

HYBRID APP DEV

S E N S O R S , D E V I C E I N F O

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C R E A T I V E A P P S , D E C 2 0 1 6

PREVIOUS

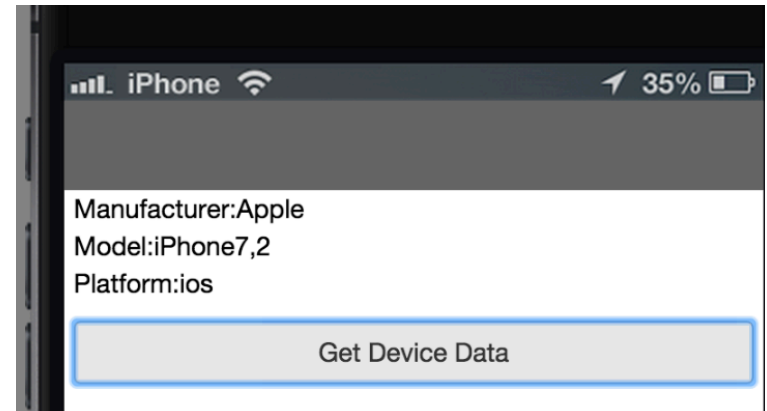
- UI / interaction guidelines
- Raise awareness about mobile development technologies
- Practice
 - UI
 - Data

TODAY

- Device Data
- Sensors
- Plugins

Exercise 1: Device Data

- When user taps on a button (i.e. onClick event) show basic device data:
 - Manufacturer
 - Model
 - Platform
- Look at:



<http://cordova.apache.org/docs/en/latest/reference/cordova-plugin-device/index.html>

Note

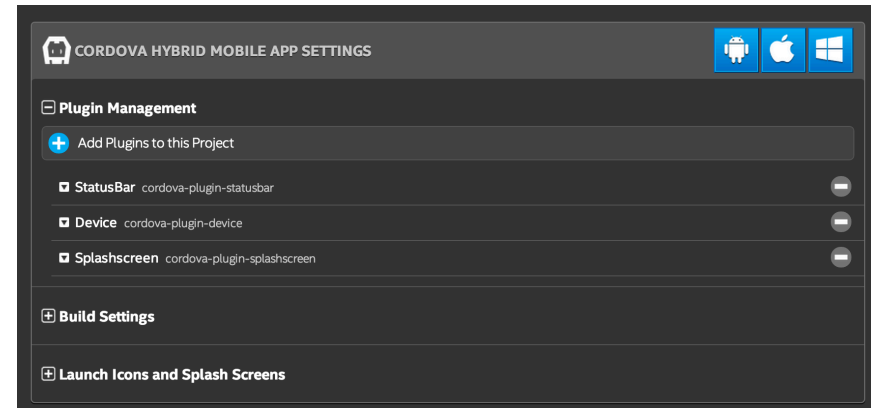
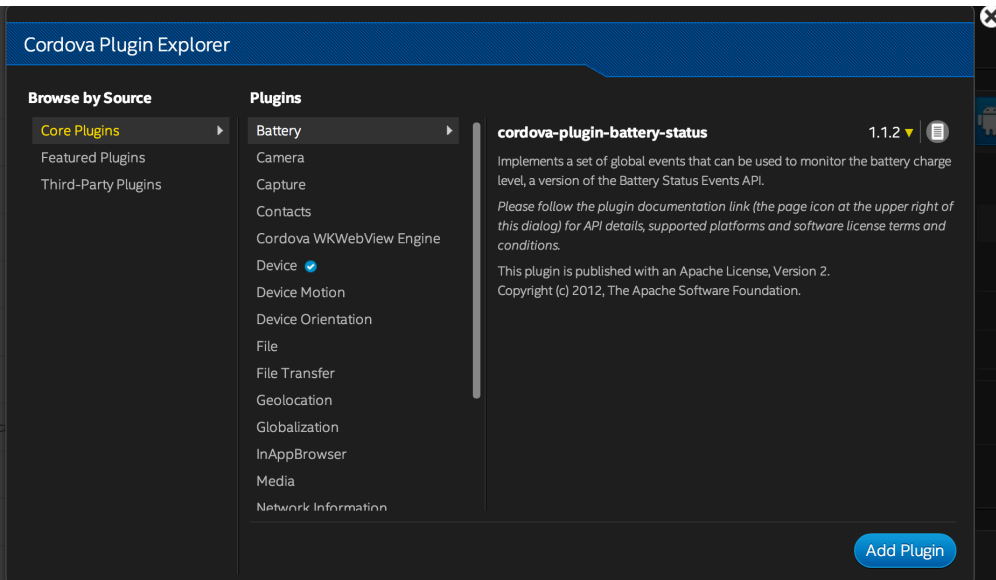
- In the previous exercise you could get the device's data because Cordova's necessary plugin is already included in a new XDK project
- Should you want to add new functionality you need to make sure to FIRST include the necessary plugin

