

CV5

Material Design

Material Design

- Android 5.0 (API 21)
- Unifikovaný design napříč platformami (mobil, web)
- Flat design
- Jednoduché ovládací a navigační prvky

RecyclerView

- chytré ListView
- Adapter (stejný jako u ListView)
- LayoutManager (jak se zobrazují data)
- ViewHolder (reprezentace položky)
- ItemDecoration, ItemAnimator



RecyclerView

```
layoutManager = LinearLayoutManager(this)  
recycler.setLayoutManager(layoutManager)
```

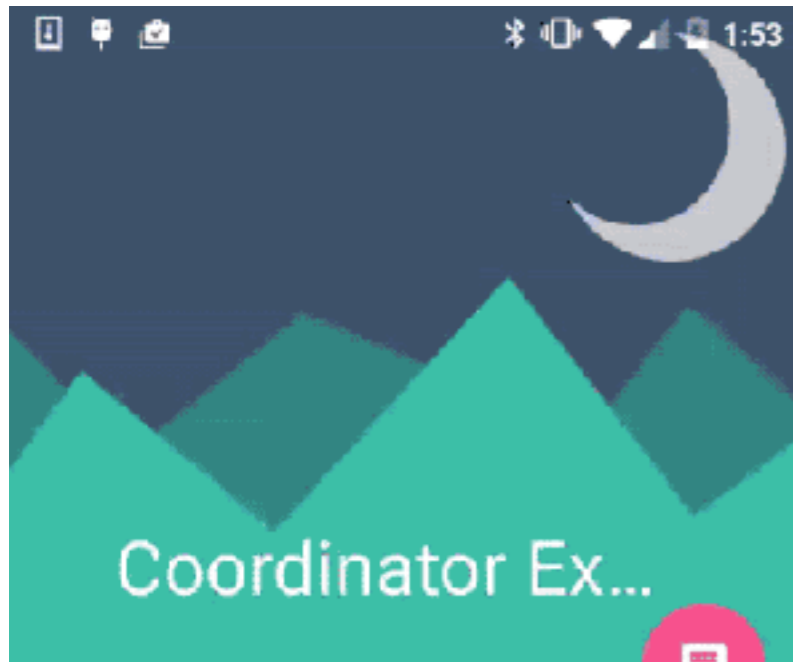
```
adapter = MyAdapter(data)  
recycler.setAdapter(adapter)
```

```
class MyAdapter  
    : RecyclerView.Adapter<MyAdapter.ViewHolder> {
```

CoordinatorLayout

- super-powered layout
- fancy animace
- interakce
- AppBarLayout, CollapsingToolbarLayout
- Behaviors

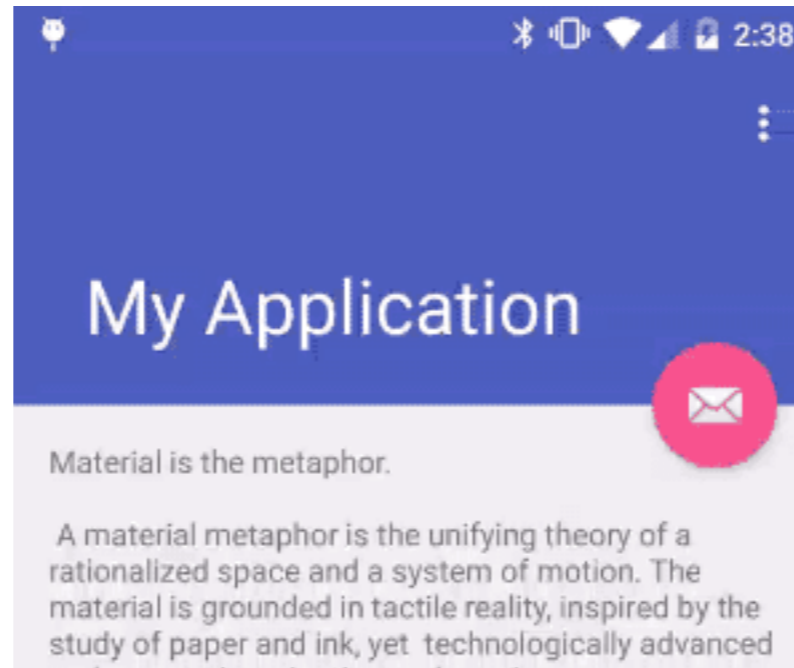
CoordinatorLayout



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Material is the metaphor.

