

### Problem

Misconducts, thefts and crimes are targets of police officers of Pinecrest Police Department 24 hours a day 7 days a week. The faster and more secure the information is distributed through all officers, the most efficiently they can work and our community will be safer. Be On the Look Out (BOLO) is a solution to this problem, allowing officers to obtain all the required information in a world where the technology and the community services must be done together.

### Solution

The solution is to provide students and faculty a way to develop BOLO system and improve it as much as the needs of Pinencrest Police Department are required.


### Current System

BOLO System is hosted on a Linux or Windows server running

- ✓ Node.js 6.10 for the Backend
- ✓ Express
- ✓ Pug for Frontend
- ✓ MongoDB that is a noSQL database that can be hosted in a private server

#### Archived BOLOs

Filter BOLOs By:




**Auto Theft**

**Last Updated:** 2/4/2017, 10:39:11 AM

**Reported On:** Sat Mar 19 2016 12:45:00 GMT-0400 (Eastern Daylight Time)

**Posted By:** 9 siu

[View](#)



**Auto Theft**

**Last Updated:** 2/4/2017, 10:40:47 AM

**Reported On:** Wed Nov 02 2016 03:35:00 GMT-0400 (Eastern Daylight Time)

**Posted By:** 9 siu

[View](#)

#### Edit Login

Dashboard

Agency Management

User Management

Bolo Category Management

Data Analysis

Edit Login Page

Edit User Guide Page

Edit About Us Page

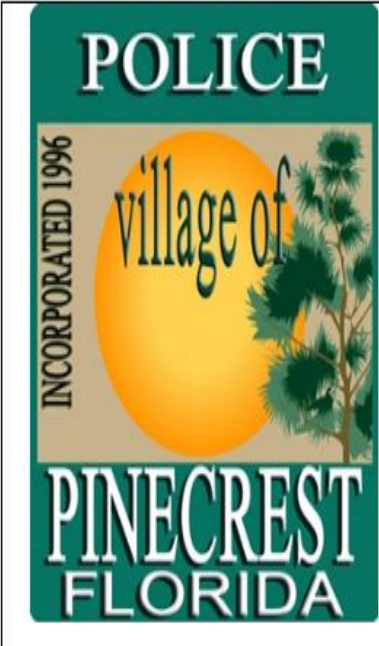
Image

Choose File

Title

Subtitle


Preview



Be On the Look Out

Pinecrest Police Department

#### BOLO Search Results




**Last Updated:** 2/4/2017, 10:39:11 AM

**Reported On:** Sat Mar 19 2016 12:45:00 GMT-0400 (Eastern Daylight Time)

**Posted By:**

[Details](#) [Restore](#) [Delete](#)




**Last Updated:** 2/5/2017, 9:43:31 PM

**Reported On:** Thu Dec 03 2015 12:30:00 GMT-0500 (Eastern Standard Time)

**Posted By:**

[Edit](#) [Details](#) [Archive](#)



**Last Updated:** 3/7/2017, 2:41:32 PM

**Reported On:** Sat Feb 15 2014 12:00:00 GMT-0500 (Eastern Standard Time)

**Posted By:**

[Edit](#) [Details](#) [Archive](#)

