

TASK GUIDE (B3.03)

A. Objectives.

Student will start to design the Play layout as second layout that contains CardView, ImageButton, ImageView, TextView, Fragment Container, and Button.

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) with AndroidX library.

C. Resources.

Documents:

- Guide

Test code:

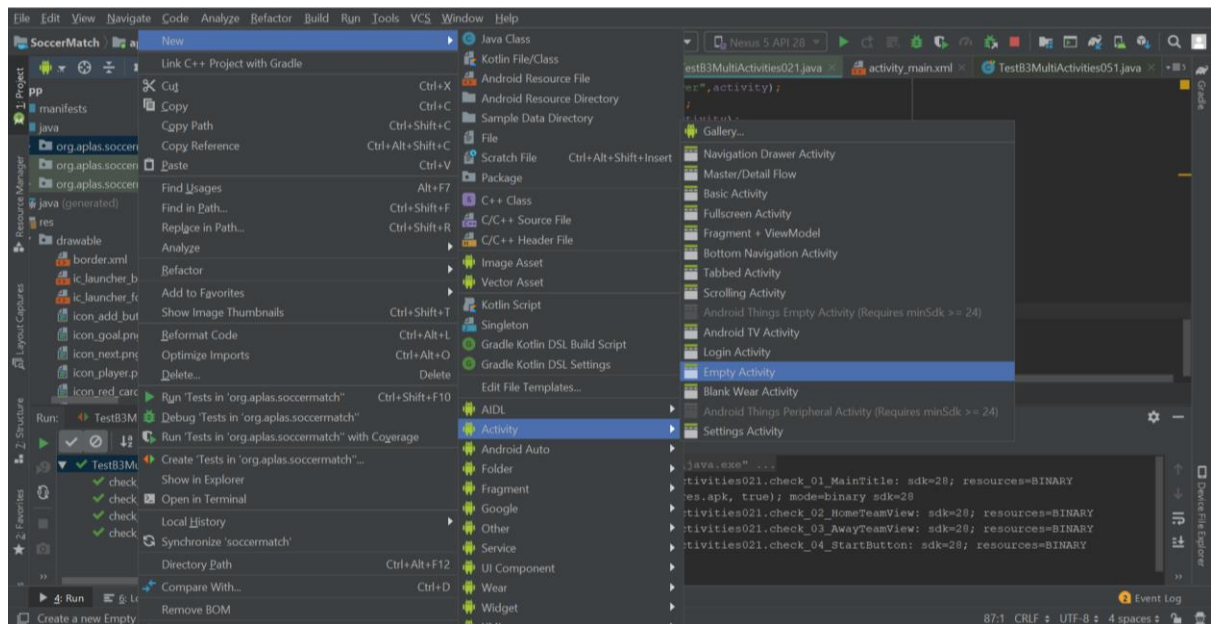
- TestB3MultiActivities031.java

D. Task Description.

Student start to create the second layout.

E. Specification.

1. Create a new Empty Activity



With this specification:

- Activity name : PlayActivity
- Generate layout file : checked
- Layout name : activity_play
- Launcher activity : uncheck
- Package name : org.aplas.soccermatch
- Language : Java

2. Open “activity_play.xml” in layout resource folder. Change the root layout become “LinearLayout” and give id “playLayout” and orientation “vertical”.
3. Create a CardView to put title TextView with this code.

```
<androidx.cardview.widget.CardView
    android:id="@+id/playTitleCard"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="5dp"
    app:cardCornerRadius="7dp"
    app:cardElevation="6dp">
```

➔ ***Put a TextView here as App Title***

```
</androidx.cardview.widget.CardView>
```

Add a TextView in the CardView, with id = “playTitleTxt” with text value “Soccer Match Score”.

4. Create a new CardView to put some widgets for **Home Team** data. *You can setup your own CardView with your own Id, color, and other styling information.* Inside this home Team CardView, put some these necessary widgets:

Type	Id	Additional value	Function
TextView	homeTeam	- Text: "Home Team"	Show Home Team name
ImageView	homeLogo	- src: drawable/teamlog	To show Home Team logo. <i>Give more size for this image, with width and height around 100dp.</i>
TextView	homeScore	- Text: "0"	To show Home Team score. <i>Give more size for this image, with width and height around 100dp. And bold the text.</i>
ImageButton	addHomeScore	- src: drawable/ icon_goal - scaleType: fitCenter - adjustViewBounds: true	To record a score by Home Team
ImageButton	addHomeYellow	- src: drawable/ icon_yellow_card - scaleType: fitCenter - adjustViewBounds: true	To record a yellow card by Home Team
ImageButton	addHomeRed	- src: drawable/ icon_red_card - scaleType: fitCenter - adjustViewBounds: true	To record a red card by Home Team

You can modify the style and the layout arrangement by yourself to improve the UI design. This is the sample of result after get the styling touch.



