



I'm Not Working Harder Than I Have to

A memoir













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Build an AR Tour around campus

- Select a mobile platform
 - Include an interactive map of campus
 - “You are here” feature on map
 - Has a guide mode
 - Describes features as user comes near
 - Enables choice of given information
 - Zoom for detail
-

Pick a mobile platform, they said...

1.  +  =  + 
2.  +  =  +  + ~~~~
3.  +  =  *...It would be easy, they said!*

“...I PLEDGE TO SERVE MY ANDROID
OVERLORDS WITH ALL OF MY HEART, ALL
OF MY MIND, AND ALL OF MY SOUL, WITH
UNDYING LOYALTY FOR EVER AND EVER,

AMEN.”

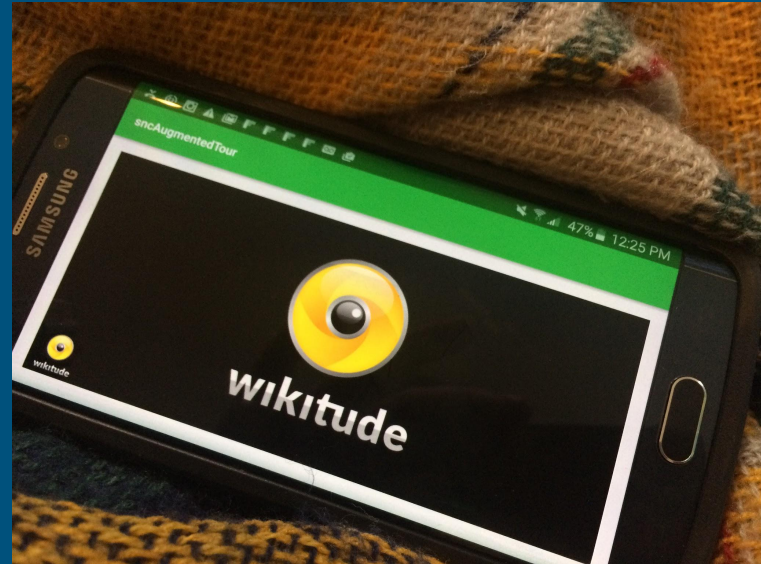
-Excerpt from Android Initiation Pledge

Wikitude SDK

1. Researched AR tools
2. Wikitude edu license
3. JavaScript API
4. Tutorials & YouTube

Helpful functions/methods/objects

- OnLocationChanged
- GeoObject
- IsInRange(...)
- OnEnterFieldOfVision: (function(...){...})



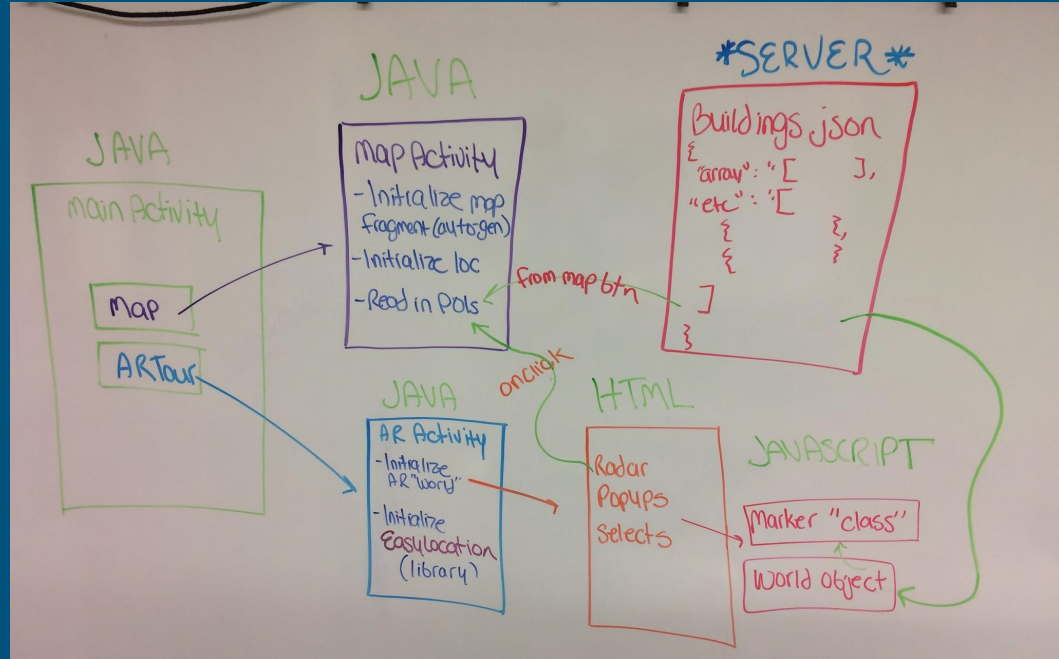
Layout of the App

Java:

