# **Ride Along**

# **Team Specs**

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# Changelog v0.7

Version Number	Date of Revision	Summary of Revisions
v0.1	September 27, 2023	Initial creation of the BRD
v0.2	October 04, 2023	<ul> <li>Change document format for features and user stories</li> <li>Updated Scope of product with global requirements</li> <li>Added "View Usage Dashboard Details" user story for "Usage Dashboard" feature</li> <li>Added "Request Data" user story for "User Management" feature</li> <li>Separate "Maintenance Log", "Repair Log", "Modification Log" and "Damage Report" into 4 user stories for "Service Log" feature</li> <li>Added "Inventory/Fleet Management", "Dealership Support" and "Vehicle Market Analyzer" features to phase 2</li> </ul>
v0.3	October 09, 2023	<ul> <li>Added definitions for different user roles in "User Type Requirement"</li> <li>Added Scope and Permission table and definition of different Scope</li> <li>Added "Confirm/Cancel Sell" user story for "Communication Establishment" feature</li> <li>Added "Calculate Rank" user story for "Car Health Rating" feature</li> <li>Removed "Vehicle Market Analyzer" feature from phase 2</li> </ul>
v0.4	October 13, 2023	<ul> <li>Added "Change Log" to record changes to the BRD</li> <li>Updated Scope with new versions of android and ios chrome, changed the supported location to Los Angeles County and Orange County, changed the time zone supported to use UTC format rather than PST and PDT, changed supported vehicles.</li> <li>Separate global requirements from Scope</li> <li>Revised all definitions of user roles</li> <li>Added description for combinations in Scope and Permission table, move definition of Scope to before the table</li> </ul>
v0.5	October 27, 2023	<ul> <li>Added Archiving user type requirements</li> <li>Added Archiving Scopes and Permissions</li> <li>Added Pre Conditions and format requirements for logging</li> <li>Added Logging requirements to all features</li> </ul>

		<ul> <li>Updated SC-2 in "Security" for more clarity</li> <li>Updated all user stories to be more aligned to the core requirements document</li> <li>SO-1 added two application specific features:         <ul> <li>Top 3 Most Registered Cars</li> <li>Vehicle Profile Creation Attempts</li> </ul> </li> <li>Added Archiving feature</li> <li>Removed Certified and Uncertified, Notification Center, Car Recommendation and Comparison, and Dealership Support</li> <li>improved on Service Log feature         <ul> <li>Defined valid characters</li> <li>Defined picture sizes</li> <li>Defined max amount of logs</li> <li>Updated missing user type in SL-5 and SL-7</li> <li>Clarified maintenance log naming</li> <li>Revised View, Search, and Create Maintenance Reminder features</li> </ul> </li> <li>Renaming "Vehicle Profile Marketplace" to "Vehicle Marketplace"         <ul> <li>Separating VPM-1 into 2 separated stories for uploading and deleting</li> </ul> </li> <li>Created Appendix file         <ul> <li>Added APPENDIX A</li> <li>Details category types: maintenance, repair, damage report, and modification</li> </ul> </li> </ul>
v0.6	November 04, 2023	<ul> <li>Updated Change log into table for both BRD and Glossary documents</li> <li>Update definition of "Unauthorized user" to include "Unregistered user"</li> <li>Updated "Operation Duration" in "Global Requirement" adding system behavior for when operation takes longer than 10 seconds and removed the "5 to 10 seconds" case.</li> <li>Updated "SC-1" user story definition to clearly denote "registered user"</li> <li>Adding "SC-4" and "SC-5" user stories to take into account anonymous user and inactive user</li> </ul>
v0.7	November 05, 2023	<ul> <li>Move pass requirements out of required input section for SC-1 and VP-4</li> <li>Removed unnecessary requirements, update number of tries, and update message for SC-4</li> <li>Updated pass requirements for UA-2</li> <li>Added Log to SC-3, SC-5, and UA-3, SL-8, UA-2, VP-2, VP-5</li> </ul>

Added N/A to data source for VP - 3, 4, and 5

# Introduction

# **Objectives**

- The goal of our product is to create a web application that users can use to keep track of the value of their vehicle and maintain their vehicle's value as high as possible. The value of their vehicle is determined by the vehicle market along with how well their vehicle is maintained and any modifications done to their vehicle.
- Users can register within our app, allowing them to create, edit, and transfer vehicle profiles.

# **Project Scope**

Ride Along will be a SPA web application compatible with the latest desktop Chrome version 118.0.5993.88 for Windows, macOS, and Linux, android Chrome version 118.0.5993.80, and iOS Chrome Version 118.0.5993.92 as of October 18, 2023. In addition, we will support standard display resolution of (1920 x 1080) and tablet and phone display resolutions. The application will only be available within Los Angeles and Orange County, using USD as currency and the imperial system for measurement, as of release the application will support Pacific Standard Time (UTC-08:00) and Pacific Daylight Time (UTC-07:00) while the default language will be American English (en-us). The application only supports vehicles newer than 1992 due to the limitations of some APIs. Users will have to be 18 or older in order to sign up for our application.

# **User Type Requirements**

#### Administrator

The Administrator will manage all other user types and have access to all authenticated user features

#### **Authenticated User**

The authenticated user will be any user that has authenticated themselves and thus will be authorized to use mostly all features available aside from features specific to the Vendor, Renter, and Administrator user types. The role is needed in order for users to create an account specific to themselves and able to record all data they input.

#### Vendor

Authenticated users that have the "Vendor" specific role are authorized to have vendor-specific features:

Inventory Management

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The role is needed in order to create a smoother experience for managing vehicles being sold on the marketplace while providing vital information to buyers on the application.

#### Renter

Authenticated users that have the "Renter" specific role will be authorized to use renter-specific features:

#### • Fleet Management

Similar to the Vendor, the role is needed in order to allow rental companies to have an easier time tracking rental status and service schedules.

#### **Unauthenticated User**

The unauthenticated user role is for users who are not authenticated and by doing so lack the authorization needed to browse the majority of our application. The unauthorized user role is needed as it decides what information you have before becoming or logging into your authenticated user role. This user role also includes unregistered (anonymous) users.

**No:** This value signifies that the user does not have permission for that user role.

**Yes:** This value signifies that the user does have permission for that user role.

**Request:** The user type must send a request to an administrator user type for approval.

**Limited Access:** The user type is only able to do what the limited access says.

	User Types					
User Roles	Unauthenticated	Authenticated	Vendor	Renter	Administrator	
Create User	No	Yes	Yes	Yes	Yes	
Delete User	No	Request	Request	Request	Yes	
Create Vehicle Profile	No	Yes	Yes	Yes	Yes	
Delete Vehicle Profile	No	Yes	Yes	Yes	Yes	
Service Log Input	No	Yes	Yes	Yes	Yes	
Adding/Updating Personal Car Information	No	Yes	Yes	Yes	Yes	
View Service Log History	No	Yes	Yes	Yes	Yes	
Maintenance Service Reminder	No	Yes	Yes	Yes	Yes	
Vehicle	No	Yes	Yes	Yes	Yes	

Market Analyzer					
Cost Center	No	Yes	Yes	Yes	Yes
Enhancements and Modifications	No	Yes	Yes	Yes	Yes
Vehicle Profile Marketplace	Limited Access: to search only	Yes	Yes	Yes	Yes
Donate Vehicle	No	Yes	Yes	Yes	Yes
Scrap Vehicle	No	Yes	Yes	Yes	Yes
Notification Function	No	Yes	Yes	Yes	Yes
Car Buying Info	No	Yes	Yes	Yes	Yes
Car News Center	No	Yes	Yes	Yes	Yes
Car Health Ranking	No	Yes	Yes	Yes	Yes
Certified/ Uncertified Vehicles	No	Yes	Yes	Yes	Yes
User Directions	No	No	Yes	Yes	Yes
Inventory/Fleet Management View	No	No	Yes	Yes	Yes
Fleet/All Profile Vehicle Estimate	No	No	Yes	Yes	Yes
Car Recommendation and Comparisons	No	Yes	Yes	Yes	Yes
Dealership Support	No	Yes	Yes	Yes	Yes

System Observability	No	No	No	No	Yes
Managing User Roles	No	No	No	No	Yes
Archiving	No	No	No	No	Yes

# **Scopes and Permissions**

Create: Whether a user is able to create something based off data given

**Delete:** Whether a user is able to delete data **View:** Whether a user is able to view data **Edit:** Whether a user is able to edit data

**Search:** Whether a user is able to search through

Request: Whether a user is able to request data from a data source or API

	Permissions					
Scope	Create	Delete	View	Edit	Search	Request
System Observability	No (Authenticated user can not create a dashboard or logs)	No (Authenticat ed user can not delete a dashboard or log)	Yes (Administrat or can view the dashboard and logs)	No (Authentic ated user can not edit a dashboard or logs)	Yes (Administr ators can search in the dashboard and logs)	No (Authentic ated user do not need to request anything from a dashboard)
User Administration	Yes (Authenticated user can create a new account)	Yes (Authenticat ed user can delete their account)	Yes (Authenticat ed user can view their account information)	Yes (Authentic ated user can edit their account informatio n)	No (Authentic ated user cannot search for this feature )	Yes (Authentic ated user can request their account informatio n that the application has logged)
Vehicle Profile	Yes (Authenticated user can create	Yes (Authenticat ed user can	Yes (Authenticat ed user can	Yes (Authentic ated user	Yes (Authentic ated user	No (Authentic ated user

	their personal vehicle profile)	delete their personal vehicle profile)	view their personal vehicle profile)	can update informatio n of their personal vehicle profile)	can search for any informatio n in their personal vehicle profile)	can not request any thing from the data store or API in this feature)
Service Log	Yes ( Authenticated user can create multiple different service log entries as well as maintenance reminders)	Yes ( Authenticat ed user can delete a log in the Service Log )	Yes (Authenticat ed user will be able to view the Service log entries they create)	Yes (Authentic ated user will be able to edit an existing service log entry)	Yes (Authentic ated user will be able to search and filter the Service Log entries they created)	Yes ( Authentica ted User will be able to request data from the data store)
Vehicle Marketplace	Yes (Authenticated user can create and publish their post to sell/rent their vehicles on the marketplace)	Yes (Authenticat ed user can take down their post from the marketplace )	Yes (Authenticat ed user can view all posts that are published and are still available on the marketplace)	Yes (Authentic ated user can edit their post on the marketplac e to add or fix any informatio n about their vehicle)	Yes (Authentic ated user can search for posts on marketpla ce that fit their requirements)	No (Authentic ated user can not request any thing from the data store or API in this feature)
User Communication	Yes (Authenticated user can open a chat session)	Yes (Authenticat ed user can delete a chat session from their history)	Yes (Authenticat ed user can view all chat session they have)	No (Authentic ated user can't edit any informatio n about the chat session)	Yes (Authentic ated user can search among all of their chat sessions)	Yes (Authentic ated user can create a request to open a chat session with a seller/rente r)
Donate your Car	Yes (Authenticated user can create the request to donate their car)	No (Authenticat ed user can not delete anything in this feature)	Yes (Authenticat ed user can view the list of charities)	Yes (Authentic ated user can edit informatio n about	Yes (Authentic ated user can search among the list of charities)	Yes (Authentic ated user can request informatio n of those charity

