

HYBRID APP DEV SENSORS

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PREVIOUS

- Practice
 - UI
 - Persistent Data
 - Localstorage
 - Firebase
 - Device Data

TODAY

- Sensors

Note

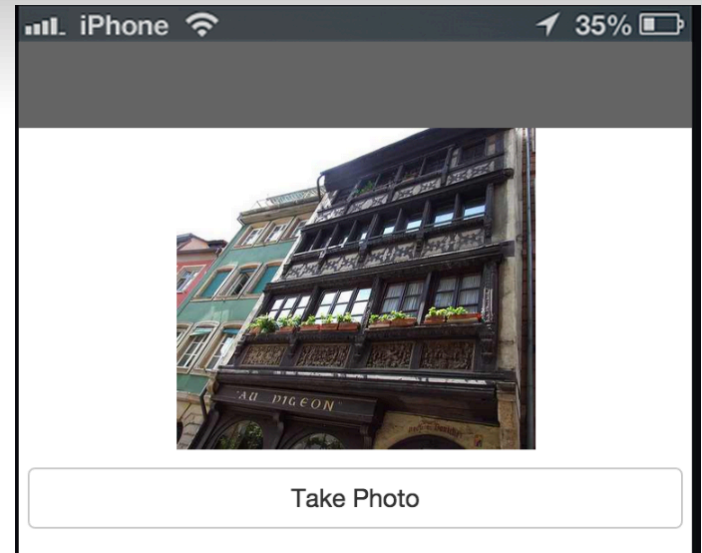
- Make sure to FIRST include the necessary plugin to your project
- Have a look at previous slides if you don't know how to add a plugin

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/>

Exercise 1a: 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 1b: Vibration

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

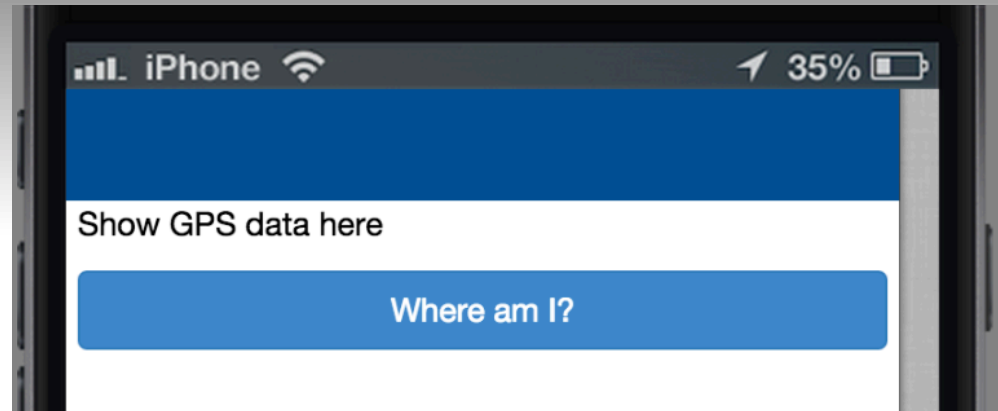
Exercise 2: Location & Maps

- Get Latitude & Longitude from sensor & use Google Maps API to show map of the user's location

