

TASK GUIDE (B1.08)

A. Objectives.

Make some events action for Button, Spinner, and CheckBox

B. Requirements.

Hardware:

- 2 GB RAM minimum, 8 GB RAM recommended
- 2 GB of available disk space minimum, 4 GB Recommended (500 MB for IDE + 1.5 GB for Android SDK and emulator system image)
- 1280 x 800 minimum screen resolution
- Intel processor with support for Intel VT-x, Intel EM64T (Intel 64), and Execute Disable (XD) Bit functionality

Software:

- Microsoft Windows 7/8/10 (32-bit or 64-bit)
- JDK 8
- Android Studio IDE 3.5

C. Resources.

Documents:

- Guide

Supplement files:

- ViewTest.java

Test code:

- TestB1BasicActivityKT081.java

D. Task Description.

Student start to write some methods to catch element action.

Reference to learn Kotlin:

<https://kotlinlang.org/docs/reference/android-overview.html>

E. Guidance.

1. Open BasicApp project that already test passed.
2. Open MainActivity.kt and go to “onCreate” method. Write your code under “unitType.setOnCheckedChangeListener” method block.
3. Create an event listener to catch event when “convertButton” clicked, with this example.

```
ButtonName!!.setOnClickListener { doConvert() }
```

Then call method “doConvert()” in that event action.

4. Create an event listener to catch event when “oriList” changed, with this example.

```
SpinnerName!!.onItemSelectedListener = object : OnItemSelectedListener {  
    override fun onItemSelected(  
        parent: AdapterView<*>,  
        view: View?,  
        position: Int,  
        id: Long  
    ) {  
        doConvert()  
    }  
    override fun onNothingSelected(parent: AdapterView<*>?) {  
        return  
    }  
}
```

Then call method “doConvert()” in that event action.

5. Create an event listener to catch event when “convList” changed, with this example.

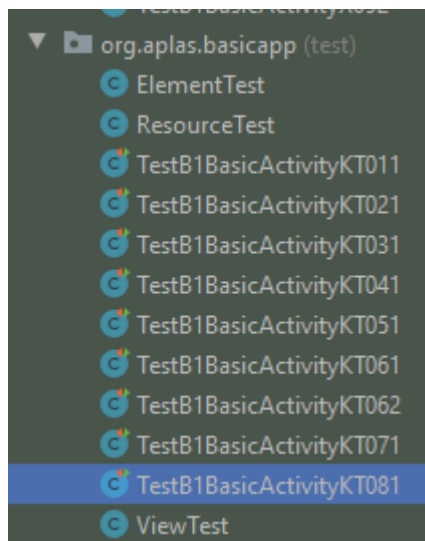
```
SpinnerName!!.onItemSelectedListener = object : OnItemSelectedListener {  
    override fun onItemSelected(  
        parent: AdapterView<*>,  
        view: View?,  
        position: Int,  
        id: Long  
    ) {  
        doConvert()  
    }  
    override fun onNothingSelected(parent: AdapterView<*>?) {  
        return  
    }  
}
```

Then call method “doConvert()” in that event action.

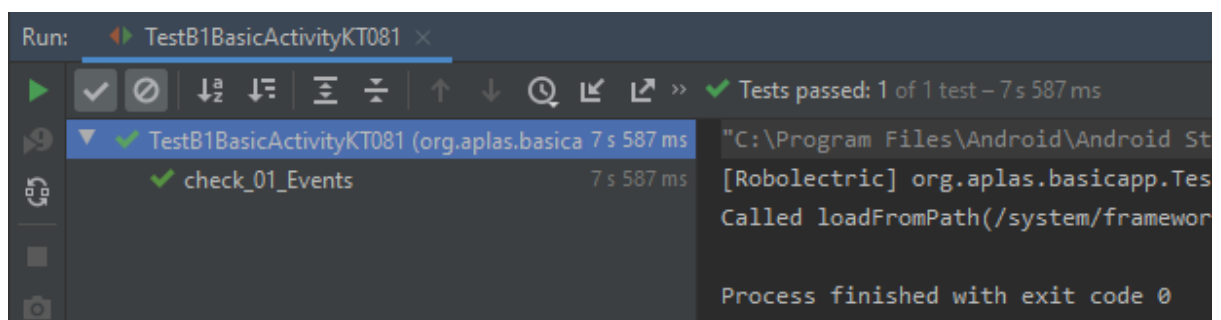
6. Create an event listener to catch event when “roundBox” changed, with this example.

```
roundBox!!.setOnCheckedChangeListener { buttonView, isChecked ->
    doConvert() }
formBox!!.setOnCheckedChangeListener { buttonView, isChecked ->
    (findViewById<View>(R.id.imgFormula) as ImageView).visibility =
        if (isChecked) View.VISIBLE else View.INVISIBLE
}
```

7. Copy “TestB1BasicActivityKT081.java” file to “org.aplas.basicapp (test)” folder.
Replace if possible.



8. Right click on the “TestB1BasicActivityKT081.java” file then choose Run ‘TestB1BasicActivityKT081’ and click it. It may take long time to execute.
9. Get the result of your task. If passed you will get green check. If the test failed, you will get orange check get the messages and you must start your project again.



F. Testing.

You have to try until get all green checks and continue to the next task.