				their donation)		organizatio n)
Scrap your Car	Yes (Authenticated user can create a new post about scraping their car)	Yes (Authenticat ed user can delete the post about scraping their car)	Yes (Authenticat ed user can view all information about their car or any request to buy parts from their post)	Yes (Authentic ated user can edit any informatio n of their post)	Yes (Authentic ated user can search any parts or scrap vehicles)	Yes (Authentic ated user can request informatio n from the data store and API about car parts)
Car Health Rating	Yes (Authenticated user will be assigned a grade from the system)	No (Authenticat ed user can not delete anything in this feature)	Yes (Authenticat ed user can view the rating that the application provided)	No (Authentic ated user can not edit anything in this feature)	No (Authentic ated user can not search for anything in this feature)	No (Authentic ated user can not request anything in this feature)
Vendor Management	No (Authenticated user does not create anything in this feature)	No (Authenticat ed user does not delete anything in this feature)	Yes (Authenticat ed user can view their vehicle profiles)	No (Authentic ated user can not edit anything in this feature)	Yes (Authentic ated user can search through their vehicle profiles in this feature)	Yes (Authentic ated user can request informatio n from the data store in this feature)
Rental Management	No (Authenticated user does not create anything in this feature)	No Authenticat ed user does not delete anything in this feature	Yes (Authenticat ed user can view their vehicle profiles)	No (Authentic ated user can not edit anything in this feature)	Yes (Authentic ated user can search through their vehicle profiles in this feature)	Yes (Authentic ated user can request informatio n from the data store in this feature)
Uncertified/ Certified Vehicle Profile	Yes (Authenticated user can create a new request for recommendations or comparisons)	No (Authenticat ed user can not delete anything in this feature)	Yes (Authenticat ed user can view the information of the recommenda tions and comparisons)	Yes (Authentic ated user can change their answers to the questions)	Yes (Authentic ated user can search among the recommen dations)	Yes (Authentic ated user get informatio n about recommen ded vehicles

						from datastore and APIs)
Dealership Support	No (Authenticated user can not create anything in this feature)	No (Authenticat ed user can not delete anything in this feature)	Yes (Authenticat ed user can view the provided dealerships)	No (Authentic ated user can not edit anything in this feature)	Yes (Authentic ated user can search for different dealership s)	No (Authentic ated user can not request anything in this feature)
Car News Center	No (Authenticated user can not create anything in this feature)	No (User can not delete anything in this feature)	Yes (Authenticat ed user can view related news and recalls information and any alerts)	No (Authentic ated user can not edit anything in this feature)	Yes (Authentic ated user can search for any news articles or any recalls or any alerts)	No (Authentic ated user can not request anything in this feature)
User Directions	Yes (Authenticated user can create a request for directions)	Yes (Authenticat ed user can delete any provided directions)	Yes (Authenticat ed user can view the provided directions)	No (Authentic ated user can not edit anything in this feature)	Yes (Authentic ated user can search for different given directions)	Yes (Provided directions are through APIs)
Archiving	Yes ( Admin can create the execution process for archiving)	Yes (Admin will be able to delete logs after saved to separate data storage)	No (Admin won't be viewing saved logs on current system)	No (Admin won't be able to edit logs being archived)	No (Admin won't be able to search for logs being archived)	Yes (Admin will be requesting data from the Logging data store)
Security	No (Authenticated user can not create anything in this feature)	No (Authenticat ed user can not create anything in this feature)	Yes (Authenticat ed users can view the features their user type has access to)	No (Authentic ated user can not edit anything in this feature)	No (Authentic ated users won't be able to search for anything in this feature)	Yes (Authentic ated users can request to login and logout)

# **App Specific Features (Phase 1)**

# Global Requirements

All functions will have these requirements:

- Default Culture Settings
  - All output will be shown in EN-US (American English)
  - All units of measurement will be using the imperial system
  - If any operation does not include these default culture settings
    - Log will be generated
      - Log Level: Warning
      - Category: Business
      - Description: Incorrect culture settings
- Operation Duration
  - All operations should take no longer than 3 seconds to execute unless specified otherwise
  - If operation takes longer than 3 seconds, and is not specified otherwise
    - System should not crash
    - Log will be generated
      - Log Level: Warning
      - Category: Business
      - Description: Operation took longer than 3 seconds to execute
  - If operation takes longer than 10 seconds, and is not specified otherwise
    - System should not crash but will display a message of server timeout to user and ask them to try again later
    - Log will be generated
      - Log Level: Error
      - Category: Business
      - Description: Operation took longer than 10 seconds to execute
  - Operation should still run even if it takes longer than 3 seconds to execute
- Logging
  - All operations will be logged to the data store
  - All logs will have the following information:
    - Timestamp
      - Timestamps will follow this format: YYYY-MM-DD hh:mm:ss
      - Timestamps will have a Start time and End time
    - Log Level
      - Info
      - Debug
      - Warning
      - Error
    - Category
      - View
      - Business
      - Server
      - Data
      - Data Store

- Description
- If any operation cannot log to the data store
  - Log will be generated (if possible)
    - Log Level: Error
    - Category: Data Store
    - Description: Cannot log to the data store
- Effort Point
  - o 1 effort point will equal to 1 hour of efficient work

# **Pre Conditions**

- IP Address
  - All users must have an IP address within California
  - o If the user does not have an IP address within California and the user is not logged in
    - Deny user access to our system
    - Log will be generated
      - Log Level: Error
      - Category: Business
      - Description: User IP Address is out of scope
  - If the user does not have an IP address within California and the user is currently logged in
    - Log the user out
    - Redirect the user to the login view and send a message to the user telling them that their IP is not within California
    - Log will be generated
      - Log Level: Error
      - Category: Business
      - Description: User IP Address is out of scope

#### Security

# **SC-1 User Account Login**

#### User Story

As a registered user that has previously created an account, I am able to login and use all features that are allowed for my user roles in the web application.

#### **Background**

This is an essential user story since every person who makes an account needs a way to login into that account.

#### **Effort Points**

Effort Points: 21 Complexity: Low

#### Data Source

N/A

# App Permissions

Permission = Security Scope = Request

# Target Audience

Any registered user that has created an account and would like to use our system

#### **Pre Conditions**

- 1. Must not be in an active session
- 2. Must be on the login view
- 3. Must have created an account already
- 4. Must have access to their email

# **User Inputs**

# Required User Input

- Username
  - Valid usernames will be using valid email addresses:
    - <valid characters>@<valid characters>
  - Valid usernames will consist of:
    - Minimum 8 characters
    - a-z (case insensitive)
    - **■** 0-9
    - Allow for the special characters:
      - •
      - •
      - (a)
- One-Time Password (OTP)
  - OTP must contain at least 8 characters
  - Valid Passwords will consist of the following:
    - Minimum 8 characters
    - a-z
    - A-Z
    - **0-9**

# Optional User Inputs

N/A

# Pass Requirements

- 1. Authentication Attempt will be logged
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Login Attempt
- 2. The System will send a valid OTP to the user's email after a valid email is submitted
  - o OTP is changed upon every successful use
  - OTP expires every 2 minutes

- 3. System requires the user to authenticate. The user submits valid security credentials. The system will automatically navigate to the user's home view upon successful authentication.
  - Users can try up to 3 times until they are displayed a message that their account has been disabled. They will be able to retry login within 24 hours of the first failed login.
  - Account will be unlocked after a valid account recovery mechanism is performed by the account owner or the admin.
    - Upon successful account recovery, failed authentication attempts reset back to 0
  - Upon successful login attempt, failed authentication attempts reset back to 0
- 4. If they correctly put in their password and username they will be sent to their vehicle profile view
  - The operation of successful logins is logged
  - Timestamp created when they have a login
- 5. If the user is already logged in then they are sent to their vehicle profile view

#### Fail Requirements

- Authentication attempt is not logged
  - o Application is invalid but should not crash
  - Log will be generated (if possible)
    - Log Level: Error
    - Category: Server
    - Description: Cannot log to data store
- The one-time password is not sent to the user's email
  - Application will display a message that "OTP email send failed"
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: "OTP email send failed"
- The one-time password sent to user is invalid
  - Application will display the message "Invalid OTP used. Please request a new OTP"
  - User will need to ask for another one time password
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: "Invalid OTP used. Please request a new OTP"
- Takes between 3 and 10 seconds before they are automatically sent to their vehicle profile (home page) after submitting credentials correctly
  - Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Operation took longer than 3 seconds
- Takes more than 10 seconds before they are automatically sent to their vehicle profile (home page) if they put their credentials correctly

- The application will display a message of server timeout and suggest other pages for the user to go to
- Log will be generated
  - Log Level: Error
  - Category: Server
  - Description: Operation took longer than 3 seconds
- The user is not sent to their vehicle profile when they log in
  - The application will display a message of server timeout and suggest other pages for the user to go to
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Not sent to the home page
- If the user attempts to log in when their account is disabled
  - The application will display the message "Account is disabled. Perform account recovery first or contact system administrator"
  - o Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Too many login attempts
- If they incorrectly type their username and/or OTP
  - Application will display the message that invalid security credentials provided and user can retry again, contact system administrator or register for an account
  - This will only apply for the first 3 login attempts
  - o Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Invalid username and/or password

- UA-1 User Account Logout
- UA-2 Recover User Account

#### **SC-2 Registered User Authorization**

#### User Story

As a registered user, I can access the views I am allowed to see based on my user type (unauthenticated, authenticated, vendor, renter, or admin).

#### Background

Only registered users will be able to view and use the functionalities of our web application. Meaning that you will have to register an account in order to use our web application and deny access to any unregistered user.

