

PROJECT OVERVIEW

NEIGHBOR NINJA

LAST SUMMER, I PITCHED AN IDEA FOR AN APP TO A TEAM AT YANTRA INC., WHO THEN PROCEEDED TO SERVE AS A RESOURCE FOR ME AS I PLANNED, DESIGNED, AND CREATED MY CRIME AWARENESS MOBILE APPLICATION, NEIGHBOR NINJA. THE APP ALLOWS USERS TO COMMUNICATE WITH EACH OTHER ABOUT CRIMES HAPPENING IN REAL TIME AND PROMOTES SAFETY ON COLLEGE CAMPUSES. MY TEAM AND I PLAN TO LAUNCH A BETA ON UNIVERSITY CAMPUSES IN SUMMER 2017.



MEETING 1	4
MEETING 2	11
MEETING 3	23
MEETING 4	36
MEETING 5	43
MEETING 6	52
MEETING 7	57



MEETING 1

NEIGHBOR NINJA

- ▶ **CRIME WATCH SUBSTITUTE**
- ▶ **USER LOGS IN TO ACCOUNT ON WEB OR MOBILE DEVICE**
- ▶ **USER REPORTS CRIME OR SUSPICIOUS ACTIVITY**
- ▶ **NEIGHBORS (WITHIN SET RADIUS) ARE NOTIFIED VIA PUSH NOTIFICATIONS**



- ▶ **DATA CAN BE USED AND SAVED AS STATISTICS TO CATEGORIZE NEIGHBORHOODS BASED ON CRIME**
- ▶ **STATS WILL BE DISPLAYED TO USERS (SHOWING CRIME RATES, ETC)**
- ▶ **QUICK AND SIMPLE PROCESS TO SECURE NEIGHBORHOOD**



- ▶ **HOME PAGE WITH DETAILS**
- ▶ **SIMPLE USER LOG IN SYSTEM**



- ▶ **CREATE USER PANEL WITH SUBMISSION AREA, STATS, AND NOTIFICATIONS**
- ▶ **CREATE MOBILE APP WHICH ALLOWS FOR PUSH NOTIFICATIONS**
- ▶ **CREATE WORKING SYSTEM WHERE USERS CAN SUBMIT QUERIES AND NEIGHBORS WILL BE ALERTED**



- ▶ **SET RADIUS AROUND EACH USER TO DEFINE “NEIGHBORS”**
- ▶ **WHEN QUERY IS SUBMITTED, NOTIFICATION WILL BE DELIVERED TO DEFINED “NEIGHBORS” GROUP**



- ▶ **TARGET AUDIENCE IS ADULTS LIVING IN SUBURBS**
- ▶ **LIVE, DOCUMENTED PRODUCT**
- ▶ **MARKETED**
- ▶ **200 ACTIVE USERS**

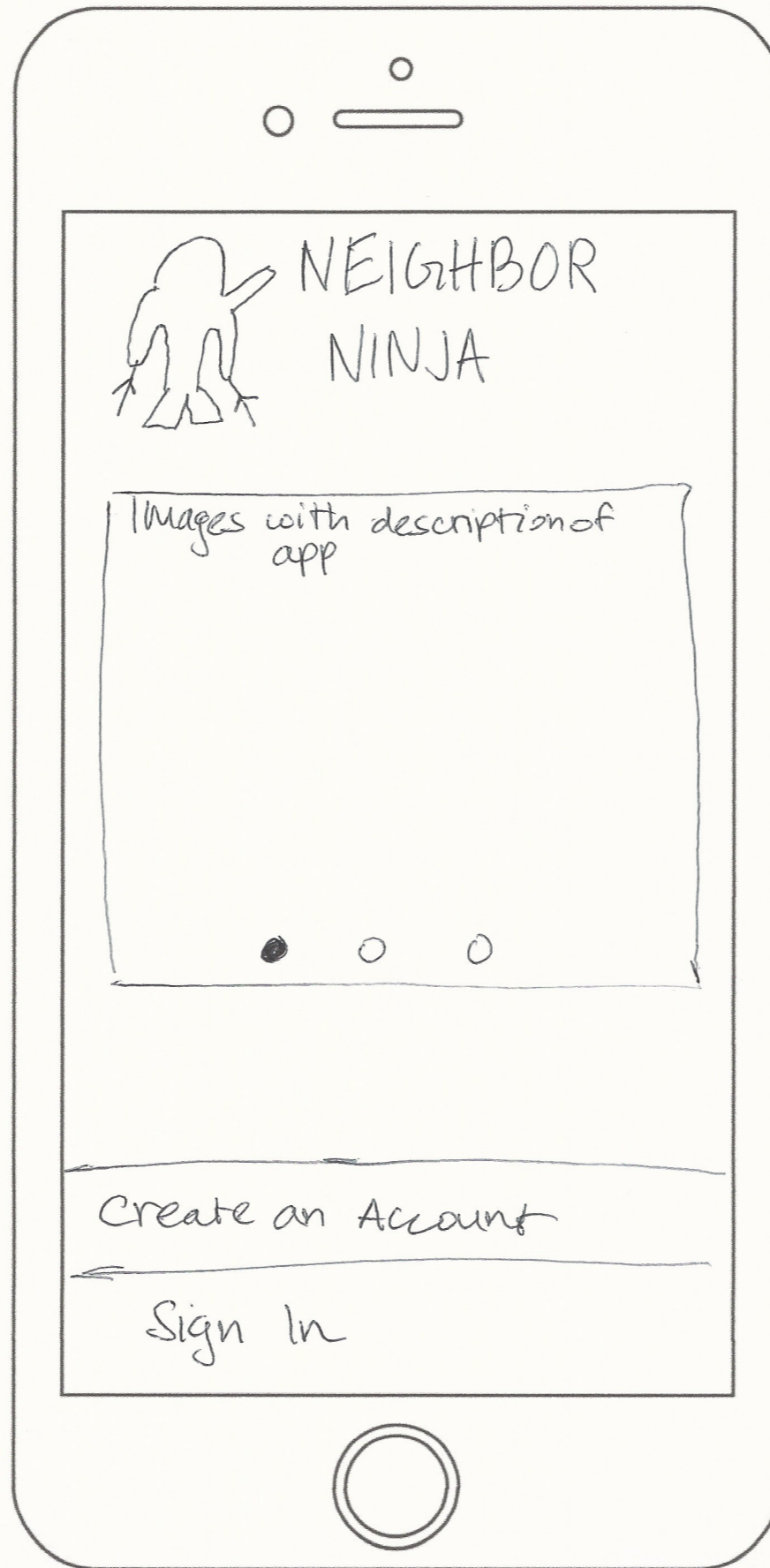


MEETING 2

NEIGHBOR NINJA

- ▶ **IOS APP WITH PUSH NOTIFICATIONS**
- ▶ **NO SET ADDRESS**
 - ▶ **WILL TAKE CURRENT LAT/LONG OF USER**
- ▶ **TWO SIMPLE FEATURES FOR USERS**
 - ▶ **REPORT SUSPICIOUS ACTIVITY**
 - ▶ **VIEW USER-INPUTTED OR POLICE-RECORDED ACTIVITY IN AREA**
- ▶ **RADIUS IS DEFINED BY USER AND CAN BE CHANGED**