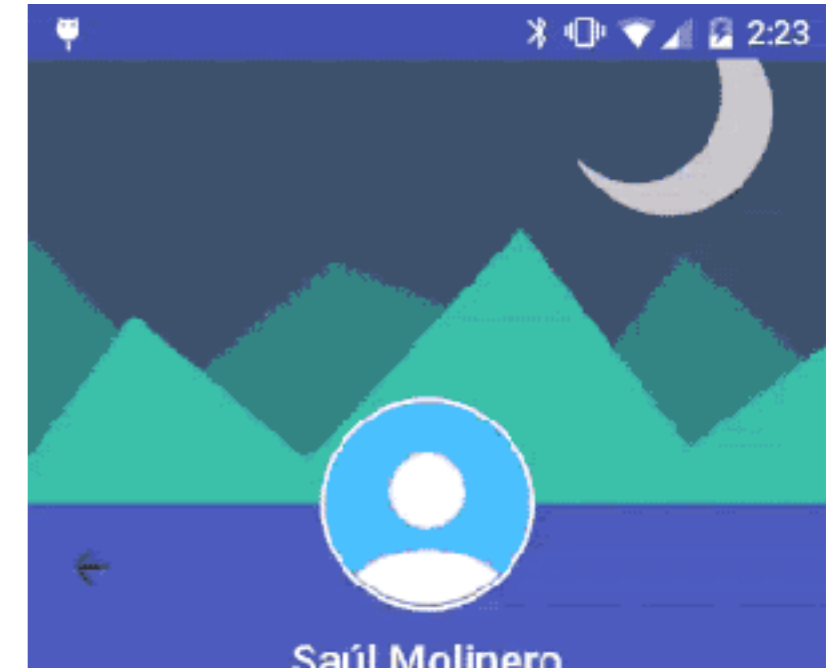
A material metaphor is the unifying theory of a rationalized space and a system of motion. The material is grounded in tactile reality, inspired by the study of paper and ink, yet technologically advanced and open to imagination and magic.

Surfaces and edges of the material provide visual cues that are grounded in reality. The use of familiar tactile attributes helps users quickly understand affordances. Yet the flexibility of the material creates new affordances that supercede those in the physical world, without breaking the rules of physics.

The fundamentals of light, surface, and movement are key to conveying how objects move, interact, and exist in space and in relation to each other. Realistic lighting shows seams, divides space, and indicates moving parts.

Bold, graphic, intentional.

The foundational elements of print based design typography, grids, space, scale, color, and use of