#### **Effort Points**

Effort Points: 34 Complexity: Low

#### **Data Source**

N/A

# App Permissions

Permission = Security Scope = View

#### Target Audience

Any registered user

#### **Pre Conditions**

1. Must not be in a active session

#### User Inputs

Required User Inputs

N/A

Optional User Inputs

N/A

#### Pass Requirements

- 1. User attempts to access protected functionality that they have permissions for
  - Access is granted to perform functionality
  - Unauthenticated User
    - Login
    - Registration
    - Account Recovery
  - Authenticated User
    - Vehicle Profiles
    - Vehicle Marketplace
    - Service Log
    - Cost Center
    - Scrap Your Car
    - Car Donating
    - Car News
    - Communication Establishment
  - Vendor
    - Everything an Authenticated User can access
    - Vendor Inventory Management
  - Renter
    - Everything an Authenticated User can access
    - Renter Fleet Management
  - o Admin
    - Everything a Vendor, Renter, and Authenticated User can access
    - System Observability
- 2. User attempts to access protected data that they have permissions for
  - Access is granted to perform read operations
  - Authenticated User
    - Vehicle Profiles

- Vehicle Marketplace
- Service Log
- Cost Center
- Scrap Your Car
- Car Donating
- Car News
- Communication Establishment
- Vendor
  - Everything an Authenticated User can read
  - Vendor Inventory Management
- o Renter
  - Everything an Authenticated User can read
  - Renter Fleet Management
- o Admin
  - Everything a Vendor, Renter, and Authenticated User can access
  - System Observability
- 3. User attempts to modify protected data that they have permissions for
  - Access is granted to perform write operations
  - Authenticated User
    - Vehicle Profiles
    - Vehicle Marketplace
    - Service Log
    - Scrap Your Car
    - Car Donating
    - Communication Establishment
  - Vendor
    - Everything an Authenticated User can write
    - Vendor Inventory Management
  - o Renter
    - Everything an Authenticated User can write
    - Renter Fleet Management
  - o Admin
    - Everything a Vendor, Renter, and Authenticated User can access
- 4. User attempts to access protected views that they have permissions for
  - Access is granted to the view. User is automatically navigated to view.
  - Unauthenticated User
    - Login
    - Registration
    - Account Recovery
  - Authenticated User
    - Vehicle Profiles
    - Vehicle Marketplace
    - Service Log
    - Cost Center
    - Scrap Your Car
    - Car Donating

- Car News
- Communication Establishment
- Vendor
  - Everything an Authenticated User can access
  - Vendor Inventory Management
- o Renter
  - Everything an Authenticated User can access
  - Renter Fleet Management
- Admin
  - Everything a Vendor, Renter, and Authenticated User can access
  - System Observability

# Fail Requirements

- Unauthorized access is not recorded by system when authorization fails
  - A system log of failure is attempted
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: User accessed without valid authorization
- User attempts to access a protected functionality that they are not authorized to
  - Access is denied and a system message displays "Unauthorized access"
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: "Unauthorized Access"
- User attempts to access protected data that they are not authorized to
  - Access is denied and a system message displays "Unauthorized access to data"
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: "Unauthorized access to data"
- User attempts to modify protected data that they are not authorized to
  - Access is denied and a system message displays "Unauthorized access to data"
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: "Unauthorized access to data"
- User attempts to access protected views that they are not authorized to
  - Access is denied and a system message displays "Unauthorized access to view"
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: "Unauthorized access to view"
- User attempts to access protected views within authorization scope, but contains protected data that is not within read scope
  - Access is granted to the view

- Upon completion of automatic navigation to view, a system message displays "Unauthorized access to data" with protected data not visible within the view
- Log will be generated
  - Log Level: Info
  - Category: Business
  - Description: "Unauthorized access to view"
- User attempts to access protected views within authorization scope, but contains protected data that is not within write scope
  - Access is granted to the view
  - Upon completion of automatic navigation to view, protected data is visible within the view
  - Attempts to modify the data will result in a system message that displays "Unauthorized access to data"
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: "Unauthorized access to data"

- UA-1 create user accounts will be available for unregistered users.
- UA-2 recover user account will be available for registered users who need to send a request to recover their account
- SC-1 the users is able to use the login view in order to sign in

# **SC-3 User Account Logout**

#### User Story

As an authenticated user, I am able to log out of my account anytime when I no longer want to use the web application.

# **Background**

Every user who is able to log in should also be able to log out.

#### **Effort Points**

Effort Points: 21 Complexity: Low

#### Data Source

N/A

# App Permissions

Permission = Security Scope = Request

# <u>Target Audience</u>

Any user that has created an account with us and is currently logged in

#### **Pre Conditions**

- 1. Must have created an account already
- 2. Must be signed in
- 3. Must be in a view that has the Logout function

# <u>User Inputs</u>

# Required User Inputs

- Is able to click the Logout option
- A small message will display confirming if they want to log out or cancel *Optional User Inputs* 
  - N/A

# Pass Requirements

- 1. If the user confirms that they want to log out then they are sent to the login page and are signed out of the system
  - The user is automatically navigated to the default home view of the system with default culture settings
  - A display message will be displayed: "Logout successfully"
  - The logout process should take less than 3 seconds to execute
  - o Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Logout Attempt
- 2. The user should only be able to log out if they are authenticated

#### <u>Fail Requirements</u>

- The user successfully logs out of their account, but is not redirected to the login page
  - Application will display a message "Logout operation error" or no message
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: "Logout operation error"
- The user logs out of their account and is redirected to the login page, but the default culture settings are not applied
  - Application will display a message "Logout operation error" or no message
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: "Logout operation error"
- Takes more than 3 seconds before they are sent to the login page
  - Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: System took too long to send back to the login page
- Takes more than 10 seconds before they are sent to the login page

- Application will display a message of server timeout and redirect the user to the last functional page
- Log will be generated
  - Log Level: Error
  - Category: Business
  - Description: System Timeout: Took too long to send back to the login page
- The user cannot leave the log out window
  - Application will suggest returning to last visited page after 60 seconds of inactivity, contact an administrator, or close the page
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Log Out Failure
- The user is still signed in after confirming they want to log out
  - Application will display a message that the user is unable to logout and that the user should try again, contact an administrator, or close the page
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Log Out Failure

• SC-1 User Account Login

#### SC-4 Unregistered (includes Anonymous) User Account Login

#### User Story

As an unregistered (includes anonymous) user who have not created an account with us, attempt to authenticate to user secure functionalities for registered users will be rejected by the system

#### **Background**

This user story is to reject unregistered (includes anonymous) users who do not have an account and attempt to log in.

# **Effort Points**

Effort Points: 21 Complexity: Low

#### Data Source

N/A

# App Permissions

Permission = Security Scope = Request

# **Target Audience**

Any unregistered (includes anonymous) user that has created an account and would like to use our system

#### **Pre Conditions**

- 1. Must not be in an active session
- 2. Must be on the login view

# **User Inputs**

# Required User Inputs

- Username
  - Valid usernames will be using valid email addresses:
    - <valid characters>@<valid characters>
  - Valid usernames will consist of:
    - Minimum 8 characters
    - a-z (case insensitive)
    - **•** 0-9
    - Allow for the special characters:
      - .-
      - (a)
- One-Time Password (OTP)
  - OTP must contain at least 8 characters
  - Valid Passwords will consist of the following:
    - Minimum 8 characters
    - a-z
    - A-Z
    - **•** 0-9

# Optional User Inputs

• N/A

# Pass Requirements

- 1. Unsuccessful Authentication Attempt will be logged
  - a. Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Username and password input and IP Address
- 2. The System will display a message that authentication failed and ask user to try again while not sending an OTP to the user's email
  - a. Users can try up to 3 times until they are displayed a message that their IP address has been timeout. They will be able to retry login within 24 hours of the first failed login.
  - b. Upon successful login attempt, failed authentication attempts reset back to 0

# Fail Requirements

- Authentication attempt is not logged
  - o Application is invalid but should not crash
  - Log will be generated (if possible)
    - Log Level: ErrorCategory: Server
    - Description: Cannot log to data store
- The one-time password is sent to the user's email despite invalid username
  - Application will display a message that "OTP email send failed"
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: (Unrecoverable Error)
- The user is sent to their vehicle profile despite invalid log in
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: (Unrecoverable Error)
- If the user attempts to log in when their IP address is timeout
  - The application will display the message that IP Address is timeout and that user should try again in 24 hours
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Too many login attempts

#### Related User Stories

# **SC-5 Logout Inactive User**

#### User Story

As an authenticated user who has logged in, the system should be able to log me out if I am inactive for more than 20 minutes so that my account is more secure.

#### Background

Users who have forgotten to log out of their accounts or have simply step way from the session for more than 20 minutes

# **Effort Points**

Effort Points: 21 Complexity: Low

#### **Data Source**

N/A

# **App Permissions**

Permission = Security Scope = Request

# Target Audience

Any user that has created an account with us and is currently logged in and shows no sign of an active user such as clicking or going to different pages.

#### **Pre Conditions**

- 1. Must have created an account already
- 2. Must be signed in
- 3. Must be inactive for more than 20 minutes

# **User Inputs**

# Required User Inputs

- Is able to click cancel on the pop up message that will display they will be automatically logout
  - The message will display 1 minute before they are logout

#### Optional User Inputs

• N/A

# Pass Requirements

- 1. If the user does not cancel the display message warning them that they will be signed off within a minute and will be automatically signed off
  - The logout process should take less than 3 seconds to execute
- 2. If the system detects an active user before the display message then the timer is reset again until they become inactive again
- 3. If the session is closed without signing off the system will wait 20 minutes before automatically logging them off
  - The automatic sign-off will be canceled if the user opens up the session again within 20 minutes.
  - The timer will also be reset until user become inactive again
- 4. Log out Attempt will be logged after system successfully logged out inactive user
  - Log will be generated

■ Log Level: Info

■ Category: Business

■ Description: Logout Attempt

#### Fail Requirements

- The system successfully logs the user out of their account but is not redirected to the login page
  - o Application will display a message "Logout operation error" or no message
  - Log will be generated

■ Log Level: Error

■ Category: Business

■ Description: "Logout operation error"

- The system logs the user out of their account and is redirected to the login page, but the default culture settings are not applied
  - o Application will display a message "Logout operation error" or no message
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: "Logout operation error"
- Takes more than 3 seconds before they are sent to the login page
  - o Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: System took too long to send back to the login page
- Takes more than 10 seconds before they are sent to the login page
  - Application will display a message of server timeout and redirect the user to the last functional page
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: System Timeout: Took too long to send back to the login page
- The system does not display the warning message of signing off
  - Application will continue to sign them off
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Display logout warning message failed
- The user is still signed in after 20 minutes of inactivity
  - Application will display a message that the system is unable to logout
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Inactive Log Out Failure
- The user is signed off when they try to open a session they have closed (but have not signed off) and it has been less than 20 minutes
  - Application will display a message "Logout operation error" or no message
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: The user has been logged off before the 20 minutes

• SC-1 User Account Login

#### User Administration

# **UA-1 Registration**

#### User Story

As an unregistered user, I can register an account to become an authenticated user so that I am able to use the features an authenticated user can use.

