Quickies

Philipp Höhne for Zurich Ionic Meetup, 2019-03-21
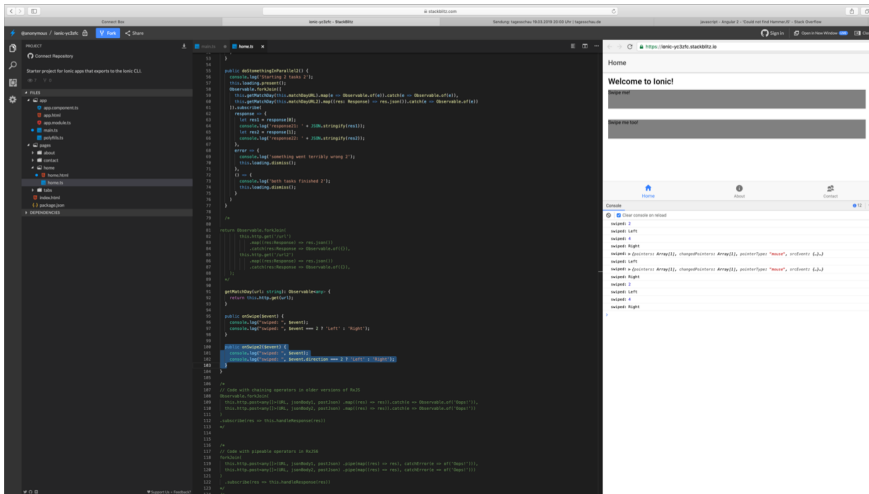
Blog: http://blog.hoehne.ch

What you will learn

- Ionic 4 Playground: stackblitz.com

- Bringing back hammerjs in Ionic 4

- Pitfalls when building for iOS

- RxJs -Observable.forkJoin() : Error handling

stackblitz.com
- 'VS Code' in the browser -

- Ionic 4 (Angular, React, RxJs, …)
- Dependencies (hammerjs, momentjs etc.) can be installed
- Live reload
- Console output but no other tools for debugging
- No live reload when opening preview in separate window
- No Cordova (of course not, it's in-browser)

My Bonnie is over the ocean…
- Bring back HammerJS -

- In Ionic 4 binding to gestures like (swipe)="…" will fail because of missing HammerJs
- **DO:**
  - `npm install --save hammerjs`
  - main.ts:
    ```
    import "hammerjs";
    ```
  - page.html:
    ```
    <div (swipe)="onSwipe($event)">Swipe me</div>
    ```
  - page.ts:
    ```
    public onSwipe($event) {
            console.log("swiped: ", $event);
            console.log("swiped: ", $event.direction === 2 ? 'Left' :
    'Right');
            }
    ```
- **DO NOT:**
    ```
    import { Hammer } from "hammerjs" // or the like…
    ```

- Demo: https://stackblitz.com/edit/ionic-gqmb6h

Building for iOS pitfalls
- Xcode 10.x / New build system -

Emulating for iOS with

```
ionic cordova emulate ios
```

may fail with an error message like:

```
[…]/platforms/ios/build/emulator/MyApp.app/Info
.plist    file not found.
```

Solution:
```
ionic cordova emulate ios -- --buildFlag="-
UseModernBuildSystem=0"
```

Discussion & Solutions (among others):
https://github.com/apache/cordova-ios/issues/407

Building for iOS pitfalls
- Xcode 10.x / New build system

- The issue described affects emulating only, 'build' works fi

UPDATE!

- Upgrading to `Cordova 9.0.0.0` and removing & re-adding ios platform solved the problem for me (upgrades to `ios 5.0.0` as of 2019-03-23)
  BUT: this may break your app because there are cordova plugins out there (e.g. OneSignal) which are not yet compatible with this version

- Note: Apple will refuse application not created with the 'Modern build system' in near (?) future

Building for iOS pitfalls
- 'Error code 65' -

You try an innocent `ionic cordova build ios` **and get:**

```
CordovaError: Promise rejected with non-error: 'Error code 65 for command: xcodebuild with args: -exportArchive,-
archivePath,MyApp.xcarchive,-exportOptionsPlist,[..]/platforms/ios/exportOptions.plist,-
exportPath,/Users/dorian/Documents/Projects/ionic4/meetup20190321/platforms/ios/build/device'

    at cli.catch.err (/usr/local/lib/node_modules/cordova/bin/cordova:30:15)

    at processTicksAndRejections (internal/process/next_tick.js:81:5)

[ERROR] An error occurred while running subprocess cordova.
```

And the solution is… (ta, ta, ta!): Unplug your iOS Device!

