Emergency Notification System

User Manual

Abstract

This document contains the information regarding the use of the Public Emergency Notification System or ENS. The ENS is a public emergency response services that can deploy alerts electronically during an emergency via text message and email. This system is designed to assist the Director in managing emergency alerts.

The software will allow the Director to oversee all aspects and creating contacts and notifying those contacts based on emergencies in the surrounding areas. This software includes an interactive user interface. It allows for the creation of emergency alerts, as well as updates to already existing alerts. This software also allows for the management of contacts who wish to be notified by the system.

This document contains the manual of how to use ENS. The rest of the document is order as follows: Chapter 1 describes the overview of the program. Chapter 2 contains explanations of how to create and manage contacts in the system. Chapter 3 includes instructions for creating and managing alerts in the system. Chapter 4 discusses other system functionality and features.

This document describes the functionality of ENS v. 1.1, dated April 12, 2018.

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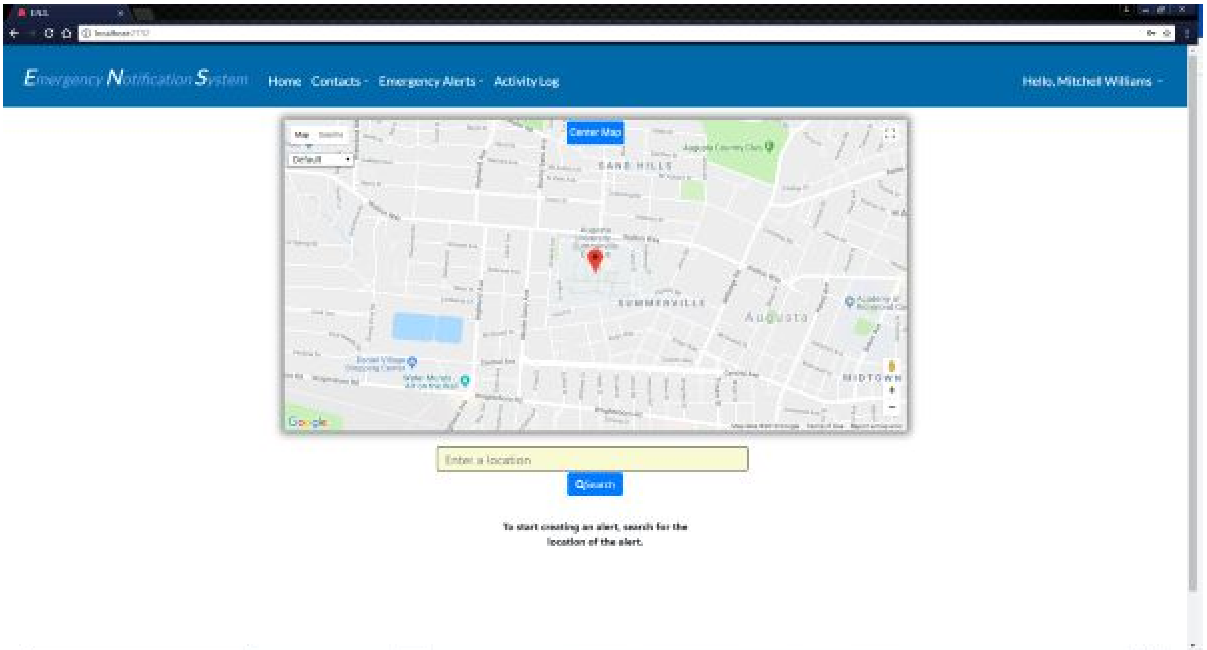
1. System Overview

1. Program Interface

ENS includes an interactive map used for the creation of alerts as shown in Figure 1.1. This is the home page. It the most accessible page in the application for quick use when having to create an alert during an emergency.

Figure 1.1 Home Page/Create Alerts Page



2. System Requirements

- The application is intended to be ran on a Windows operating system.
- The database is built-in to the application, so no extra configuration is required.
- A stable internet connection is required to host and connect to the application.

2. Contact Management Overview

1. Adding a Contact

a. In order to alert contacts using this system, we must first add contacts to the system. Navigate to the Create Contact page by clicking the Contacts dropdown and selecting “Create Contact”.

Figure 2.1 Navbar Create Contact Location

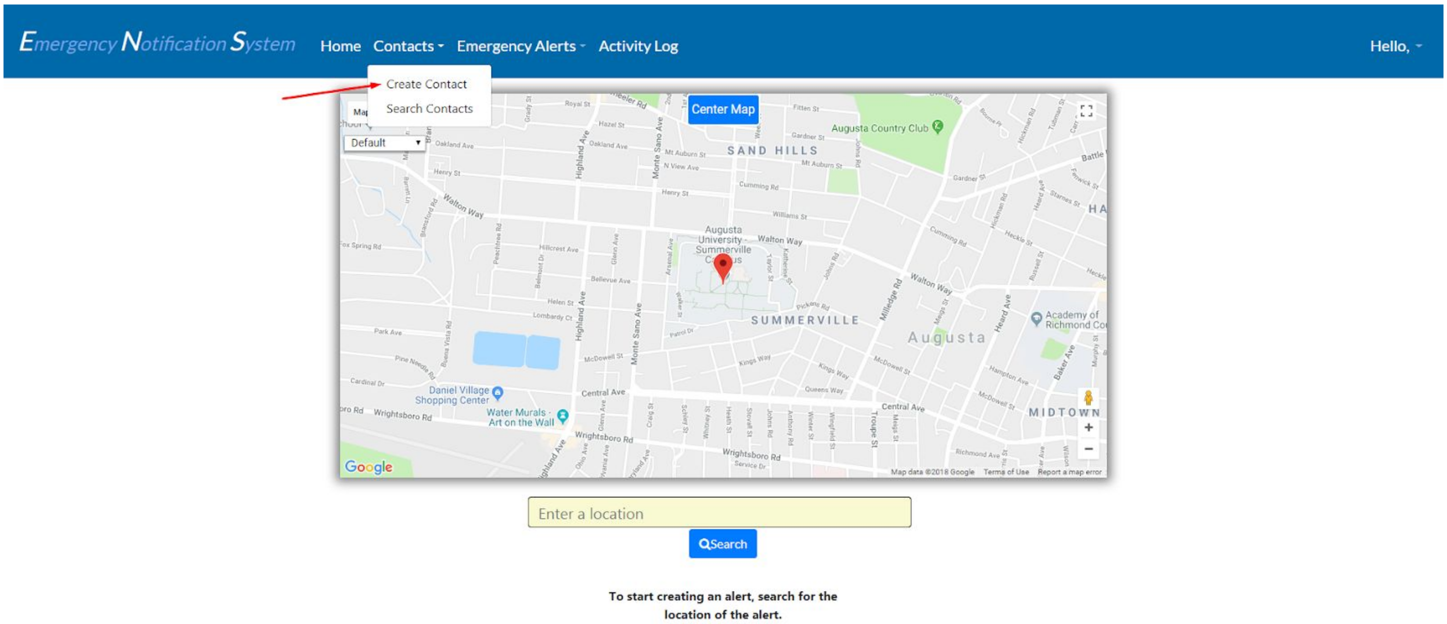
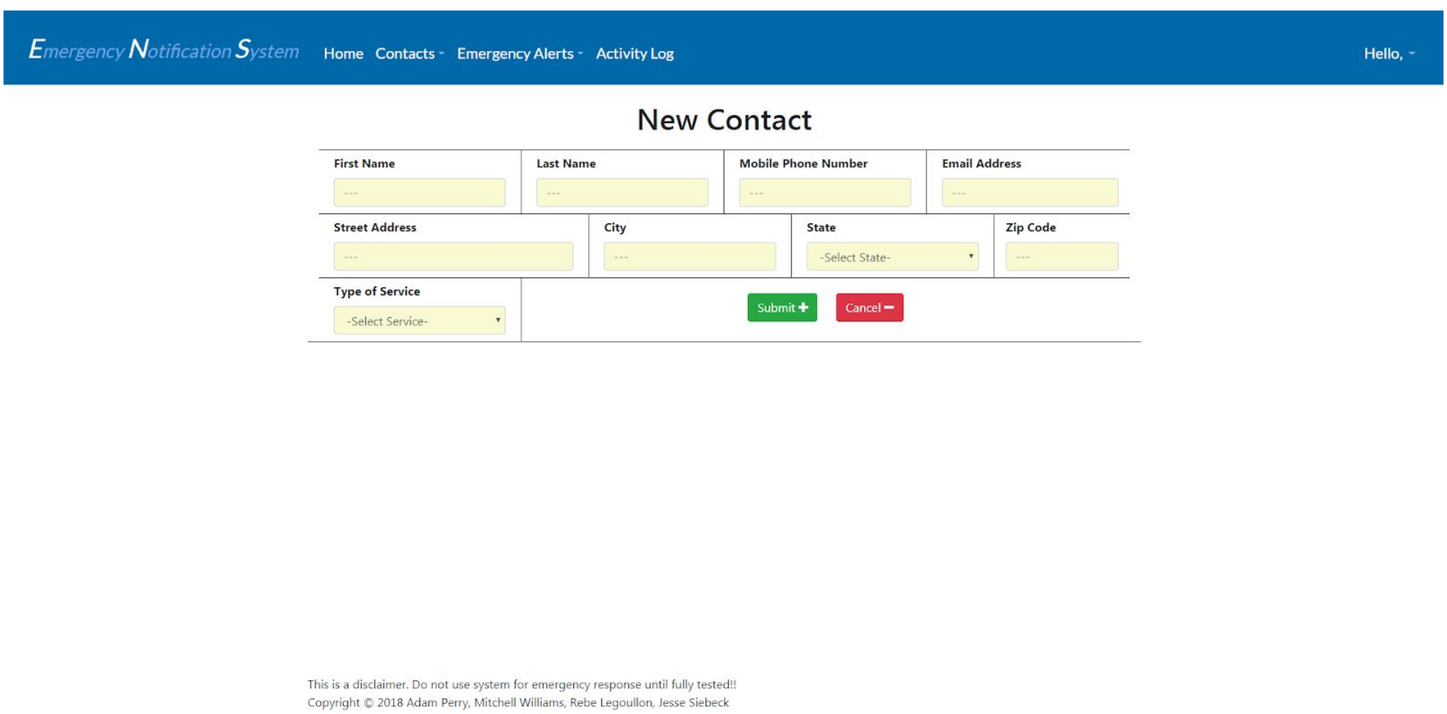
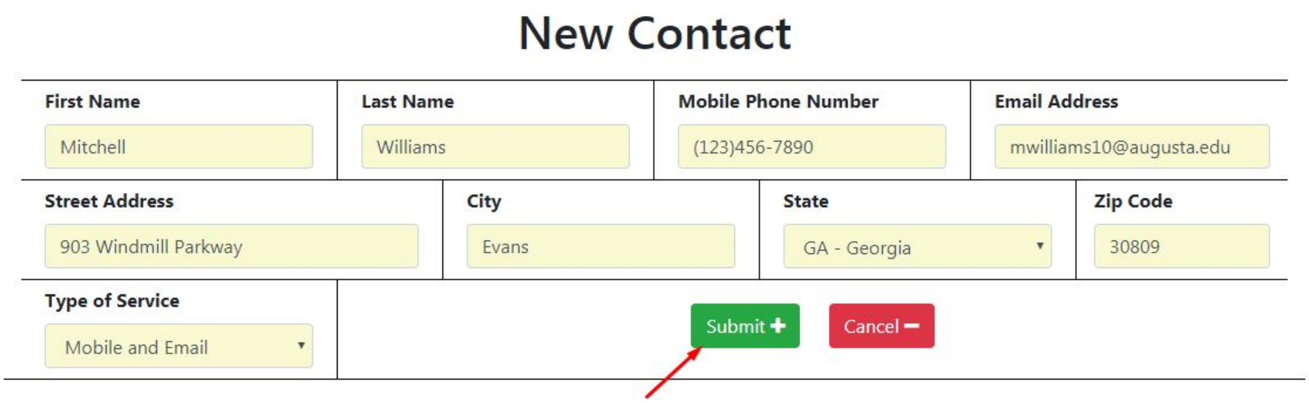