# **Background**

Every user will need an account in order to use the features of our app.

# **Effort Points**

Effort Points: 34 Complexity: Low

#### **Data Source**

N/A

# **App Permissions**

Permission = User Administration Scope = Create

#### **Target Audience**

Unregistered users who want to create an account and become an authenticated user

#### **Pre Conditions**

- 1. User must not be logged in
- 2. User must be on the Registration View
- 3. User must have an IP address within California

# <u>User Inputs</u>

# Required User Inputs

- Email
  - Valid emails must be unique to the system
  - Valid email will consist of:
    - Minimum of 3 characters
    - Must be in the format: <valid characters>@<valid characters>
    - a-z (case insensitive)
    - **•** 0-9
    - May have special characters
      - -
- Date of Birth
  - Valid dates of birth are between January 1, 1970 and 18 years before the current date
- Confirmation
  - User must confirm their email address within 2 hours to complete registration
- Account Type

- User can register between different types
  - Authenticated User (Default user)
  - Vender
  - Renter

#### Optional User Inputs

N/A

#### Pass Requirements

- 1. System administrators cannot be created using Registration View
- 2. After confirming the email address, a system message displays "Registration complete for [username]" within 3 seconds of confirmation completion.
  - The user is automatically navigated to the home page
- 3. Upon email submission, a system message displays that email has been sent and requires them to confirm
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Email sent to [username]
- 4. User is assigned a system-wide unique username
- 5. User account is stored to the data store upon completion

#### Fail Requirements

- If the user completes the confirmation within 2 hours, but they have an administrator
  - Application will display a message stating that they have the wrong account type
  - Account will not be created
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Administrator creation occurred when creating user
- If the user completes the confirmation within 2 hours, but they do not have the account type they submitted
  - Application will display a message stating that they have the wrong account type
  - Account will not be created
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Wrong account type was created
- If the confirmation email is not sent
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: "Confirmation email failure"
- If the user completes the confirmation after 2 hours

- Application will display a message "Confirmation time period has expired. Register again or contact the system administrator."
- Log will be generated
  - Log Level: Info
  - Category: Business
  - Description: Confirmation time period has expired for [username]
- If the user registers with an invalid email
  - Application will display a message "Invalid email provided. Retry again or contact system administrator"
  - o Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Invalid user input for [email]
- If the user enters a date of birth older than 1/1/1970
  - Application will display a message "Invalid date of birth provided. Must be within 1/1/1970 to [18 years before the current date]"
  - o Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Invalid user input for [date of birth]
- If the user enters a date of birth younger than 18 years before the current date
  - Application will display a message "Invalid date of birth provided. Must be within 1/1/1970 to [18 years before the current date]"
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: Invalid user input for [date of birth]
- If the user completes the confirmation within 2 hours, but the system was unable to assign a unique system-wide username
  - Application will display a message "Unable to assign username. Retry again or contact system administrator".
  - The account will not be created
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Unable to assign username
- If the user completes the confirmation within 2 hours, but the system was unable to assign a unique system-wide username within 3 seconds
  - Application will display a message "Operation exceeded time frame"
  - o The account will be created
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Unable to assign username within 3 seconds
- If the user is missing information for account creation
  - The user will be prompted to retry registration

- Log will be generated
  - Log Level: Info
  - Category: Server
  - Description: User did not submit proper input
- If any account information is not saved to the data store
  - Application will display a message saying that their account information was not saved. Will suggest the user to retry again or come back later
  - o The account will not be created
  - Log will be generated
    - Log Level: Error
    - Category: Data Store
    - Description: Cannot save account information to the data store
- If the user completes the confirmation within 2 hours, but the system does not tell the user that their account was created successfully
  - The user will be navigated to the login view
  - Log will be generated
    - Log Level: Warning
    - Category: System
    - Description: Did not tell user for successful account creation

N/A

#### **UA-2 Recover User Account**

# **User Story**

As an authenticated user, I am able to regain access to my active or disabled account so that I can sign in to use the web application.

#### **Background**

This is for users who have an account and are trying to log in but have their account disabled.

#### **Effort Points**

Effort Points: 21 Complexity: Low

#### **Data Source**

N/A

#### App Permissions

Permission = User Administration Scope = Request

#### **Target Audience**

Authenticated users who have forgotten their username or have their account disabled

#### **Pre Conditions**

- 1. Must not be currently signed in
- 2. Must be on the recovery page view

# <u>User Inputs</u>

# Required User Inputs

- Username
  - Username must one that is in the system
  - Valid username will be their email
  - Valid username will consist of:
    - Minimum of 3 characters
    - Must be in the format: <valid characters>@<valid characters>
    - a-z (case insensitive)
    - **0-9**
    - May have special characters
      - -
- One-Time Password (OTP)
  - o OTP must contain at least 8 characters
  - Valid Passwords will consist of the following:
    - Minimum 8 characters
    - a-z
    - A-Z
    - **O**-9

# Optional User Inputs

N/A

#### Pass Requirements

- 1. Once the user provides username system will send a valid OTP to the email that is associated with that account
  - OTP is changed upon every successful use
  - o OTP expires every 2 minutes
  - o Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: [username] has requested account recovery
- 2. Once user enter valid OTP, a request is sent to authorized system administrators within 3 seconds
  - Application will display a message "Account recovery request sent" within 3 seconds of sending the request
- 3. Authorized system admin completes the account recovery for the user
  - Application will display a message "Account recovery completed successfully for user" within 3 seconds of completing account recovery
  - The user will be able to regain access within 3 seconds of completing account recovery

# Fail Requirements

- If the user provides a username that is not in the data store
  - Application will display a message "Invalid username or OTP provided. Retry again or contact system administrator"
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Invalid username provided
- If the user provides a username that is in the data store, but provides an invalid OTP
  - Application will display a message "Invalid username or OTP provided. Retry again or contact system administrator"
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Invalid OTP provided
- If the user provides a username that is in the data store and provides a valid OTP, but the request is not sent to the authorized system administrators
  - Application will display a message telling the user that the request was unsuccessful and suggesting they try again or come back later
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Could not send requests to administrators
- If the user provides a username that is in the data store, provides a valid OTP, and the request is sent to the authorized system administrators, but the system message does not display within 3 seconds on invocation
  - o Application will wait for system message until 10 seconds has elapsed
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Could not send system message to user within 3 seconds
- If the user provides a username that is in the data store, provides a valid OTP, and the request is sent to the authorized system administrators, but the system message does not display within 10 seconds on invocation
  - Application will redirect to the login page
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Could not send system message to user within 10 seconds
- If the authorized system admin completes the account recovery for the user, but the system message does not display to the user within 3 seconds on invocation
  - o Application will wait for system message until 10 seconds has elapsed
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Could not send system message to user within 3 seconds

- If the authorized system admin completes the account recovery for the user, but the system message does not display to the user within 10 seconds on invocation
  - Application will redirect the user to the login page
  - Log will be generated
    - Log Level: ErrorCategory: Server
    - Description: Could not send system message to user within 10 seconds
- If the authorized system admin completes the account recovery for the user and but the system message does display to the user within 3 seconds on invocation, but the user does not regain access
  - Application will display a message telling the user that there has been some error and suggest them to try again, contact a system administrator, or come back later.
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Could not send system message to user within 3 seconds

• UA-1 an account must be created first in order to be able to recover the account

#### **UA-3 Delete User Account**

# **User Story**

As an authenticated user, I can delete my account and all data related to me because I no longer need the services of the web application.

#### Background

When a user no longer wants to use our application permanently.

#### **Effort Points**

Effort Points: 21 Complexity: Low

#### **Data Source**

N/A

#### App Permissions

Permission: UserAdminstration

Scope: Delete

#### Target Audience

Authenticated users who longer wish to use our product

#### **Pre Conditions**

- 1. User must be logged in
- 2. User must be on Account Deletion view
- 3. User must have permission to delete account
- 4. User must have personal identifiable information (PII) to delete

## **User Inputs**

# Required User Inputs

- Confirmation
  - User must confirm that they want to delete their account

## Optional User Inputs

N/A

## Pass Requirements

- 1. User chooses to delete their account and confirms action. All PII data and the user account is permanently deleted from the system.
  - Application will display a message "Account deletion successful" within 3 seconds on invocation
  - Account deletion attempt will be logged
    - i. Log will be generated
      - Log Level: Info
      - Category: Business
      - Description: Account deletion Attempt
  - System is automatically navigated to the login page with default culture settings within 3 seconds on invocation

- If the user chooses to delete account and confirms account, but system does not delete PII or user account data
  - Application will display a message suggesting to try again, contact an administrator, or come back later
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Could not delete PII or User Account Data
- If the user chooses to delete account and confirms account, but system does not delete PII or user account data within 3 seconds on invocation
  - o Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Could not delete PII or User Account Data within 3 seconds
- If the user chooses to delete account and confirms account, but system does not delete PII or user account data within 10 seconds on invocation
  - Application will display a message suggesting to try again, contact an administrator, or come back later
  - o Application will redirect to last open page
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Could not delete PII or User Account Data within 10 seconds
- If data is not permanently deleted from the system

- Application is not valid
- Application will display a message saying the system could not delete data
- Log will be generated
  - Log Level: Error
  - Category: Server
  - Description: System could not delete data
- If a system message is not shown or the wrong message is shown after all PII data and user account data is permanently deleted from the system
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: System message is not sent to user
- If the user is unable to acknowledge the system message "Account deletion successful" after the successful data deletion.
  - Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: User is unable to acknowledge system message
- If the user is not automatically redirected to the login page
  - Application will suggest to manually navigate to the login page
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: User is not redirected to login page
- If the user is automatically redirected to the login page, but the default language and culture settings is not shown
  - Application will display a message telling the user does not have default language and culture settings or no message
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Incorrect default language and culture settings

## Related User Stories

• SC-1 User Account Login

# **UA-4 User Management**

## **User Story**

As an admin user, I am able to view and modify all accounts within the system in case an error or assistance is needed.