[seriously!]

Building for iOS pitfalls
- Resources -

Building resources with

```
ionic cordova resources ios
```

will fail with a cryptic error message if:

- resources/icon.png is not at least 1024 x 1024

- resources/splash.png is not at least 2732×2732px

Documentation https://ionicframework.com/docs/cli/commands/cordova-resources doesn't make that clear: "The source image for icons should **ideally**…"
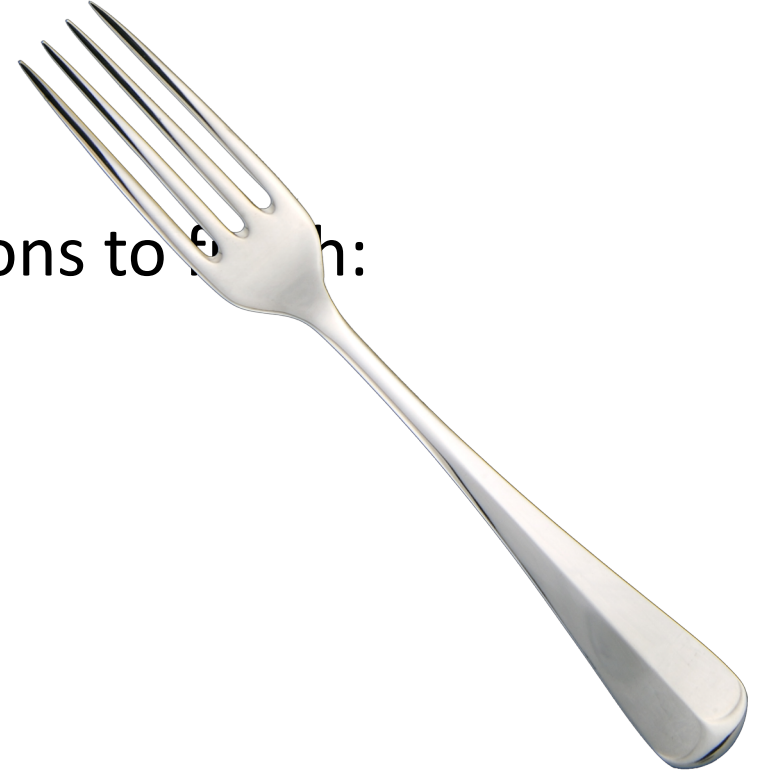
Observable.forkJoin()
- all or nothing -

forkJoin() lets you wait for a set of async operations to finish:

```
Observable.forkJoin([
    this.getAPIData(this.URL1), // async op returning an Observable
    this.getAPIData(this.URL2), // async op returning an Observable
    …
]).subscribe(response => { // returns array of responses
    this.result1 = response[0];
    this.result2 = response[1];
    …
},
error => {
                // Handle error
},
```

- Issue is: if one of the async operations fails then we won't have any results at all…

Observable.forkJoin()
- Treat individually -

- Return success or error object as new Observable:

```
Observable.forkJoin([
    this.getAPIData(this.URL).map(e => Observable.of(e)).catch(e => Observable.of(e)),
    …
]).subscribe(response => { // returns array of responses
    response[0].error ? this.error1 = response[0].message : this.result1 = response[0].value;
    …
}
```

- Note: Get data in success case with `response.value`, check for error with `response.error`

- Demo: https://stackblitz.com/edit/ionic-gqmb6h

Links

- **Stackblitz:** https://stackblitz.com
- Joshua Morony - Handling Gestures in Ionic & Angular with HammerJS: https://youtu.be/TdORJC-J1gg