①

②



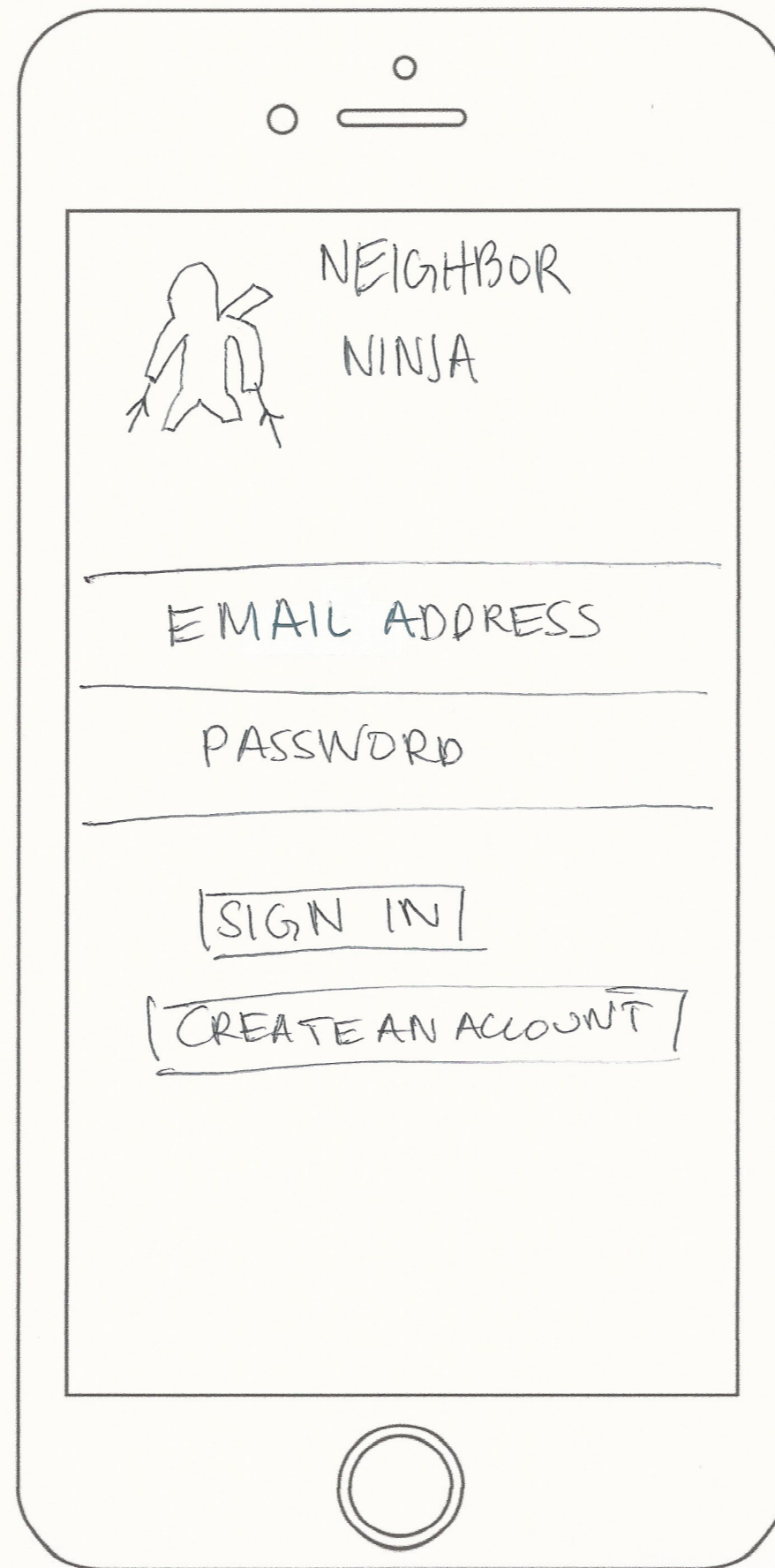
① CREATE ACCOUNT

A hand-drawn sketch of a mobile application screen for account creation. At the top, there is a header with a small circle and a horizontal line. Below this is a logo consisting of a stylized figure holding a sword, followed by the text "NEIGHBOR NINJA". The main content area is divided into four horizontal sections by lines: "NAME", "EMAIL ADDRESS", "PASSWORD", and a section for preferences. The preferences section contains two rows: "PUSH NOTIFICATIONS" with an unchecked checkbox, and "TRACK LOCATION" with an unchecked checkbox. At the bottom of the form area, there are two buttons: "CREATE ACCOUNT" and "SIGN IN". The entire screen is enclosed in a rounded rectangle with a home button icon at the bottom center.

⑦
②



② SIGN IN



7

1

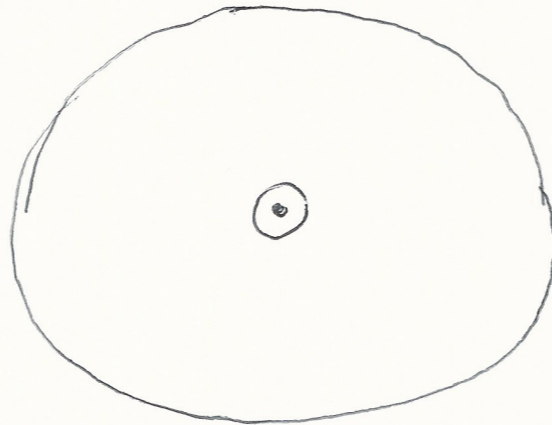


⑦ HOME

③

☰ [NAME]

You are currently at
[address]



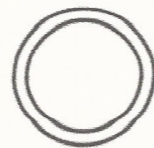
Location on
Map with
Radius

④

REPORT ACTIVITY

⑤

VIEW RECENT
ACTIVITY



③ SIDE BAR

⑦

[NAME]