Figure 2.2 New Contact Page



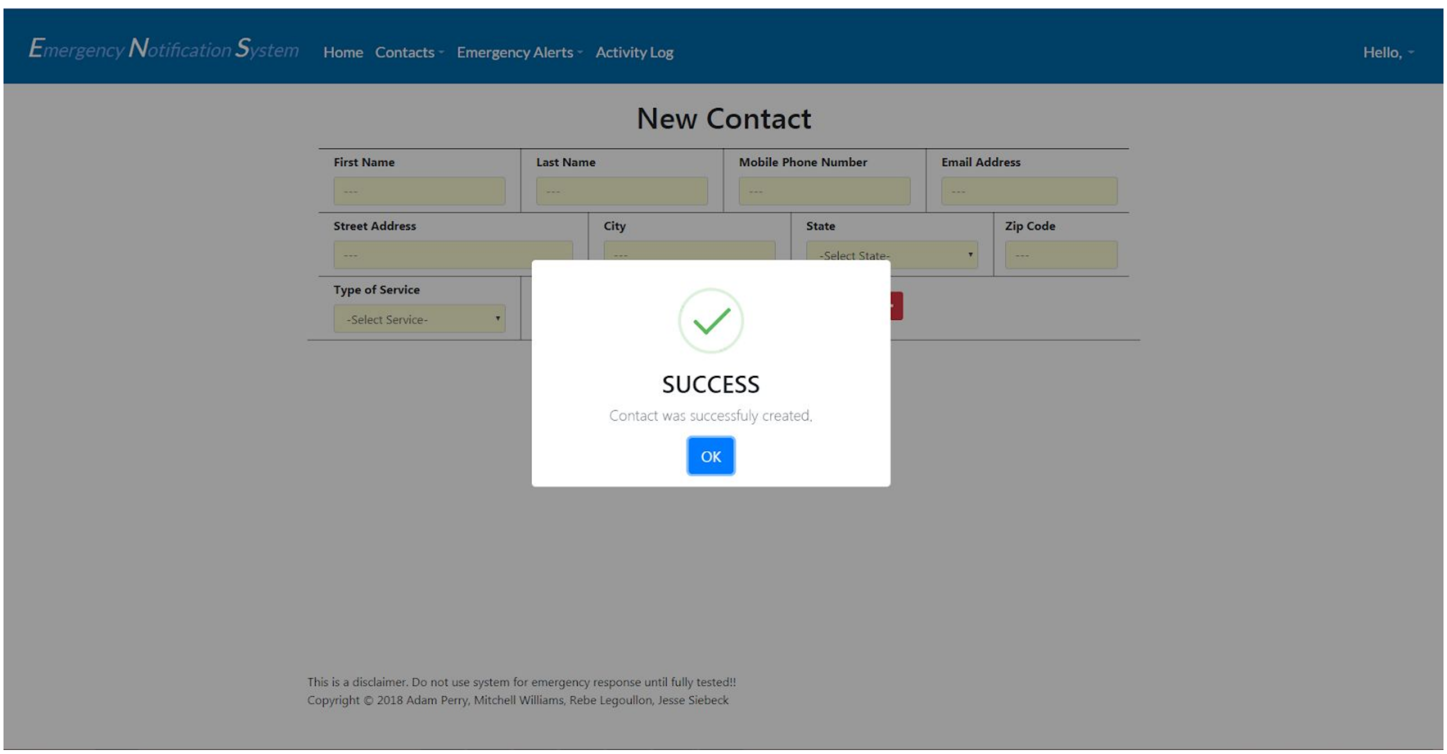
b. Fill in all information for the contact. Validation will be performed on the input. For Type of Service, select their preferred contact method, or both if there is no preference. When finished, click the Submit button.

Figure 2.3 Completed New Contact Form



c. Upon completion, an alert will appear stating the contact was successfully created, and all form data will clear. Press OK. You may create another contact or navigate away from the page.

Figure 2.4 Successful Contact Creation



2. **Search for Contacts**
   a. To edit a contact, view contact information, or delete a contact, you must first search for the contact entry. Navigate to the Search Contacts page by clicking the Contacts dropdown in the navigation bar, and select “Search Contacts”.

