

TASK GUIDE (B4.02)

A. Objectives.

Student will start to design the Main layout as first layout that contains a RecyclerView with drawable animations.

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

Supplement files:

Test code:

- TestB4MultimediaResources011.java

D. Task Description.

Student start to modify 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. Put a text in a **TextView** as Title with this information:
 - id: "mainTitle"
 - text: "Animal Tour"
3. Setup the **RecyclerView** item layout:
 - id: "dataView"
 - scrollbars: "vertical"

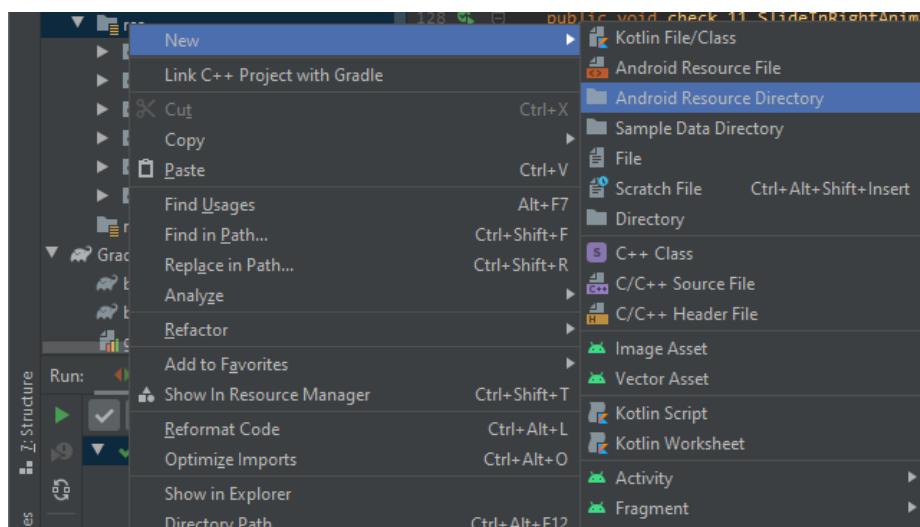
4. Add a new layout with name “layout_data.xml”.

Root element: CardView

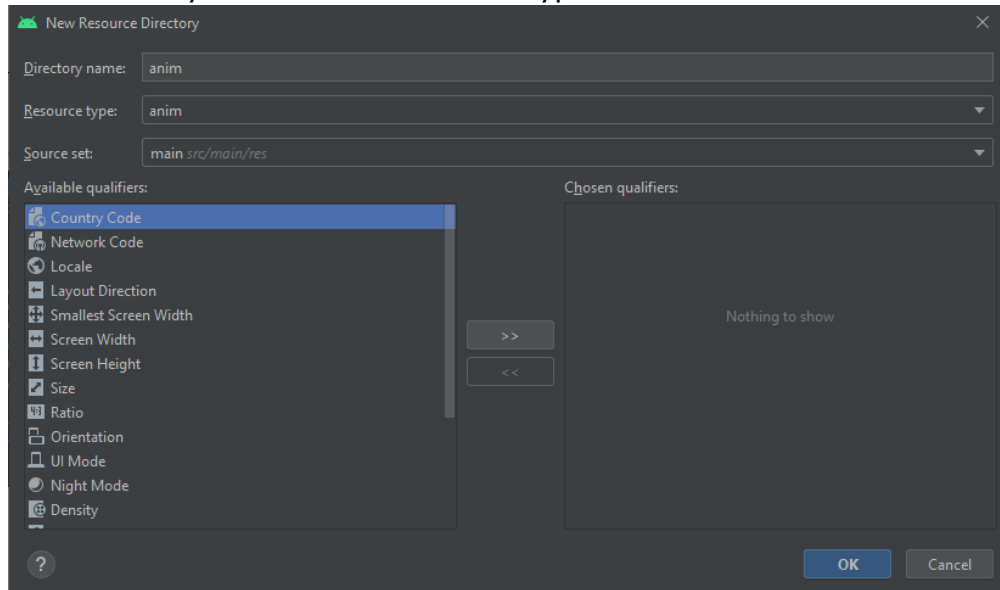
5. Open “layout_data.xml” and add these elements:
 - A TextView with id “animalTitle”, to show the title of animal.
 - An ImageView with id “animalIcon”, to show the animated picture.
 - A TextView with id “animalInfo”, to show the information of the animal.

