LECTURE 6

CORDOVA PLUGINS, LOCALIZATION

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OVERVIEW

- Cordova plugins
- Localization
- Disassembly of foreign app

INTRODUCTION TO CORDOVA PLUGINS

CORDOVA APPLICATION

Web application

HTML, CSS, JS (+ Ionic Framework)

WebView

Cordova plugins

- File
- Notifications
- Camera
- …

Mobile API's

- Sensors (Gyroscope, Accelerometer,…)
- Interactions (Touch, Keyboard,…)
- Services (Notifications, Camera,…)

MOBILE OS

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MOBILE OS

JAVASCRIPT

NATIVE CODE

IONIC APP (WEBVIEW)

CAMERA PLUGIN

CAMERA API

INTRODUCTION TO CORDOVA PLUGINS

- **For accessing device APIs**
- List of Cordova plugins:
  https://cordova.apache.org/plugins/
- List of verified Cordova plugins:
  http://plugins.telerik.com/cordova/

USEFUL PLUGINS (1/2)

- 3D Touch
- Camera
- Contacts
- File
- File Transfer
- Geolocation

USEFUL PLUGINS (2/2)

- Inapp Browser
- Notification
- Statusbar
- Barcode
- Calendar
- SQLite Storage

http://www.gajotres.net/useful-cordova-plugins-for-your-ionic-application-examples/

NG CORDOVA

- Collection of 70+ AngularJS extensions on top of the Cordova API
- Angular way to using Cordova plugins
- Easy to build, test and deploy
- http://ngcordova.com

MANIPULATE WITH CORDOVA PLUGINS

```
$ ionic plugin add [plugin-name]
$ ionic plugin rm [plugin-name]
$ ionic plugin list
```

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PROBLEMS WITH CORDOVA PLUGINS

- Updating Cordova/plugin can cause it to stop working
- **Removing and adding plugin again** helps in most cases
- Prevent conflicts in package.json (look for duplicate entries)
- Use new plugin syntax with "-"
  Example: Prefer **cordova-plugin-camera** instead of use **org.apache.cordova.camera** (deprecated)

When everything breaks down
try to delete it and add it again

```
$ ionic state reset
```

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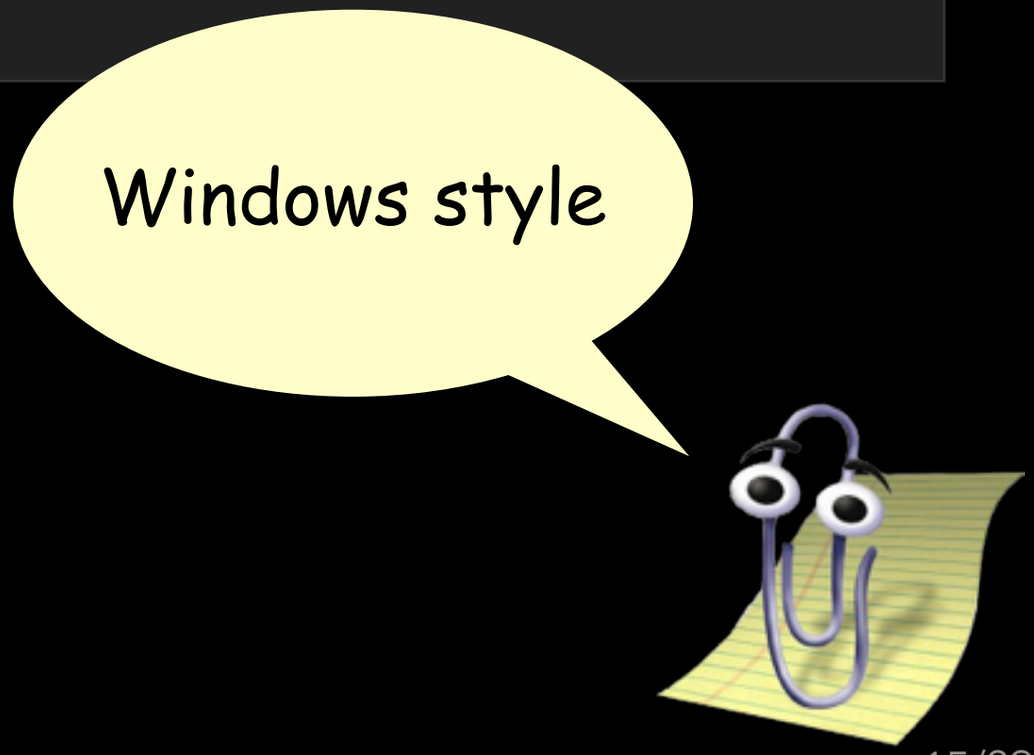

