

Mobile Project

User Interface Design

Version 1.0

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Benny Iko

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1. Introduction

1.1. Purpose

This section gives a brief description of the purpose of this document.

The purpose of this document is to showcase the proposed design, and to briefly explain how the UI empowers the user with ability to complete use cases, without going into extraneous details.

1.2. Scope

This section defines the scope of the interface design. This could include the application or modules within the application.

The scope of the interface design includes the implied contract between the high-level requirements and their representative visual components, to be specified within. This document will **NOT** include the design of the login screen(s). The Vehicles of Interest (VOI) project will require separate designs for the desktop, mobile and web interfaces. However, this document is scoped to only provide the design for the mobile application portion of the VOI project. Stated differently, this document specifies how the core functionality, as mentioned below, will be presented to the user via mobile application implemented using HTML5, CSS, and JavaScript. This document will cover the design of the interface for the following business use cases. By requirement, the design shall be implemented using HTML5, CSS, and JavaScript.

- The system gives officers located at Headquarters the ability to perform CRUD operations (Create, Read, Update, and Delete) through the Web application.
- The system shall track the reasons for interest in a particular vehicle.
- This tracking information will initially include some values and descriptions (Silver Alert, Amber Alert, etc.).
- For reasons for interest, data for the reason and a description of the reason will be included.
- For vehicles of interest, the data stored and displayed must include license plate number, make, model, color, year manufactured, owner's name and owner's phone.
- For vehicles of interest, the data stored and displayed will sometimes include the year, color and owner's information are unknown; so, they should appear as optional fields.
- The Headquarters must keep an up to date list of vehicle makes and models.

1.3. Reference Documents

If there are any document references, including requirement documents, reference them there.

JavaServer Faces Component Presentation Instructions

<https://learn.umgc.edu/d2l/le/content/769946/viewContent/30624692/View>

MoreVOISQL

<https://learn.umgc.edu/d2l/le/content/769946/viewContent/31066428/View>

User Interface Design Template

[User Interface Design Template - SWEN 661 9040 User Interface Implementation \(2235\) \(umgc.edu\)](#)
[User Interface Design Template - SWEN 661 9040 User Interface Implementation \(2235\) \(umgc.edu\)](#)

Vehicles of InteresttDB.sql

[VehiclesOfInteresttDB.sql - SWEN 661 9040 User Interface Implementation \(2235\) \(umgc.edu\)](#)

Vehicles of Interest Introduction (Overview)

[Vehicles of Interest Introduction \(Overview\) - SWEN 661 9040 User Interface Implementation \(2235\) \(umgc.edu\)](#)

VOI Web Interface Design Instructions

<https://learn.umgc.edu/d2l/le/content/769946/viewContent/30624688/View>

VOI Web Interface Development Instructions JTD

<https://learn.umgc.edu/d2l/le/content/769946/viewContent/31013212/View>

1.4. Terms, Abbreviations and Acronyms

This section includes any relevant special terms, abbreviations, or synonyms, listed here with their definitions.

ROI – Reasons of Interest, or reasons for significance to law enforcement.

VOI – Vehicles of Interest, or vehicles that are of significance to law enforcement.

BOLO - Be on the Lookout

1.5. Assumptions and Constraints

This is a living document. This version of the interface is tentative. That is, the final design may have additional changes. Pencil, the design software used to create mockups, presents challenges when used to convey software functionality. Many colors of components may vary from those seen in screenshots. Any style information correlated to a button behavior (i.e. hover, selected, etc.), may be assumed to be true for all existing buttons, unless otherwise noted.

2. Graphical Interface Design

This section includes logical decomposition of the application's UI into logical units. As the application grows large, these might be modules of the application. Otherwise, these may simply be screens. This will be organized on the 2.x level of the document. For each screen, a 2.x.y level of the document will be created.