Saúl Molinero

Here I am with a subtitle

TAB 1

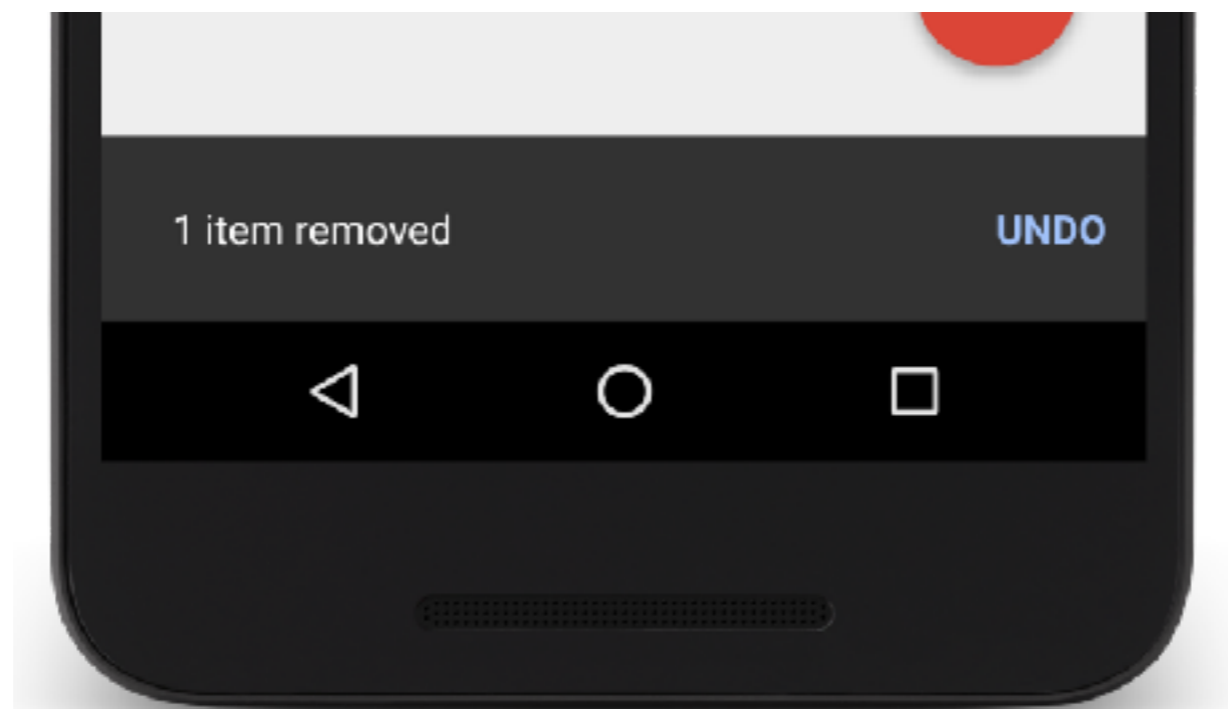
TAB 2

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SnackBar

<https://developer.android.com/reference/android/support/design/widget/Snackbar.html>

- Lepší Toast
- `SnackBar.make(view, "Hello", Snackbar.LENGTH_SHORT).show();`



Smart Location Library

<https://github.com/mrmans0n/smart-location-lib>