Exercise 2a: Location & Maps

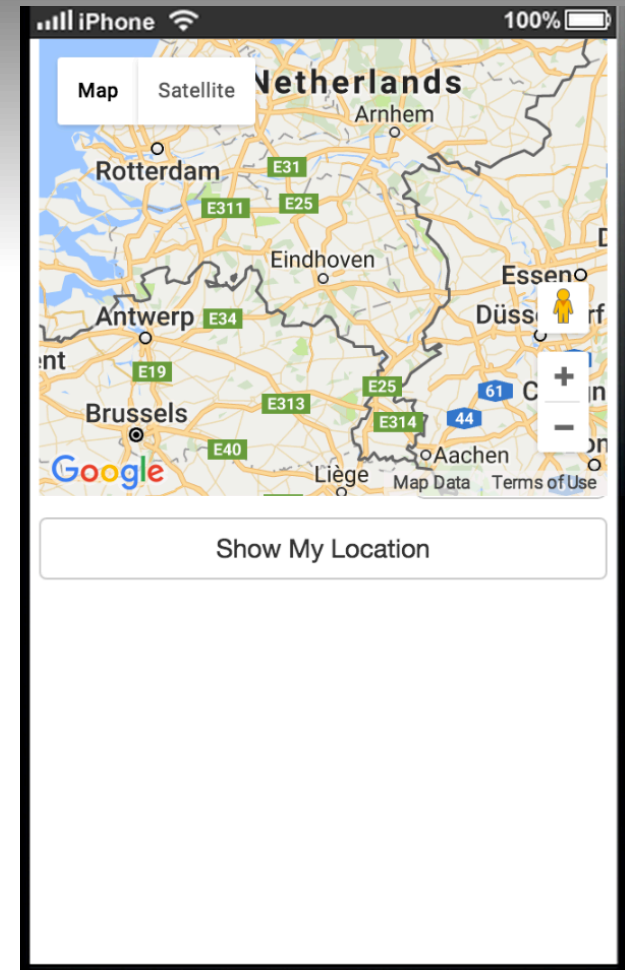
- When user taps on button find latitude and longitude
- Tip:
 - Emulator is handy:

Latitude	47.465187
Longitude	-80.522372



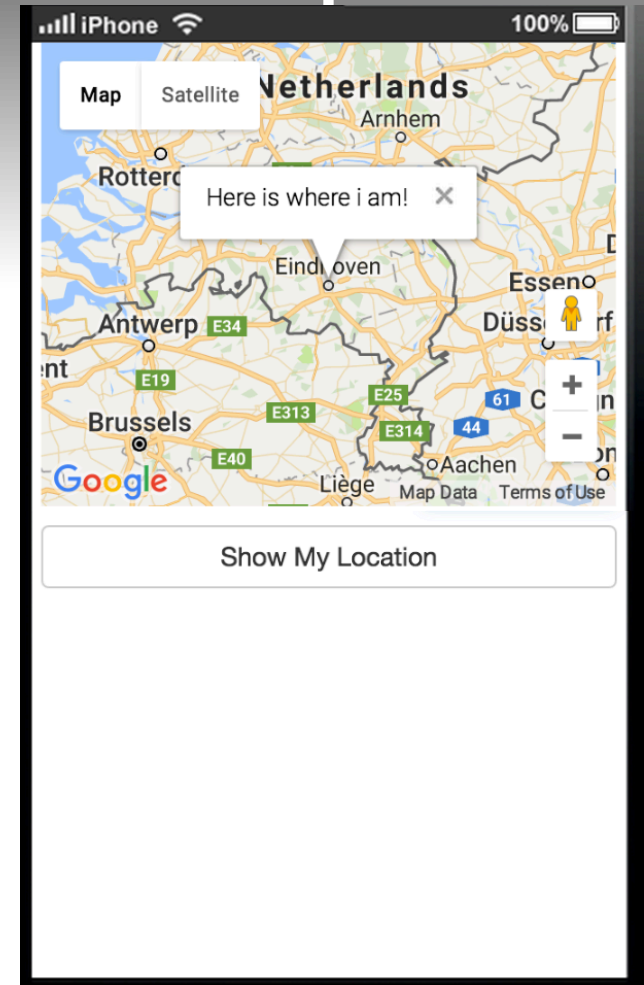
Exercise 2b: Location & Maps

- When user taps on button show user's location on a map
- Tips:
 - Need an API key at:
<https://developers.google.com/maps/documentation/javascript/>
 - Find Google Maps on “Design” & use it
 - Set Google Map properties
 - Don't forget the necessary plugin in your project!



