

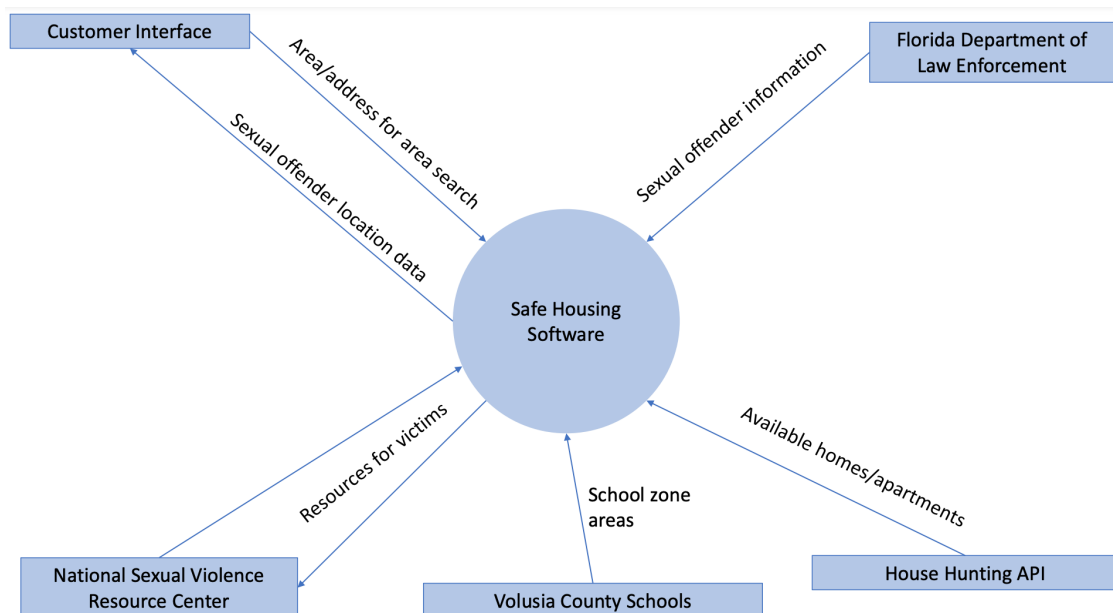
## Project Outline Document

Project Name: Safe Housing

Team Name: Team 2

Members: Amanda Wills, Lindsay Spence, Grace Henry, Veronica Montgomery

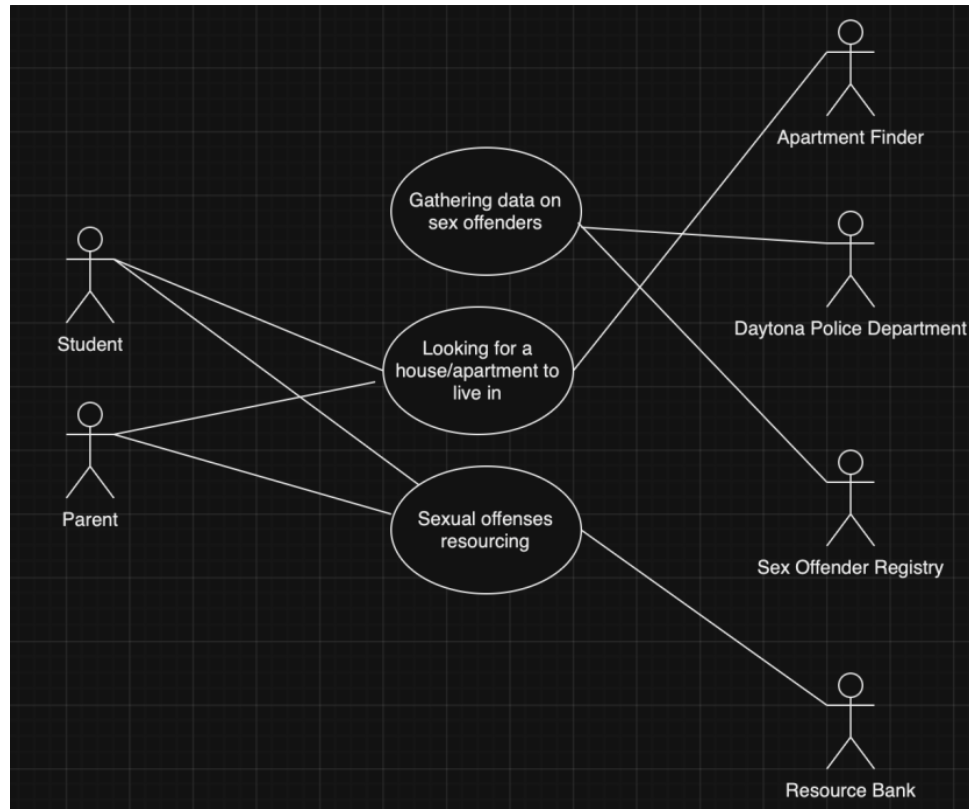
### Context Diagram



### Context Diagram Description

The system interaction contains five different entities, which communicate with the software. The customer interface interacts with the software by providing a preferred area to search for housing, and in return the software displays available housing and sex offenders located in the selected area. The Florida Department of Law Enforcement provides information on sexual predators, which places exact locations, and information on offenses of said predators for the users to see. The National Sexual Violence Resource Center offers users outreach resources for any help they may need. Volusia County Schools will be used to determine school districts for families looking for safe housing. The online resources used to find open housing will