

# TASK GUIDE (B3.02)

## A. Objectives.

Student will start to design the Main layout as first layout that contains CardView, ListView, ImageButton, TextView, EditText, 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:

- TestB3MultiActivities021.java

## D. Task Description.

Student start to create the first layout.

## E. Specification.

1. Open “activity\_main.xml” in layout resource folder. Change the root layout become “LinearLayout” and give id “mainLayout” and orientation “vertical”.
2. Create a CardView to put title TextView with this code.

```
<androidx.cardview.widget.CardView
    android:id="@+id/mainTitleCard"
    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 = “mainTitleTxt” and text get from the “app\_title” string resource that contains string “APLAS SOCCER BOARD”.

*Picture below as example of the result with using CardView.*



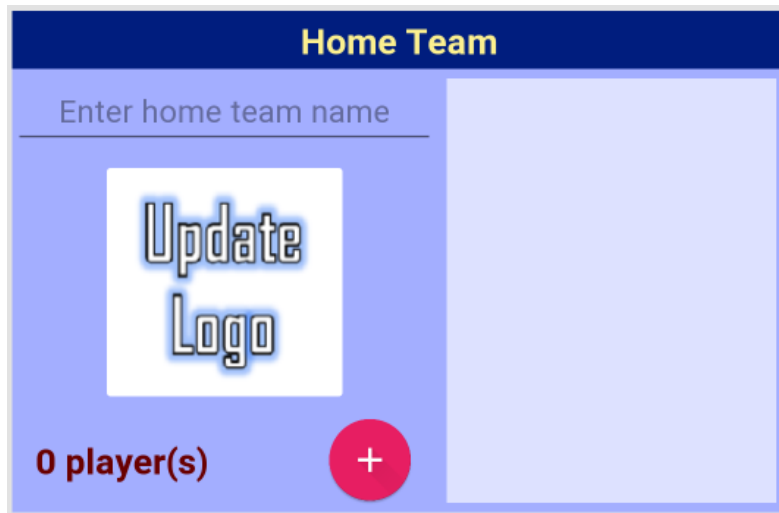
3. Create a new CardView to put some widgets for **Home Team** data. *You can setup your own CardView with your own Id, color, and other styling information.*

Inside this home Team CardView, put some these necessary widgets:

| Type        | Id               | Additional value   | Function   |
|-------------|------------------|--|--|
| TextView    | homeLabel        | - Text: “Home Team”  | Show as CardView title for Home Team               |
| EditText    | homeTeam         | - src: drawable/teamlogo<br>- scaleType: fitCenter<br>- adjustViewBounds: true | To input the name of Home Team                     |
| ImageButton | homeImage        | - Text: <empty><br>- Hint: “Enter home team name”                              | To select and show the logo of Home Team           |
| TextView    | homePlayerNumber | - Text: “0 player(s)”  | Show the number of home players in ListView        |
| ImageButton | addHomePlayer    | - src: drawable/ icon_add_button<br>- scaleType: fitCenter                     | To show a dialog to input a new home player’s name |

|          |            |                        |   |
|----------|------------|------------------------|---|
| ListView | homePlayer | - dividerHeight="1 dp" | To show the list of home player's name. |
|----------|------------|------------------------|---|

*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.*



4. 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    | awayLabel        | - Text: "Away Team"  | Show as CardView title for Away Team               |
| EditText    | awayTeam         | - src: drawable/teamlogo<br>- scaleType: fitCenter<br>- adjustViewBounds: true | To input the name of Away Team                     |
| ImageButton | awayImage        | - Text: <empty><br>- Hint: "Enter home team name"                              | To select and show the logo of Away Team           |
| TextView    | awayPlayerNumber | - Text: "0 player(s)"  | Show the number of away players in ListView        |
| ImageButton | addAwayPlayer    | - src: drawable/ icon_add_button<br>- scaleType: fitCenter                     | To show a dialog to input a new away player's name |
| ListView    | awayPlayer       | - dividerHeight="1 dp"   | To show the list of away player's name.            |

*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. Add a Button at the bottom of layout with this specification:

| Type   | Id       | Additional value | Function                                       |
|--------|----------|------------------|--|
| Button | startBtn | - Text: "Next"   | To open the next activity and start the match. |

*You can modify the style and the layout arrangement by yourself to improve the UI design. For icon you can use from drawable "icon\_next".*

*This is the sample of result after get the styling touch.*



## F. Testing.

1. Copy "TestB3MultiActivities021.java" file to "org.aplas.soccermatch (test)" folder.
2. Right click on the "TestB3MultiActivities021.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.

```
▼ ✓ TestB3MultiActivities021 (org.aplas.soccermatch) "C:\Program Files\Android\Android Studio\jre\bin\java.exe"
✓ check_01_MainTitle 8 s 529 ms [Robolectric] org.aplas.soccermatch.TestB3MultiActivities02
✓ check_02_HomeTeamView 542 ms Called loadFromPath(/system/framework/framework-res.apk, tr
✓ check_03_AwayTeamView 631 ms [Robolectric] org.aplas.soccermatch.TestB3MultiActivities02
✓ check_04_StartButton 416 ms [Robolectric] org.aplas.soccermatch.TestB3MultiActivities02
[Robolectric] org.aplas.soccermatch.TestB3MultiActivities02
```

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

## G. Result Sample.

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