④

REPORT

⑤

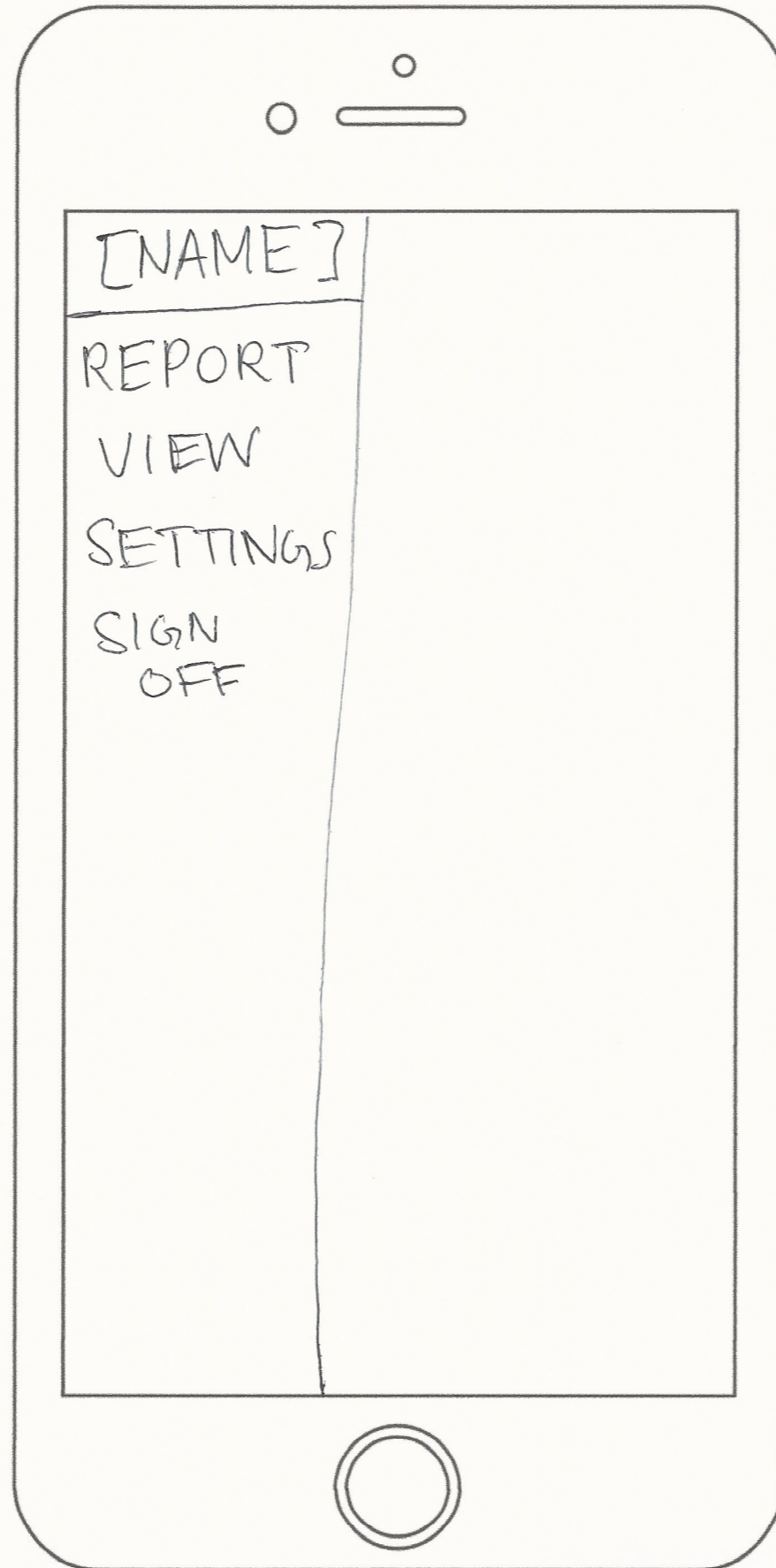
VIEW

⑥

SETTINGS

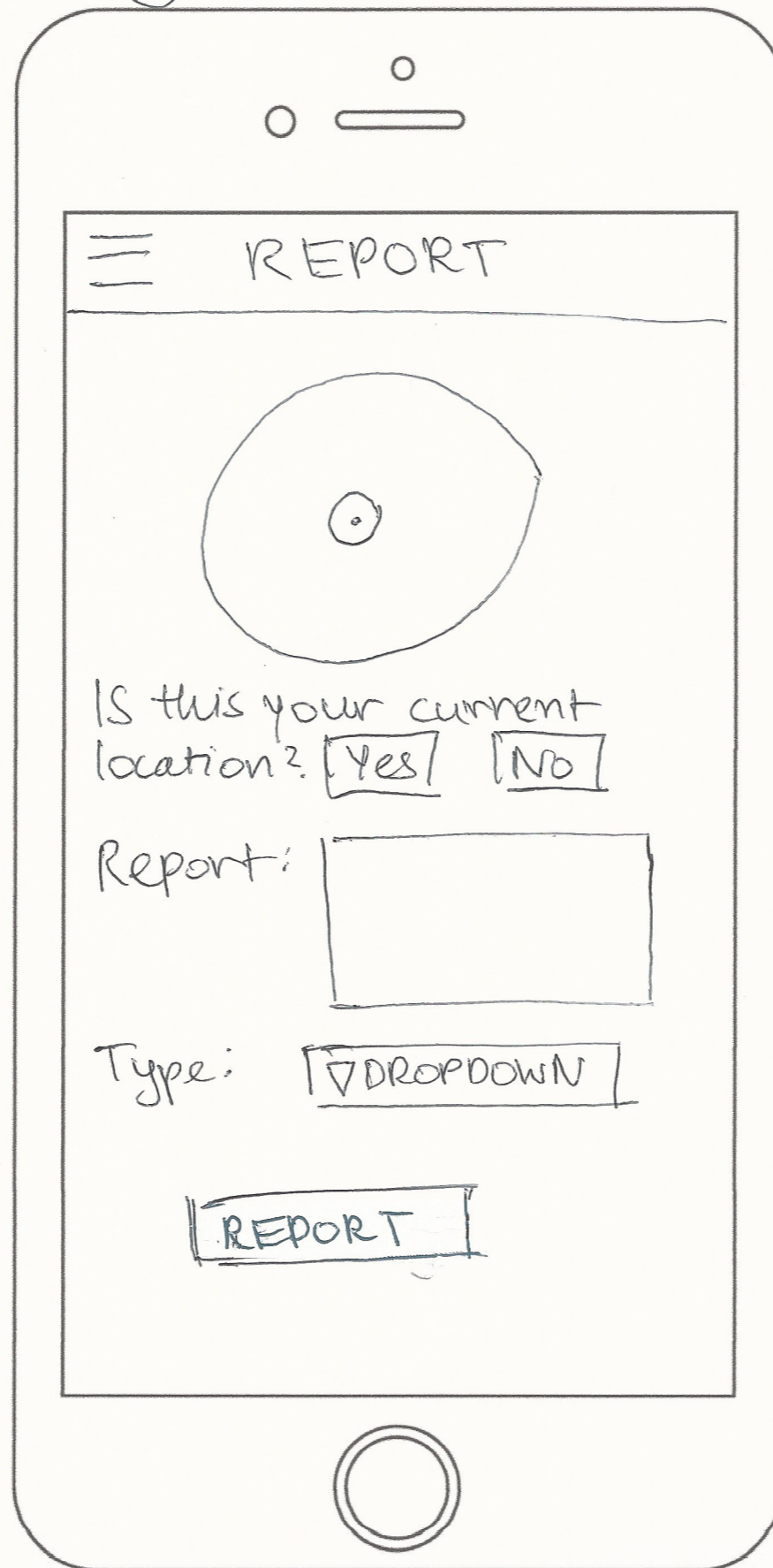
①

SIGN
OFF



④ REPORT

③



Location on map with radius

IF "No" → refreshes location

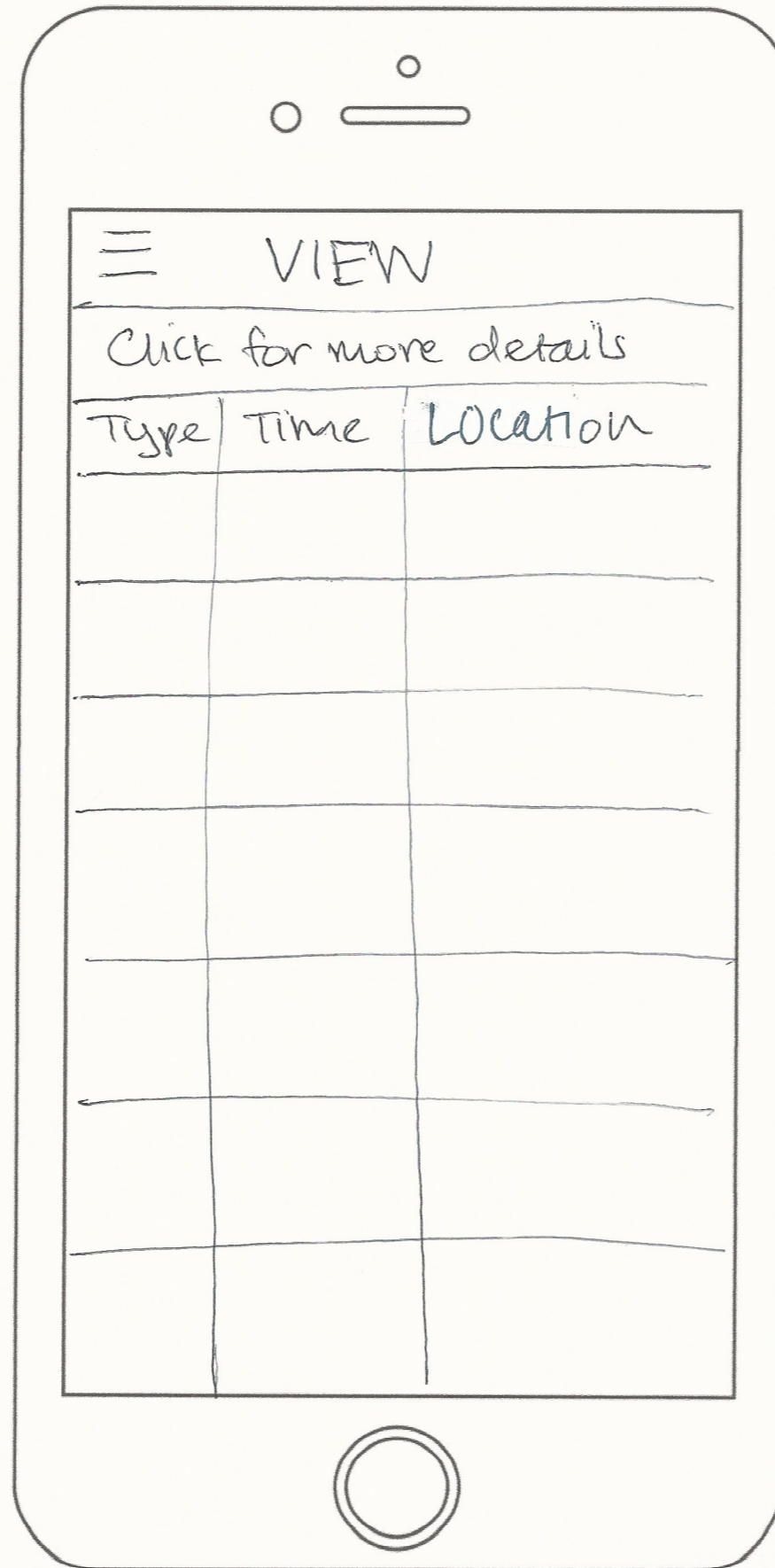
⑤

- Types:
- Arrest
 - Arson
 - Assault
 - Burglary
 - Robbery
 - Shooting
 - Theft
 - Vandalism
 - Other
 - Unknown



⑤ VIEW

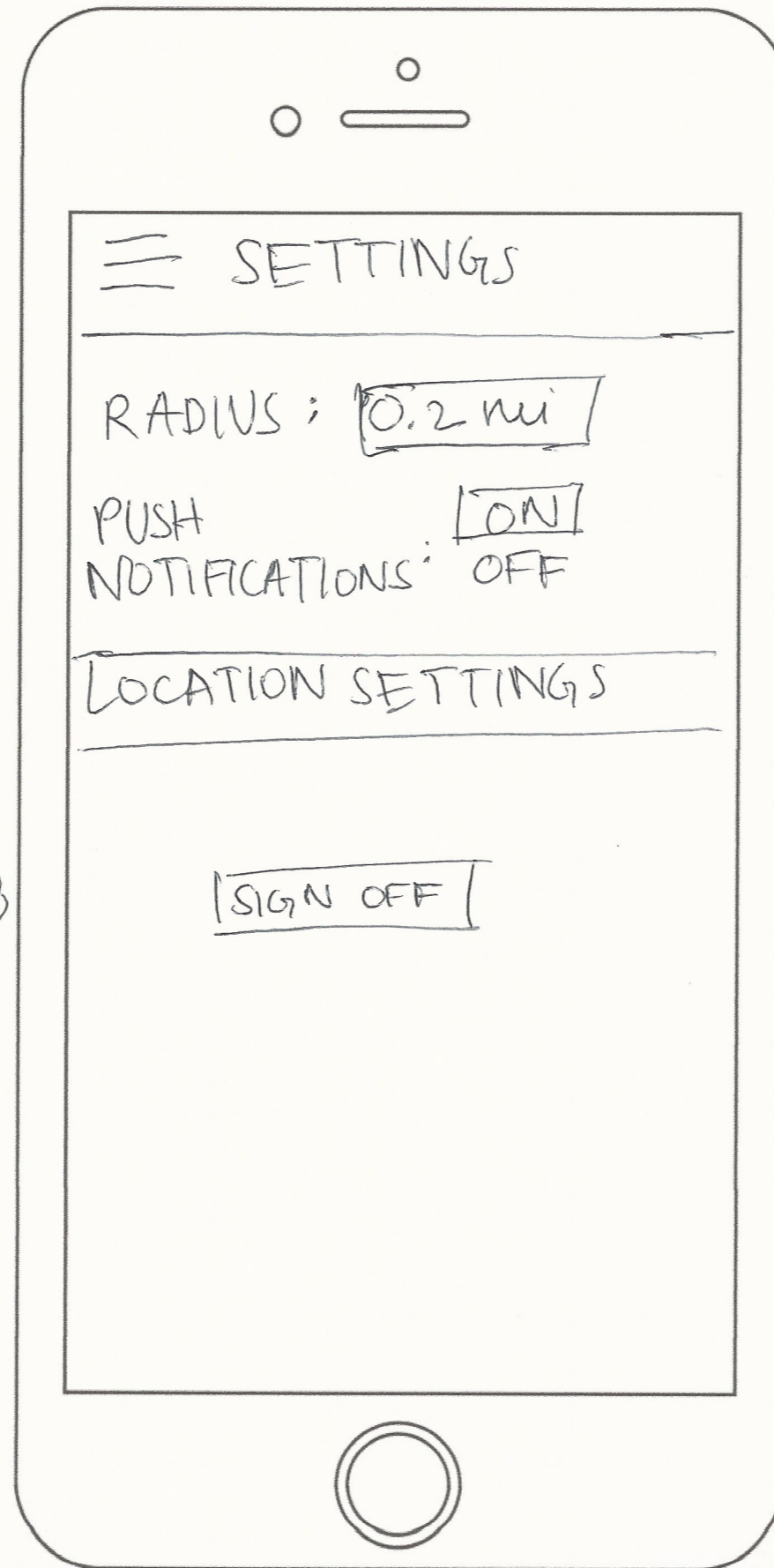
③



- Details:-
- ① User inputted vs police recorded
 - ② Type
 - ③ Time
 - ④ Location
 - ⑤ Report



