TASK GUIDE (B2.08)

A. **Objectives.**
Student will understand how to handle timer and calculate the score.

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 (Minimum 3.2)

C. **Resources.**
Documents:
- Guide

Supplement files:
- -

Test code:
- TestB2AdvancedWidgetsKT081.java

D. **Task Description.**
Student start to declare method to response correct and wrong answer then handle it with timer.

E. Specification.

1. Open task B2.07 (ColorGame project) that already test passed.

2. Create a new private method with name “updateScore” with 1 int paramenter. This method will update the progress in ProgressBar and text in “scoreText” with number refer on paramenter.

```
private fun updateScore(score: Int) {
     progress!!.progress = score
     scoreText!!.text = Integer.toString(score)
 }
```

3. Create a new private method with name “correctSubmit” with blank parameters. This method will response if user submit correct color.

```
private fun correctSubmit(){
}
```

4. In the “correctSubmit” method, do these steps.

   Declare new int “newScore” and assign it with currect progress value add with value of “counter” in Resource. Then call method “updateScore” with “newScore” as parameter.

```
val newScore = progress!!.progress +
resources.getInteger(R.integer.counter)updateScore(newScore)
```

   Check the progress was already reach maximum score or not with this comparison. If reached (comparison true), then write this code

```
if (progress!!.progress == resources.getInteger(R.integer.maxScore))
{
   countDown!!.cancel()
   timer!!.text = "COMPLETE"
   isStarted = false
   start!!.visibility = View.VISIBLE
}
```

   else (if not reached), call method “newGameStage”

```
newGameStage()
```

5. Create a new private void method with name “newGameStage” and blank parameters.

```
private fun newGameStage(){
}
```

6. Create a new private method with name “wrongSubmit” with blank parameters. This method will response if user submit correct color.

```
private fun wrongSubmit() {
}
```

7. In the “wrongSubmit” method, do these steps.

   Check the Switch “isMinus” was checked and progress value more than 0.

```
if (isMinus!!.isChecked && progress!!.progress > 0) {
            updateScore(progress!!.progress -
   resources.getInteger(R.integer.counter))
}
```

   Then call method “newGameStage”

```
   newGameStage()
```

8. In “submitColor” method, **if “isStarted” has true value**, write this code.

```
   val charCode = (v as Button).text.toString()
     if (isStarted == true) {
         if (charCode == charList[clrText!!.text.toString()]) {
             correctSubmit()
         } else {
             wrongSubmit()
         }
     }
```

9. To set no answer until timer end as wrong answer, just call method “wrongSubmit” in “onFinish” method inside “initTimer” method.

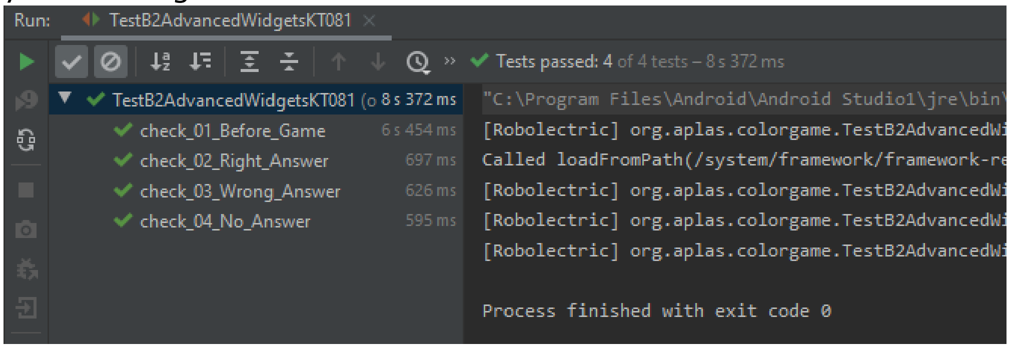
```
   public fun onFinish() {
       wrongSubmit()
   }
```

F. Testing.

1. Copy “TestB2AdvancedWidgetsKT081.java” file to “org.aplas.colorgame (test)” folder.

2. Right click on the “TestB2AdvancedWidgetsKT081.java” file then choose Run ‘TestB2AdvancedWidgetsKT081’ and click it. It may take long time to execute.