2.1. VOI Mobile Application Landing Page

Screen Name: VOI Mobile Application Landing

Image:



Internal UI functionality:

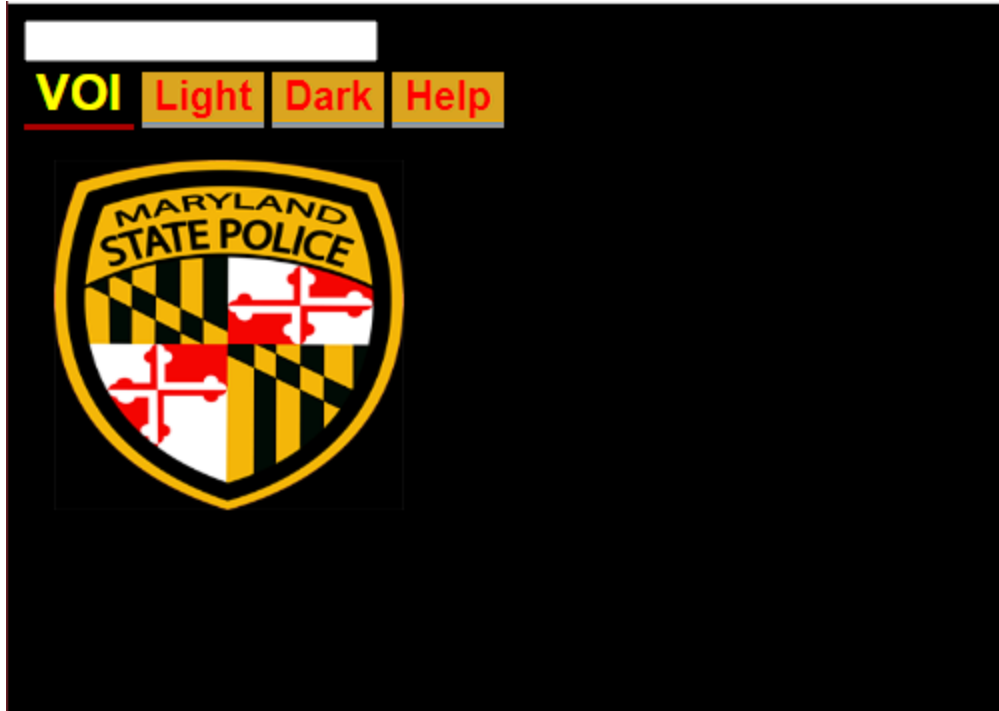
UI Component Name	Component Value	Features	HTML Components
Search Field	Text	Returns matches for VOI, Make or Model. (non-operational)	<input>
Search Button	Search	(non-visible) Should return a page with all VOI listed in a tabular arrangement, when selected. Moreover, results should be filtered according to Search Field value (non-operational) Different views for normal, hover, selected. Secondary behavior: Should return all VOIs when Search Field is blank. Different views for normal, hover, selected.	<input> <button>
Help Button	Help	Should return a page with documentation explaining VOI project, buttons, data and application information. (non-operational)	<button>
Light Button	Light	This button changes the theme to a light mode. Different views for normal, hover, selected.	<button>

Dark Button	Dark	This button changes the theme to a dark mode. Different views for normal, hover, selected.	<button>
VOI Button	“VOI”	Displays Search Button and BOLO msg on click. Returns Page with all VOI listed in a tabular arrangement, when Search Button is selected. Different views for normal, hover, selected.	<script> <form> <button>
MD State Police Logo	Image	Resizes on button click.	

2.1.1. VOI Button Hover

Screen Name: VOIHover

Image:



Internal UI functionality:

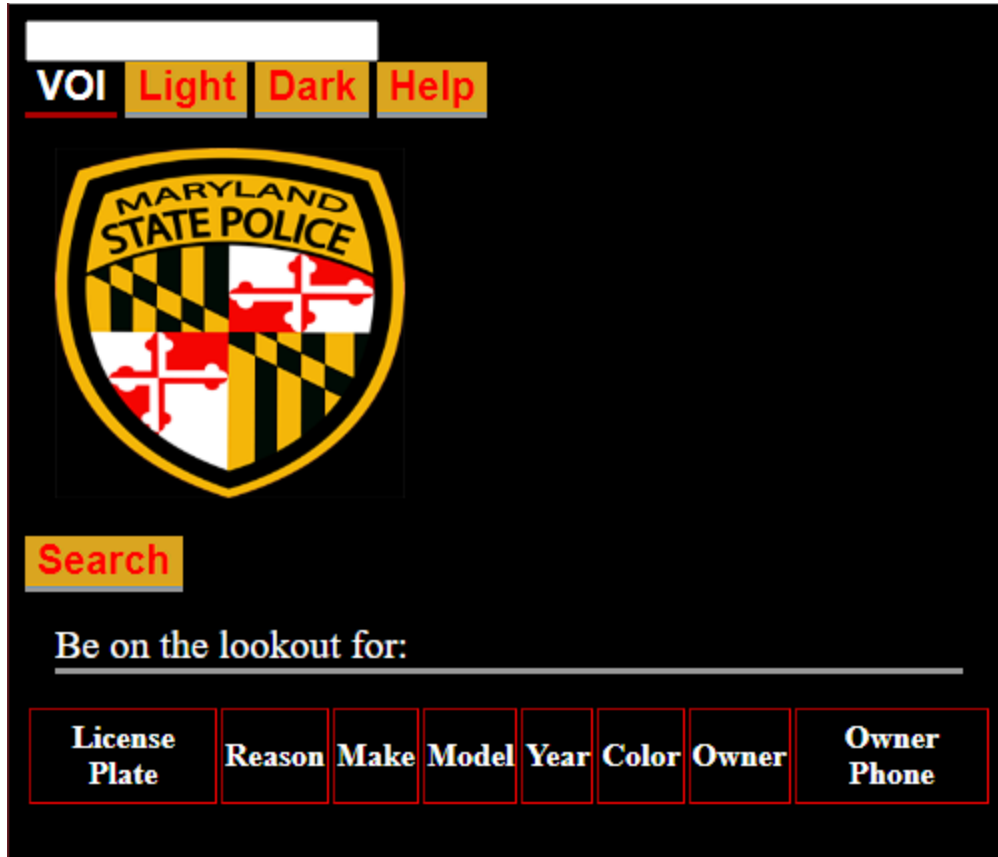
UI Component Name	Component Value	Features	HTML Components
Search Field	Text	Returns matches for VOI, Make or Model. (non-operational)	<input>
Search Button	Search	(non-visible) Should return a page with all VOI listed in a tabular arrangement, when selected. Moreover, results should be filtered according to Search Field value (non-operational) Different views for normal, hover, selected. Secondary behavior: Should return all VOIs when Search Field is blank.	<input> <button>
Help Button	Help	Should return a page with documentation explaining VOI project, buttons, data and application information. (non-operational) Different views for normal, hover, selected.	<button>
Light Button	Light	This button changes the theme to a light mode. Different views for normal, hover, selected.	<button>
Dark Button	Dark	This button changes	<button>

		the theme to a dark mode. Different views for normal, hover, selected.	
VOI Button	“VOI”	Help Button has been hovered. Displays Search Button and BOLO msg on click. Returns Page with all VOI listed in a tabular arrangement, when Search Button is selected. Different views for normal, hover, selected.	<script> <form> <button>
MD State Police Logo	Image	Resizes on button click.	

2.1.2. VOI Button Selected

Screen Name: VOISelectd

Image:



Internal UI functionality:

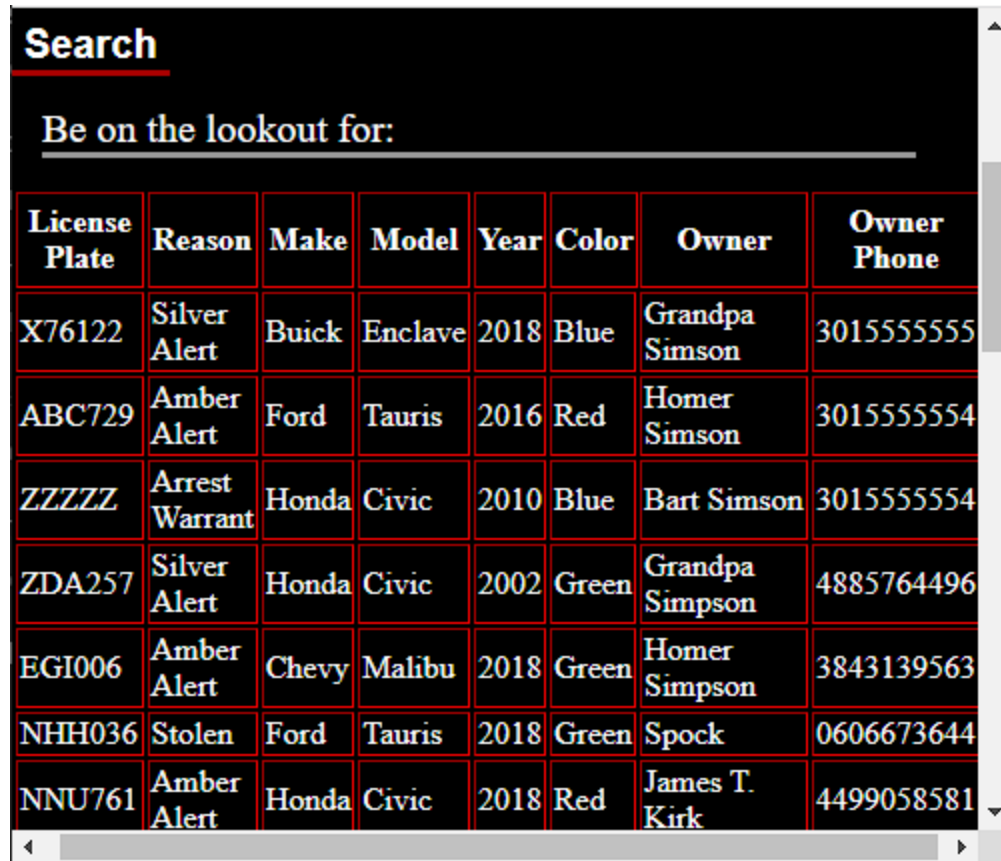
UI Component Name	Component Value	Features	HTML Components
Search Field	Text	Returns matches for VOI, Make or Model. (non-operational)	<input>
Search Button	Search	Should return a page with all VOI listed in a tabular arrangement, when selected. Moreover, results should be filtered according to Search Field value (non-operational) Different views for normal, hover, selected. Secondary behavior: Should return all VOIs when Search Field is blank.	<input> <button>
Help Button	Help	Should return a page with documentation explaining VOI project, buttons, data and application information. (non-operational)	<button>
Light Button	Light	This button changes the theme to a light mode.	<button>
Dark Button	Dark	This button changes the theme to a dark mode.	<button>
VOI Button	“VOI”	Displays Search Button and BOLO msg on click. Returns	<script> <form> <button>

		Page with all VOI listed in a tabular arrangement, when Search Button is selected. views for normal, hover, selected.	
MD State Police Logo	Image	Resizes on button click.	

2.1.3. Search Button Selected

Screen Name: HelpSelected

Image:



License Plate	Reason	Make	Model	Year	Color	Owner	Owner Phone
X76122	Silver Alert	Buick	Enclave	2018	Blue	Grandpa Simson	3015555555
ABC729	Amber Alert	Ford	Tauris	2016	Red	Homer Simson	3015555554
ZZZZZ	Arrest Warrant	Honda	Civic	2010	Blue	Bart Simson	3015555554
ZDA257	Silver Alert	Honda	Civic	2002	Green	Grandpa Simpson	4885764496
EGI006	Amber Alert	Chevy	Malibu	2018	Green	Homer Simpson	3843139563
NHH036	Stolen	Ford	Tauris	2018	Green	Spock	0606673644
NNU761	Amber Alert	Honda	Civic	2018	Red	James T. Kirk	4499058581

Internal UI functionality:

UI Component Name	Component Value	Features	HTML Components
Search Field	Text	Returns matches for VOI, Make or Model. (non-operational)	<input>
Search Button	Search	Should return a page with all VOI listed in a tabular arrangement, when selected. Moreover, results should be filtered according to Search Field value (non-operational) Different views for normal, hover, selected. Secondary behavior: Should return all VOIs when Search Field is blank.	<input> <button>
Help Button	Help	Should return a page with documentation explaining VOI project, buttons, data and application information. (non-operational)	<button>
Light Button	Light	This button changes the theme to a light mode.	<button>
Dark Button	Dark	This button changes the theme to a dark mode.	<button>
VOI Button	“VOI”	Displays Search Button and BOLO msg on click. Returns	<script> <form> <button>

		Page with all VOI listed in a tabular arrangement, when Search Button is selected. views for normal, hover, selected.	
MD State Police Logo	Image	Resizes on button click.	
VOI Table	Table	Populates with Person of Interest data from VOIdatabase. Has Sticky heading where first row remains static on scroll.	<th> <tr> <td>

2.1.4. VOI Table

Screen Name: VOITable

Image:

License Plate	Reason	Make	Model	Year	Color	Owner	Owner Phone
NNU761	Amber Alert	Honda	Civic	2018	Red	James T. Kirk	4499058581
VCY866	Silver Alert	Ford	Tauris	2002	Red	Bones	7481679318
GHO561	Arrest Warrant	Buick	Enclave	2019	Red	Uhuru	5320426186
QTS491	Stolen	Honda	Civic	2018	Green	Checkov	7558561898
MCP766	Arrest Warrant	Buick	Enclave	2019	Green	Jason Nesmith	9387593992
QXS583	Silver Alert	Buick	Enclave	2002	White	Gwen DeMarco	2182452252
VYL402	Silver Alert	Honda	Civic	2010	White	Alexander Dane	0139955022
AZU532	Arrest Warrant	Ford	Tauris	2019	Green	Fred Kwan	7264237058
UVJ024	Stolen	Buick	Enclave	2018	Red	Guy Fleegman	2652412257

Internal UI functionality:

UI Component Name	Component Value	Features	HTML Components
Search Field	Text	Returns matches for VOI, Make or Model. (non-operational)	<input>
Search Button	Search	Should return a page with all VOI listed in a tabular arrangement, when selected. Moreover, results should be filtered according to Search Field value (non-operational) Different views for normal, hover, selected. Secondary behavior: Should return all VOIs when Search Field is blank.	<input> <button>
Help Button	Help	Should return a page with documentation explaining VOI project, buttons, data and application information. (non-operational)	<button>
Light Button	Light	This button changes the theme to a light mode.	<button>
Dark Button	Dark	This button changes the theme to a dark mode.	<button>
VOI Button	“VOI”	Displays Search Button and BOLO msg on click. Returns	<script> <form> <button>

		Page with all VOI listed in a tabular arrangement, when Search Button is selected. views for normal, hover, selected.	
MD State Police Logo	Image	Resizes on button click.	
VOI Table	Table	Populates with Person of Interest data from VOIdatabase. Has Sticky heading where first row remains static on scroll.	<th> <tr> <td>

2.1.5. Light Mode Selected

Screen Name: LightSelected

Image:

The screenshot shows a mobile application interface for the Maryland State Police. At the top, there is a navigation bar with four buttons: "VOI", "Light", "Dark", and "Help". The "Light" button is highlighted in orange. Below the navigation bar is the Maryland State Police logo, which features a shield with a black and yellow checkered pattern and a red cross. Below the logo is a "Search" button, also highlighted in orange. Under the "Search" button is a text input field with the placeholder text "Be on the lookout for:". Below the input field is a table with eight columns: "License Plate", "Reason", "Make", "Model", "Year", "Color", "Owner", and "Owner Phone". The table has a red border and the headers are in white text on a black background. The first row of data is partially visible, showing "G1" under "License Plate" and "G" under "Color".

