



KUPFERWERK®

Best Apps.



iOS



Android



Windows



TV



Automotive

Study Jam

Final Session

31.3.2015



ANDROID

Lesson 7: Final Project

- ▶ Abgabekriterien:
<https://www.udacity.com/wiki/ud853/project>



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Libraries

Downloading data

- ▶ Retrofit (<https://github.com/square/retrofit>)
 - ▶ Define endpoints through Annotations
`@GET ("/biografien/{name}")`
`public Biography getBiography(@Path ("name") String name);`
 - ▶ RxJava compatible
- ▶ OkHttp (<http://square.github.io/okhttp>) ▶
 - ▶ Modern HttpClient
 - ▶ Supports HttpResponseCaching

Parsing data

- ▶ Retrofit

- ▶ Gson (<https://code.google.com/p/google-gson/>)

- ▶ Simple (<http://simple.sourceforge.net/>)

- ▶ Via reflection or Annotations

```
@Element (name = "mdbLand", required = false)
```

```
private String county;
```

Downloading images

- ▶ Picasso (<http://square.github.io/picasso/>)
 - ▶ Local Caching
 - ▶ In memory caching
 - ▶ Resizing and transforming images

Local data storage

▶ GreenDAO (<http://greendao-orm/>)

▶ A lot of generated code L ☒

▶ No SQL required

```
List<RepresentativeEntity> representativeEntities =  
    dao.queryBuilder()  
  
        .where(RepresentativeEntityDao.Properties.MdbId.eq(id))  
  
        .list();
```

EventBus

- ▶ EventBus (<https://github.com/greenrobot/EventBus>)
 - ▶ Uses Reflection
 - ▶ Can deliver results on specific Thread

```
EventBus.getDefault().post(new WalletChangedEvent());  
EventBus.getDefault().register(this);  
public void onEvent(WalletChangedEvent event) { ...
```


View Injection

▶ Butterknife (<http://jakewharton.github.io/butterknife/>)

▶ View injection

```
@InjectView (R.id.representative_county)
```

```
TextView countyView;
```

Crash Tracking

- ▶ HockeyApp (<http://hockeyapp.net/>)
 - ▶ Crashes per Version
 - ▶ Device Meta Data
 - ▶ Jira Integration
 - ▶ Can be hosted in Germany
 - ▶ Recently bought by Microsoft

Dependency Injection

- ▶ Dagger (<http://square.github.io/dagger/>)
 - ▶ Creates dependency tree on compile time
 - ▶ Fast app load

```
@Provides
```

```
@Singleton
```

```
Picasso providePicasso(Context context) {
```

```
@Inject
```

```
Picasso imageLoader;
```

Reactive Extensions

- ▶ RxJava (<https://github.com/ReactiveX/RxJava>)
 - ▶ Create Observables
 - ▶ Chain sequences of data events
 - ▶ Use operators on data
 - ▶ Subscribe in different threads
- ▶ Tutorial:
<http://blog.danlew.net/2014/09/15/grokking-rxjava-part-1/>

Unit Testing

- ▶ JUnit
(http://developer.android.com/tools/testing/testing_android.html)
- ▶ Mockito
(<https://code.google.com/p/mockito/>)



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General Tools

Tools

- ▶ Rest Client

- ▶ Paw (<https://luckymarmot.com/paw>)

- ▶ Postman (<http://www.getpostman.com/>)

- ▶ Proxy

- ▶ Charles (<http://www.charlesproxy.com/>)

- ▶ Continuous Integration

- ▶ Jenkins (<http://jenkins-ci.org/>)



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Stay mobile!

Keep mobile!

- ▶ GDG Regensburg „I am a member“
 - ▶ <https://developers.google.com/groups/chapter/105059823716723829232/>
- ▶ Mobile Stammtisch auf Facebook
 - ▶ <https://www.facebook.com/groups/103741993089852/?fref=ts>
- ▶ Google I/O am 28. Mai bei Kupferwerk
 - ▶ <https://events.google.com/io2015/>

Abschließender Fragebogen:

- ▶ https://docs.google.com/forms/d/1R1oakX19r47ZWENTgvznMAaBghI6OLDS-O_6U7DVA0M/viewform?entry.451096379=5384642596175872&entry.1452679548=Regensburg&entry.1123938077=Germany

Links

- ▶ Präsentation „Show me your stack“
<http://slidr.io/jleidgens/kupferwerk-android-stack#1>
- ▶ Bild
<http://www.xda-developers.com/android-scribble-boot-animation-for-android/>

Vielen Dank!

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