IMPLEMENTATION

CLONE REPOSITORY

```
$ git clone https://github.com/jvaclavik/codecamp-movies-app-api movie-app-social-sharing
$ cd movie-app-social-sharing/
$ npm install
$ ionic serve
```

RESOLVE REFRESHING ON MOVIE DETAIL

TODAY'S GOAL

- Recommend movie via e-mail to my friend
- Friends are from my Contact list
- Share movie on Twitter

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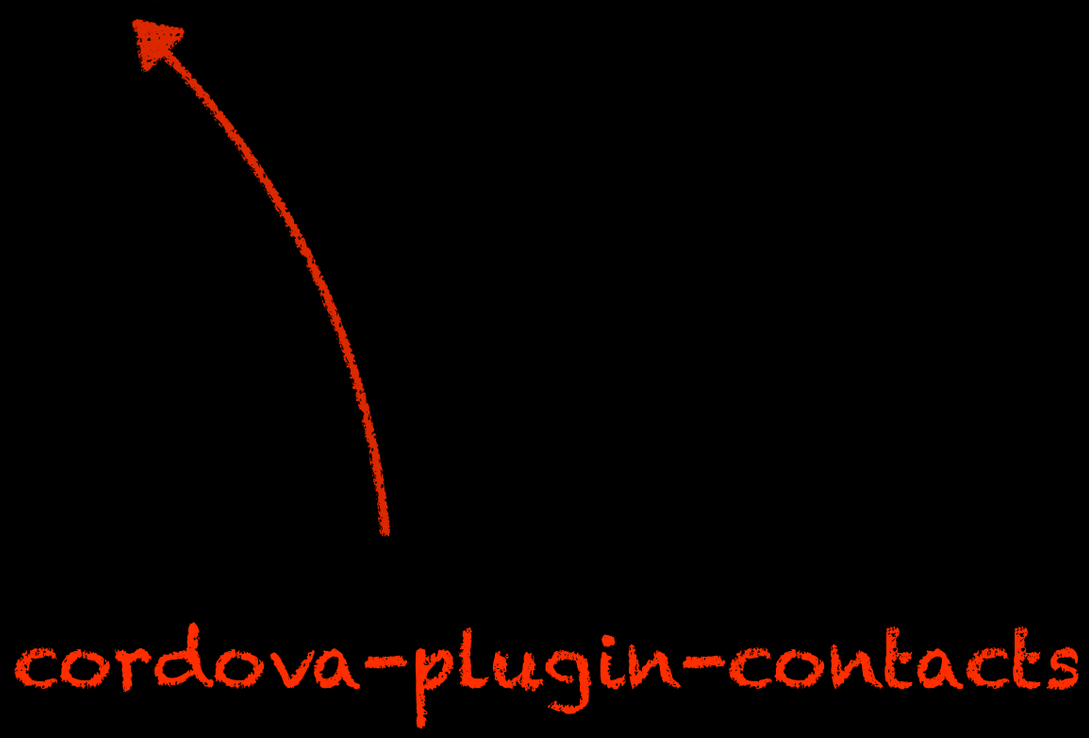


TODAY'S GOAL

cordova-plugin-x-socialsharing

- Recommend movie via e-mail to my friend
- Friends are from my Contact list
- Share movie on Twitter

cordova-plugin-contacts

ADD PLUGINS

```
$ ionic plugin add cordova-plugin-contacts
$ ionic plugin add cordova-plugin-x-socialsharing
$ ionic prepare
```

DO YOU USE GIT?