⑥ SETTINGS



SETTINGS APP

⑥



- ▶ [SOCRATA.COM](https://socrata.com)
- ▶ [CRIMEREPORTS.COM](https://crimereports.com)
- ▶ [SPOTCRIME.COM](https://spotcrime.com)
- ▶ **GOOGLE MAPS API**
- ▶ **SHOW LAT/LONG LOCATION ON MAP WITH RADIUS**

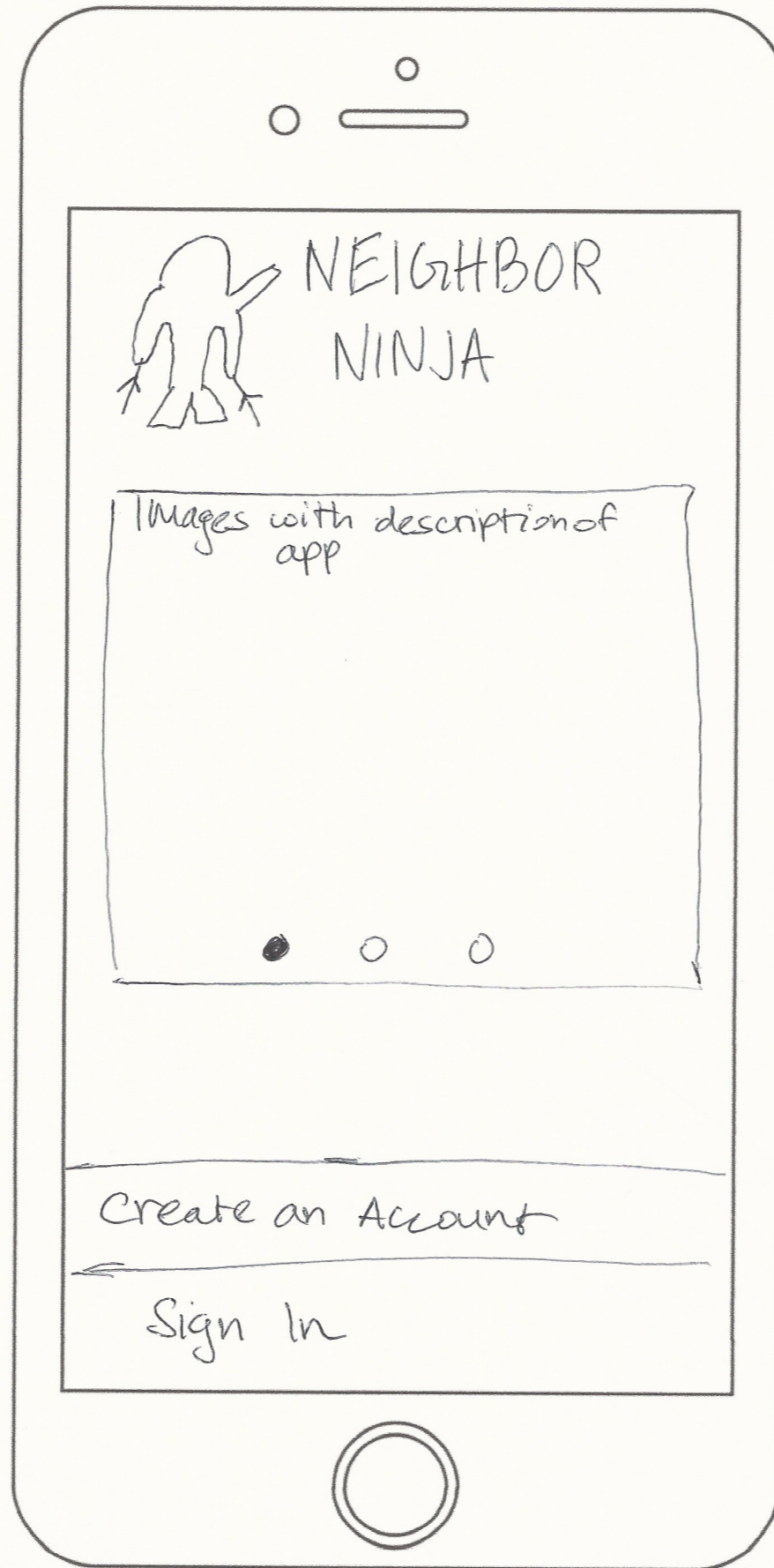


- ▶ [HTTP://WWW.MOVABLE-TYPE.CO.UK/SCRIPTS/LATLONG-DB.HTML](http://www.movable-type.co.uk/scripts/latlong-db.html)
- ▶ CREATES UPPER AND LOWER BOUNDS
- ▶ EFFICIENT
- ▶ FINDS OTHER USERS WITHIN CIRCLE DEFINED BY RADIUS



MEETING 3

NEIGHBOR NINJA



①

②



① CREATE ACCOUNT

A hand-drawn sketch of a mobile application screen for account creation. At the top, there is a navigation bar with a back arrow and the text "< HOME". Below this is a header section featuring a simple line drawing of a person with wings and the text "NEIGHBOR NINJA". The main content area consists of five horizontal input fields, each with a label: "NAME", "EMAIL ADDRESS", "PASSWORD", and "ADDRESS". At the bottom of the screen, there is a large rectangular button with the text "CREATE ACCOUNT". The entire screen is enclosed in a rounded rectangular border, with a small circle and a horizontal line at the top center and a larger circle at the bottom center, representing the phone's status bar and home button.

(7)

update:
added address

update:
prompts for
location and
notifications

update:
back instead of
"signin"



② SIGN IN



update:
back button
instead of
create acc

⑦

①



③ SIDE BAR

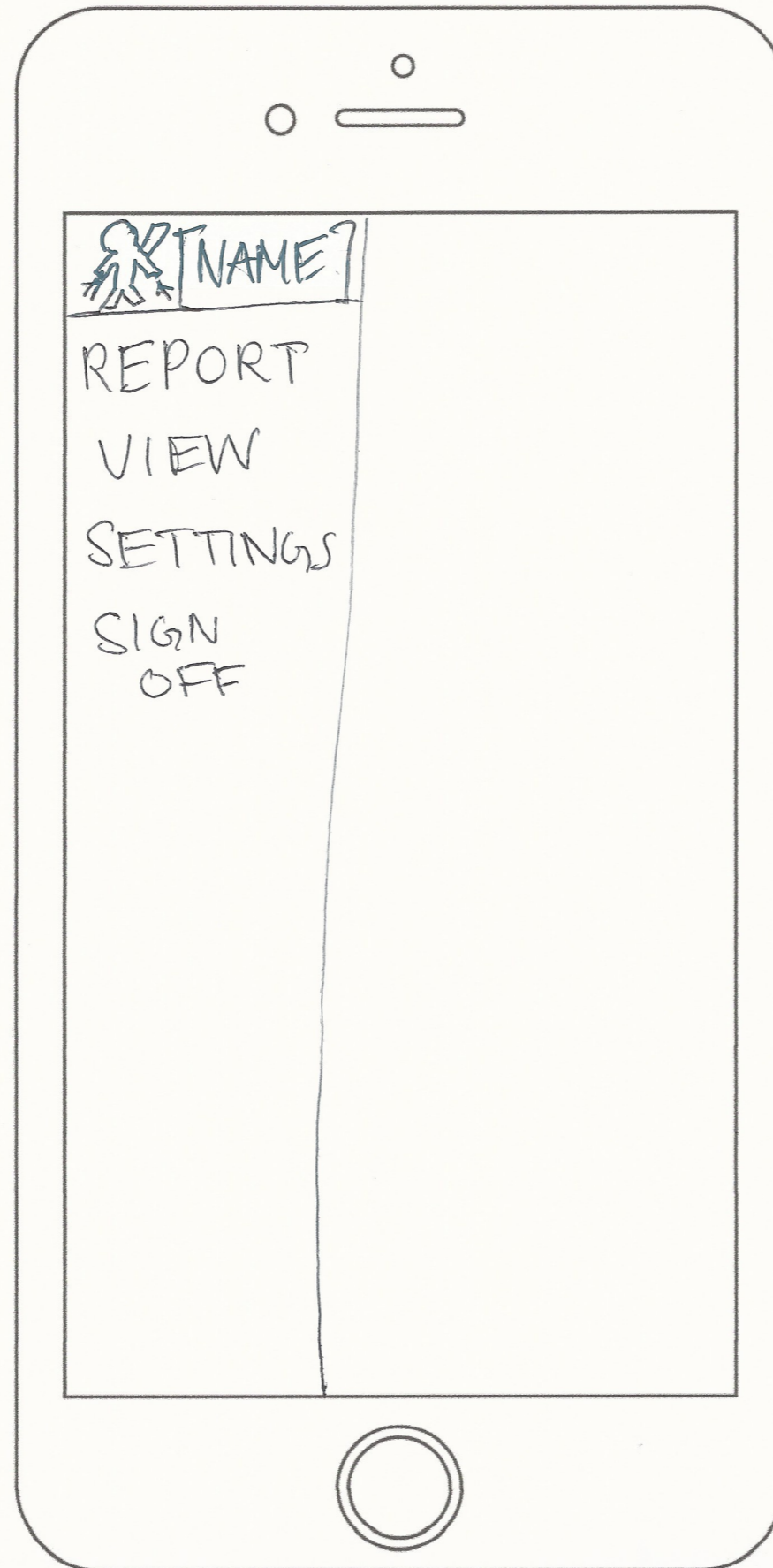
⑦

④

⑤

⑥

①



update:
insert logo



④ REPORT

③

☰ REPORT

Location on map with radius

Is this your current location? Yes No

Report:

Type:

Location on map with radius

IF "No" → refreshes location

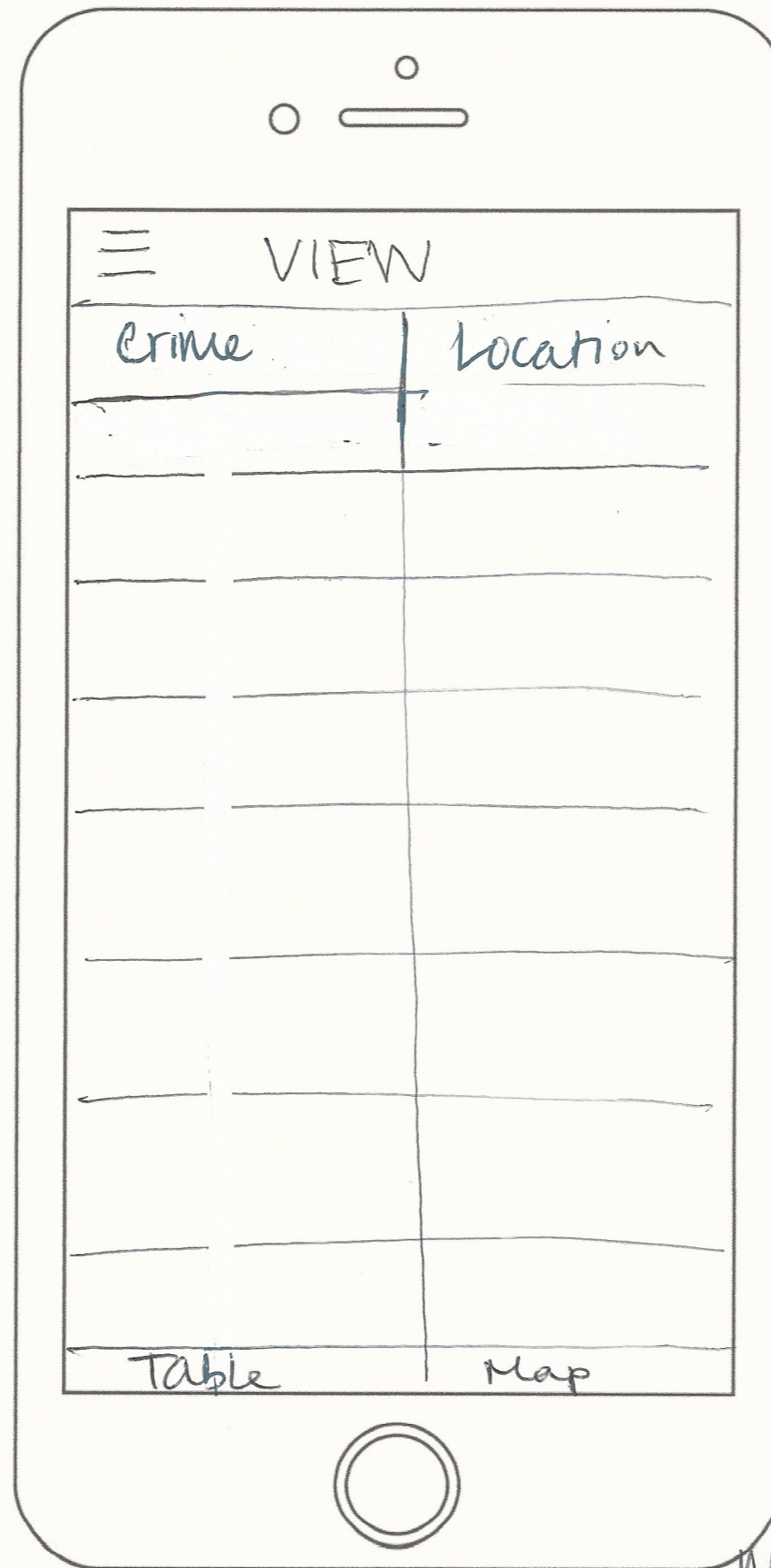
⑤

- Types:
- Arrest
 - Arson
 - Assault
 - Burglary
 - Robbery
 - Shooting
 - Theft
 - Vandalism
 - Other
 - Unknown



⑤ VIEW

③

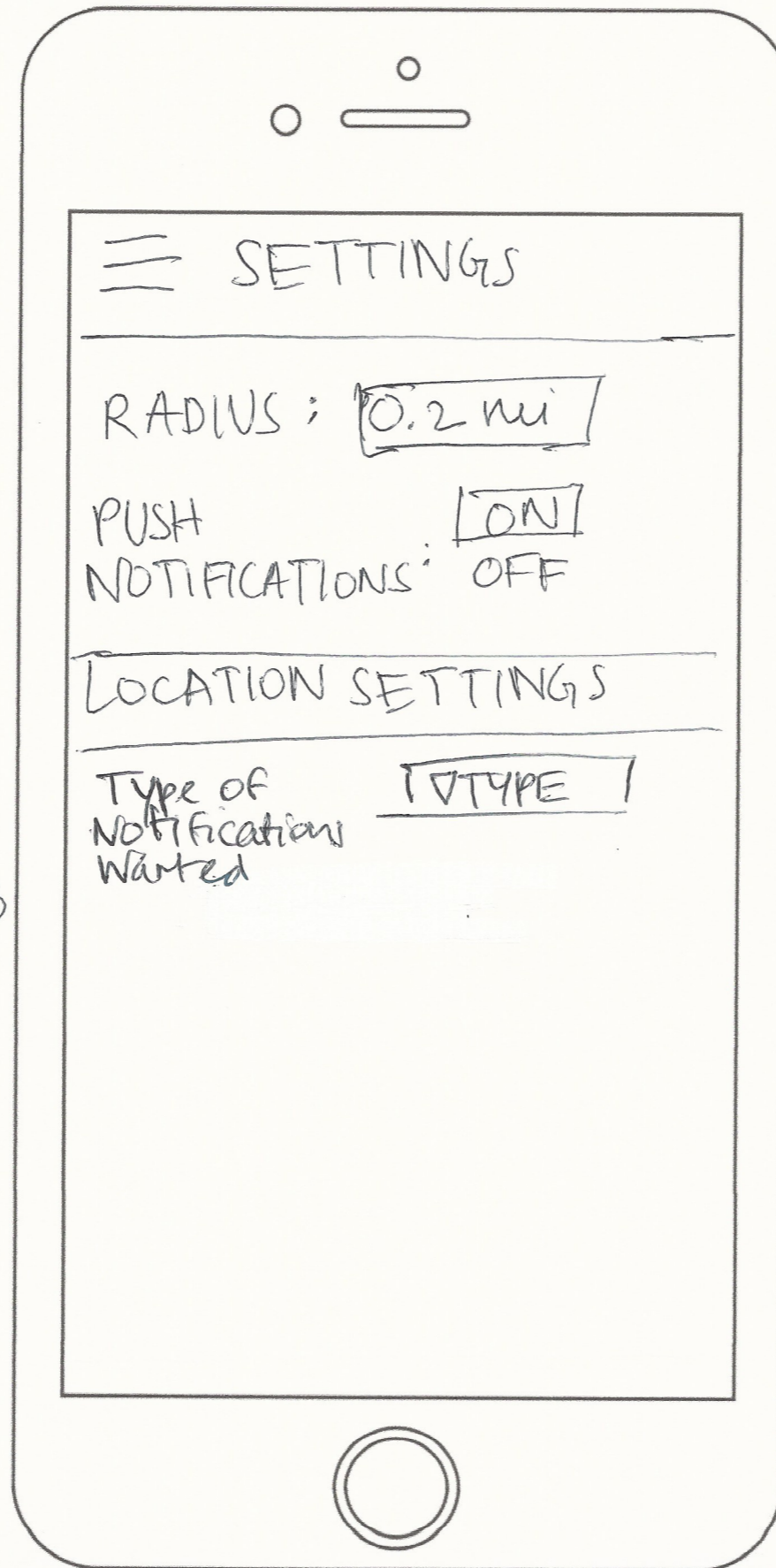


- Details:
- ① User inputted vs police recorded
 - ② Type
 - ③ Time
 - ④ Location
 - ⑤ Report

update:
click on Map →
Map w/ pins
click on crime
→ zoom to
Map w/ details
and pin