License Plate	Reason	Make	Model	Year	Color	Owner	Owner Phone
G1					G		

2.1.6. Light Mode Selected (Tabular View)

Screen Name: LightSelected2

Image:

Search

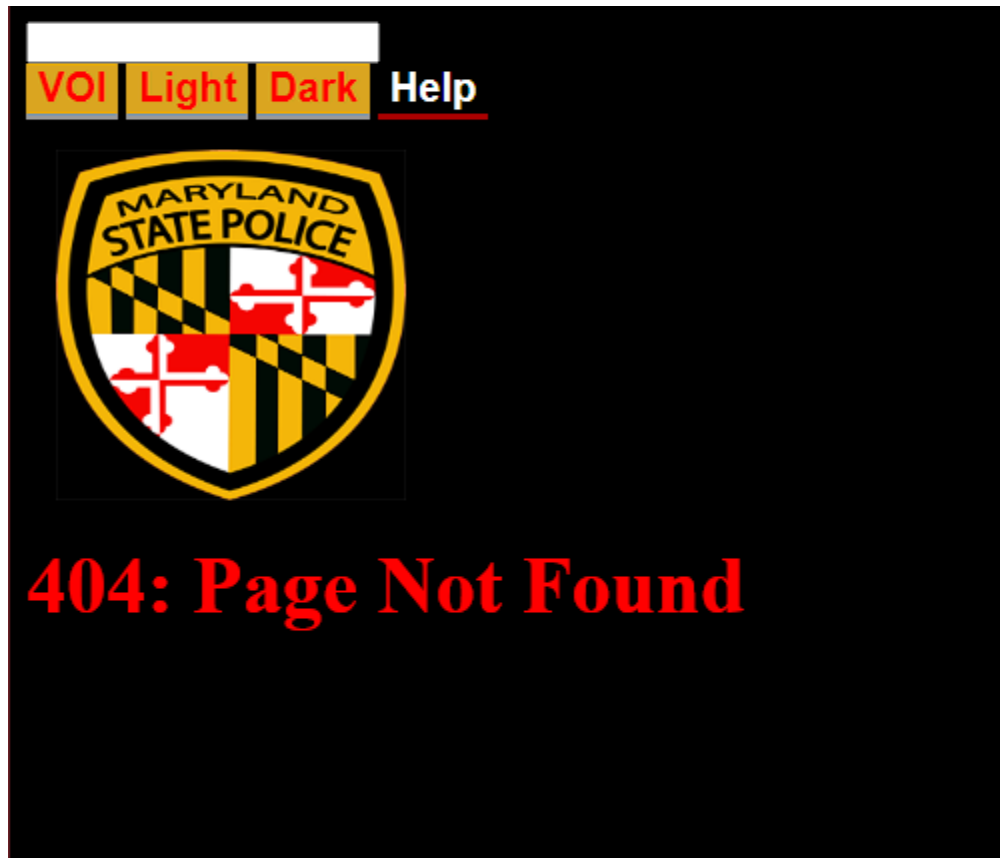
Be on the lookout for:

License Plate	Reason	Make	Model	Year	Color	Owner	Owner Phone
X76122	Silver Alert	Buick	Enclave	2018	Blue	Grandpa Simson	301555555
ABC729	Amber Alert	Ford	Tauris	2016	Red	Homer Simson	301555555
ZZZZZ	Arrest Warrant	Honda	Civic	2010	Blue	Bart Simson	301555555
ZDA257	Silver Alert	Honda	Civic	2002	Green	Grandpa Simpson	488576449
EGI006	Amber Alert	Chevy	Malibu	2018	Green	Homer Simpson	384313956
NHH036	Stolen	Ford	Tauris	2018	Green	Spock	060667364
NNU761	Amber Alert	Honda	Civic	2018	Red	James T. Kirk	449905858

2.1.7. VOI Error Reporting

Screen Name: VOI404NotFound

Image:



Internal UI functionality:

UI Component Name	Component Value	Features	HTML Components
404 Error	404 Page Not Found	Should appear when the user accesses a page that is unavailable.	