## **Background**

These will specify what powers the admin is able to use

#### **Effort Points**

Effort Points: 55 Complexity: Medium

## **Data Source**

N/A

## **App Permissions**

Permission: UserAdminstrartion

Scope: All

## Target Audience

Admin users only

## **Pre Conditions**

- 1. Must be signed in
- 2. Must be on managing accounts view
- 3. User must be a system administrator

## <u>User Inputs</u>

# Required User Inputs

- Choose account
  - Administrator user can select an account to operate on
- Choose operation
  - Create another admin
  - Update user info
  - o Delete user
  - Disable user
  - Enable user
  - Upgrade user
    - Authenticated User
    - Vendor
    - Renter

# Optional User Inputs

• N/A

## Pass Requirements

- Administrators are able to perform any user management operation within 3 seconds upon invocation
  - A system message displays "UM operation was successful"
- The create another admin will enable the admin to create another admin user type
  - Log will be generated
    - Log Level: Info
    - Category: System
    - Description: Created admin user
- The update user option will enable the admin to be able to view and modify any data about the account they are currently looking at

- Log will be generated
  - Log Level: Info
  - Category: System
  - Description: Updated user account
- The delete user will allow the admin to delete any account
  - Log will be generated
    - Log Level: Info
    - Category: System
    - Description: Deleted user account
- The delete user will allow the admin to delete other admin accounts
  - There must be at least 1 system admin account present within the system at all times
  - Log will be generated
    - Log Level: Info
    - Category: System
    - Description: Deleted admin account
- The disable option will allow to temporarily disable an account
  - Log will be generated
    - Log Level: Info
    - Category: System
    - Description: Disabled user account
- The enable option can only be used on accounts that have been disabled first and will allow the user to have access to their account again
  - Log will be generated
    - Log Level: Info
    - Category: System
    - Description: Enabled user account
- The upgrade option will allow for admins to change user account types to another (authenticated, renter, vendor)
  - Log will be generated
    - Log Level: Info
    - Category: System
    - Description: Changed account type

- If the operation takes longer than 3 seconds to execute
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took more than 3 seconds to execute user management
- If the operation takes longer than 10 seconds to execute
  - Application will suggest to try again or come back later
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Took more than 10 seconds to execute user management

- If the operation executes within 3 seconds, but there is no shown system message or an inaccurate system message is shown
  - Application will display a message telling the user that an incorrect system message is shown or no message is shown
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Application sent wrong message to user
- If the operation executes within 3 seconds and the system message "UM operation was successful" is shown, but the data is not written to the data store
  - Application will display a message that it failed to save changes and suggest to try again or come back later
  - Log will be generated
    - Log Level: Error
    - Category: Data store
    - Description: Changes were not saved to data store
- If the user chooses to delete user administrator, but there is one or less administrator users currently in the system
  - Application will not allow the user to delete the administrator account
  - Application will display a message that the system must have at least one active administrator account at all times
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Must have at least one system admin at all times

## Related User Stories

N/A

## **UA-5 Request Data**

#### **User Story**

As an authenticated user, I am able to request my personal data that was collected to make sure it is available anytime for me to view.

## Background

This user story is created to simply adhere to the law that users always have access to data that is collected from them.

#### **Effort Points**

Effort Points: 21 Complexity: Low

#### Data Source

Origin = Internal

Type = Database

Details = Able to retrieve data related to the account

# **App Permissions**

Permission = User Administration Scope = Request

## Target Audience

Authenticated users who want to see all the data collected about them

#### **Pre Conditions**

- 1. Must be signed in
- 2. Must be on account profile
- 3. Must be on Request Data view

## **User Inputs**

## Required User Inputs

- Request Data
  - User will select an option that will let their personally identifiable information be (PII) sent to them

# Optional User Inputs

N/A

#### Pass Requirements

- 1. A display message will appear telling the user that a data request has been successful after they have chosen the requested data and redirect user to their vehicle profile view
  - o An email will be sent to them containing all their data in the form of a PDF
  - Log will be generated
    - Log Level: Info
    - Category: Business
    - Description: [username] has requested data
- 2. After a user submits their request for data they cannot request data again within the next 60 minutes
  - Timer starts upon request invocation

- If the user successfully requested for their data, but an email is not sent to their email address
  - The user is able to make another request in an hour or contact an administrator
  - Application should not go offline
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Email of PII failed to send
- If the user successfully requested for their data and an email is sent to their email address, but there is no display message
  - Application should not go offline
  - Log will be generated
    - Log Level: Error
    - Category: View

- Description: Display message of success did not display
- If the user successfully requested for their data, but an email is not sent to their email address within 3 seconds on invocation
  - Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Sending email took longer than 3 seconds
- Takes more than 10 seconds before they are sent an email
  - Application will display a message of server timeout and redirect user to the last functional page
  - o Application will suggest to try again, contact an administrator, or come back later
  - Log will be generated
    - Log Level: ErrorCategory: Server
    - Description: Sending email took longer than 10 seconds

#### Related User Stories

N/A

# **UA-6 Update User Account**

# **User Story**

As an authenticated user, I am able to edit my account information because I want my profile to have updated information.

#### Background

This is how users can personalize their accounts.

## **Effort Points**

Effort Points: 21 Complexity: Low

## Data Source

N/A

# App Permissions

Permission =User Administration

Scope = Edit

# **Target Audience**

Authenticated users who wish to edit or update information on their personal account

## **Pre Conditions**

- 1. Must be signed in
- 2. Must already have an account
- 3. Must be on the edit account view

## **User Input**

# Required User Input

• N/A

## Optional User Input

- Address
  - Will accept alphanumeric characters up to 100
- Name
  - Will only accept alpha characters up to 50
- Phone number
  - Will only accept numeric characters up to 15
- Account type
  - Will select from a list consisting of:
    - Authenticated user (default user)
    - Vendor
    - Rentor

## Pass Requirements

- 1. If the user is updating account information for the first time
  - o Address, Name, and Phone Number sections will be blank
- 2. If it is not the first time updating account information
  - o Address, Name, and Phone Number sections will have the fields filled in
- 3. User is able to change the name, phone number, address, and account type
- 4. If the user chooses to not make any changes, they are able to do so
- 5. Log will be generated
  - o Log Level: Info
  - o Category: Business
  - Description: [username] updated their account

- If it is the user's first time updating account information and the Address, Name, and Phone Number sections are not blank
  - System will continue to run as normal
  - User can overwrite the information
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Fields are not blank when expected
- If the user submits valid inputs, but the changes are not saved to the database within 3 seconds of submitting
  - System will continue to run until 10 seconds has passed
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Updating information took longer than 3 seconds
- If the user submits valid inputs, but the changes are not saved to the database within 10 seconds of submitting
  - System will redirect the user to their profile
  - Application will show a message telling the user to try again, contact a system admin, or come back later
  - o Log will be generated
    - Log Level: Error

- Category: Server
- Description: Updating information took longer than 10 seconds
- If the user submits valid inputs and the changes are saved to the database, but the updated information is not visible
  - Application will suggest the user to refresh the page to see if it has updated, contact an administrator, or try to view the page later
  - System will continue to run
  - Log will be generated
    - Log Level: ErrorCategory: View
    - Category, view
    - Description: Failed to update user information
- They violate the character limit for either name, address or phone number
  - Application will display a message that they have violated the character limit
  - Log will be generated
    - Log Level: Warning
    - Category: Data
    - Description: Character constraint violated

#### Related User Stories

• UM-2 User Account Login

# System Observability

# **UD-1 View Usage Dashboard**

#### User story

As an administrator user, I can view the overall analytics for our web application to know what Key performance indicators are doing better than others.

## **Background**

This feature gives the administrators the option to view the analytics on a timeline with time frame ranges of the latest 6 months, 12 months, or 24 months.

#### **Effort Points**

Effort Points: 21 Complexity: Low

#### Data Source

Origin = Internal Type = Database

Details = To pull from to create Usage dashboard

#### App Permissions

Permission = SystemObservability Scope = View

## **Target Audience**

Administrators who want to see how well the system is working

#### **Pre Conditions**

- 1. Data Store must be active and functioning
- 2. The user must be authenticated with Administrator access
- 3. Must be on the Usage Dashboard page

## <u>User Inputs</u>

## Required User Inputs

- Time frame
  - Users must choose from the types: 6 months, 12 months, or 24 months.
  - The default selection will be 6 months if the user does not specify

#### Optional User Inputs

• N/A

#### Pass Requirements

- 1. All Key Performance Indicators (KPI) will be viewable all at once and are pulled from the internal data store that will refresh every 60 seconds.
  - o Login Attempts IP Address, Username Input, Success/Fail
  - o Account Creation Attempts IP Address, Email Input, Success/Fail
  - o Top 3 Longest Visited Views Feature Name, Time Spent (Seconds)
  - o Top 3 Most Visited Views Feature Name, Number of Clicks
  - o Top 3 Most Registered Cars Make, Model, Year
  - o Vehicle Profile Creation Attempts Username, Make, Model, Year, Success/Fail

- If the user selects a time frame, but the system displays the wrong time frame
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Incorrect time frame being shown
- If the retrieval of analytics takes longer than 15 seconds
  - Application will show a message saying to try again or come back later
  - Application should redirect user to vehicle profile view
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Took longer than 15 seconds to retrieve analytics
- If the retrieved analytics are not refreshed every 60 seconds
  - o Application should not go offline until next refresh
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Analytics are not refreshing every 60 seconds
- Retrieved analytics are taking longer than 60 seconds to refresh
  - o Application should not go offline
  - o Log will be generated

■ Log Level: Warning

■ Category: Server

■ Description: Took longer than 60 seconds to refresh

## Related User Stories

N/A

## **UD-2 View Logs**

#### User story

As an administrator user, I can view all the logs of the system to pinpoint points of interest or points of errors in the system.

# Background

This feature gives the administrators the option to view logs and be able to find errors or bugs affecting the system.

# **Effort Points**

Effort Points: 21 Complexity: Low

#### Data Source

Origin = Internal Type = Database Details = To pull from to create Logs

#### App Permissions

Permission = SystemObservability Scope = View

#### **Target Audience**

Administrators who want to see errors or bugs that need to be fixed within the system

#### **Pre Conditions**

- 1. Data Store must be active and functioning
- 2. Data Store must have available storage for the logs
- 3. The user must be authenticated with Administrator access
- 4. Must be on the Logs view

#### User Inputs

## Required User Inputs

N/A

## Optional User Inputs

- View Log Details
  - o Display Log Level (Info, Debug, Warning, Error)
  - Display Timestamp (start time to end time)

- Display Category (View, Business, Server, Data, Data Store)
- Display Context

# Pass Requirements

- 1. By default all logs that are not selected by the user will have these default behaviors:
  - o Display Log Level (Info, Debug, Warning, Error)
    - All log level types
  - Display Timestamp
    - Start time of the system to current time
  - o Display Category (View, Business, Server, Data, Data Store)
    - All log category types
  - Display Context
    - All log context
- 2. All logs will be viewable and contain specific information.
  - Display Level
    - Info: Information of the system such as KPI's
    - Debug:To locate warnings or errors in the system
    - Warning: May lead to errors if not taken care of
    - Error: Errors occurring in the system
  - Timestamp
    - Will use UTC and be shown in YYYY-MM-DD hh:mm:ss format
  - Category
    - View: A log relating to the page or view of a system
    - Business: A log that contains if any business rules have been violated
    - Server: A log if there are issues with the server
    - Data: Logs relating to wrong data types Ex. user inputs string into a integer only input
    - Data Server: logs if the data was not saved correctly or was corrupted in data store
  - Context
    - A short description about the log for admin users to better understanding

- Retrieval of logs takes longer than 3 seconds
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds to retrieve logs
  - Description: Updating information took longer than 3 seconds
- Viewing logs have mismatched categories
  - o Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: View
    - Description: Log categories are shown incorrectly
- Viewing logs have mismatched levels

- Application should not go offline
- o Log will be generated

■ Log Level: Warning

■ Category: View

■ Description: Log levels are shown incorrectly

## Related User Stories

N/A

# Archiving

# **A-1 Create Archive**

#### User Story

As an admin, I can deposit log entries into a separate data storage location to preserve space for the logging library.