Figure 2.5 Search Contacts Navbar

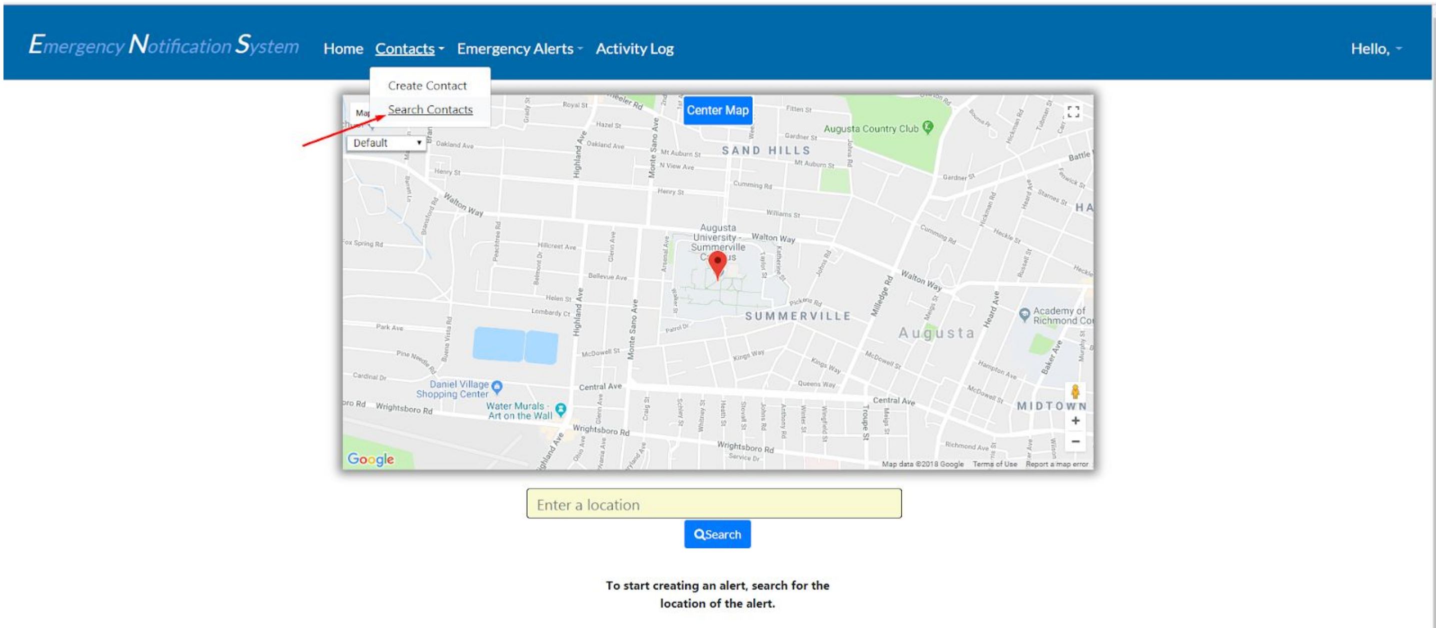
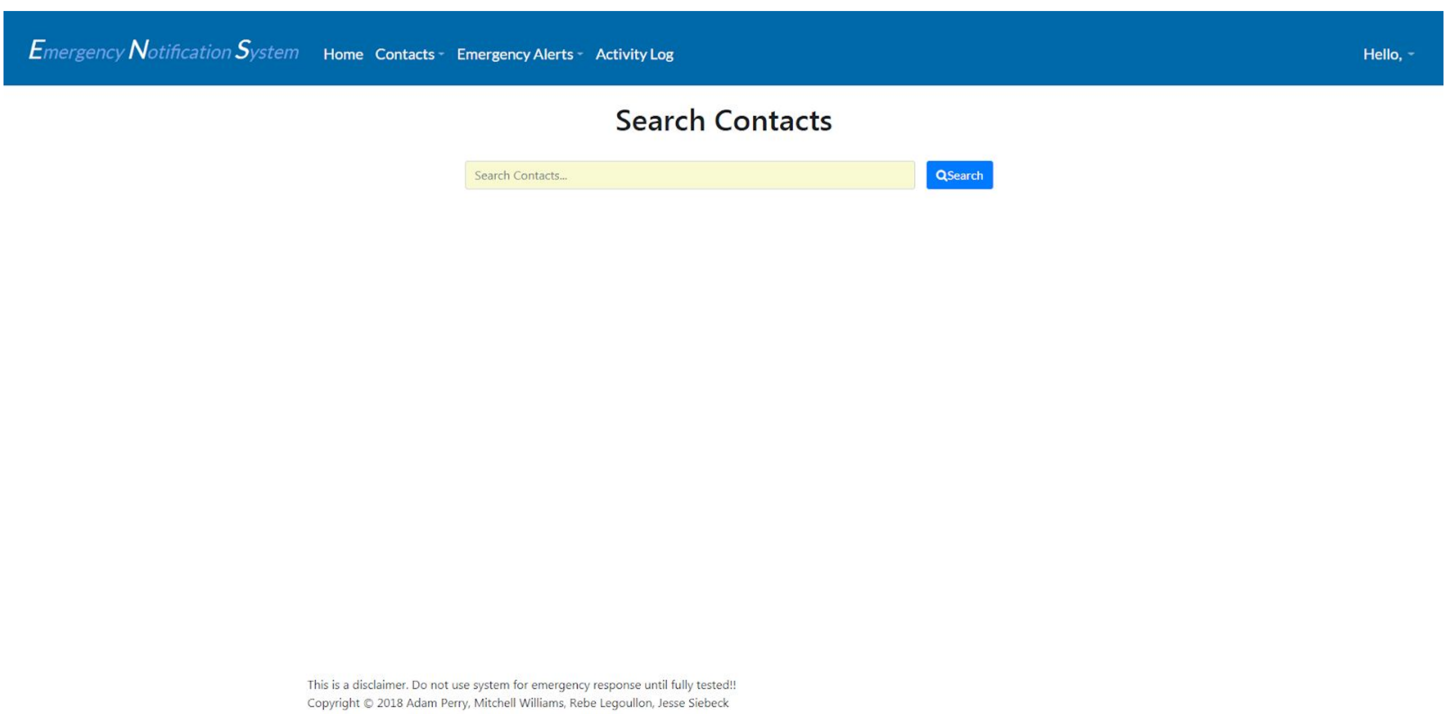


Figure 2.6 Search Contacts Initial Page



b. Type into the Search bar the information to search by. Search terms are separated by spaces and may include partial or full matches against any part of the contact information. Typically, only first name and last name are required to reasonably narrow a search, but address and email/phone number can even further narrow a search. Click “Search” to populate the search table.