be Apartments.com and Zillow.com. These two housing API's will interact with the software by providing information about available housing, including pictures, size, prices, and location. These separate entities will ultimately work together to give users the best chance in finding housing for themselves or their families.

## Use Case Diagram



### UC1: Gather Data on Sex Offenders

**Description:** The software reads and processes the API containing the data on sexual predators. Law enforcement provides the API, and the sex offender registry provides more demographics on the predators in the area.

**Actors:** Daytona Police Department, Sex Offender Registry

### UC2: Looking For Housing

**Description:** Both users wish to find housing. The apartment finders and housing API's provide available housing and different match criteria. The user can see the listings through the interactive map and choose the best options for them.

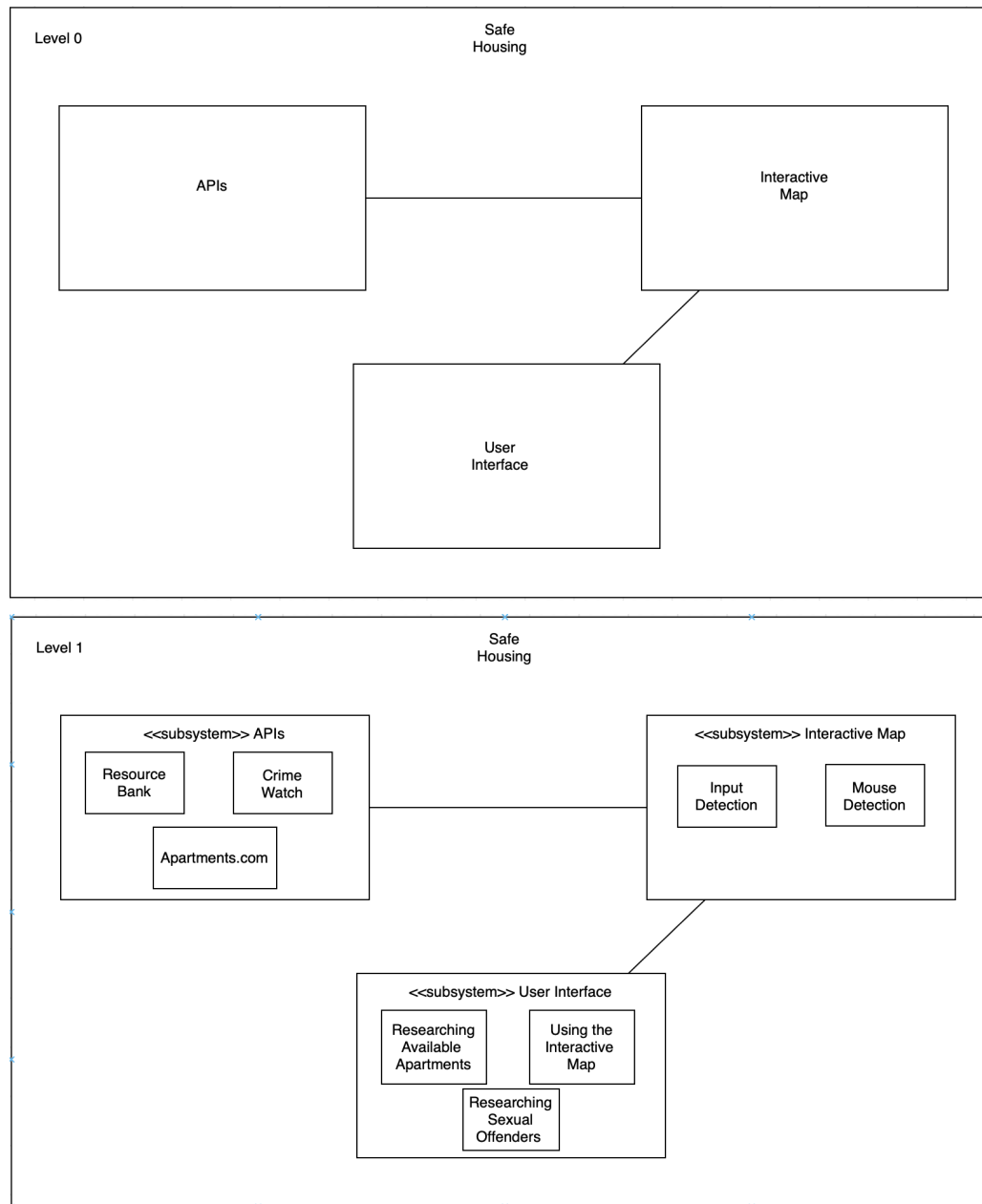
**Actors:** Student, Parent, Housing Finder