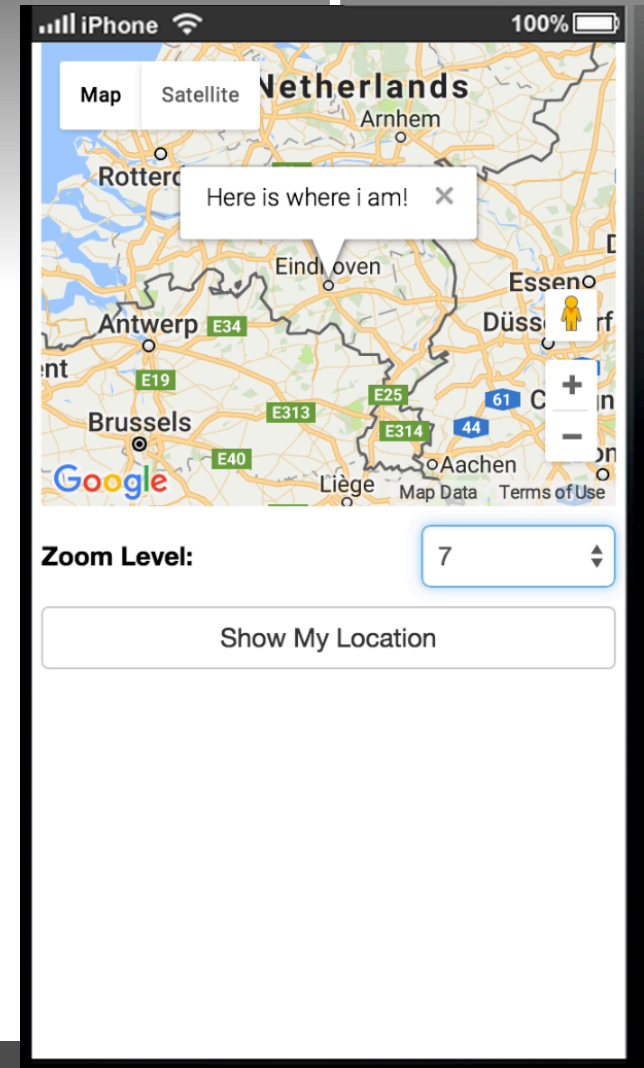
Exercise 2c: Location & Maps

- Add an InfoWindow on the map
- Tips:
 - Check out:
<https://developers.google.com/maps/documentation/javascript/geolocation>



Exercise 2d: Location & Maps

- Add custom zoom control on the map
- Tips:
 - Check out:
<https://api.jquery.com/change/>

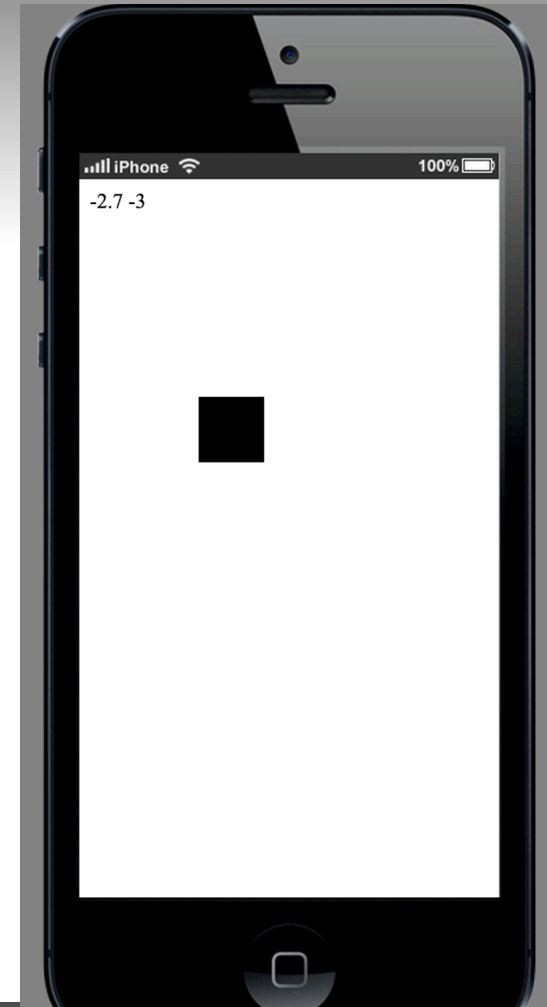
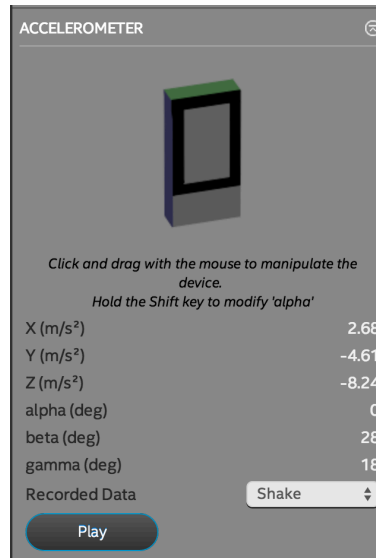