Figure 2.7 Search Contacts Search Bar

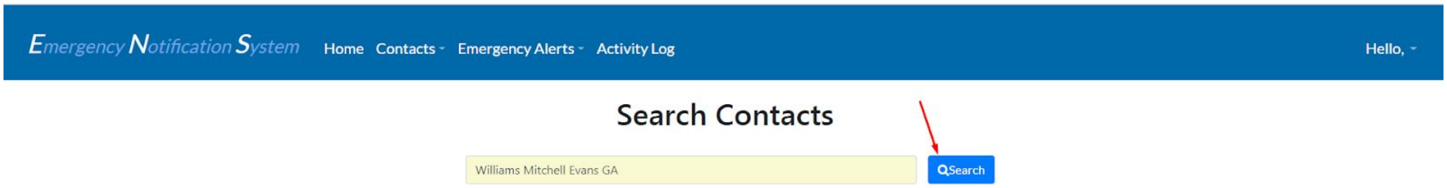
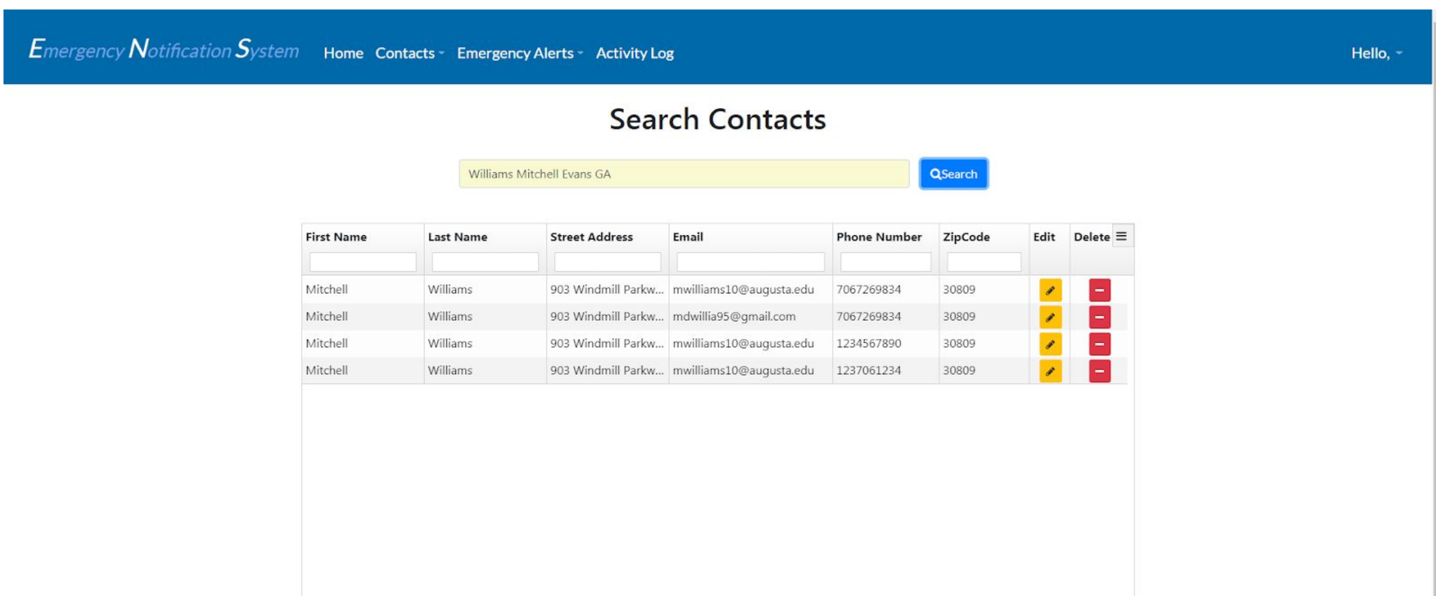
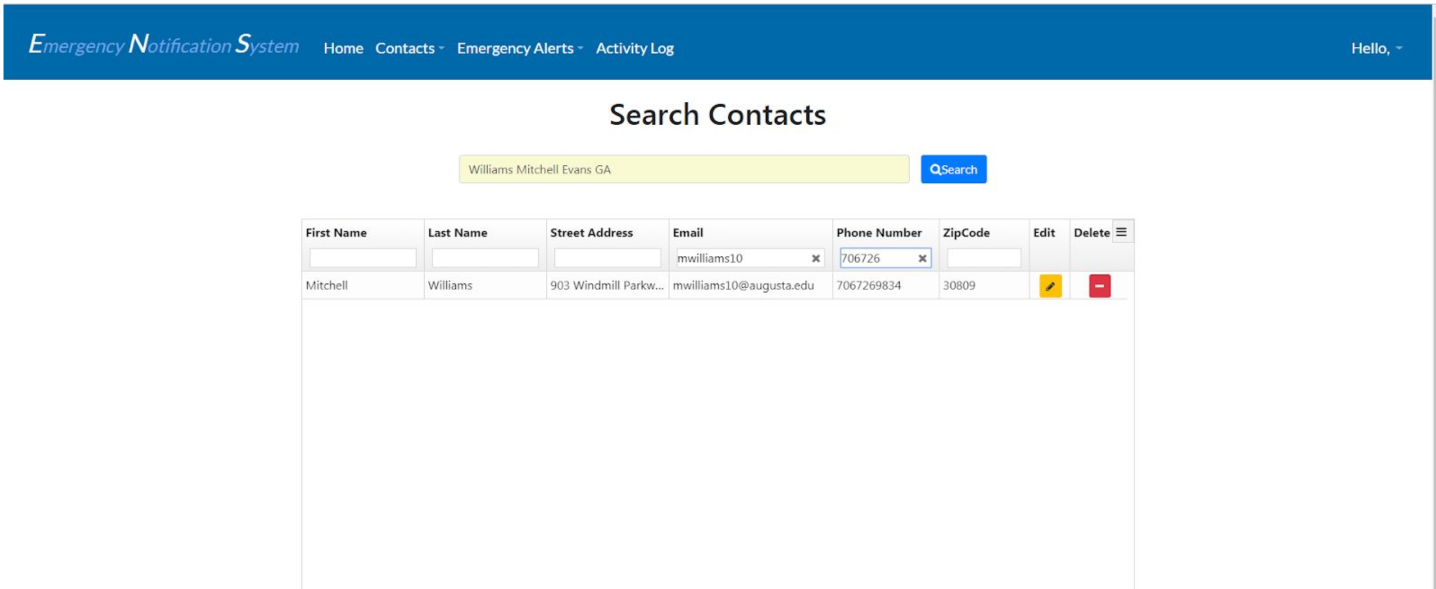


Figure 2.8 Populated Search Table



c. Below each column header is a search box that may be used to further narrow searches if desired.

Figure 2.9 Narrowed Search Table



d. From this point, you may edit or delete the contact. You may create new searches by repeating part B of this section.

3. Edit Contact

a. When the desired contact entry is found from the Search Contacts page (see section 2 Search for Contacts), select the yellow box under the edit column in the row of the entry you wish to edit. A page similar to the create contact page will be displayed, prefilled with the contact information.

Figure 2.10 Edit Contact Button

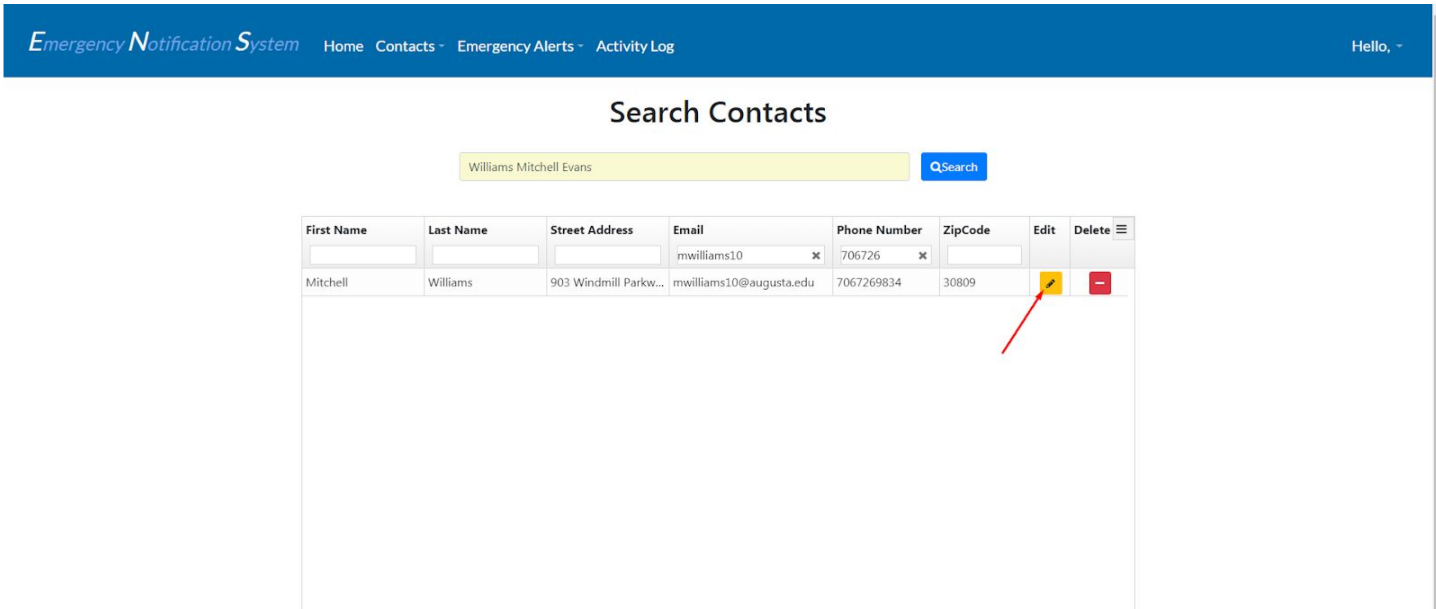
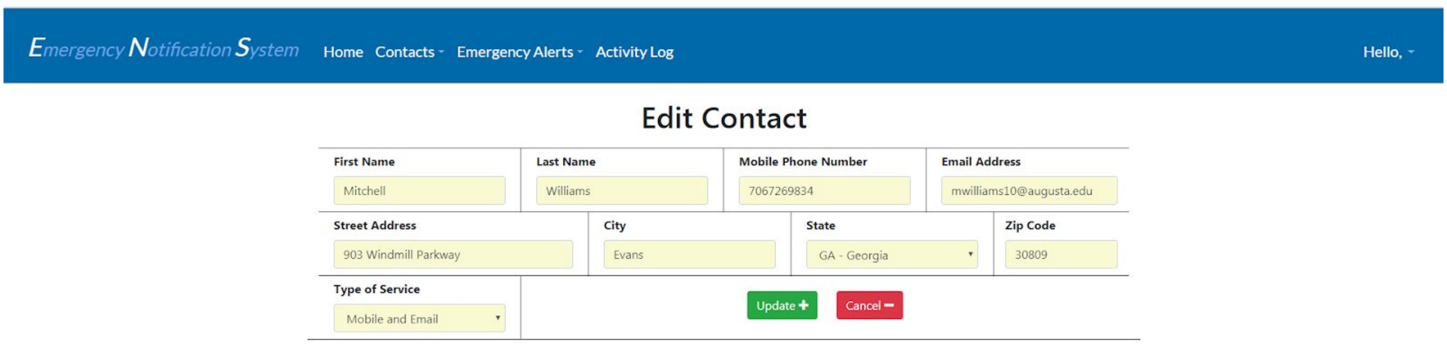
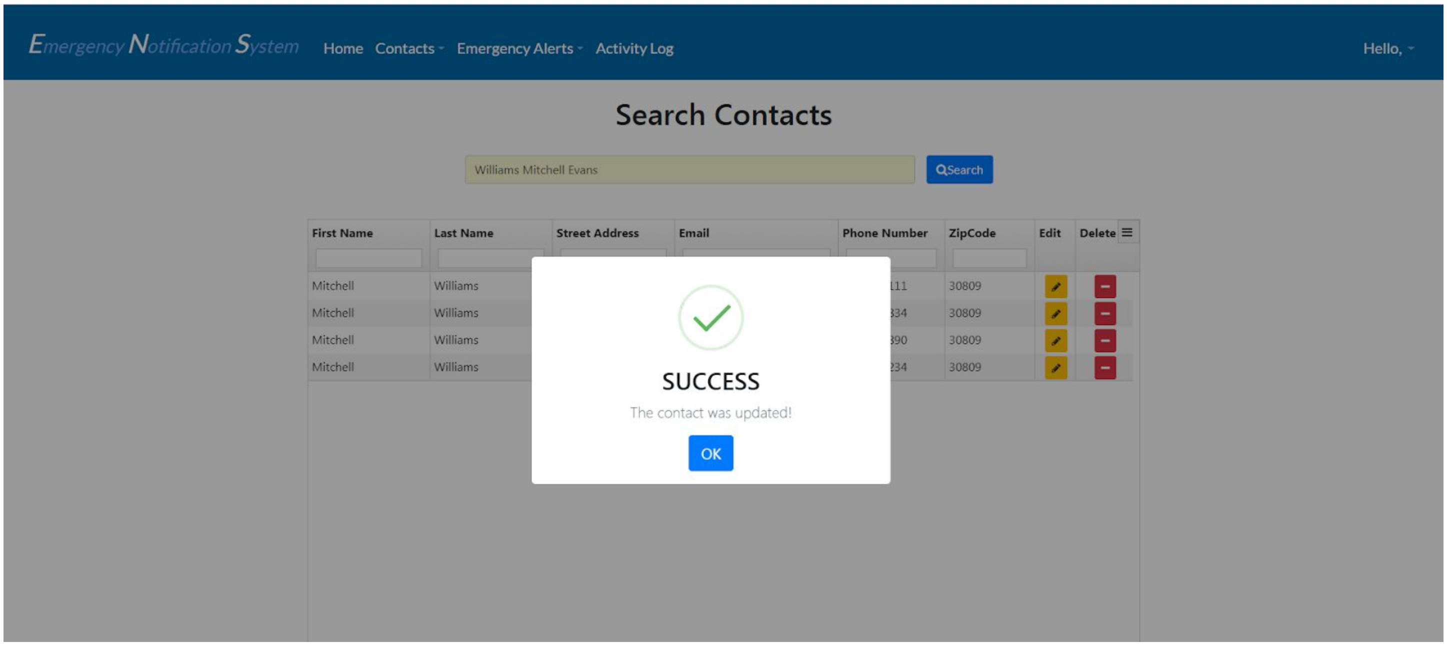