```
compile 'io.nlopez.smartlocation:library:3.3.3'
```

```
SmartLocation.with(context).location()  
    .start({ location -> ... });
```

```
SmartLocation.with(context).location().stop();
```

a pár věcí

o kterých by měl dobrý Android vývojář vědět

adb

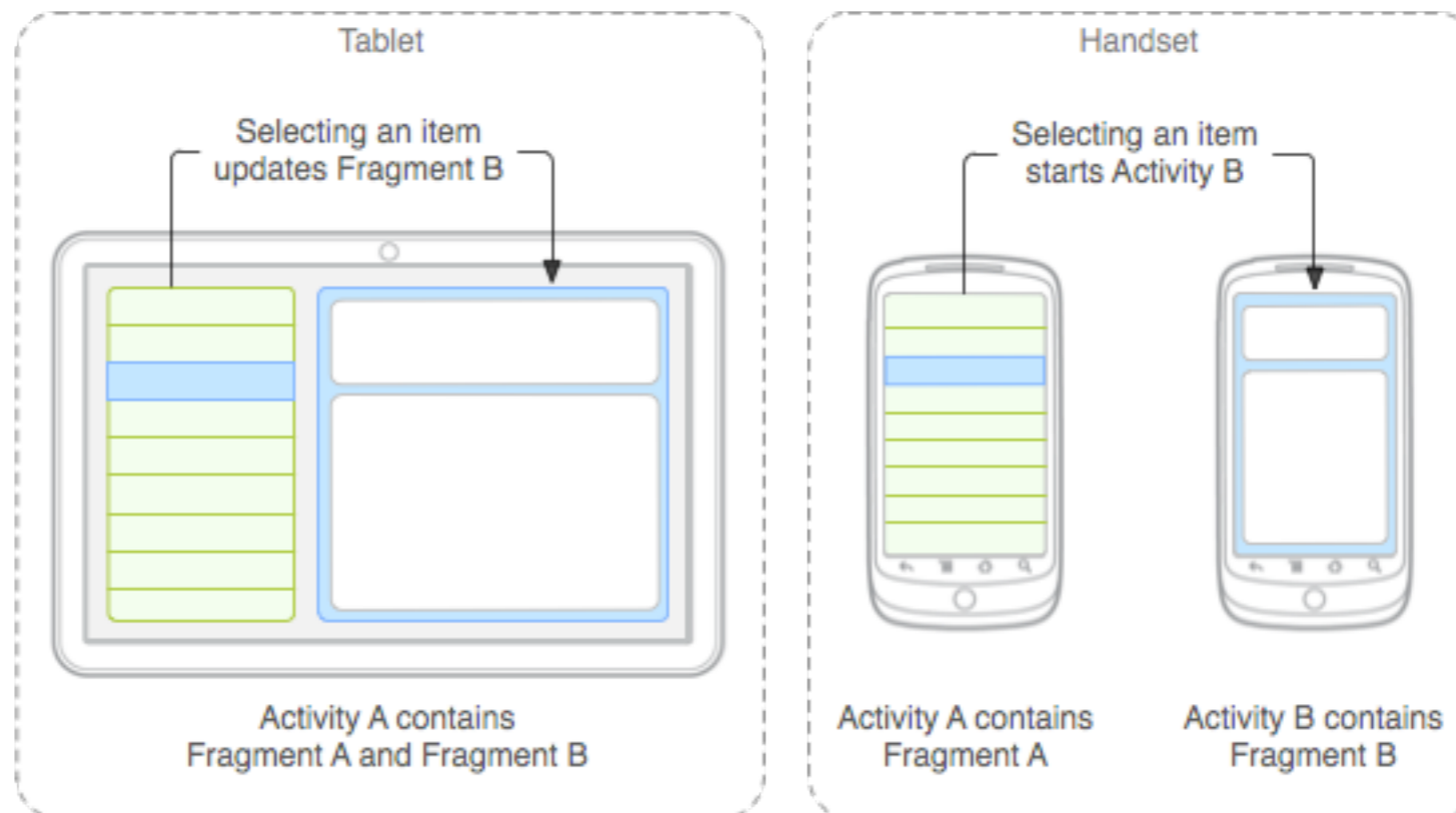
- Android Debug Bridge
- adb devices
- adb logcat
- adb pull / push
- adb shell