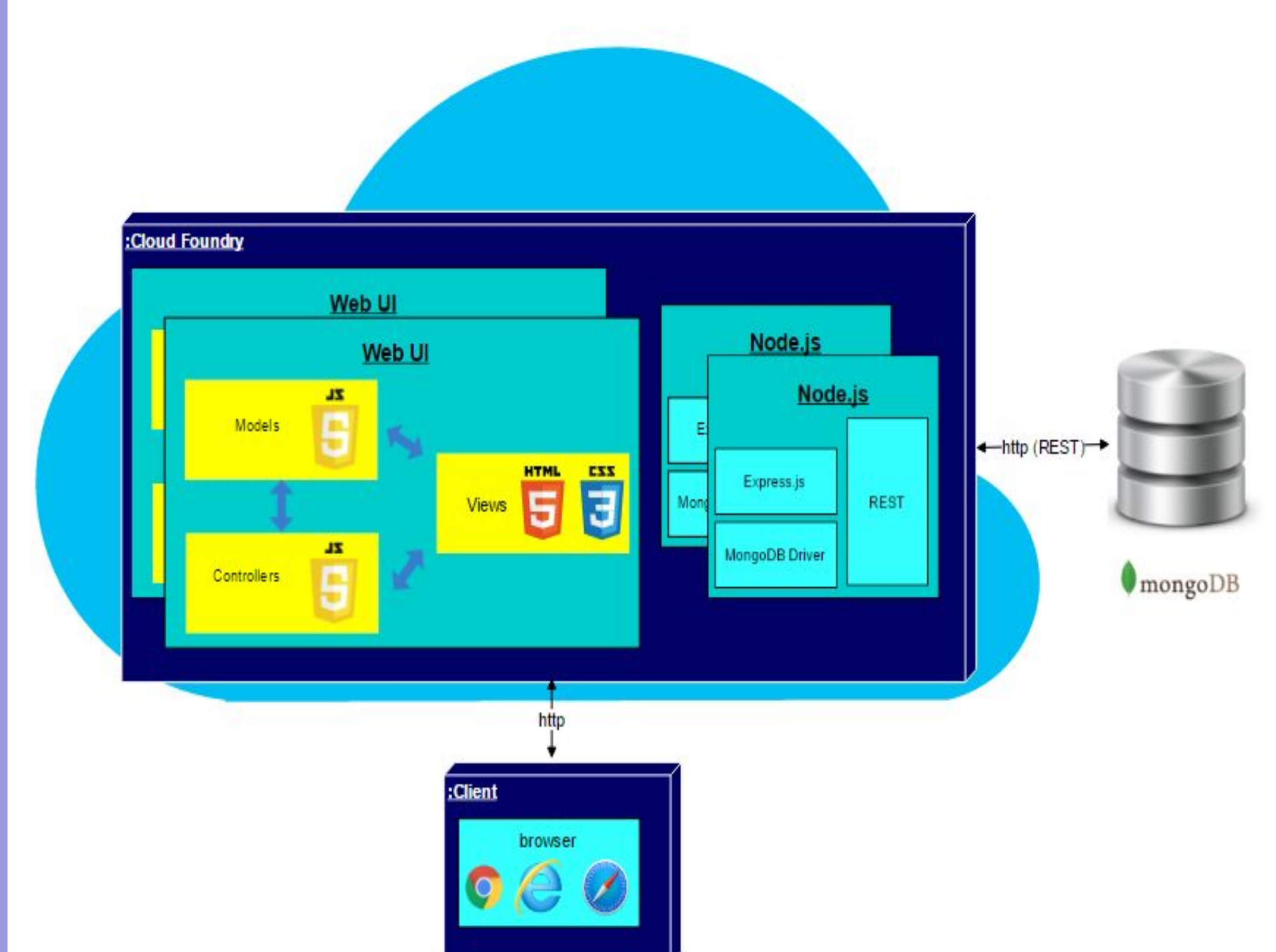
### Requirements

Requirements on the web application includes the following:

- ✓ Login with a user account
- ✓ Create, search, and View BOLOs
- ✓ Filter active and archived BOLOs
- ✓ Upload Photos for BOLOs and Agencies
- ✓ Ability To create different categories for different bolos
- ✓ Add internal option to create BOLO form
- ✓ Can Activate / Deactivate Users and Agencies
- ✓ Have a permanent Root user that has full control
- ✓ Edit webpages, such as "About Us", "User Guide" and "Edit Login Page"

### System Design

The system is designed using the Model-View-Controller and 3-tier



### Implementation

- ✓ BOLO-7.0 the update to the previous version (BOLO-6.0) and can run in Windows or Linux platform
- ✓ BOLO-7.0 is managed by the root user to add several user interfaces for administrators, supervisors and officers.
- ✓ The database used in BOLO-7.0 is MongoDB, which is an open source and fulfils the secure storage requirement.
- ✓ The client side requirements are implemented by Javascript, CSVtoJSON and Pug, while the server side requirements are fulfilled by Node.js and Express.
- ✓ Sengrind handles in a safely way any email for BOLO confirmation or creation

### Verification Unit Test

**ID:** BOLO\_EditLogin\_4

**Purpose:** Edit Logo or Title or Subtitle of LogIn Page

**Preconditions:**

The user should has root access  
The root should be Logged In  
The root should get into the Admin menu