Figure 2.11 Prefilled Update Contact Page



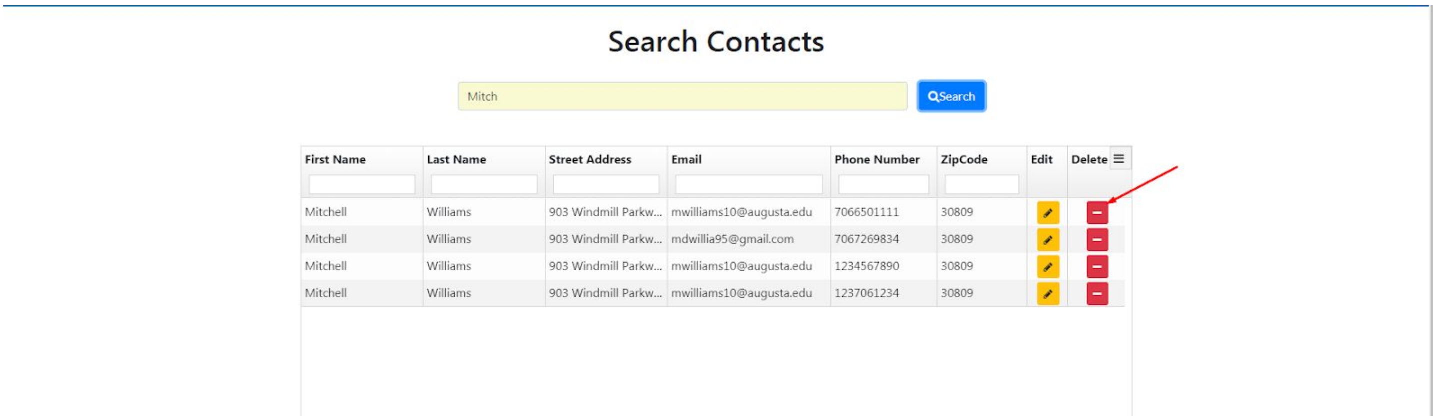
b. Edit any information that needs to be changed and click Update when all the desired information has been changed. An alert stating the contact was successfully updated will appear if the update was successful, and you will be navigated back to the Search Contact page.

Figure 2.12 Successful Contact Update



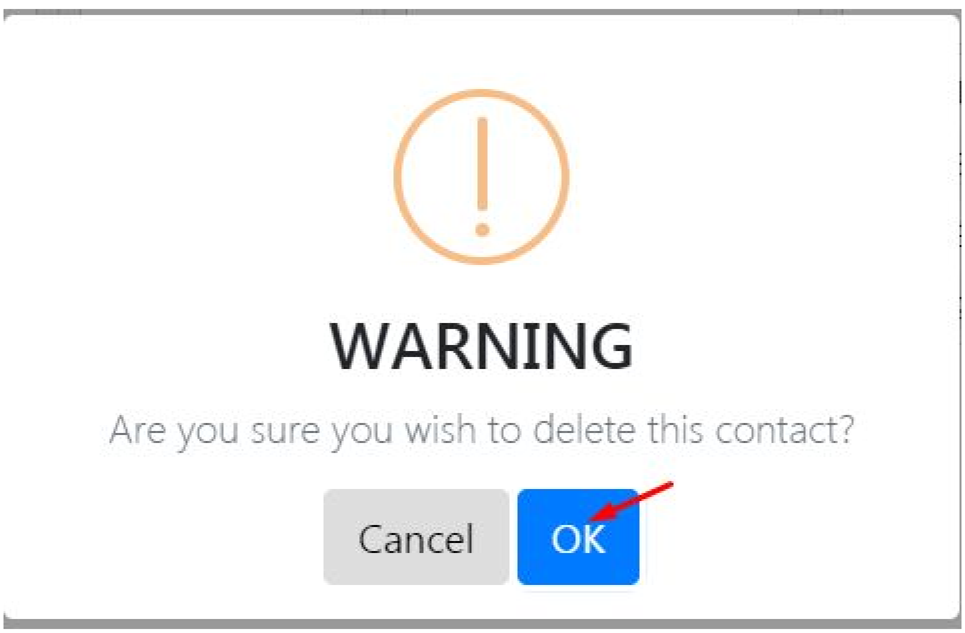
4. **Delete Contact**
    a. When the desired contact entry is found from the Search Contacts page (see section 2 Search for Contacts), select the redbox under the edit column in the row of the entry you wish to delete.