You can arrange these widgets for positioning with using LinierLayout and RelativeLayout

6. Make sure the resources for animation drawable “animfishes.xml”, ‘animbirds.xml’, ‘animreptiles.xml’, ‘animamphibians.xml’, ‘animmammals.xml’, and ‘animinverts.xml’ are already exist.
7. Start creating animations with creating an ‘anim’ like below:



Add directory name with 'anim' and type 'anim' like below:



8. Add an animation in 'anim' resource directory with name 'slide_in_left.xml'. It is to give effect sliding in element to left. Give this code:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android" >
    <translate
        android:duration="1000"
        android:fromXDelta="100%p"
        android:toXDelta="0" />

    <alpha
        android:duration="1000"
        android:fromAlpha="0.1"
        android:toAlpha="1.0" />
</set>
```

9. Add an animation in 'anim' resource directory with name 'slide_in_right.xml'. It is to give effect sliding in element to right. Give this code:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android" >
    <translate
        android:duration="1000"
        android:fromXDelta="-100%p"
        android:toXDelta="0" />

    <alpha
        android:duration="1000"
        android:fromAlpha="0.1"
        android:toAlpha="1.0" />
</set>
```

10. Add an animation in 'anim' resource directory with name 'slide_out_left.xml'. It is to give effect sliding out element to left. Give this code:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android" >
    <translate
        android:duration="1000"
        android:fromXDelta="0"
        android:toXDelta="-100%p" />

    <alpha
        android:duration="1000"
        android:fromAlpha="1.0"
        android:toAlpha="0.1" />
</set>
```

11. Add an animation in 'anim' resource directory with name 'slide_out_right.xml'. It is to give effect sliding out element to right. Give this code:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android" >
    <translate
        android:duration="1000"
        android:fromXDelta="0"
        android:toXDelta="100%p" />

    <alpha
        android:duration="1000"
        android:fromAlpha="1.0"
        android:toAlpha="0.1" />
</set>
```

12. Add an animation in 'anim' resource directory with name 'fade_in.xml'. It is to give effect fading in element to right. Give this code:

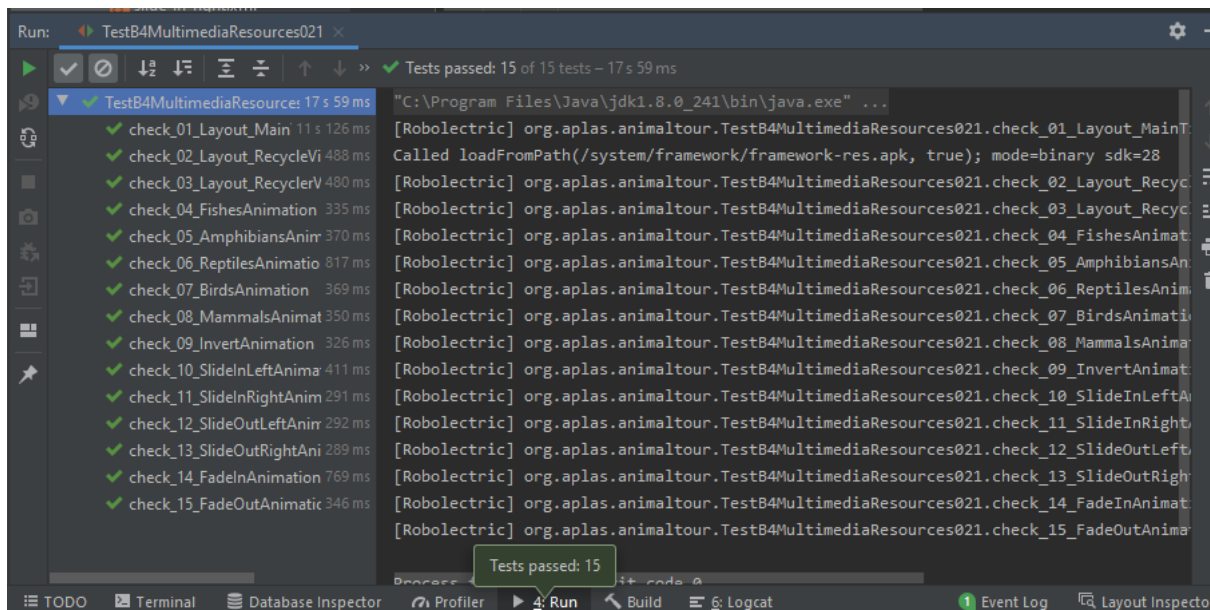
```
<?xml version="1.0" encoding="utf-8"?>
<alpha xmlns:android="http://schemas.android.com/apk/res/android"
    android:interpolator="@android:anim/accelerate_interpolator"
    android:fromAlpha="0.0"
    android:toAlpha="1.0"
    android:duration="500" />
```

13. Add an animation in 'anim' resource directory with name 'fade_out.xml'. It is to give effect fading out element to right. Give this code:

```
<?xml version="1.0" encoding="utf-8"?>
<alpha xmlns:android="http://schemas.android.com/apk/res/android"
    android:interpolator="@android:anim/accelerate_interpolator"
    android:fromAlpha="1.0"
    android:toAlpha="0.0"
    android:fillAfter="true"
    android:duration="500" />
```

F. Testing.

1. Copy “TestB4MultimediaResources021.java” file to “org.aplas.animaltour (test)” folder.
2. Right click on the “TestB4MultimediaResources 021.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.



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