6 SETTINGS



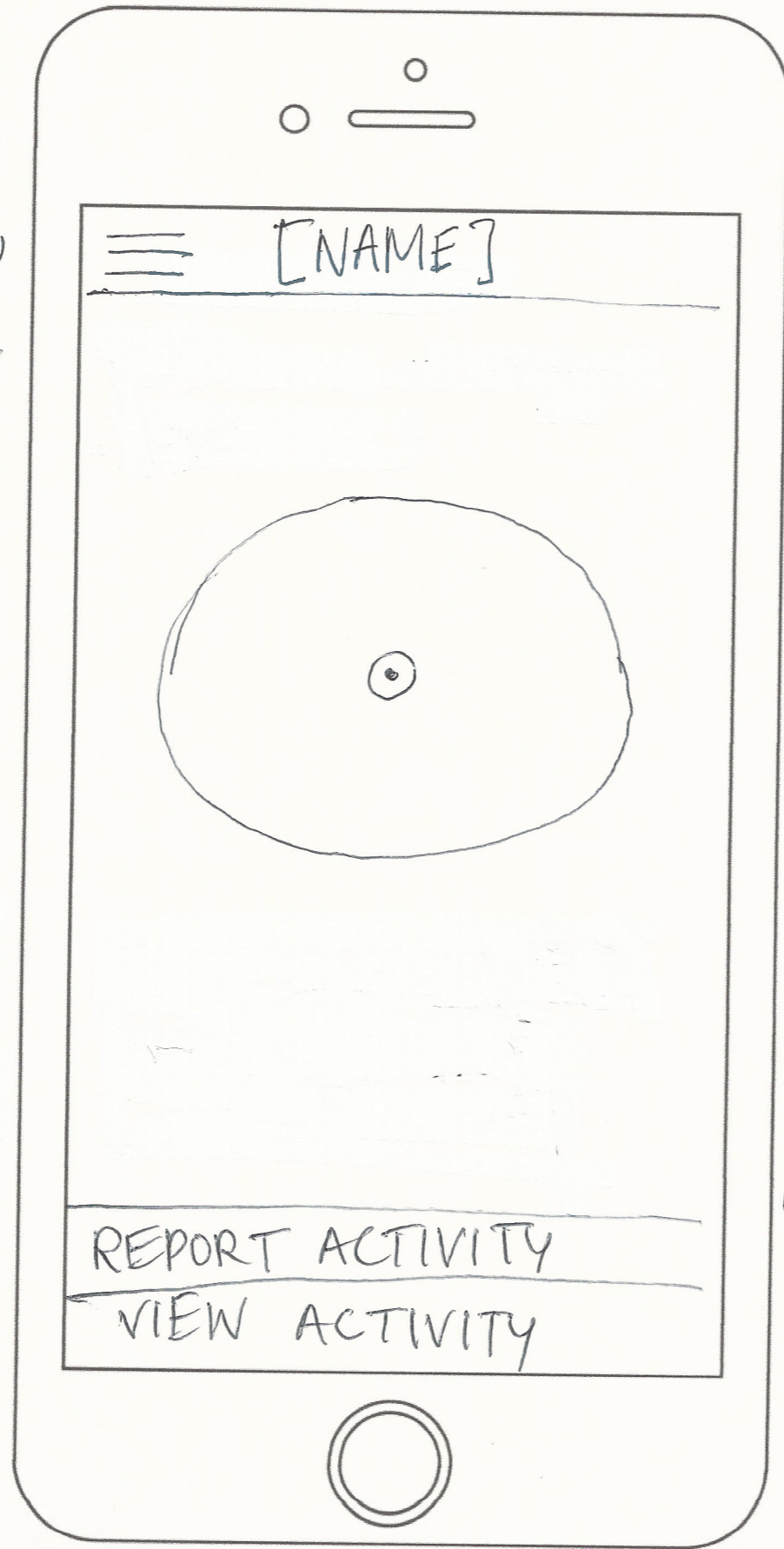
6

SETTINGS APP

update:
removed
sign off
button
- type setting



⑦ HOME



update:
remove
"you are
currently
at"

Location on
Map with
Radius

update:
shift
buttons
down



- ▶ **USER REPORT: CURRENT LOCATION**
USER NOTIFICATION: HOME LOCATION
- ▶ **APPLE MAPS**
- ▶ **ALAMEDA COUNTY BETA**



- ▶ **ALAMEDA COUNTY DATA**
 - ▶ **SOCRATA API**
- ▶ **DATABASE CONNECTION**
- ▶ **CIRCLE ON MAP VIEW**
- ▶ **LABEL RELOADS AFTER I QUIT AND REOPEN APP**



- ▶ **DATABASE DESIGN**
- ▶ **DEMO ACCOUNT REGISTRATION, LOGIN, DUMMY HOME PAGE**
- ▶ **SODA SDK TEST**



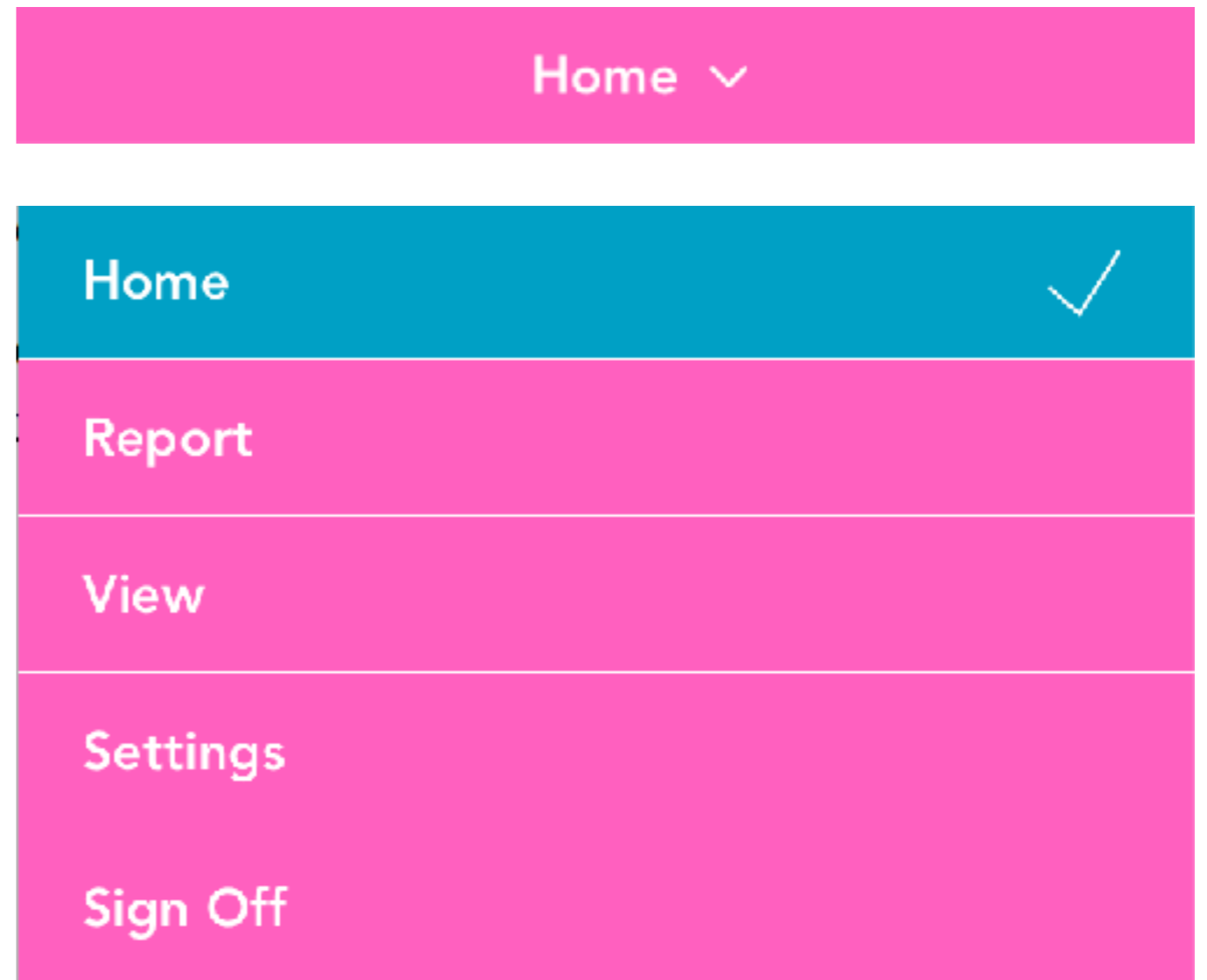
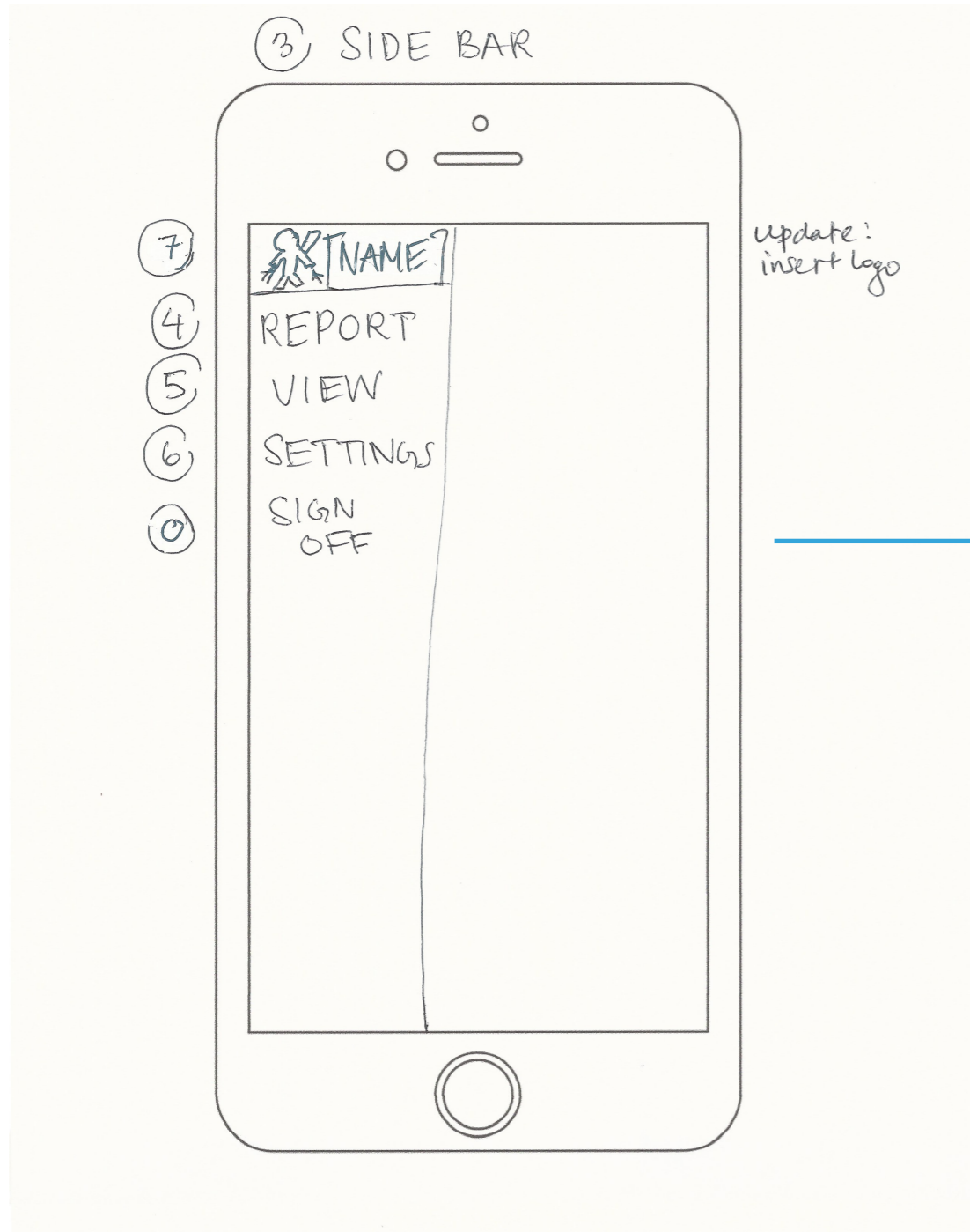
- ▶ **JULY 1 – JULY 22: BUILD**
- ▶ **JULY 22 – JULY 29: DESIGN (MAKE MORE APPEALING), FINAL TOUCH UPS**
- ▶ **JULY 29 – AUGUST 5: MARKET
END OF INTERNSHIP**
- ▶ **AUGUST 5 – AUGUST 26: ALAMEDA COUNTY BETA**
- ▶ **AUGUST 26 – FUTURE: CHANGES BASED ON BETA, EXPAND TO OTHER COUNTIES**