Log.x

- Logování do Android Console
- `Log.d(String, String)`
- `Log.d`, `Log.wtf`, `Log.e`, `Log.w`, ...

Fragmenty

- Když aktivita je málo
- Má šílený lifecycle
- Mohou být vnořené



Plurals

```
<plurals name="cars">  
  <item quantity="one">%d auto</item>  
  <item quantity="few">%d auta</item>  
  <item quantity="other">%d aut</item>  
</plurals>
```

resources.getQuantityString(R.plurals.cars, 2, 2)



Dialogy

<https://github.com/afollestad/material-dialogs>

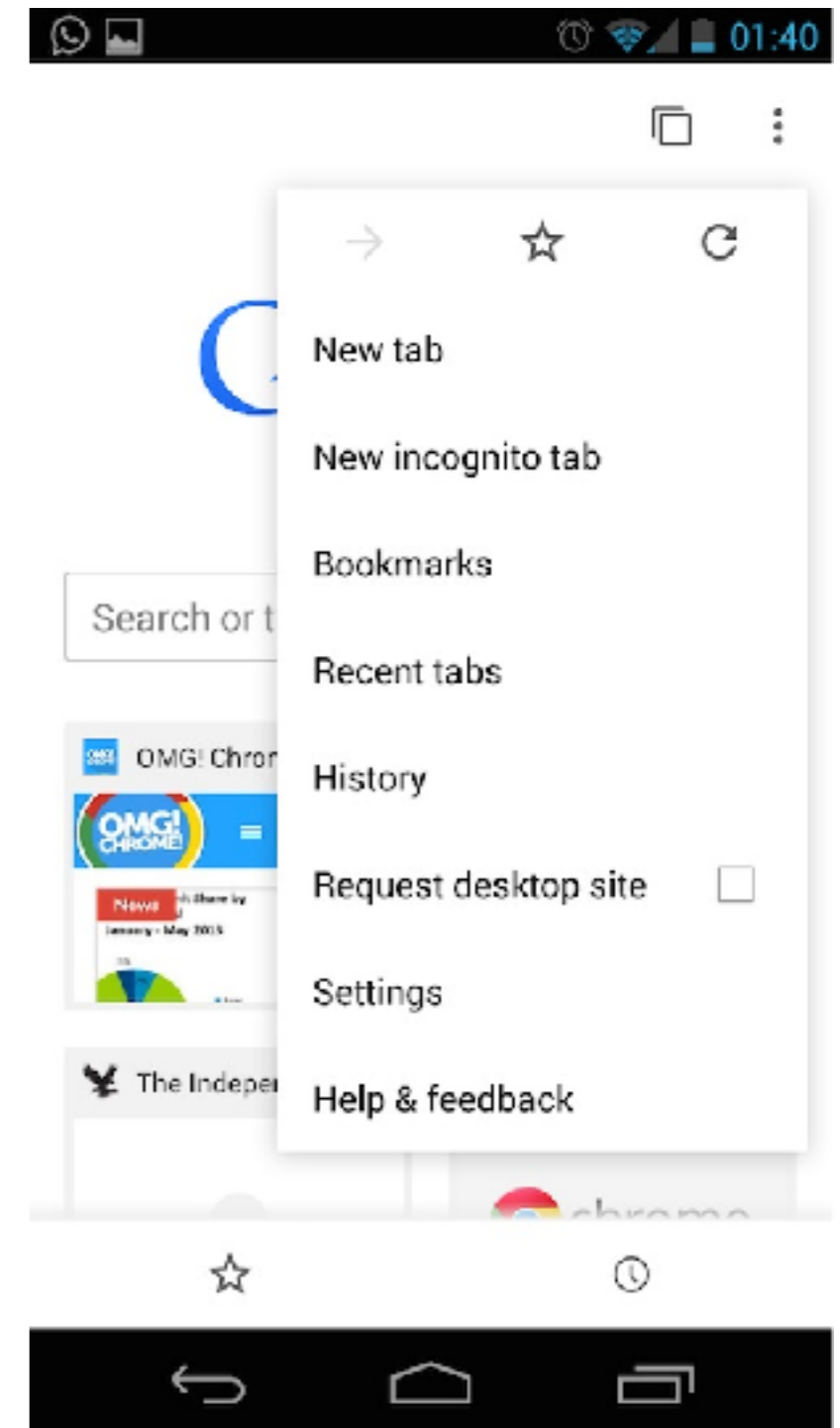
```
MaterialDialog.Builder(this)
    .title(R.string.title)
    .content(R.string.content)
    .positiveText(R.string.agree)
    .negativeText(R.string.disagree)
    .show()
```