Plugin Types

- There are plugins that are supported by Cordova and these are stable (more mature)
 - <http://cordova.apache.org/docs/en/latest/#plugin-apis>
- There are plugins from “third-parties”.
 - More “exotic” functionality
 - Might not be as stable or not support all OSs
 - Need to search at:
<https://cordova.apache.org/plugins/>

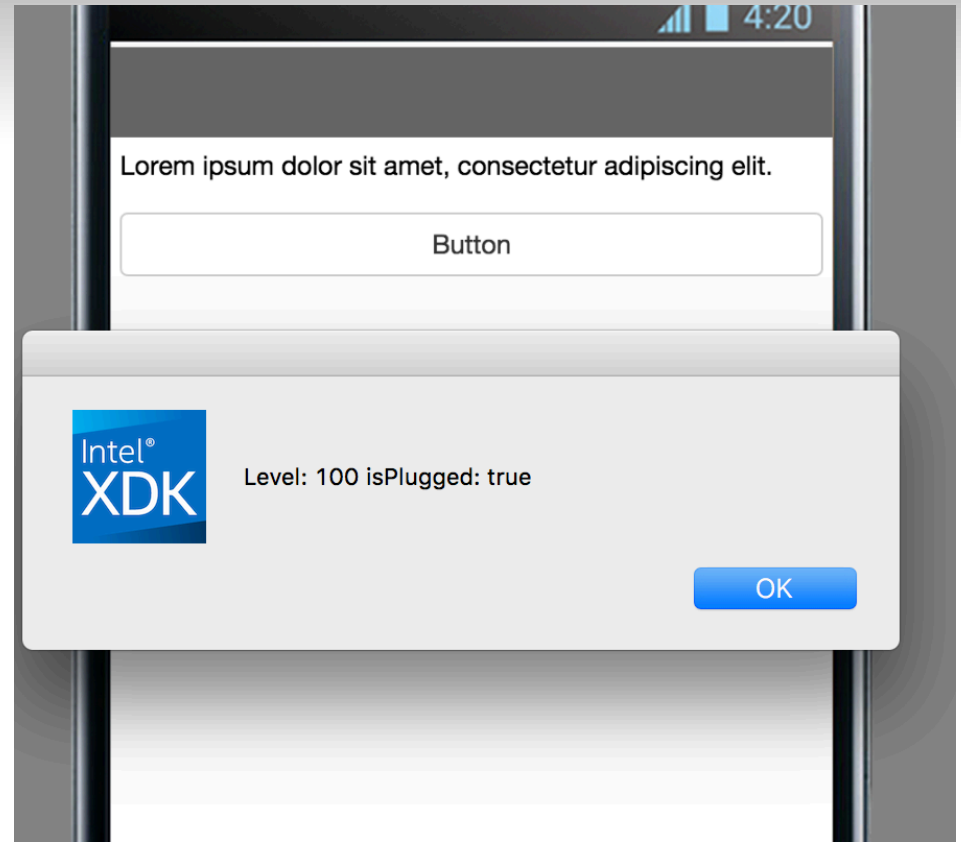
Add Plugin To Project

- Click on the “Projects” icon (top left)
- Look for “Plugin Management”
- Click “Add Plugins to this Project”