# **Background**

Allows for older log entries to be relocated in order to save data storage space on the system.

## **Effort Points**

Complexity: Medium Effort Points: 120

#### Data Source

Not Applicable

# App Permissions

Permission = Create, Delete, Request Scope = Archiving

## Target Audience

Admin

# **Pre Conditions**

- 1. Must be a Admin user type
- 2. Data store must be online and able to be accessed
- 3. Location for archived logs must have enough storage capacity

# <u>User Inputs</u>

# Required User Inputs

N/A

Optional User Inputs

#### N/A

#### Pass Requirements

- 1. The archiving process must be initiated precisely at 00:00:00 AM local time on the first day of each month.
- 2. Log entries older than 30 days (720 hours) should be identified and then extracted, consolidated, and compressed.
- 3. The compressed log entries should be deposited in a designated data storage location.
- 4. The archiving process removes the log entries older than 30 days after successful extraction and archiving.
- 5. Completion of the archiving process must not exceed 60 seconds from the moment of initiation.
- 6. System failure during this process should not lead to disconnection.
- 7. When the transaction successfully completes, a log will be generated
  - o Log Level: Info
  - o Category: Data Store
  - Description: the archiving operation was successful

- The archiving process doesn't initiate at 00:00:00 AM
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Process didn't begin at 00:00:00 AM
- The process initiates at 00:00:00 AM but not at local time
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Process didn't begin at 00:00:00 AM local time
- The archiving process starts at 00:00:00 AM local time, but not on the first day of the month
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Process didn't begin on the first of the month
- Despite the archiving process initiating on the first day of the month at 00:00:00 AM local time, it fails to successfully archive any log entries older than 30 days, even if such entries exist.
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Not all logs older than 30 days found
- All log entries older than 30 days fail to be consolidated.
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Log entries failed to be consolidated

- All log entries older than 30 days are consolidated but are not compressed.
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Log entries failed to be compressed
- All log entries older than 30 days are consolidated and compressed but are not stored to a different data storage location.
  - Log will be generated
    - Log Level: Error
    - Category: Data Store
    - Description: Log entries not stored to different data storage location
- All log entries older than 30 days are consolidated, compressed, and moved to a different data storage location, but archived logs not removed from the system.
  - o Log will be generated
    - Log Level: Error
    - Category: Data store
    - Description: Archived logs not removed
- The archiving process exceeds the specified 60-second time limit.
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Time limit exceeded for process

## **Related User Stories**

None

# Vehicle Profile

## **VP-1 Create Vehicle Profile**

#### **User Story**

As an authenticated non-admin user, I can create a profile for each of my vehicles that is only visible to me so that I can have all the information about my car in one place.

#### Background

This way each vehicle the user owns will have its own vehicle profile.

#### **Effort Points**

Effort Points: 34 Complexity: Low

#### Data Source

Origin = External

Type = API

Details = https://rapidapi.com/dfskGT/api/car-utils/

AuthN = TBD

# **App Permissions**

Permission = Vehicle Profile

Scope = Create

# Target Audience

Authenticated user, Vendor and Renter users

# **Pre Conditions**

- 1. You must be a registered user
- 2. Must have log in
- 3. Must be on the Vehicle Profile feature
- 4. You must provide the VIN number

#### <u>User Inputs</u>

# Required User Input

- VIN number
  - Used to confirm if the rest of the information is accurate or to autofill the rest of the information
  - Will only accept alphanumeric characters up to 17
    - Valid characters include :
      - a-z
      - A-Z
      - 0-9
- License plate
  - Will only accept alphanumeric characters up to 8
    - Valid characters include :
      - a-z
      - A-Z
      - 0-9

## Optional User Inputs

- Make
  - Will only accept alphanumeric characters up to 50
    - Valid characters include :
      - a-z
      - A-Z
      - 0-9
- Model
  - Will only accept alphanumeric characters up to 50
    - Valid characters include :
      - a-z
      - A-Z
      - 0-9
- Year
  - Will only accept year of a date with 1900 being the oldest
- Color
  - Will only accept alphanumeric characters up to 50
    - Valid characters include :

- a-z
- A-Z
- 0-9
- Description
  - Will only accept alphanumeric characters up to 500
    - Valid characters include :
      - a-z
      - A-Z
      - 0-9
- Photo evidence of vehicle
  - Must be JPEG or PNG file types
  - Can be multiple photos of different angles of the vehicle

## Pass Requirements

- 1. A vehicle profile is created with information on make, model, year, license plate, color, and VIN number which will all be saved in the internal data store
  - Optional can put just the VIN number, and the rest will be automatically filled in manufacturer, maker, and year of the car
  - Is able to upload a photo of the vehicle
- 2. Log will be generated once vehicle profile is created
  - Log Level: Info
  - Category: Business
  - Description: Vehicle profile created
  - The new entry is created in the data store for each new vehicle profile created
  - o For a regular authenticated user they can only make up to 50 vehicle profiles
  - For a vendor/renter user they can make up to 50 vehicle profiles
  - The vehicle profile must be created within 3 seconds
- 3. The service log becomes accessible
- 4. Vehicle information is saved when revisiting the profile
  - Only the user and administrators can see the information on the vehicle

- The user violates any of the character constraints for VIN, license plate, make, model, year, color, and description
  - Application will display a message that they have violated the character limit
  - Log will be generated
    - Log Level: Warning
    - Category: Data
    - Description: Character constraint violated
- If information about the vehicle is missing
  - Application will display a message that they have to provide all the necessary information
  - The vehicle profile won't be created until the missing information is filled
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing information

- The user goes over the limit of creating a vehicle profile for their user type
  - Application will display a message that they have reached the maximum amount of vehicle profiles for their user type and will not be able to create another vehicle profile
  - o Log will be generated

Log Level: WarningCategory: Business

■ Description: Vehicle profile limit reached

- Vehicle information is visible to any user
  - o Application should continue to function normally
  - Log will be generated

Log Level: ErrorCategory: View

■ Description: Vehicle profile is public without users consent

## Related User Stories

• UM - 1 Create User Account

## **VP-2** Update Vehicle Profile

## **User Story**

As an authenticated user, I can choose which information about my vehicle profile is visible to the public, this way I can control what type of information people can view about my vehicle profile.

# **Background**

This is for the privacy of the user and if they want to create the vehicle profile for just themselves or wish others to view it.

## **Effort Points**

Effort Points: 34 Complexity: Low

# Data Source

N/A

# **App Permissions**

Permission = Vehicle Profile

Scope = Edit

# Target Audience

Authenticated user that owns a vehicle

## **Pre Conditions**

- 1. Must be a registered user
- 2. Must have log in

- 3. You must own a vehicle profile
- 4. You must choose certain information that will be viewable to the public

# **User Inputs**

## Required User Inputs

- Able to choose specific information to make public
  - Color
  - Make
  - o Model
  - o Year
  - Name
  - o VIN
  - o Photo

## **Optional User Inputs**

• N/A

## Pass Requirements

- 1. By default, everything will be set to private until changed by the user
- 2. The chosen information is viewable by any end-user
  - The minimum amount of information to make public has to be information on the vehicle such as color, make, model, year, and name of the vehicle owner.
  - The user is able to cancel anytime
  - The other information (not selected information) is still private
- 3. Once they are done they can click "Publish" where the chosen information will become visible to any end-user and also be saved in the data store
  - The changes must be done within 3 seconds
- 4. Once the update is complete a log will be generated
  - o Log Level: Info
  - o Category: Business
  - o Description: [username] updated their vehicle

- Information that was not chosen is visible to all end users
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Publish not functioning correctly
- The chosen information is not visible to other end users
  - The user is able to retry to make the chosen information public
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Publish didn't occur

- Takes more than 10 seconds to publish
  - Application will display a message of server timeout and redirect user to the last functional page
  - o Log will be generated

Log Level: ErrorCategory: Server

■ Description: Server timeout

## Related User Stories

• VP-2 Create Vehicle Profile cannot update a profile if no profile exists first.

#### **VP-3 Delete Vehicle Profile**

# **User Story**

As an authenticated user, I can delete any of my vehicle profiles that are not on the vehicle marketplace so that I can update my account on vehicles I don't own anymore.

#### Background

To update their account if they no longer own the vehicle

#### **Effort Points**

Effort Points: 34 Complexity: Low

## Data Source

N/A

# App Permissions

Permission = Vehicle Profile

Scope = Delete

#### Target Audience

Authenticated users with vehicle profiles

#### **Pre Conditions**

- 1. Must have log in
- 2. Must be on the vehicle profile feature
- 3. Must have a vehicle profile to delete
- 4. Must have the vehicle profile unlisted on the vehicle marketplace

#### <u>User Inputs</u>

# Required User Inputs

- The user is able to choose "Delete Vehicle" on the vehicle profile
  - The user can cancel if they no longer wish to delete their vehicle profile

## **Optional User Inputs**

N/A

#### Pass Requirements

- 1. A display message will appear with a "Confirm" button
  - They are also able to cancel
- 2. The vehicle profile the user chooses is successfully deleted

- Vehicle Profile Deletion Attempt will be logged
  - i. Log will be generated
    - Log Level: Info
    - Category: Server
    - Description: Vehicle Profile Deletion Attempt

# Fail Requirements

- The wrong vehicle profile that was not chosen by the user is deleted
  - This is why there will be a confirm button to ensure the user is deleting the correct vehicle profile
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Wrong vehicle profile deleted
- The vehicle profile is still visible after the deletion
  - The user can retry to delete but if the problem still persists they can contact an administrator
  - Log will be generated
    - Log Level: Error
    - Category: Data Server
    - Description: Deletion failed
- Takes more than 10 seconds to delete
  - Application will display a message of server timeout and tell the user to come back later
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Server timeout

#### Related User Stories

• VP-1 Create Vehicle Profile

#### **VP-4 Choose Vehicle Profile**

#### <u>User Story</u>

As an authenticated user, I can choose any of the vehicle profiles I have created so I have all my vehicle profiles in one place