Options menu

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
  <item android:id="@+id/new_game"
        android:icon="@drawable/ic_new_game"
        android:title="@string/new_game"
        android:showAsAction="ifRoom"/>
  <item android:id="@+id/help"
        android:icon="@drawable/ic_help"
        android:title="@string/help" />
</menu>
```

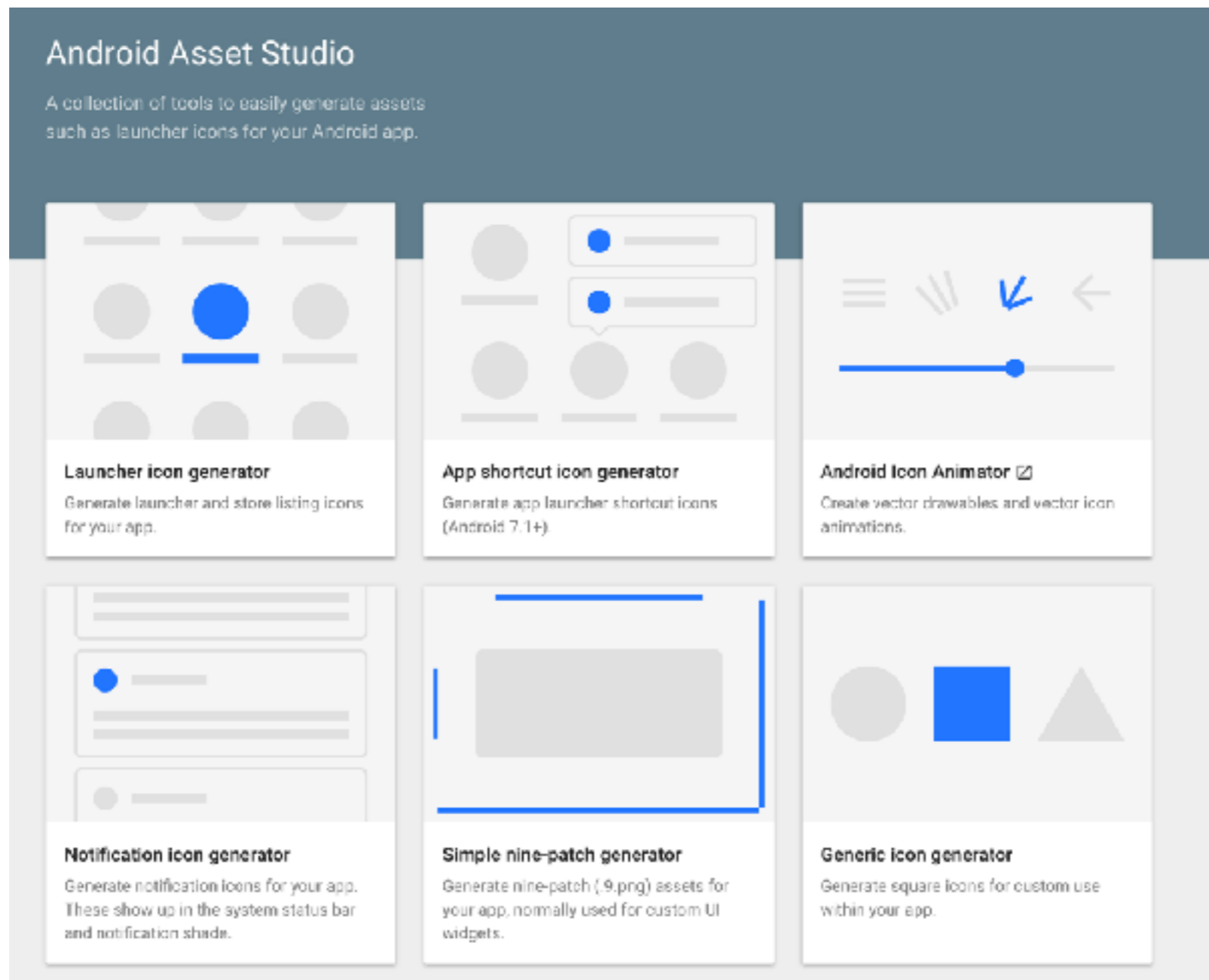
```
override fun onCreateOptionsMenu(Menu menu): Boolean {
    val inflater = getMenuInflater()
    inflater.inflate(R.menu.game_menu, menu)
    return true
}
```