- Main Activity
- Map Activity
- AR Activity

HTML/JS:

- Index.html
- Marker.js
- SelectingPOIs.js



Location

1. Custom LocationProvider class
(Mike & GitHub)
 2. EasyLocation (AR Activity)
 3. In-activity location services (Maps Activity)
 4. (Pending) Custom
LocationProvider class (again)
-

In-progress shots

~~COMING BACK~~
~~PLEASE DON'T~~
~~ERASE~~

Things to consider:

- store different info in multiple files, or one?

```
if (true || dialogAlreadyShown)
  show dialog
  dialogAlreadyShown = true
```

* set on active area for to dialogAlreadyShown = false;

if (true || dialogAlreadyShown) show dialog dialogAlreadyShown = true

DO WHAT I WANT!

this.dialogAlreadyShown → false

```

this {
  latitude
  title
  desc
  location (google)
  markerObject → drawables (add/remove.com/drawable or android-drawables.com/new/drawable)
}
  
```

~~COMING BACK~~
~~PLEASE DON'T~~
~~ERASE~~

Things to consider:

- store different info in multiple files, or one?
- how to access/change geoobject in markers array
- 1) loads json data in request data from server and is now in object data
- 2) creates a new Marker (located in Marker.js) which in turn, creates a geoobject
- 3) returns the new geoobject and passes it onto marker array.

PLAN

- keep updated distance counter for info clip for use in onChangeListener
- once hit, set (P) calls updateDistance() to update technique
- if marker is within son, show new distance. 2nd marker is (A) line w/ convert, info app

TODO

- convert km to miles
- customize radar click
- change title/description when come into range
- uncomment set max distance radar?
- uncomment display POIs
- get info/edit (if final loaded) get data from server
- quiet; have js show on radar screen
- possibly change calling distance so show on radar

INFO

- * currently updates distance counter in onChangeListener and stores them as part of each marker objects properties.
- * if marker is selected w/ null (P), calls distanceCounter()
- * max radar is too far extends; calling is whether to show POIs at all.

3) get (url) information showing

- get from file
- store it
- display in html / or as popup?

try first

marker.js

```

infoArray [ 0 | 1 | 2 ] → pointer to each POI
          ↓   ↓   ↓
          sub fac class
  
