

## Layout Exercise

This exercise is designed to help you better understand the different layouts available in android programming. For this exercise, we will focus on the following layouts.

Relative Layout: <https://developer.android.com/guide/topics/ui/layout/relative.html>

Linear Layout: <https://developer.android.com/guide/topics/ui/layout/linear.html>

In these you can utilize

List View: <https://developer.android.com/guide/topics/ui/layout/listview.html>

Grid View : <https://developer.android.com/guide/topics/ui/layout/gridview.html>

This exercise will be repeated for each of the layouts you choose to try. **It is important that you do these steps by manipulating the xml and not using the designer**, to better understand the strengths and weaknesses of each layout.

Use the one-armed bandit application as a starting point

1. Change the layout to use a relative / linear layout
2. Move things around in the layout, e.g., make all the spinner be above or below each other.
  - a. Note how the layout handles this.
  - b. Is things were they are supposed to be ?
3. Fix the layout so it looks as you want it to look
4. Try changing to a landscape view (flip the phone sideways)
  - a. How are the layout handling here?

Ideas for further development

Try combining more layouts in one

Add list views and grid views

Create layouts for landscape and portrait, so the app automaticly switches between the two