Figure 2.13 Delete Contact Button



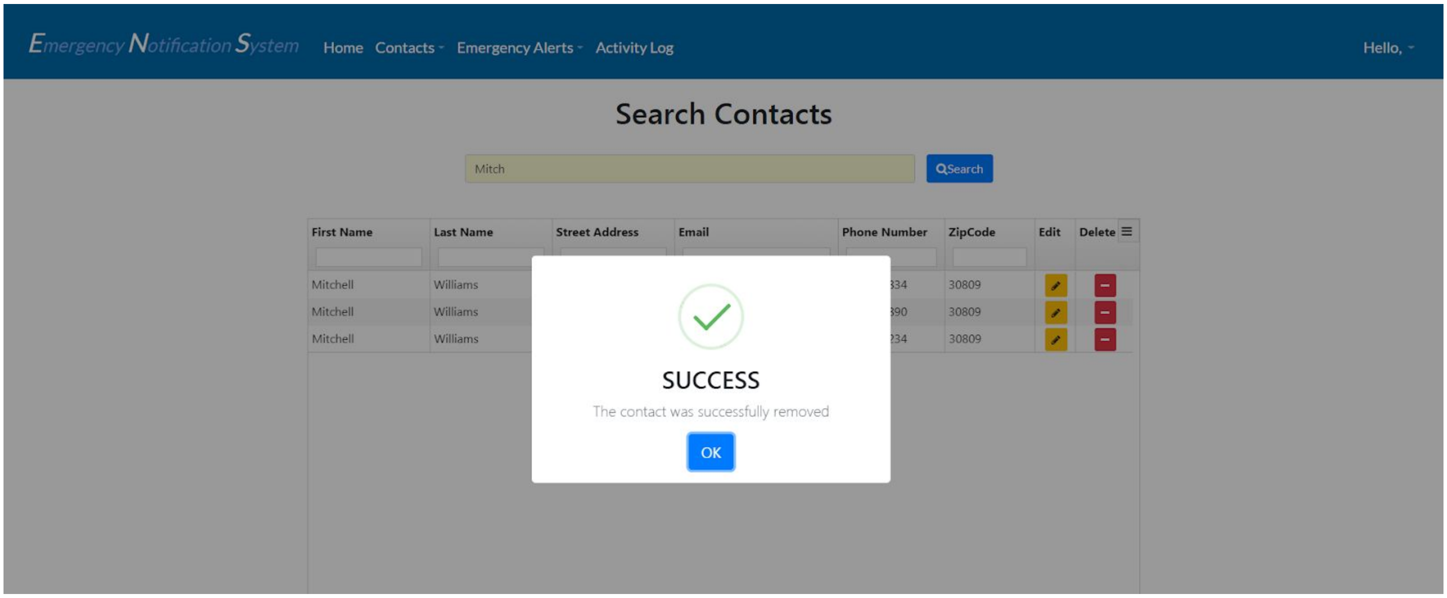
    b. A warning will appear, prompting you if you are certain you wish to delete the contact. If not, select Cancel. Otherwise, select OK to remove the contact.

Figure 2.14 Delete Contact Warning



c. A message will appear stating the success of the deleted contact. Press OK to close the message.

Figure 2.15 Delete Contact Success

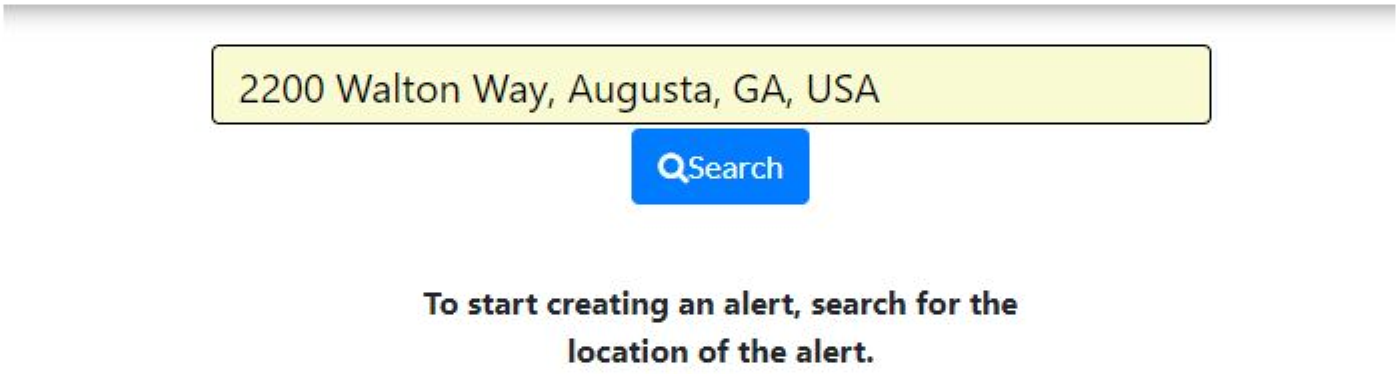


3. Alert Management Overview

1. Alert Creation

a. The first step in the creation of a new alert is to search for the location of the emergency in the search bar located at the bottom of the map on the Home Screen. Once found click search. Example in figure 3.1.

Figure 3.1 Emergency Location Search



b. Once the address has been located, the Create Alert button will appear. To start creating the alert, click on the Create Alert button. This is shown in Figure 3.2.

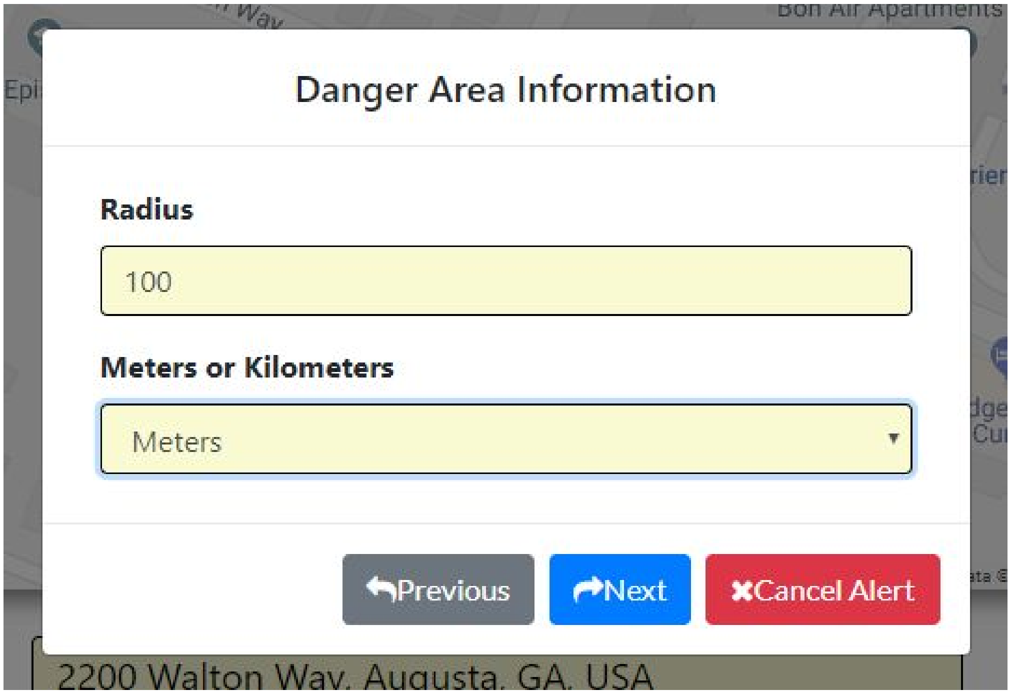
Figure 3.2 Alert Creation Begin

c. After the Create Alert button is clicked, a walkthrough wizard will help you with the alert creation. The first popup with contain inputs for you to type in the Title of the alert and the Description of the Alert. Once these are filled in click next to continue the walkthrough. This is shown in figure 3.3.

Figure 3.3 Alert Title and Description

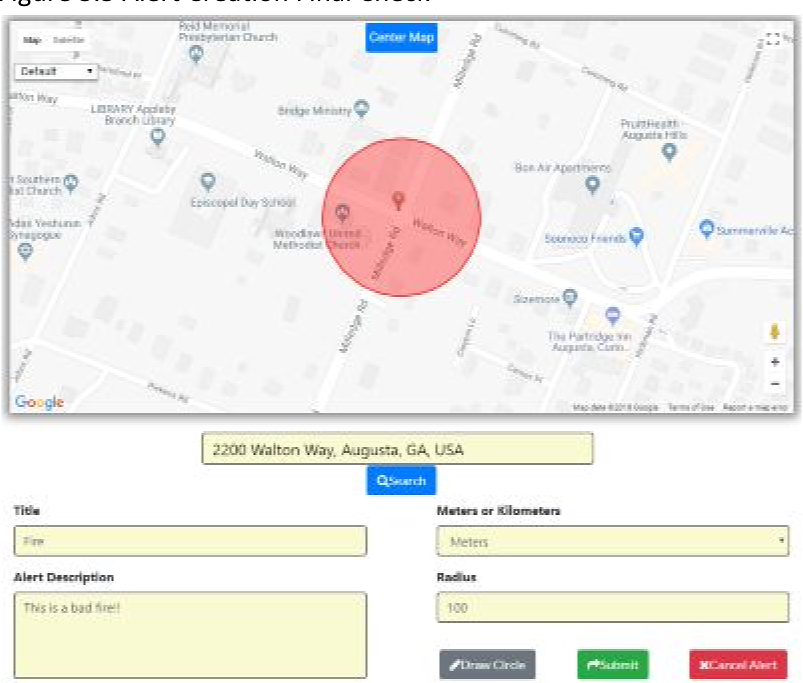
d. The next popup that appears will contain inputs for the Radius distance of the emergency from the searched location, and a measurement type, either Meters or Kilometers based on what radius you chose to input. This distance affects which contacts receive notifications from the system. Once entered, click Next to continue with the alert creation, Previous to go back to the previous popup, or Cancel to cancel the alert creation altogether. This is shown in Figure 3.4.