## Background

The user will have all their vehicle profiles in one place and are able to choose from them

# **Effort Points**

Effort Points: 34 Complexity: Low

#### **Data Source**

N/A

## **App Permissions**

Permission = Vehicle profile Scope = View

## Target Audience

Authenticated users with vehicle profiles

#### **Pre Conditions**

- 1. Must have log in
- 2. Must be on the vehicle profile feature
- 3. Must have at least one vehicle profile to view (If not can create one)

## **User Inputs**

Required User Inputs

N/A

Optional User Inputs

• N/A

#### Pass Requirements

- 1. The user is able to view 10 vehicle profiles at a time
  - o If they have more vehicle profiles they are able to load another 10 to view
- 2. The vehicle profiles will each show the make, model, and Vin to differentiate them
  - o They will be ordered from newest created to oldest by default
  - Log will be generated
    - i. Log Level: Info
    - ii. Category: View
    - iii. Description: User viewing vehicle profiles
- 3. If there are no vehicle profiles they will be given the option to create one

- The vehicle profiles are not ordered correctly
  - Application should continue to function
  - Log will be generated
    - Log Level: Warning
    - Category: View
    - Description: Vehicle profiles out of order
- The vehicle profiles are not displayed within 10 seconds
  - Application will display a message of server timeout and tell the user to come back later
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Server timeout

- The vehicle profile are not displayed within 3 seconds
  - o Application should continue to function
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds

## Related User Stories

• VP-1 Create Vehicle Profile

## **VP-5 View Detailed Vehicle Profile**

#### **User Story**

As an authenticated user, I can view any of the vehicle profiles I have created so I can see the details or service logs of each one.

# **Background**

The user is able to use the features or view the details related to a specific vehicle profile.

#### **Effort Points**

Effort Points: 34 Complexity: Low

# Data Source

N/A

## App Permissions

Permission = Vehicle profile Scope = View

#### **Target Audience**

Authenticated users with vehicle profiles

#### **Pre Conditions**

- 1. Must have log in
- 2. Must be on the vehicle profile feature
- 3. Must have at least one vehicle profile to view (If not can create one)
- 4. Must have selected the vehicle profile

#### <u>User Inputs</u>

# Required User Inputs

- The user is able to choose "View" on any vehicle profile
  - The user can cancel if they no longer wish to view their vehicle profile or choose another

# Optional User Inputs

• N/A

## Pass Requirements

- 1. The vehicle profile the user chooses will display all information about the vehicle
  - Here they are able to edit and update their service log within the vehicle profile
  - This operation will be logged
    - i. Log Level: Info
    - ii. Category: Business
    - iii. Description: [username] view detailed view

#### Fail Requirements

- The wrong vehicle profile that was not chosen by the user is viewed
  - This is why there will be a cancel button to ensure the user is viewing the correct vehicle profile
  - o Log will be generated
    - Log Level: Warning
    - Category: View
    - Description: Viewing wrong profile
- The vehicle profile does not display the correct information
  - User will be able to edit the vehicle profile information
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Wrong vehicle profile info on display
- The vehicle profile does not have the edit or service log functions
  - User should contact the administrator
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Server timeout
- The vehicle profile is not viewed within 3 seconds
  - Application should continue to function
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds

# **Related User Stories**

• VP - 1 Create Vehicle Profile will be needed first in order to see the details of the profile

# Vehicle Marketplace

# **VPM-1** Uploading Vehicle to Marketplace

#### User Story

As an authenticated user, I can upload any vehicle profiles of mine to the marketplace for sale.

# **Background**

Authenticated users who have a vehicle profile can upload that information to the marketplace for sale and can also take it down once it is sold.

#### **Effort Points**

Complexity: Low Effort Points: 55

## Data Source

N/A

# App Permissions

Permission = VehicleMarketplace/VehicleProfile Scope = Create/Request

#### Target Audience

Authenticated user, Vendor and Renter

## **Pre Conditions**

- 1. User must be logged in
- 2. User must have at least one available vehicle profile to choose
- 3. User must be in the Marketplace feature view

#### User Input

Required User Input

- User can pick one of their own personal vehicle profiles that is available *Optional User Input* 
  - N/A

## Pass Requirements

- User picked a valid personal vehicle profile from to post on the marketplace
  - The submitted vehicle profile is listed on the marketplace within 3 seconds
  - The submitted vehicle profile status is changed to "For Sale" within 3 seconds
  - The submitted vehicle profile post should include this list of information: Vehicle Profile (vehicle photos, current mileage, make, model, color, vehicle's Car Health Ranking, existing Service Log (Maintenance History, Repair History, Modification History and Damage Reports)), and Vehicle Market Value API call information (VPM 7) and if implemented if the profile is certified or uncertified.
  - User is redirected to the homepage of the marketplace
  - Log will be generated:
    - Log Level: Info

- Category: Business
- Description: Vehicle post is visible on the marketplace, vehicle profile information of the post is logged and the information of the account that posted it
- System failure for this functionality will not result in system going offline

- The chosen vehicle to post is not visible on the marketplace
  - Application will display a message that an error has occurred and ask user to try again
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Vehicle post is not visible on the marketplace
- The chosen vehicle profile is listed but does not have enough information listed above in the pass requirement
  - User can take down post and retry
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Post does not include enough information
- The chosen vehicle profile takes longer than 3 seconds to be listed
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace
- The chosen vehicle profile takes longer than 10 seconds to be listed
  - Application should display a message of the server error timeout and ask user to come back later
  - Log will be generated:
    - Log Level: Error
    - Category: Business
    - Description: Datastore retrieval took longer than expected
- The chosen vehicle profile status is listed as "Sold"
  - User can take down post and retry
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Change to the wrong vehicle status
- Vehicle profile status is not changed
  - User can report this to administrator or customer support
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error

■ Category: View

■ Description: Vehicle status is not changed

# Related User Stories

- VP-1 Create Vehicle Profile
- VP-2 Update Vehicle Profile

# **VPM-2 Deleting Vehicle from Marketplace**

#### User Story

As an authenticated user, I can take down my post any time from the marketplace.

#### **Background**

Authenticated users who have uploaded their vehicle profile to the marketplace can also take it down.

## **Effort Points**

Complexity: Low Effort Points: 34

#### Data Source

N/A

# App Permissions

Permission = Delete Scope = VehicleMarketplace

#### Target Audience

Any authenticated users

#### **Pre Conditions**

- 1. User must be logged in
- 2. User must have at least one available vehicle profile to choose
- 3. User must be in the Marketplace feature view
- 4. User must have selected a public vehicle profile that you posted

#### <u>User Input</u>

#### Required User Inputs

- User can pick one of their own personal vehicle profiles that is available
- User can pick one of their personal vehicle profiles that are posted on the marketplace *Optional User Inputs* 
  - N/A

## Pass Requirements

- User picked a valid vehicle profile post to remove from marketplace
  - Vehicle profile is unlisted on the marketplace and profile status is changed to "Sold" within 3 seconds

- User is redirected to the homepage of the marketplace
- Log will be generated:
  - Log Level: Info
  - Category: Business
  - Description: Vehicle post is removed from the marketplace, vehicle profile information of the post is logged and the information of the account that removed it
- System failure for this functionality will not result in system going offline

#### Fail Requirements

- System log operation of taking down the vehicle post as success but the vehicle profile is still listed on the marketplace with status "For Sale"
  - User can report this to administrator or customer support
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: (Unrecoverable Error)
- System log operation as success but the user is not redirected to the Marketplace view
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: (Unrecoverable Error)
- Vehicle profile takes longer than 3 seconds to be unlisted
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to remove post from the marketplace
- The chosen vehicle profile takes longer than 10 seconds to be unlisted
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: Business
    - Description: Datastore retrieval took longer than expected
- Vehicle profile status is not changed
  - User can report this to administrator or customer support
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Vehicle status is not changed

## Related User Stories

• VP-1 Create Vehicle Profile

## • VP-2 Update Vehicle Profile

# **VPM-3 View Marketplace**

#### <u>User Story</u>

As an authenticated user, I can see all the vehicle profile posts on the marketplace.

# **Background**

Any authenticated users can view the marketplace if they want to browse what vehicles are for sale or rent at the moment.

## **Effort Points**

Complexity: High Effort Points: 144

## Data Source

N/A

# **App Permissions**

Permission = View Scope = VehicleMarketplace

# Target Audience

Any authenticated users

## **Pre Conditions**

- 1. User must be logged in
- 2. User must be in the "Vehicle Marketplace" feature view

## <u>User Inputs</u>

## Required User Inputs

N/A

Optional User Inputs

• N/A

## Pass Requirements

- All vehicle profile posts on the marketplace will be displayed to users from latest to oldest date
  - If there are no posts on the marketplace, the application will display a blank marketplace page with a message about there are currently no posts.
  - o If there are more than 10 posts on the marketplace, the application will display 10 at a time and each time the user requests to see more, the application will load 10 more posts at a time.
- All vehicle profile posts will display these information:
  - Vehicle image (if available)
  - Vehicle name

- Vehicle asking price
- The date that the post was uploaded
- Vehicle's manufacturer
- Vehicle's color
- Vehicle are certified or uncertified
- o Seller's profile
- Seller's location as a 5-mile radius circle at seller's exact location
- All vehicle profile posts will be displayed in under 3 seconds

#### Fail Requirements

- Vehicle profile posts are not shown accordingly to order from latest to oldest date
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Order of posts are not shown correctly
- Vehicle profile posts does not show enough information
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Post does not include enough information
- Vehicle profile posts are shown after 3 seconds
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace
- Application does not show a message while displaying a blank marketplace when there are 0 posts
  - Application display the public post to the user
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Message is not shown correctly when there is 0 results
- Applications show more than 10 posts without request to see more from user
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Application showed more than 10 results without user's permission

# Related User Stories

• VPM-1 Vehicle Profile Post Management

# **VPM-4** View Detail Marketplace Listing

#### User Story

As an authenticated user, I can choose to see more detail of any vehicle profile posts on the marketplace.

## Background

Authenticated users can choose a particular vehicle profile on the marketplace to see more details about it.