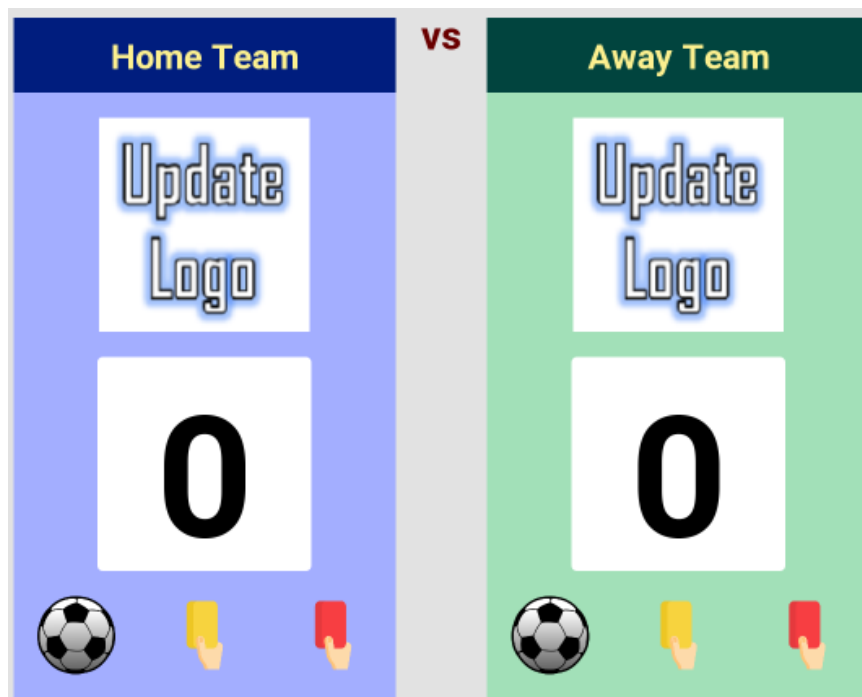
5. Create a new CardView to put some widgets for **Away Team** data. *You can setup your own CardView with your own Id, color, and other styling information.* Inside this home Team CardView, put some these necessary widgets:

Type	Id	Additional value	Function
TextView	awayTeam	- Text: "Away Team"	Show Away Team name
ImageView	awayLogo	- src: drawable/teamlog	To show Away Team logo. <i>Give more size for this image, with width and height around 100dp.</i>
TextView	awayScore	- Text: "0"	To show Away Team score. <i>Give more size for this image, with width and height around 100dp. And bold the text.</i>
ImageButton	addAwayScore	- src: drawable/ icon_goal - scaleType: fitCenter - adjustViewBounds: true	To record a score by Away Team
ImageButton	addAwayYellow	- src: drawable/ icon_yellow_card - scaleType: fitCenter - adjustViewBounds: true	To record a yellow card by Away Team
ImageButton	addAwayRed	- src: drawable/ icon_red_card - scaleType: fitCenter - adjustViewBounds: true	To record a red card by Away Team

You can modify the style and the layout arrangement by yourself to improve the UI design. This is the sample of result after get the styling touch.



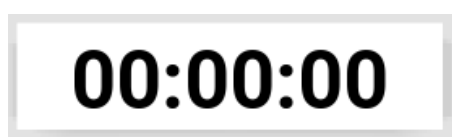
6. Insert a TextView with text: “vs” between two block of CardView home and away team. The sample result could be like below.



7. Create a new TextView to show match time with this specification:

- Id : timerShow
- Text: “00:00:00”
- textAlignment: center

Put this TextView in a new CardView. The sample result could be shown like below.



8. Create two new Buttons:

Type	Id	Additional value	Function
Button	matchStartBtn	- Text: “Start” - Enabled: true	To start/stop the match
Button	matchFinishBtn	- Text: “Finish” - Enabled: false	To finish the match

9. Create a new **FrameLayout** to show the fragment with Id: footer.

```
<FrameLayout
    android:id="@+id/footer"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />
```

F. Testing.

1. Copy "TestB3MultiActivities031.java" file to "org.aplas.soccermatch (test)" folder.
2. Right click on the "TestB3MultiActivities031.java" file then choose Run. 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 will get orange check get the messages and you must check your work again.

▼ ✓ TestB3MultiActivities031 (org.aplas.s	10 s 260 ms	"C:\Program Files\Android\Android Studio\jre\bin\java.exe"
✓ check_01_MainTitle	8 s 790 ms	[Robolectric] org.aplas.soccermatch.TestB3MultiActivities03
✓ check_02_HomeTeamView	296 ms	Called loadFromPath(/system/framework/framework-res.apk, tr
✓ check_03_AwayTeamView	393 ms	[Robolectric] org.aplas.soccermatch.TestB3MultiActivities03
✓ check_04_TimerShow	250 ms	[Robolectric] org.aplas.soccermatch.TestB3MultiActivities03
✓ check_05_PlayButton	234 ms	[Robolectric] org.aplas.soccermatch.TestB3MultiActivities03
✓ check_06_FragmentContainer	297 ms	[Robolectric] org.aplas.soccermatch.TestB3MultiActivities03

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

G. Result Sample.

You can modify the style and the layout arrangement of the Play activity by yourself to improve the UI design. This is the sample of result after get the styling touch.

Soccer Match Score




Home Team

vs

Away Team




Update
Logo

0



Update
Logo

0



00:00:00

START

FINISH