Figure 3.4 Radius and Distance Measurement Type



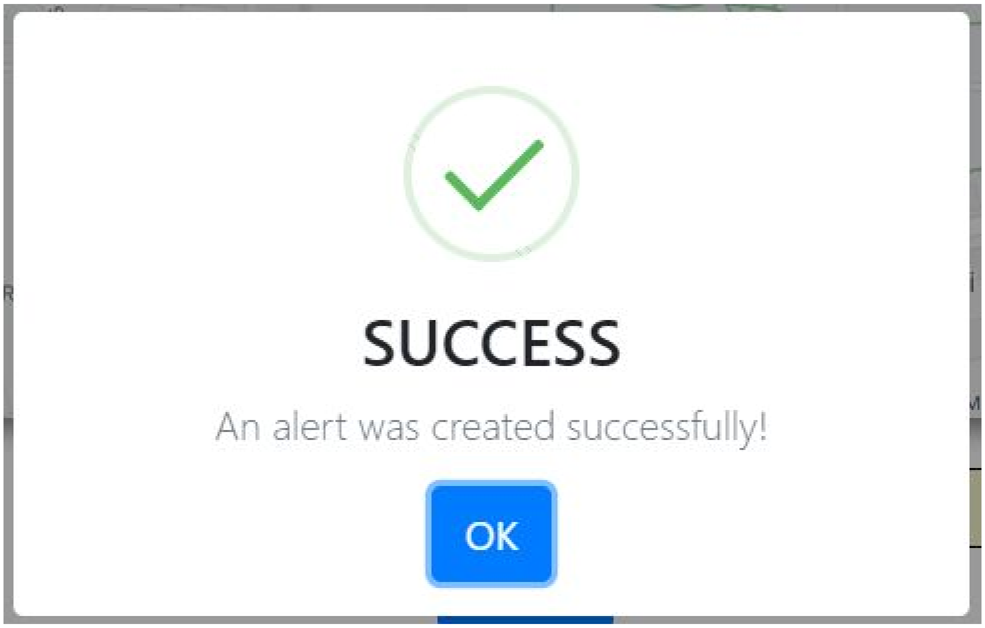
e. The next step in the alert creation is the final check and possible redrawing of the danger area on the map. All of the previous inputs will now show with your values, and an image of the danger area will be represented by a circle drawn on the map. If you wish to change any information, you can do so here. If you want to change the danger area, you can change the values and click Draw Circle to redraw with the new values. Once you are satisfied with the alert information, you can click Submit to put in the system. If you wish to cancel the alert then click Cancel. This is represented in Figure 3.5.

Figure 3.5 Alert Creation Final Check



f. Once the alert has been submitted successfully, the user will be notified. This is shown in Figure 3.6

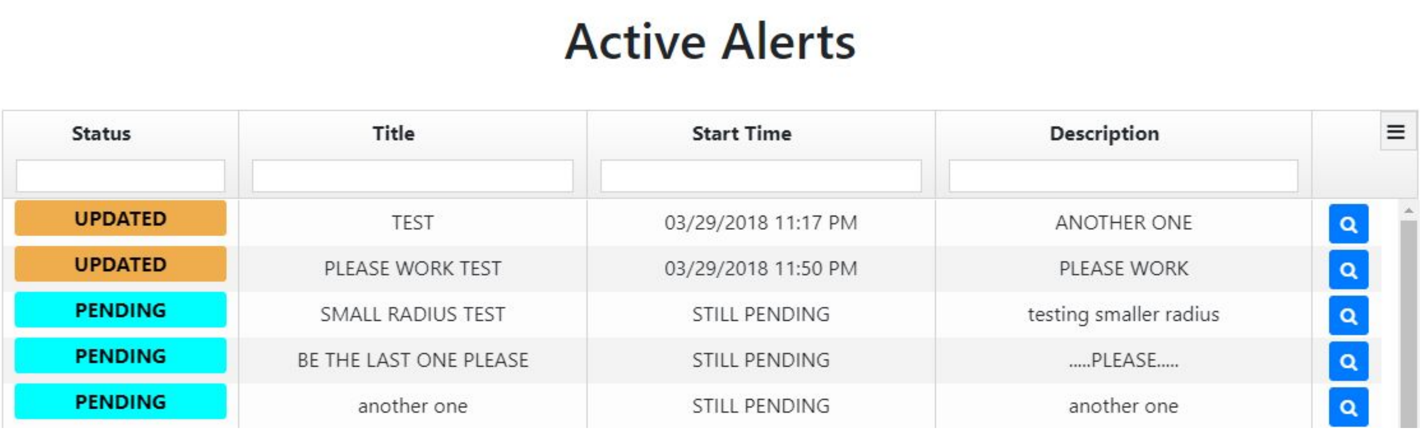
Figure 3.6 Successful Alert Creation



2. Alert Update

a. The first step in updating an alert is find the Emergency Alerts dropdown menu on the navigation bar. Click this, and select Active Alerts from the dropdown menu. This will take you to the Active Alerts page which displays all of the current Alerts that are active and in the system. This is show in Figure 3.7.

Figure 3.7 Active Alerts Page

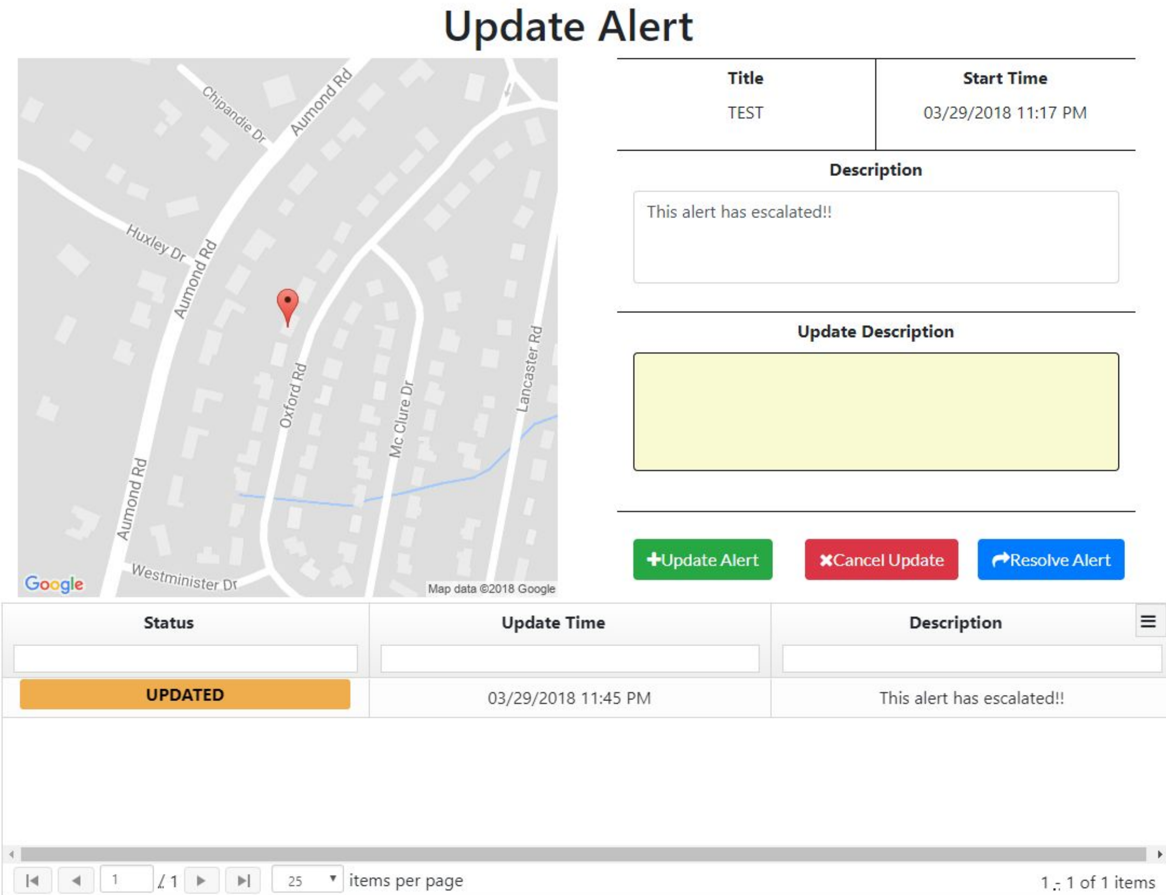


Active Alerts

Status	Title	Start Time	Description
UPDATED	TEST	03/29/2018 11:17 PM	ANOTHER ONE
UPDATED	PLEASE WORK TEST	03/29/2018 11:50 PM	PLEASE WORK
PENDING	SMALL RADIUS TEST	STILL PENDING	testing smaller radius
PENDING	BE THE LAST ONE PLEASE	STILL PENDING	.....PLEASE.....
PENDING	another one	STILL PENDING	another one

b. On this page you can search for a specific alert with the search filters at the top of each of column. Once you find the alert you wish to update, click on the Blue Magnifying Glass Button to open up that alerts Update Page. An example of an Update Page is shown in Figure 3.8