3. Get the result of your task. If passed you will get green check like below. If the test failed, you would get orange check get the messages and you must check your work again.



```
Tests passed: 4 of 4 tests – 8 s 372 ms

TestB2AdvancedWidgetsKT081 (o 8 s 372 ms
    check_01_Before_Game        6 s 454 ms
    check_02_Right_Answer          697 ms
    check_03_Wrong_Answer          626 ms
    check_04_No_Answer             595 ms
```

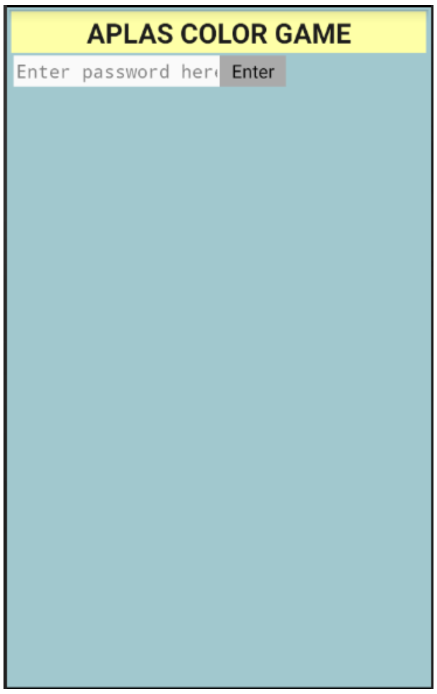
```
"C:\Program Files\Android\Android Studio1\jre\bin\
[Robolectric] org.aplas.colorgame.TestB2AdvancedWi
Called loadFromPath(/system/framework/framework-re
[Robolectric] org.aplas.colorgame.TestB2AdvancedWi
[Robolectric] org.aplas.colorgame.TestB2AdvancedWi
[Robolectric] org.aplas.colorgame.TestB2AdvancedWi

Process finished with exit code 0
```

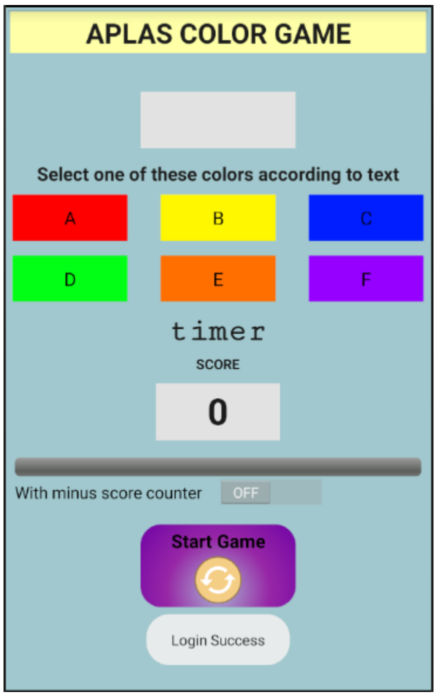
You have to try until get all green checkes and continue to the next task.

Run the App

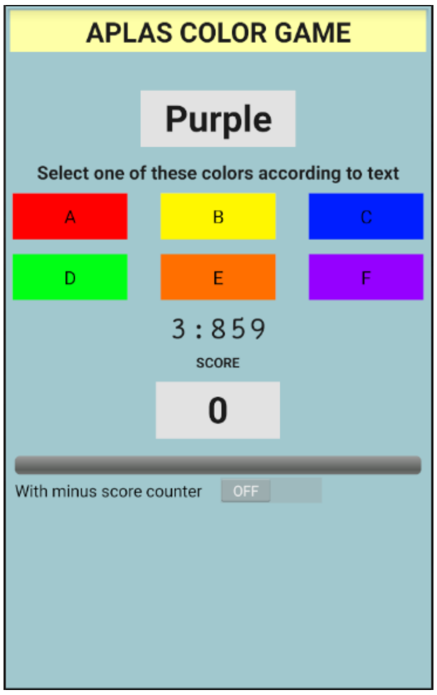
If you have passed the test, you can run your application with this result.



Then, enter the correct password with “quiz@123”, then press the “Enter” button. This display will be shown.



Touch the "Start Game" button and the timer will start, and the color string will be shown.


APLAS COLOR GAME

Purple

Select one of these colors according to text

3:859

SCORE

0

With minus score counter OFF