MEETING 4

NEIGHBOR NINJA

▶ NAVIGATION BAR



▶ DESIGN

▶ PINK THEME TBD

▶ ADDRESS FIELD

▶ DB CONNECTION

▶ UPDATED DB TABLE (DESCRIPTION)



#	Name	Type	Collation	Attributes	Null	Default	Extra	Action		
<input type="checkbox"/>	1 ID	int(11)			No	None	AUTO_INCREMENT	Change	Drop	More
<input type="checkbox"/>	2 timestamp	timestamp			No	CURRENT_TIMESTAMP		Change	Drop	More
<input type="checkbox"/>	3 type	varchar(255)	latin1_swedish_ci		No	None		Change	Drop	More
<input type="checkbox"/>	4 userid	int(11)			No	None		Change	Drop	More
<input type="checkbox"/>	5 lat	float(10,6)			No	None		Change	Drop	More
<input type="checkbox"/>	6 lng	float(10,6)			No	None		Change	Drop	More
<input type="checkbox"/>	7 description	varchar(255)	latin1_swedish_ci		No	None		Change	Drop	More



- ▶ **VIEW REPORTED CRIMES BASED ON ADDRESS**
- ▶ **LAT/LONG OF ADDRESS/CURRENT LOCATION BEING SAVED**
- ▶ **LOCAL VS DB INFO**



- ▶ **REMOTE ACCESS TO DB**
- ▶ **GETNNINJA.COM**
 - ▶ **INFO/BLOG**
- ▶ **SEPARATING LAT/LONG STRING FROM COUNTY DB TO MAP IT**

Location 1	 
(37.67705445°, -122.11298064°)	
(37.71437982°, -122.02231781°)	
(37.66655037°, -122.10000611°)	
(37.66655037°, -122.10000611°)	
(37.66655037°, -122.10000611°)	
(37.68589075°, -122.06327902°)	
(37.69781444°, -122.10989918°)	
(37.75294423°, -122.16037789°)	
(37.75294423°, -122.16037789°)	
(37.69781444°, -122.10989918°)	
(37.76260104°, -122.20690898°)	



- ▶ **THIS WEEK:**
 - ▶ **INVITE FUNCTION**
 - ▶ **SEARCH FUNCTION**
 - ▶ **ALL BASIC SCREENS**
 - ▶ **REPORT/SETTINGS**
 - ▶ **“NEIGHBORS” SCRIPT**
- ▶ **NEXT WEEK**
 - ▶ **PUSH NOTIFICATIONS (DEV ACC, AWS)**



