  Suild  E 6: Logcat  Profiler

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Lab time!



Lab Instructions

This week, we must detect some common gestures using **convenience** class. Add an inner private class that extends GestureDetector.SimpleOnGestureListener class and implements all the required methods to handle the following methods.

Task 1:

•on a single tap: generate a new random ISBN (see the supplementary material)

on double-tap: Clear all fields

Task 2:

- •on the horizontal left to right scroll: increment the price by the amount of scroll (i.e. distance)
- •on the horizontal right to left scroll: decrement the price by the amount of scroll (i.e. distance)

Task 3:

- on Fling: move the app (activity) to the background by calling "moveTaskToBack(true);"
- on long-press: load default/saved values

Expected Output

Will be provided soon

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

Thank you!