```
override fun onOptionsItemSelected(MenuItem item): Boolean {
    // Handle item selection
    when (item.getItemId()) {
        R.id.new_game ->
            newGame()
            return true
        else ->
            return super.onOptionsItemSelected(item)
    }
}
```



Android Asset Studio

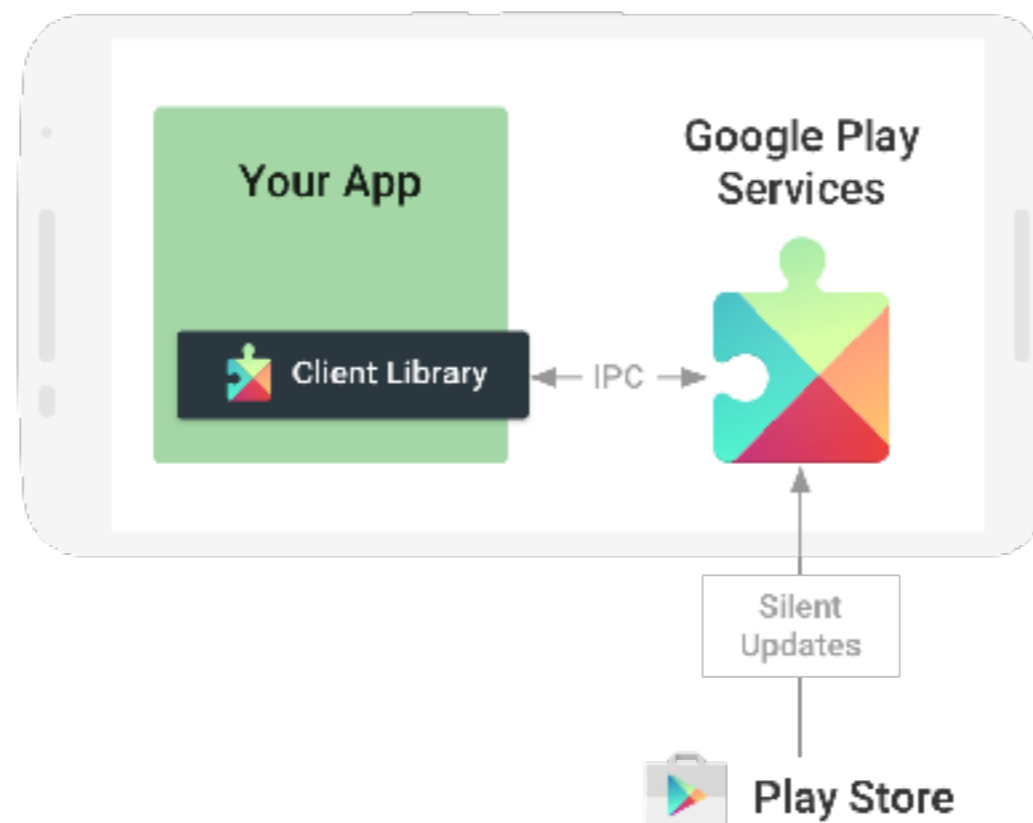
<https://romannurik.github.io/AndroidAssetStudio/>



Google Play Services

<https://developers.google.com/android/guides/overview>

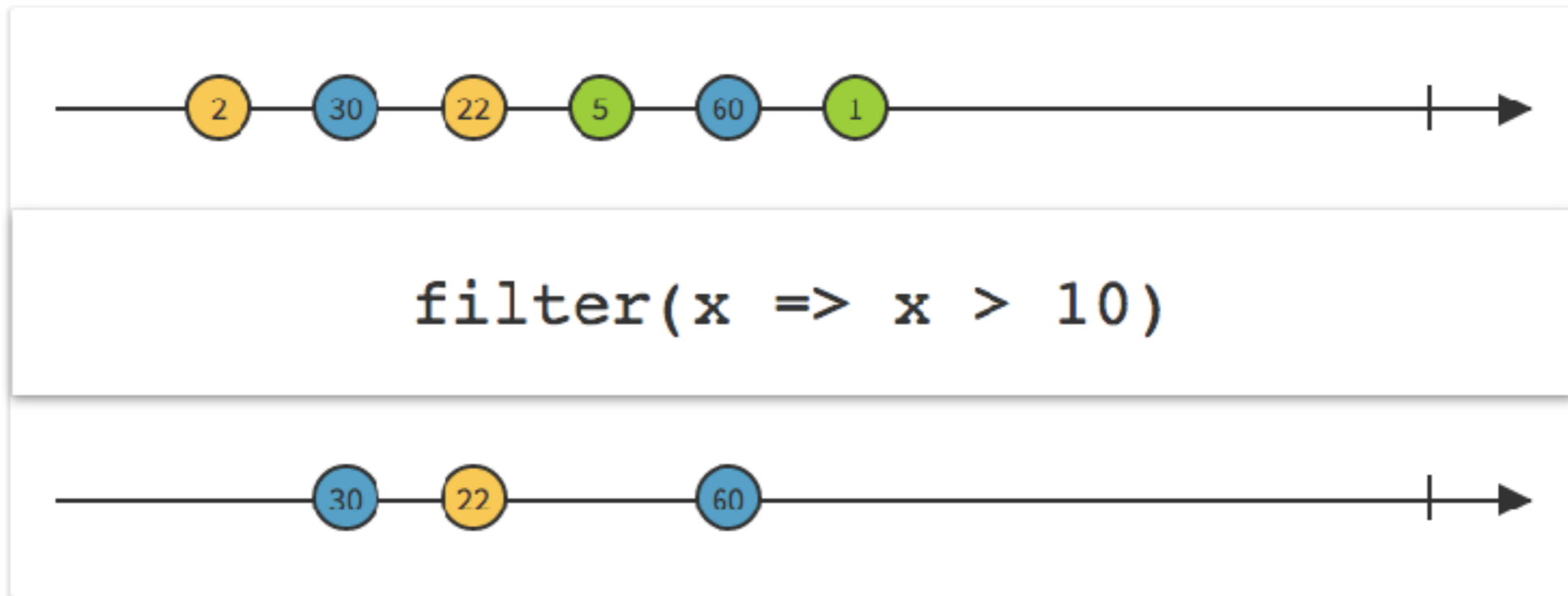
- Stahuje se stejně jako každá jiná aplikace
- Služby jako jsou Maps, Wallet, G+, Location, Wear,...



RxJava