- ▶ **CONSOLIDATE OLD CRIMES**
- ▶ **IDENTIFY DUPLICATES**
- ▶ **COMPARE LAT/LONG & TIME**



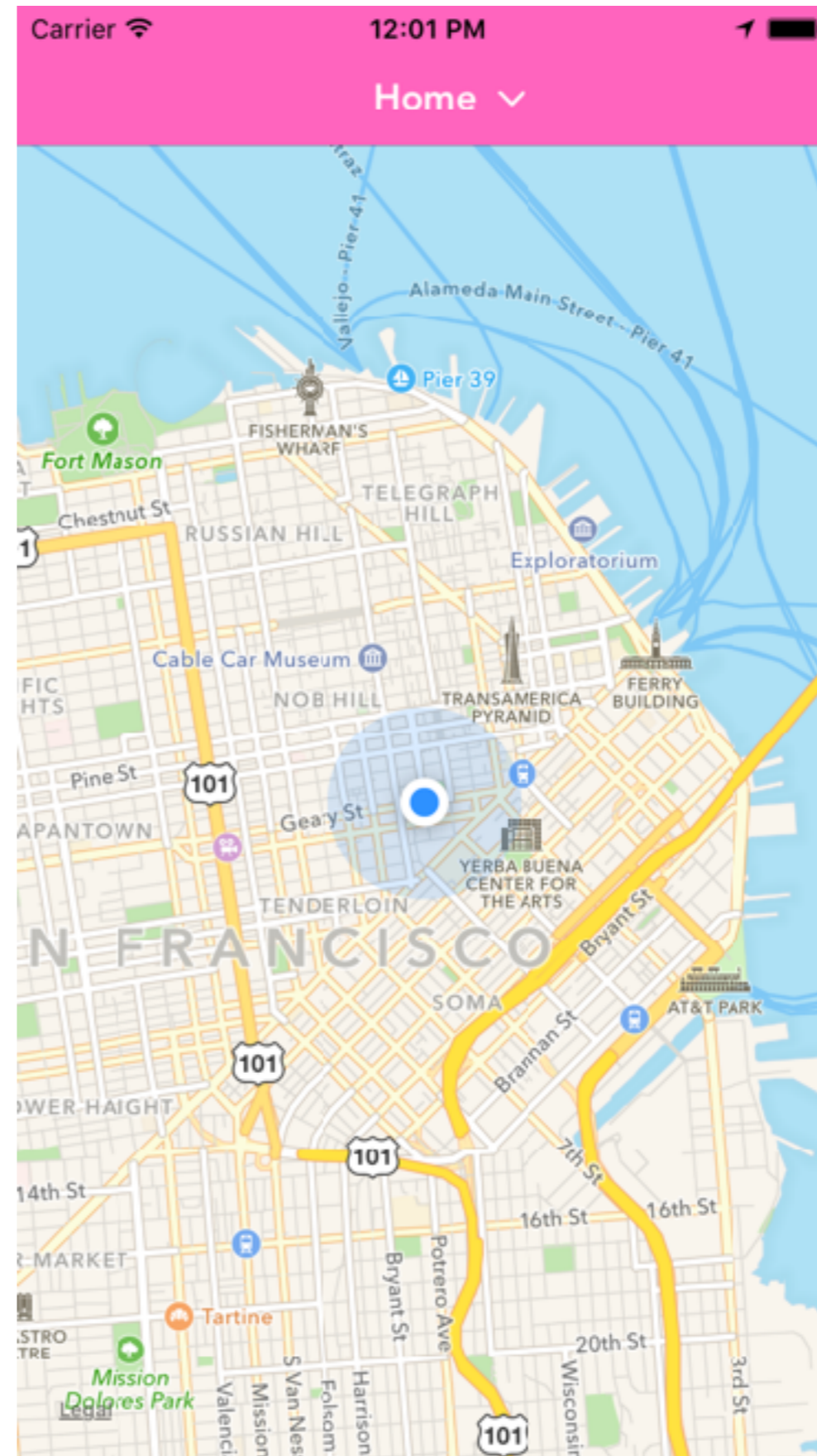
MEETING 5

NEIGHBOR NINJA

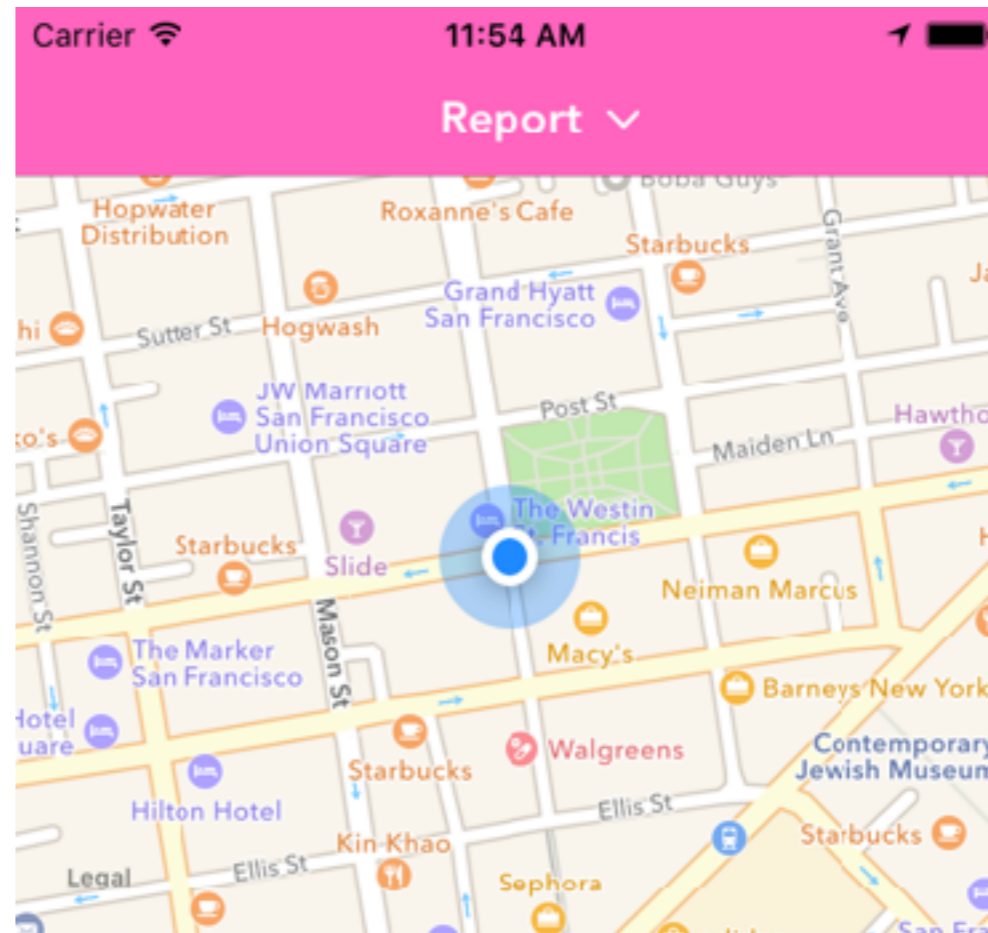
- ▶ **GOT RID OF “BACK” BUTTON ON MOST SCREENS**
- ▶ **MADE LAT/LONG LONGER IN DATABASE FOR MORE ACCURATE LOCATIONS (15, 6) TO (15, 8)**
- ▶ **“CRIMEREPORT” DB**
- ▶ **“NEIGHBORS” SCRIPT**
 - ▶ **BOX AROUND USER**



▶ HOME SCREEN



▶ REPORT SCREEN



Radius: 10000.0 m

Arrest

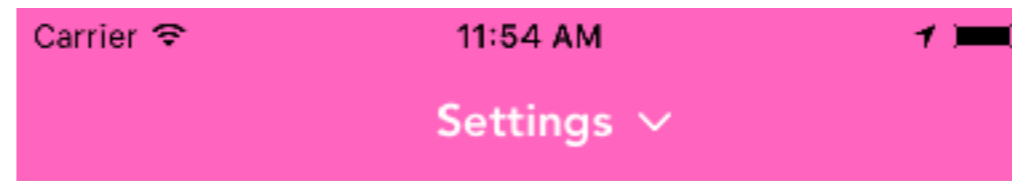
Arson

Assault

Submit Report



▶ SETTINGS SCREEN



Current Radius: 10000.0 m

[New Radius]

Change Radius



▶ SEPARATING LAT/LONG FROM STRING



- ▶ **THIS WEEK:**
 - ▶ **SWITCH TO AWS**
 - ▶ **SIGN UP FOR APPLE DEV ACCOUNT**
 - ▶ **IMPLEMENT PUSH NOTIFICATIONS**
 - ▶ **PARSE LAT/LONG STRING TO DISPLAY ON MAP**
 - ▶ **SEARCH FUNCTION**
 - ▶ **SUBMITTED CRIMES IN TABLE**



▶ **NEXT WEEK:**

▶ **LOCAL TESTING**

▶ **AUTO-LAYOUT**

▶ **IN TWO WEEKS:**

▶ **PUBLISH TO APP STORE**

▶ **MARKET**

▶ **START ALAMEDA COUNTY BETA**

▶ **UPDATE BASED ON FEEDBACK**



- ▶ **CURRENT LOCATION AS ADDRESS WHEN SIGNING UP**
- ▶ **TYPES OF PUSH NOTIFICATIONS WANTED**
- ▶ **IDENTIFYING SPAM/DUPLICATES**
- ▶ **CONSOLIDATING OLD CRIMES**



MEETING 6

NEIGHBOR NINJA

- ▶ **CONNECTED TO AWS**
- ▶ **CAN BE ACCESSED BY ANY IOS DEVICE**
- ▶ **FINDING GLITCHES WHILE TESTING**
- ▶ **TAB BUTTON**
- ▶ **MAPPING CRIMES**



- ▶ **RUNNING ON SIMULATOR VS RUNNING ON DEVICE**
- ▶ **SETTING UP EC2 SERVER ON AWS**



- ▶ **7/21 - 7/28**
 - ▶ **PUSH NOTIFICATIONS**
 - ▶ **LOCAL TESTING AND UPDATES**
- ▶ **7/28 - 8/4**
 - ▶ **DESIGN (AUTO-LAYOUT, VISUALLY APPEALING)**
 - ▶ **UPDATE WEBSITE (REDESIGN FOR BETA)**
 - ▶ **PUBLISH FOR BETA (INVITE CODES)**



▶ **8/18 – 8/25**

- ▶ **CONTINUE WITH UPDATING BASED ON FEEDBACK FROM BETA USERS**
- ▶ **UPDATE WEBSITE**
- ▶ **END BETA; ALLOW ALL USERS**
- ▶ **START MARKETING (POLICE DEPARTMENT, SOCIAL MEDIA)**



MEETING 7

NEIGHBOR NINJA

- ▶ **SERVER REMOTE ACCESS**
- ▶ **PUSH NOTIFICATIONS THROUGH FIREBASE**
- ▶ **DESIGN**
 - ▶ **AUTO-LAYOUT**



▶ RETRIEVING DEVICE/INSTANCE ID TO SEND NOTIFICATION TO SINGLE DEVICE



- ▶ **REFINE MAP FEATURE (BUGS)**
- ▶ **PUSH NOTIFICATIONS**
- ▶ **REFORMAT WEBSITE**
- ▶ **TESTING**
- ▶ **MINOR UPDATES**
 - ▶ **SET MAXIMUM RADIUS**
 - ▶ **ADD BACK BUTTONS WHERE NEEDED**
- ▶ **DEPLOY AS BETA**



- ▶ **RECEIVE FEEDBACK AND IMPROVE**
- ▶ **START MARKETING**
- ▶ **MAKE SURE MAJOR BUGS ARE FIXED BEFORE RELEASING TO PUBLIC**
- ▶ **SECURITY**



- ▶ **GET INFO FROM DB INSTEAD OF LOCALLY**
- ▶ **INVITE FUNCTION**
- ▶ **SEARCH BAR**
- ▶ **DISPLAY USER-INPUTTED CRIMES ON HOME MAP**
- ▶ **CURRENT LOCATION INSTEAD OF HOME ADDRESS DURING SIGN UP**
- ▶ **TYPES OF PUSH NOTIFICATIONS**
- ▶ **IDENTIFYING SPAM/DUPLICATES**