### UC3: Sexual Offenses Resourcing

**Description:** The user has access to resources at their disposal, including outreach centers, safe houses for domestic violence victims, and therapy. The resource bank provides the listings of resources to the user to choose from.

**Actors:** Student, Parent, Resource Ban

## Component Diagram



### Component: API's

**Description:** The software processes data on available housing and sexual predators. Once processed, it relays information to the interactive map.

### Component: Resource Bank

**Description:** Stores the outreach resources for the users and lists them on the map as additional information.

**Component:** Crime Watch

**Description:** The sexual predator API will provide demographic information and locations for sex offenders. These addresses will be displayed on the map for user viewing.

**Component:** Apartments.com

**Description:** The available housing will come from housing API's from Apartments.com and Zillow.com. The housing that fits the user's criteria will pop up on the interactive map with color coordination.

**Component:** Interactive Map

**Description:** All the interaction between the user and the data will take place on the interactive map. The map will display the sexual predators and housing of the matching criteria given by the user.

**Component:** Input detection

**Description:** The map is designed to detect the user's specifications and criterion that needs to be met. These things could include neighborhoods, certain radii, and specific types of housing or price ranges.

**Component:** Mouse Detection

**Description:** The scrolling of the mouse can make the map zoom in and out. It will also detect the user's clicks regarding different options for the map.

**Component:** User Interface

**Description:** The user's interaction with the software.

**Component:** Researching Available Apartments

**Description:** The user will research housing based on the criterion they set, and the map will display the results with color coordinated pins based on the search results.

**Component:** Using the Interactive Map

**Description:** The user can drag the map with their finger/computer touchpad and click on different pins. From the map, they can navigate independently to the information they seek.

**Component:** Researching Sexual Offenders

**Description:** The user can view the corresponding pins on the interactive map, which contain information about a sexual offender that lives there. Information will include age, gender, crime committed, time since last offense, etc.

## **Component Diagram Description**

The system is broken into API's, the interactive map, and the user interface. Within those parts are the more detailed accounts. API's contain the resource bank, crime watch, and the website in which the available housing will be pulled. The API's will return information through the software interaction and supply the data required to provide the user with the results they seek. The interactive map is where most user interaction takes place. The map receives the user input, henceforth it's interaction with the user interface, and references the data, it's interaction with the API's, to deliver information. It essentially acts as a buffer between the user and the

data they seek. The map displays the necessary data in a visibly appealing and simple navigation system.

The user can input their housing needs into the map page, and from there, the appropriate housing options will load with all relevant information. The user input is processed, and the requested results are displayed all through the interaction of the map, user interface, and APIs. The user interface can access information regarding housing, locations of sexual predators, as well as their offenses, and change the parameters of the map to their liking. With the interactions through the map, the user interface receives its requested information from the API database and chooses the best housing option for themselves and their loved ones.