.GITIGNORE FOR IONIC APPS

```
# files we don't want
.DS_Store
.sass-cache/

# bower and npm libs
node_modules/
bower_components/

# cordova specific
platforms/
plugins/

# documentation
docs/

# generated files
www/css
www/js/libs.js
```

LOCALIZATION

- Use **Angular translate**
- https://github.com/angular-translate/angular-translate

INSTALL LOCALIZATION

```
$ bower install --save-dev angular-translate
```

gulpfile.es6.js

```
…
var bowerLibs = {
    js: [
        …
        ‘angular-translate/angular-translate.min.js'
    ],
…
```

```
$ gulp bowerlibs
```

ADD ANGULAR TRANSLATE AS MODULE

www/app/app.js

```
var app = angular.module('App',
        ['ionic', 'ui.router', 'pascalprecht.translate']
    );
```

DEFINING CS/EN TRANSLATE

Create file

`www/locales/en.js`

`www/locales/cs.js`

Add to index.html

```
<script src=“locales/cs.js"></script>
<script src="locales/en.js"></script>
```

LOCALIZATION

www/locales/cs.js

```
var translations_cs = {
    "AUTH": {
        "USERNAME": "E-mail",
        "PASSWORD": "Heslo",
        "LOGIN_BUTTON": "Prihlasit",
        "REGISTER_LINK": "Vytvorit ucet",
        "ERROR_TITLE": "Chyba",
        "ERROR_MESSAGE": “Prihlaseni se nezdarilo"
    },
    "BASIC": {
        "NO_CONNECTION": “Vas telefon neni pripojen k Internetu"
    }
};
```

www/locales/en.js

```
var translations_en = {
    ...
};
```

REGISTER LANGUAGES

www/app/routes.js

```
app.config(function (..., $translateProvider) {
    ...

    $translateProvider
        .translations('cs', translations_cs)
        .translations('en', translations_en)
        .registerAvailableLanguageKeys(['en', 'cs'], {
            'en_US': 'en',
            'en_UK': 'en',
            'en-UK': 'en',
            'en-US': 'en',
            'cs_CZ': 'cs'
        }
    );
    $translateProvider.preferredLanguage('en');
});
```

SET LANGUAGE

VIEW

```
<a ng-click="changeLanguage('en')">English</a>
```

www/views/main/main.js

```
$scope.changeLanguage = function (lang) {
  $translate.use(lang);
}
```

USING TRANSLATION

CONTROLLER / MODEL

```
$translate.instant("BASIC.NO_CONNECTION");
```

VIEW

```
<form>
    <input type="password" placeholder="{{'PROFILE.USERNAME' | translate}}">
    <input type="password" placeholder="{{'PROFILE.PASSWORD' | translate}}">
    <button translate>PROFILE.LOGIN_BUTTON</button>
</form>
```

DISASSEMBLY OF FOREIGN APP

DISASSEMBLY OF FOREIGN APP

- **Android only**
- APK downloader:
  - http://apkpure.com
- **APK = ZIP archive** – just rename and uncompress
- JADX decompiler: http://www.javadecompilers.com

IONIC VIEW

HYBRID OR NATIVE?

IONIC VIEW

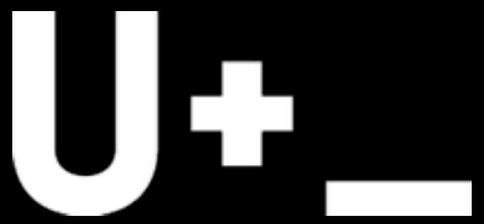
HYBRID!

HOMEWORK

Side menu, Camera

http://bit.ly/1TM9jAH

QUESTIONS?



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