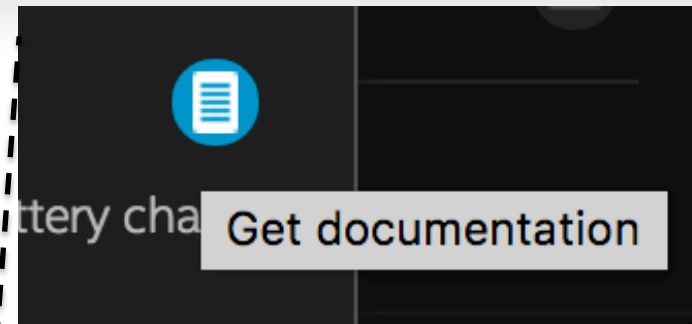
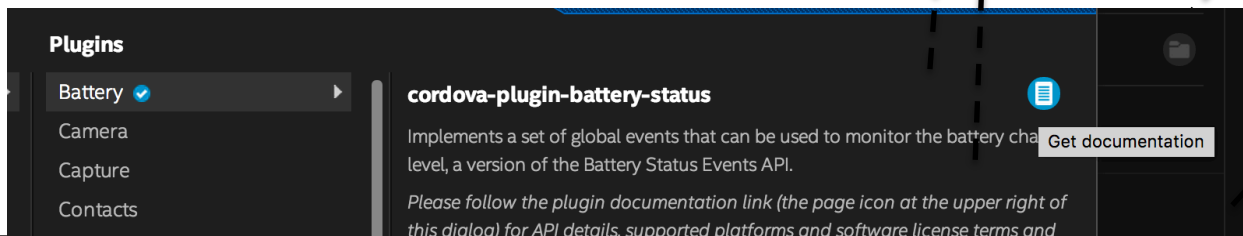
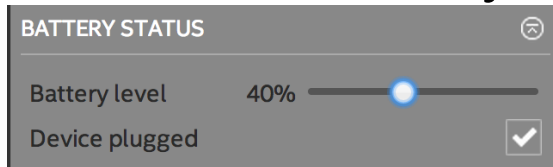
Exercise 2a: Battery

- Get device's battery level and whether it is plugged
- Show previous data on a message