Tips for Google Maps

- Hello World:
 - <https://developers.google.com/maps/documentation/javascript/tutorial>
- Overlays:
 - <https://developers.google.com/maps/documentation/javascript/overlays>
 - Info Windows:
 - <https://developers.google.com/maps/documentation/javascript/infowindows>
- Code example: On Wiki
- Video: http://youtu.be/k0cl9oLq-_I

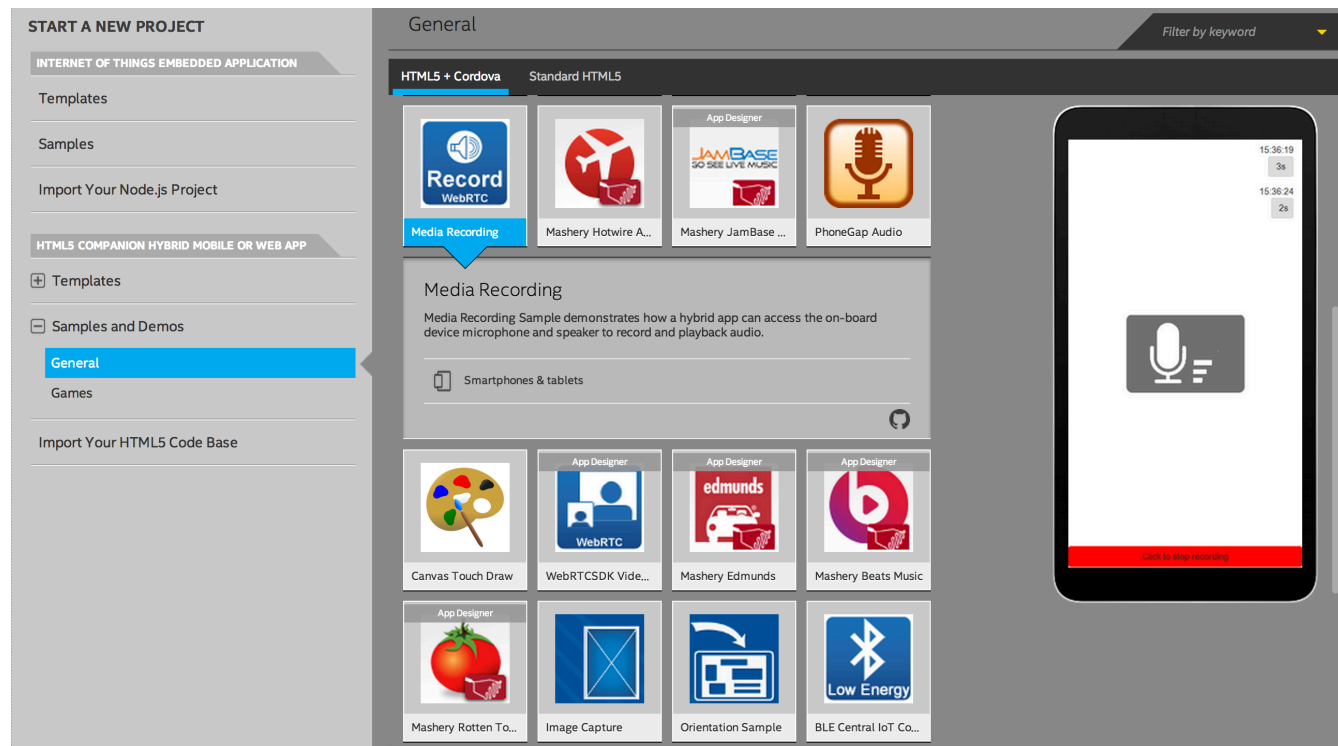
Exercise 3: Accelerometer

- When user tilts device, a black square in screen moves accordingly
- Tips:
 - Emulator is handy:
 - Use the project on Wiki to start



Other Sensors?

- Check out “Samples and Demos”
 - INTEL XDK=>”START A NEW PROJECT”=>”Samples and Demos”=>”General”



Summary

- Worked with Sensors
 - Camera
 - Location & Maps
 - Accelerometer