<http://reactivex.io/>

- Stream



- Observable, Subscriber
- <http://rxmarbles.com/>

Fabric

<https://fabric.io>

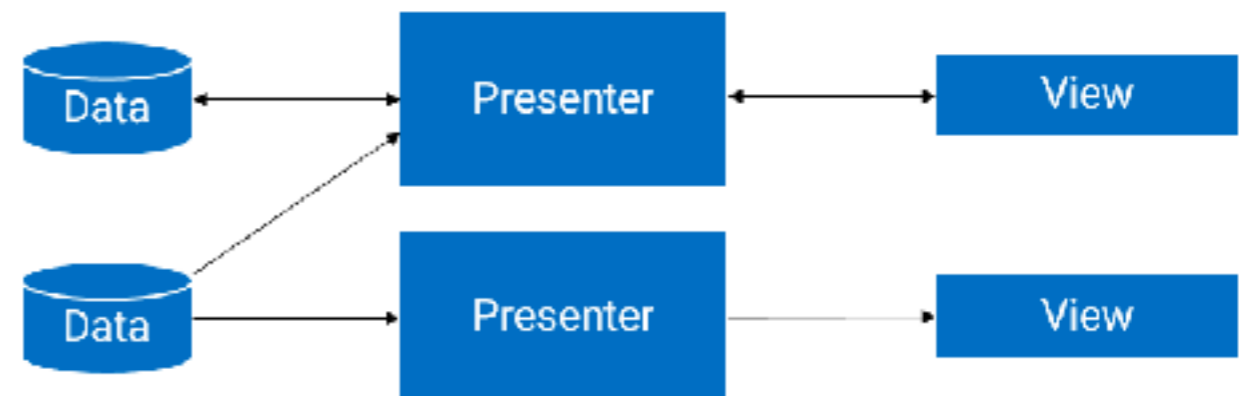
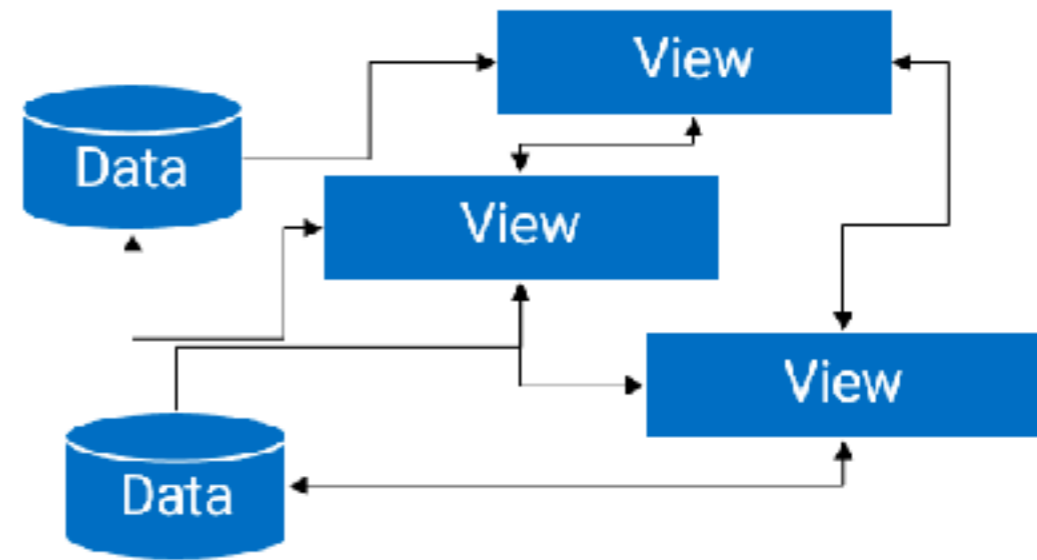
- Crash/report analytics
- User analytics
- KPI
- Adopce nové verze
- Moc moc moc moc dat a čísel



fabric

Architektura

- VM
 - View - Model
- MVP
 - Model - View - Presenter
- MVVM
 - Model - View - ViewModel
- MVC
 - Model - View - Controller



Kam dál?

- <https://developer.android.com>
- <https://android-arsenal.com/>
- Twitter - @JakeWharton, @AndroidDev, @androidstudio, @crafty, @chrisbanes, @cyrilmottier, @romannurik