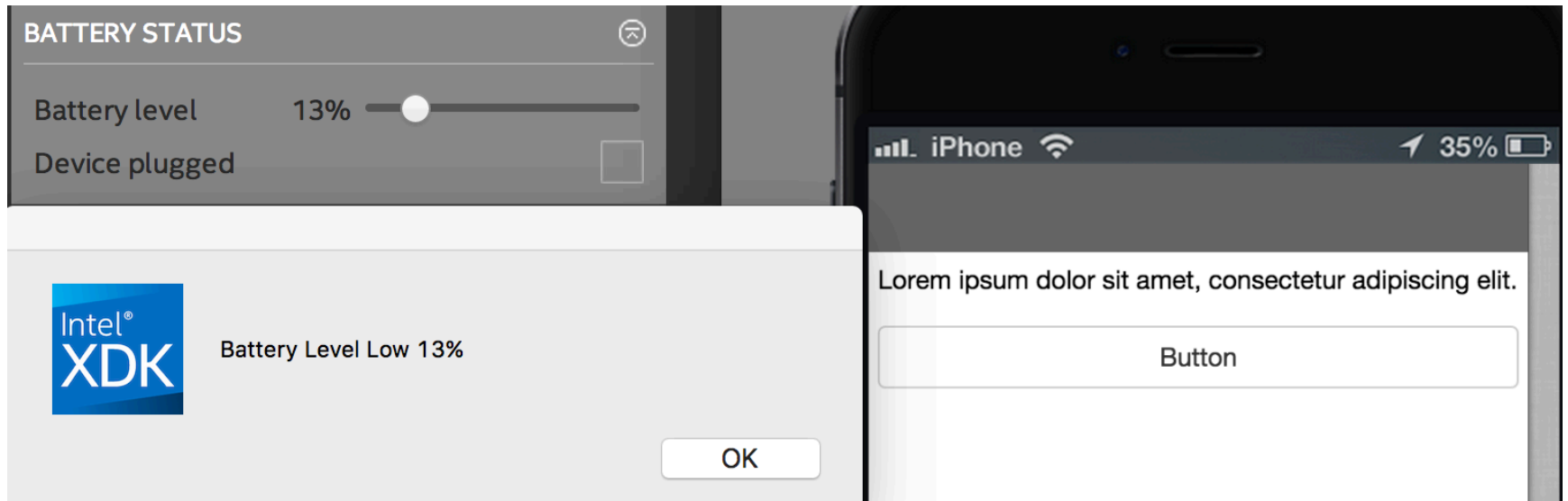
Exercise 2a: Tips

- Do not forget to add to the project the necessary plugin!!!
- Check plugin documentation
- Official documentation can be accessed directly from XDK:
- Emulator is handy:



Exercise 2b

- Show to user a message when battery is low
- Tips:
 - Need to play around with Battery Level
 - Level is device-specific

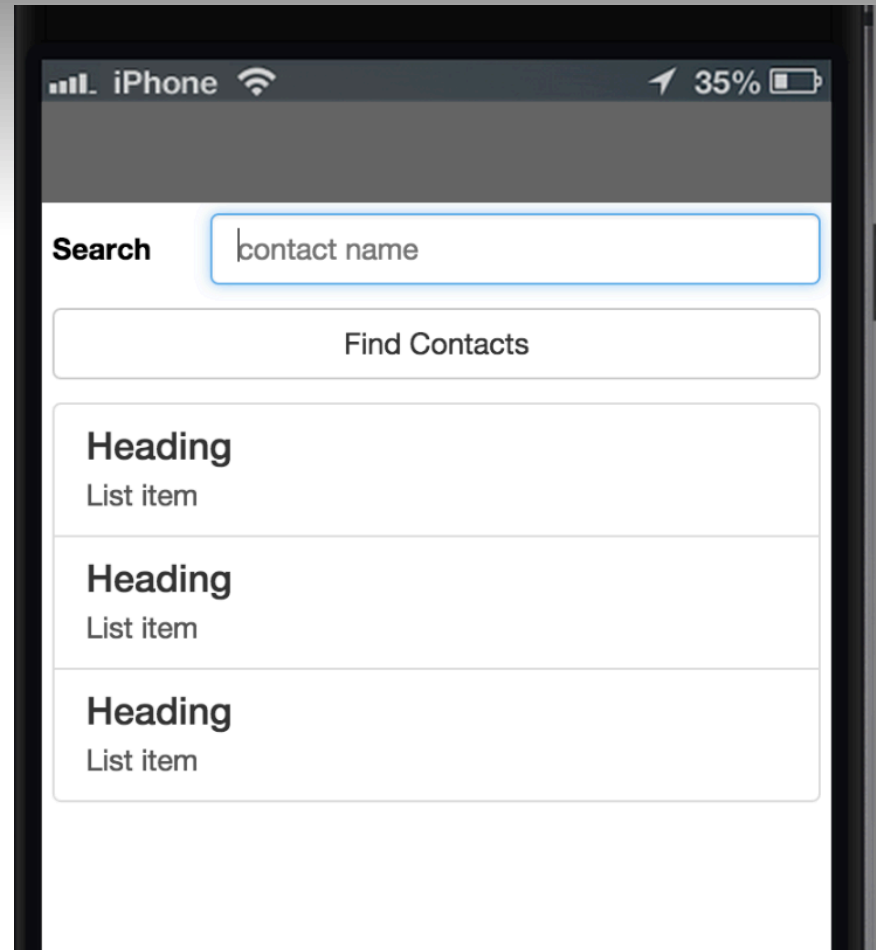


Exercise 3a: Contacts

- Find how many contacts exist for a certain name
- Emulator does not have contacts, need to test Exercises 3 & 4 on your own device
 - Push project to Testing Server (Test tab in XDK)
 - Use Intel's App Preview on your own device