```

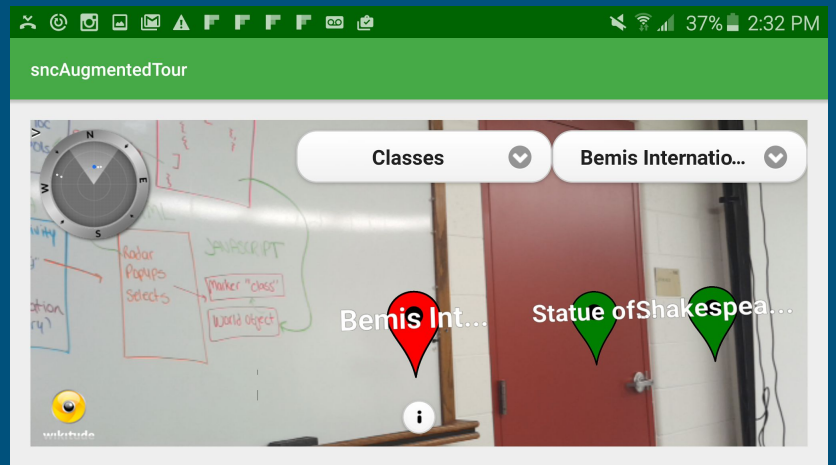
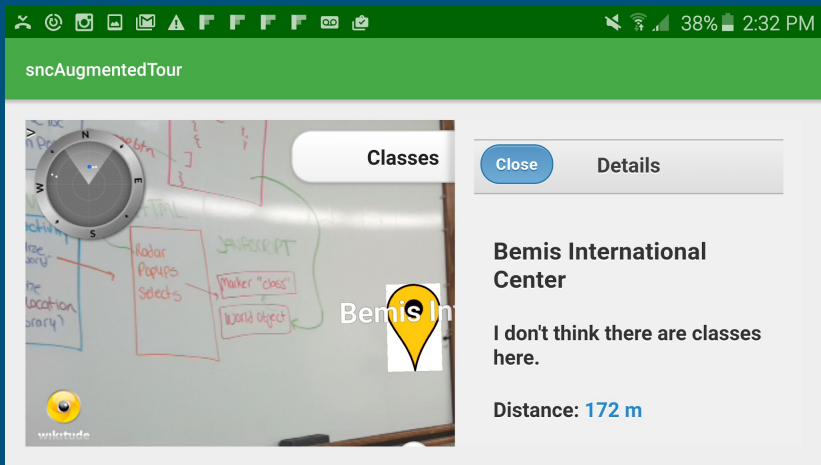
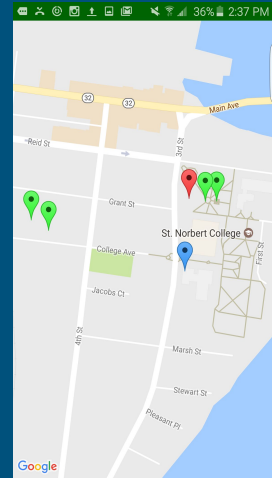
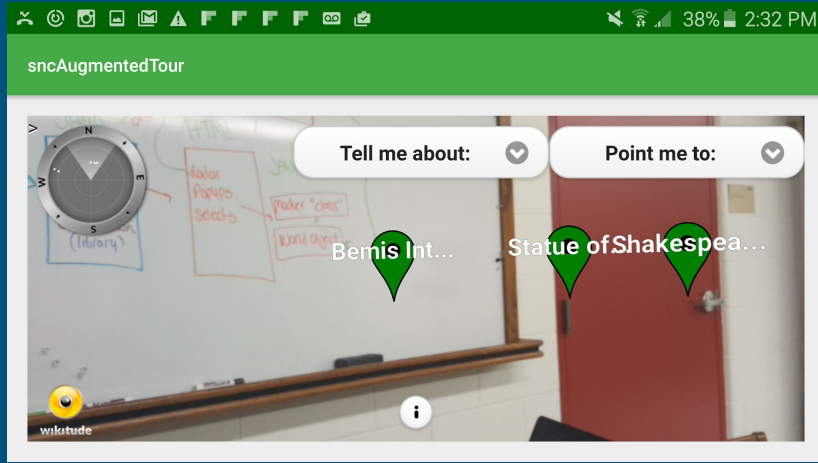
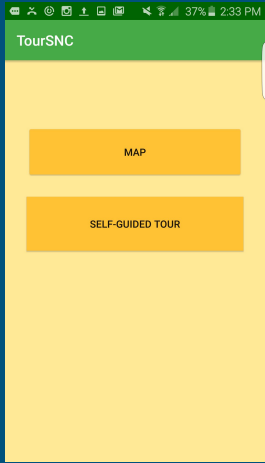
infoCategories: ["Schedules", "Faculty", "Classes"],

pointsOfInterest: [

```

  { id: "name" desc: "info": ["the sched is...", "Faculty are...", "Classes are..."] },
  { id: "name" desc: "info": ["", "", ""] }
]
  
```

infoCategories: fill select w/ index as val
onChange = change new var World, curr info when display, access infoArray [World, curr info]



Miscellaneous

Exceptions and Bugs

- Built-in back button = forgets Guide Mode
- Deselecting Guided marker does not show correct select option

Methodology

- Searched for already-built wheels
- Forced to use try-catches
- Code a little, test a little
- Tutorials, demonstrations, and code snippets
- Began using Git & GitHub

Demonstration



L & D

Learning and Development

Resources

- Stackoverflow
- YouTube
- **GitHub**

Helpful Courses

- Prog. Langs (**322**)
 - Classes (inc. abstract) & Interfaces (**205**)
 - C# (**350**)
-

FFS!

For future seniors!

Extensions

- Map overlay for Maps
- Back buttons from Maps & AR
- Ability to save POIs or info
- Google Maps directions

Advice

- Don't reinvent the wheel
 - GitHub and/or version control
 - Bite the bullet and dive in
-

Questions and Comments?

Rating:



5 STARS