Figure 3.8. Update Alert Page

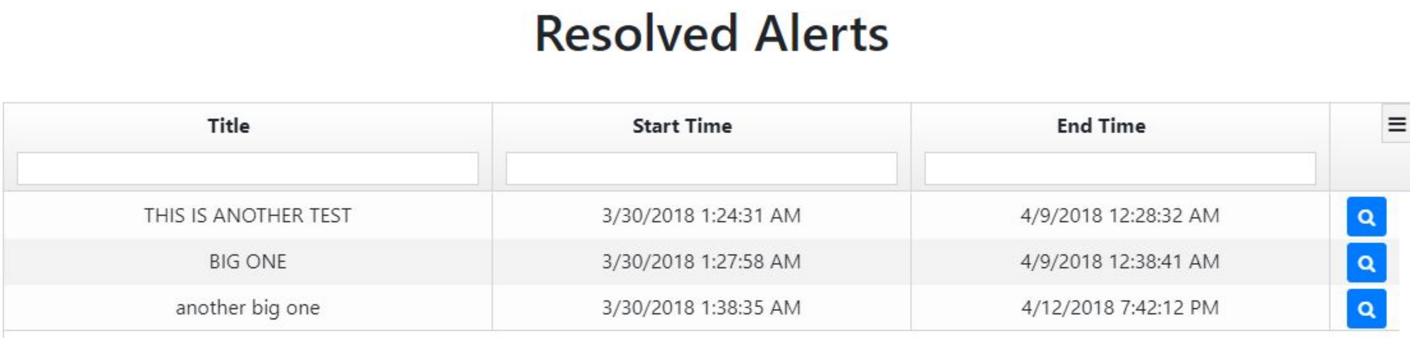


c. Once on this page, you can see all previous updates associated with this specific alert. There is a text area labeled Update Description where you will fill in the update information. Once this is filled, Clicking Update Alert will update the alert in the system, and notify all contacts that were previously notified with the new information. Cancel will redirect you back to the previous page. Resolve alert is much like Update Alert, except it ends the active alert all together. When Resolving an alert, specify in the description that the danger area is now safe as well as any other relevant information.

3. Viewing Resolved Alerts

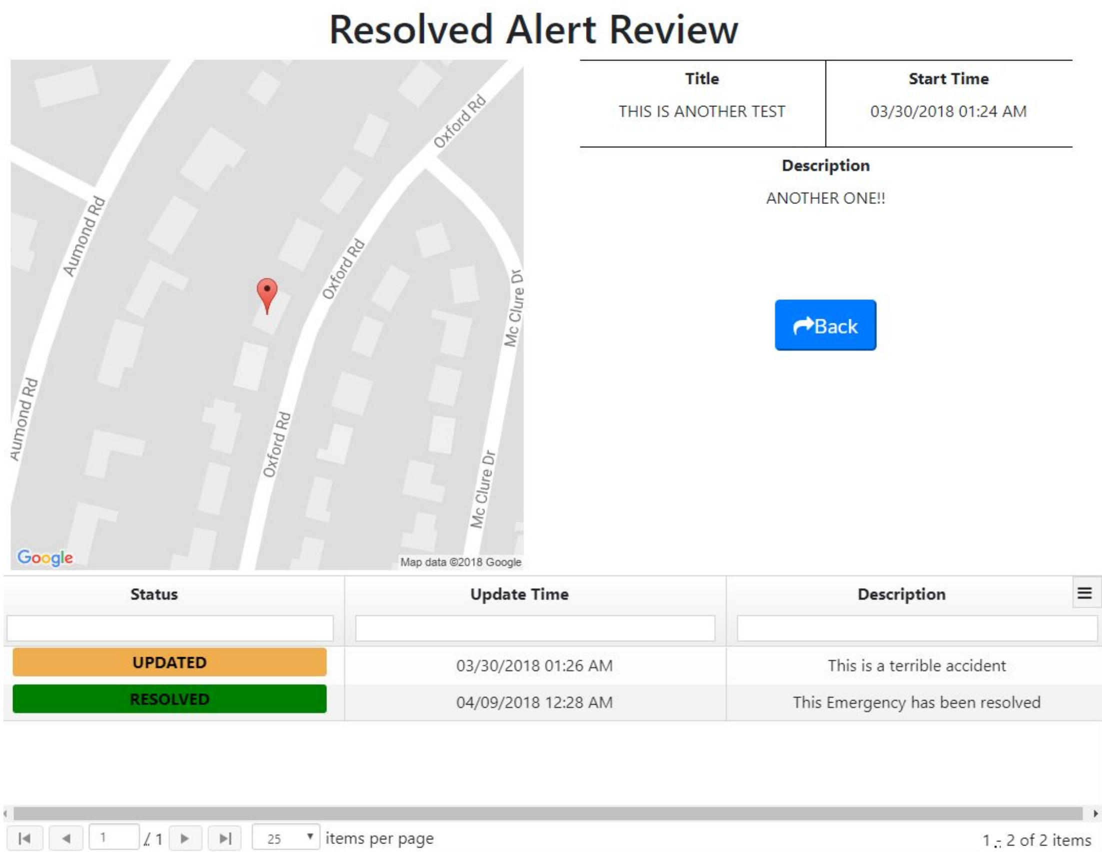
a. When an alert is resolved, it will be removed from the Active Alerts page and will now be showing in the Resolved Alerts page which can be viewed by clicking the Emergency Alerts dropdown in the navigation bar and then selecting Resolved Alerts.
b. This will display the Resolved Alerts table which is shown in Figure 3.9.

Figure 3.9 Resolved Alerts Page



c. The resolved alert's information can be seen by clicking the Blue Magnifying Glass Button. This will take you to that specific Resolved Alert's Review Page. This is shown in Figure 3.10.

Figure 3.10 Resolved Alert Review



d. This page shows the Alert's information as well as past updates associated with the alert. This page is only for viewing information. To return to the Resolved Alerts Page, click the Back button located near the center of the screen.

4. Other System Functionality and Features

1. Log In/Log Off User Authentication

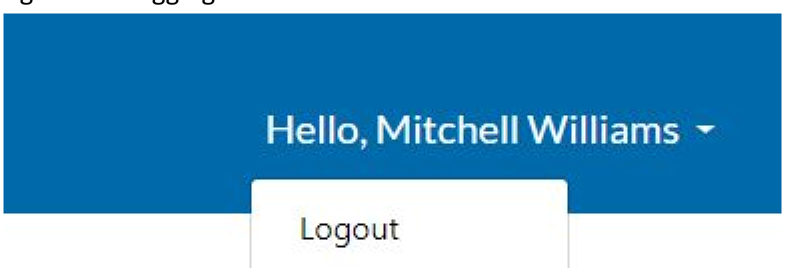
a. The ENS system is password protected. The nature of creating alerts and the kind of chaos that it can cause should not be readily available to the public. When navigating to the application via the browser, the first page that you will encounter is a Log In page. If you are not properly

logged in, all url paths will redirect you to this page. Once the correct username and password have been entered, the system will direct you to the Home page.
The Log In page is shown in Figure 4.1.

Figure 4.1 Log In Page

b. Once logged in, your username will display at the top right corner of the navigation bar at the top of the screen. To log out, just click the name and select log out. This will redirect you back to the Log In screen. Figure 4.2 shows this.

Figure 4.2 Logging Out



2. Activity Log

a. The Activity Log can be found by clicking on the Activity Log link at the top of the navigation bar. This table shows all of the Contact Creation, Updating, and Deletion, as well as all of the Alert Creation, Updating, and Resolutions for the entire system. This is just a table for record keeping so we will always have this information documented somewhere in case there is ever a need for that kind of information. Figure 4.3 shows this table.

b.

Figure 4.3 Activity Log

Activity Log

Module	Description	Log Time
Resolved Alert	Resolved Alert "BIG ONE "	04/09/2018 12:38 AM
Updated Contact	Updated Contact "TestFirst TestLast"	04/09/2018 12:39 AM
Resolved Alert	Resolved Alert "another big one "	04/12/2018 07:42 PM
Created Alert	Created Alert "Fire"	04/12/2018 09:34 PM

3. Notifications

a. On creation, updating, and resolving of alerts in our system, Contacts who fall within the danger area of an alert are notified via email and/or text message (depending on their choice of notifications) of the alert and all relevant information regarding it, including an image of the map created for the alert showing the location.