Exercise 3b: Contacts

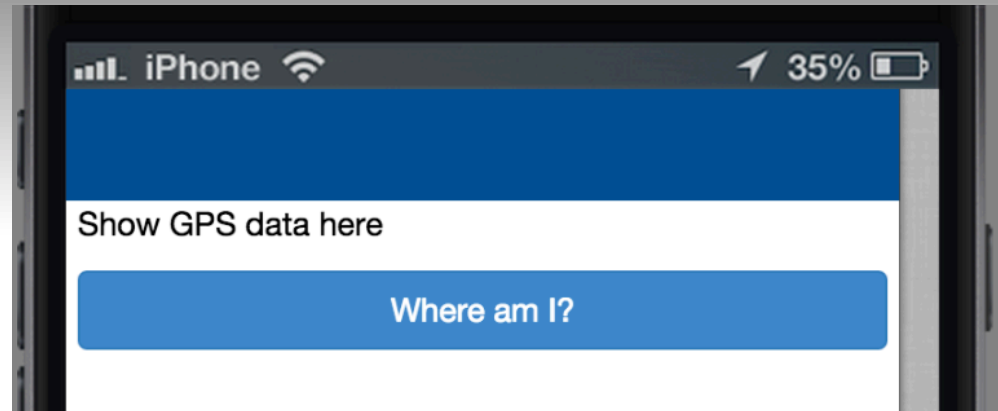
- Make your own contact book finder
- Tip:
 - Start from the ContactName example:
<http://cordova.apache.org/docs/en/latest/reference/cordova-plugin-contacts/index.html#contactname>



Exercise 4: Location

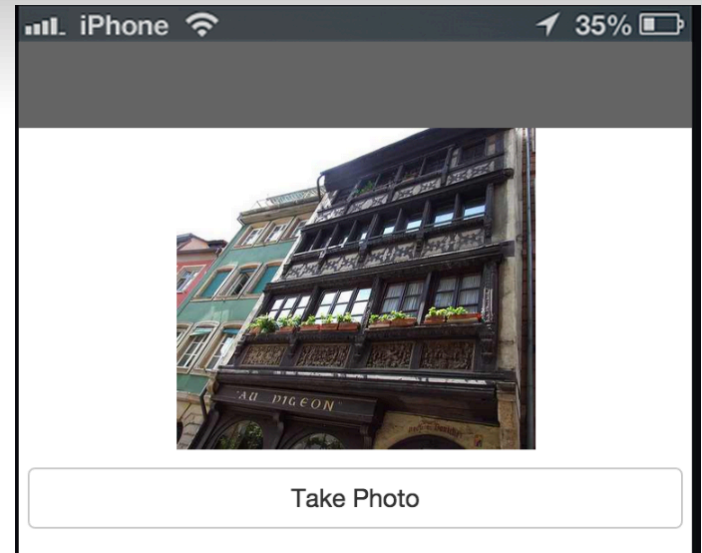
- When user taps on button find latitude and longitude
- Tip:
 - Emulator is handy:

Latitude	47.465187
Longitude	-80.522372



Exercise 5a: Camera

- Example:
 - UI: header, img, button
 - Interaction: when button (*id*="btn") is clicked camera can be used to take photo, photo is then displayed on img (*id*="showPhoto")
- Try it on your device
 - Use "Test" tab: "Push to Testing Sever" in combination with the "App Preview" app on your phone



Exercise 5b: Vibration

- Add to the previous exercise a 1 second vibration when a photo is successfully taken
- Tip:
 - Look for the appropriate plugin

Happy Coding For 2017!

- Summary:
 - Device Data
 - Sensors
- Next session 9 Jan 2017: more sensor-related exercises