Project Documentation for Burglar Alarm Application
Project Name: Poplach

Inception Phase
February 1, 2018
By: _____
SEIS-610

Project Vision:

We are going to create a software application that behaves as a burglar alarm for mobile phones.   This application will sound when it detects and intruder or when the mobile phone is moved in an attempt to be stolen.   Phone owners will be able to set a security code to arm and disarm the alarm.   When a theft is detected, appropriate notifications will be sent indicating where the device is.

Project Limitations:

This application will only run on Android devices.
Movement will trigger the alarm, but not adjust sound level.
There will be no attempt to permanently disable the device.
This application will not run on other devices besides android.
There will be a minimum version of Android device required.

Business Case:

We estimate that it will take 340 tomatoes to implement this project.   We are going to assume each tomato is 4 hours.   Total time spent on the project will be 1360 hours.

Reviewing the android application marketplace, it is discovered that there are more than 100 similar applications for free.

[Similar apps should be listed here]

[Open source apps should be listed here]

It seems a very high business risk exists that not even one person will use this application.

Buy or build: We have decided to build…because if we can help just one person protect their phone, it will be worth it.
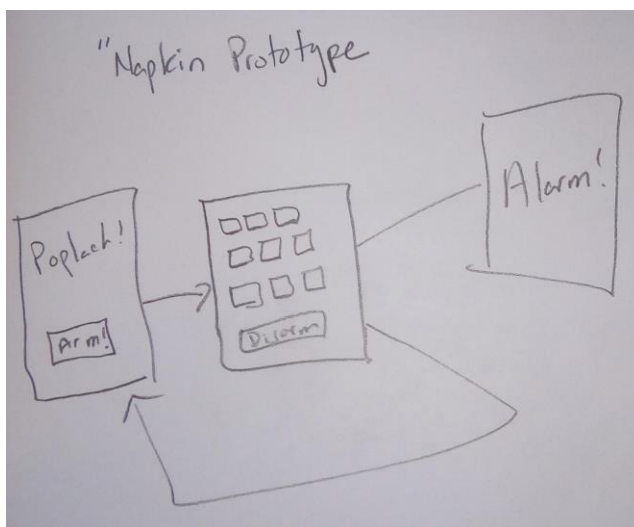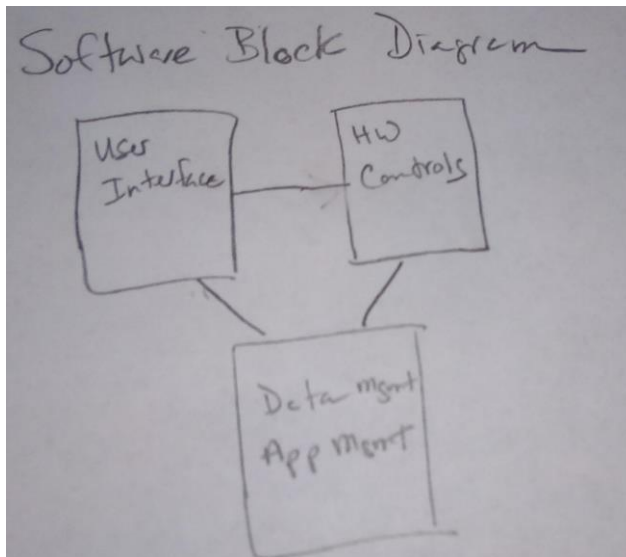
Non-Functional Requirements:

- Should have a standard click through license / warranty disclaimer including "No warranty what-so-ever! If phone is stolen too bad. If you are robbed in your sleep at a hotel not our fault."

- Should be bundled to sell in the Google Play store.

Software Risks:

a. Understanding and using and programming the device accelerometer
b. Understanding and using telephone and text message interface
c. Understanding and using email interface

Candidate Architecture:

- It will be a native android application written in java.

Software Block Diagram

User Interface — HW Controls — Data mgmt App mgmt

"Napkin Prototype

Poplach! / Arm! — [grid] Disarm — Alarm!

User Stories

1. As an android owner, I would like to be able to run application to protect my phone from movement which makes a noise when moved so that I can be assured it will be in the same location when I return.

    tomatoes: 50

2. As an android owner, I would like to receive a text message with the phone lat/lon so if my device is moved so that I have a hope of getting it back.

    tomatoes: 120

3. As an android owner, I would like to receive an email with the phone lat/lon so that if my device is moved I have a hope of getting it back.

    tomatoes: 120

4. As an android owner, I would like information if my android device was "borrowed" and put back.
    tomatoes: 30

5. As an android owner, I would like a to be able to secure my device with a simple code so I don't have to do complex steps to set things up.

    tomatoes: 20

Total tomatoes: 340

Glossary/Dictionary:

Alarm – a noise that is made when a trigger is hit.

Trigger – An amount of movement/level registered by the accelerometer.

Code – The numbers or letters a user has to enter to arm/disarm the application.

Arm – Enable the software to sound the alarm when triggered.

Disarm – Disable the software so no alarm will sound or alarm sounding will end.

Accelerometer – Built in device on Android to detect movement in different directions.