

Tutorial 3: Media widgets

Objectives

- Practice assigning events by two ways, in design view (.xml) & programmatically (.java)
- Practice with media widgets, animations

Tutorial Exercises

In this tutorial, we will create an application named “My Anim”.

- UI as below



- Functionality
 - o Select character
 - o Do tricks (spin, turn around or jump)

- Clap hand

Exercise 1 – The UI

- Creating a new app with the interface as above. Note:
 - The buttons have fixed position to corners.
 - The top right buttons use rounded image.
 - There are 2 character in the middle (santa star & baby ball) but *baby ball* is hidden by default.

Exercise 2 – Functionality: select character

- User clicks on one of the characters on the top right corner
- System fades out the current character & fades in the selected one

Exercise 3 – Functionality: do tricks

- User clicks one of the buttons at the bottom of the screen
- System animates the current character as follow
 - *Spin*: rotating clock-wise (2 rounds)
 - *Turn around*: turning around the middle vertical line (2 rounds)
 - *Jump*: move up then down (200dp)

Normally the animations will run concurrently. In this case, you need an animation runs after the other completed. Use method `withEndAction()` to do something after animation completed.

```
animation.withEndAction(new Runnable() {  
    @Override  
    public void run() {  
        // do something  
    }  
});
```

Exercise 4 – Functionality: clap hand

- User clicks button “Clap!”
- System plays clapping sound.

Problem:

- Try to click this button many times even when the sound is playing. Observe if any error (Logcat may be helpful in this case)

Solution:

- Use method `reset()` to reset media player & play again from the beginning.

If you finish them all...

If you finish all the exercises, you can improve the apps above or your apps (with better input styles, images, functionality, handing exceptions...)

Posting them on our Facebook group with [#I'm_Android_developer](#) for discussion mark. **Note:** feel free if it somehow not so special – you know, we are all beginners :D

Good bye!