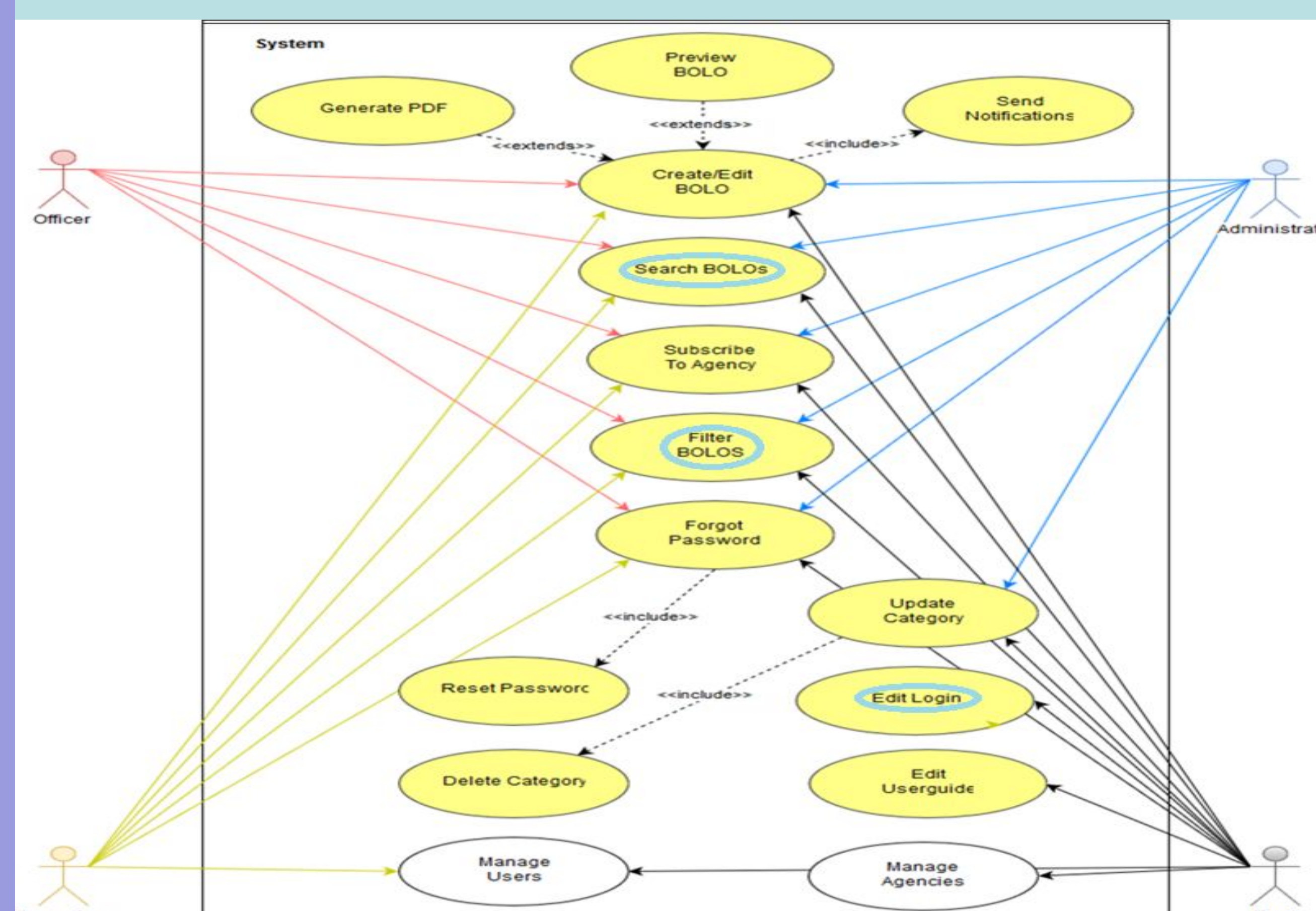
**Input:**

The root should log In  
The root should get into the Admin menu  
The root should click on the Edit Log In Page  
The root should change the title, subtitle, logo or any combination of them  
The root should save the changes by clicking in the SAVE button

**Expected Output:**

The root should be able to edit the Title, Subtitle or logo or any combination of them of the login page

### Object Design BOLO System Functionality



### Web Usability

BOLO app shows strong usability with respect to the elements of its design. The app itself is a novel idea for helping improve communication between users on the police departments. With some minor improvements could even represent an ideal application of web usability for a clearly defined user base.

### Summary

BOLO-7.0 will allow the police department to interact with the application quickly and easier. We contributed to develop the functionality and hope the future versions will do it in the same way.

### Acknowledgement

The material presented in this poster is based upon the work supported by Rachel Hill, Victor Estopinan and Mario Siu. I am thankful to the help that I received from my group members, the Village of Pinecrest Police Department, Chief Samuel Ceballos Jr, Major Jason Cohen and IT Administrator Frank Alvarado. Special thanks go to our instructors Francisco Ortega, Mohsen Taheri and Masoud Sadjadi.