## **Effort Points**

Complexity: High Effort Points: 144

# **Data Source**

N/A

## App Permissions

Permission = View Scope = VehicleMarketplace

# Target Audience

Any authenticated users

## **Pre Conditions**

- 1. User must be logged in
- 2. User must be in the "Vehicle Marketplace" view

## <u>User Inputs</u>

# Required User Inputs

N/A

Optional User Inputs

• N/A

## Pass Requirements

- Vehicle profile posts will display these information if user select to see detail:
  - Vehicle image (if available)
  - Vehicle name
  - Vehicle's Model and Trim level
  - Vehicle's Year
  - Vehicle asking price
  - The date that the post was uploaded
  - Vehicle's current mileage
  - Vehicle's fuel economy
  - Vehicle's manufacturer
  - Vehicle's color
  - Vehicle are certified or uncertified

- Vehicle's repair history
- Vehicle's CarFax document
- Vehicle's Market Value information
  - Below market value
  - Average market value
  - Above market value
- Seller's profile
- Seller's location as a 5-mile radius circle at seller's exact location
- Vehicle profile posts detail will be displayed in under 3 seconds
- Log will be generated:
  - o Log Level: Info
  - o Category: View
  - o Description: View detail operation successful
- System failure for this functionality will not result in system going offline

## Fail Requirements

- Vehicle profile post does not show enough information
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Post does not include enough information
- Vehicle profile posts are shown after 3 seconds
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace

## Related User Stories

- VPM-1 Vehicle Profile Post Management
- VPM-2 View Marketplace

## **VPM-5 Search Vehicle Profile Post**

#### User Story

As an authenticated user, I can search for any vehicle profile post on the Vehicle Marketplace that meets my filters options.

## **Background**

Users can search for any specific vehicles they want on the marketplace.

#### **Effort Points**

Complexity: High Effort Points: 144

#### **Data Source**

N/A

# App Permissions

Permission = View/Search Scope = VehicleMarketplace

## Target Audience

Any users

# **Pre Conditions**

- 1. User must be logged in
- 2. User must be in the "Vehicle Marketplace" view

## User input

Required User Input

• N/A

Optional User Input

- Vehicle manufacturer's name
  - Must be within 0 100 characters
- Vehicle's name
  - Must be within 0 100 characters

## Pass Requirements

- User enter valid input to the search function
  - Results of vehicles that match the user's specifications within 3 seconds
  - Results will be sorted according to the post dates from earliest to oldest as default, user does have other options of sorts to choose:
    - Price Ascending/Descending
  - If there are more than 10 posts on the marketplace that contain the keyword that the user provided, the application will display 10 at a time and each time the user requests to see more, the application will load 10 more posts at a time.
  - If there are no posts on the marketplace that contain the keyword user provided, the application will display a blank marketplace page with a message about there are currently no posts.
  - Available filters for search results:
    - Price range
    - Fuel Economy
    - Body Type
    - Color
    - Manufacturer
    - Model
    - Year
- User does not provide any input for the search function
  - Application will displayed a blank marketplace page with a message about user need to provide some input for the search function
- Log will be generated:

- o Log Level: Info
- o Category: Business
- Description: Search operation for vehicle post successful, keyword enter by user will also be logged
- System failures from this feature must not result in the system going offline

#### **Fail Requirements**

- No results show even though there are vehicles that meet the searched criteria
  - Application should redirect user to homepage of Vehicle Marketplace
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: No result show even though there are available options that fit criteria
- Vehicles shown does not fit the user's listed filters
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Showed results does not match filters
- Private vehicles are shown
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: System failure unrecoverable
- Results are shown after 3 seconds
  - Application should not go offline
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace

## Related User Stories

None

## **VPM-6 Send buying request**

#### User Story

As an authenticated user, I can send a buy request to pay the full asking price as listed to the owner of the vehicle profile post on the marketplace.

## Background

Allows users to send a buying request for a vehicle they want to inquire more about.

# Effort Points

Complexity: Low Effort Points: 34

#### Data Source

N/A

## **App Permissions**

Permission = Create

Scope = VehicleMarketplace

## Target Audience

Authenticated users looking to buy a vehicle

#### **Pre Conditions**

- 1. User must be logged in
- 2. The vehicle must be on the marketplace
- 3. User must be in the detail view of the vehicle post

#### User input

## Required User Input

N/A

Optional User Input

• User select to send a request to the seller

#### Pass Requirements

- Once user choose to send a request to the seller
  - Request is sent to the seller within 3 seconds
  - Information sent to seller include the vehicle profile post, price and the buyer profile
- Log will be generated
  - o Log Level: Info
  - o Category: Business
  - Description: Buy request sent successfully, profile of buyer and seller will also be logged

# **Fail Requirements**

- Request is not sent within 3 seconds
  - o Application should not go offline
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace
- Request is sent but missing information
  - Application should not go offline
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace

# Related User Stories

## • VPM-3 View Detail Market Listing

## **VPM-7** Request Vehicle Profile Vehicle Market Value

## **User Story**

As an authenticated user, I can get an estimate on the average market value of my vehicle in order to have an idea of what my vehicle is currently selling for and prospective buyers can view my vehicle's average market rate.

## **Background**

This will deal more with the history pricing of the vehicle and its current value.

#### **Effort Point**

Complexity: Low Effort Points: 55

# Data Source

Origin = External

Type = API

Details = https://www.vinaudit.com/vehicle-ownership-cost-api

AuthN = RM3TS9YHU52LL3D

# **App Permissions**

Permission = Request Scope = Cost Center

#### Target Audience

Any authenticated user with a Vehicle Profile

#### **Pre Conditions**

- 1. Must be an authenticated user type
- 2. Must have at least one Vehicle Profile
- 3. Must be posting a Vehicle Profile to Vehicle Marketplace

## **User Inputs**

#### Required User Inputs

- Vehicle Identification Number (VIN)
  - Must be able to access Vehicle Profiles VIN number
- API Key
  - Must have a correct API key to access API
- Format
  - Will be automatically set to JSON
- Mileage
  - Will use the most recent available mileage on record or user can enter different value

## Optional User Inputs

• Period

- Must be within 1 365 days
- o Default value will be 90 days

## Pass Requirements

- The API call must return the following parameters:
  - Success
    - Whether market value data has been retrieved
  - o VIN
  - Vehicle
    - Vehicle title (Make, Model, Year, Trim)
  - o Mileage
    - Mileage used to compute the market value
  - Count
    - Number of data points used estimate
  - Mean
    - Estimate average market price
  - o Stdev
    - Standard deviation of prices
  - Certainty
    - Statistical confidence in market value
  - Period
    - Data range of the historical sales data used
  - o Prices
    - Estimated average market, below market, and above market prices
- API call parameter "Success" returns true
- API call must return within 3 seconds or less
- Log will be generated:
  - o Log Level: Info
  - o Category: Business
  - Description: Market value retrieved and displayed successfully

- Users Vehicle Profile VIN is not accessible
  - An error message will be displayed of how VIN is not accessible
  - Log will be generated
    - Log Level : Error
    - Category: Data
    - Description: Vin not accessible
- Users state is not correct
  - An error message will be displayed saying the state is not supported
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: State not supported
- User format is not in JSON format
  - An error message will be displayed saying data is unavailable

- o Log will be generated
  - Log Level: Error
  - Category: Data
  - Description: Must be JSON format
- Unable to retrieve users mileage
  - An error message will be displayed saying data is unavailable
  - o Log will be generated
    - Log Level: Error
    - Category: Data
    - Description: Mileage unable to be retrieved
- Period entered is not within the range given
  - o Error message will be displayed saying Period inputted is incorrect
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Outside of range of values
- System is unable to access API
  - An error message will be displayed of how was unable to connect
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: API call failed
- The API doesn't return all the following parameters
  - o An error message will be displayed saying data is unavailable
  - Log will be generated
    - Log Level: Error
    - Category: Data
    - Description: Not all parameters returned
- API call takes longer than 3 seconds
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds
- API call takes longer than 5 seconds
  - An error message will be displayed saying a timeout has occurred
  - Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Data retrieval took longer than expected

VP - 1

## Service Log

## **SL-1 Input Maintenance Report**

As an authenticated user , I can enter a Maintenance Report which will be uploaded to my Service Log History.

## **Background**

This is how users are able to document the maintenance they do on their vehicle

## **Effort Points**

Complexity: Low Effort Points: 40

#### Data Source

N/A

## **App Permissions**

Permission = Service Log Scope = Create

## **Target Audience**

Authenticated users with Vehicle Profiles

#### **Pre Conditions**

- 1. Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must be on the service log feature

#### <u>User input</u>

### Required User Inputs

- Maintenance category log type
  - Categories list will contain:
    - Maintenance Report
    - Repair
    - Modification
    - Damage Report
  - User must select the Maintenance category log type
    - Description can be found in Appendix under 'APPENDIX A'
- Part receiving maintenance
  - User is able to select one part from list of maintenance parts
    - Must only be select parts that can receive maintenance as defined in the Appendix under 'APPENDIX A' of cars receiving 'Maintenance'
    - See "Maintenance" in 'APPENDIX A' for a list of parts
- Date of Maintenance
  - User is able to enter the date as the following format
    - XX/XX/XXXX
  - Date must be in format of Month/Day/Year

- Range of values allowed for Month being 01, 02, ..., 12
- Range of values allowed for Day being 01, 02, 03, ... 28
  - Values that could be entered 29, 30, 31 will depend on certain months
- o Range of values allowed for year being 1992, 1993 ..., Current year
- Description of service
  - Must be 10 400 characters
  - Valid characters include :
    - a-z
    - A-Z
    - **O**-9
    - Allow the following special characters:
      - •
      - •
      - 9
      - •
      - -
      - \_
      - \*

## Optional User Inputs

- Mileage at service
  - Must be 0 999,999 miles or below
- Photo evidence of maintenance done
  - Must be JPEG, PNG, or PDF file types
  - Must be around 2 MB or lower but no larger than 3 MB

#### Pass Requirements

- Service Log History log takes 3 seconds or less to upload to Service Log History after submission
- An Service Log History log is created after submission
  - o A log will be created after submission that log was created
- Service Log History log is able to be selected from Service Log History
  - Will display all required user inputs and if entered optional user inputs
- When report is submitted and all inputs are accepted a log will be generated
  - o Log Level: Info
  - o Category: Data
  - o Description: records operation as successful

- User is unable to select maintenance category for entry from list of categories
  - User will be reselect from list
- User is unable to select from list of parts that fall under 'maintenance' as defined in glossary
  - User will be able to reselect from list
- User is unable to enter date of maintenance
  - User will be able to reenter date
- Date entered doesn't follow XX/XX/XXXX format

- Error message will be displayed letting user know to enter in the following format
- User will be able to reenter date
- Day for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
  - User will be able to reenter date
- Month for date entry isn't within range of values
  - Error message will be displayed letting know to enter within the given range of values
  - o User will be able to reenter date
- Year for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
  - o User will be able to reenter date
- User is unable to enter description of maintenance service
  - User will be able to renter description
- User description is not within 10 400 characters
  - o User will be prompted of going under or over character limit
  - User will be able to reenter description
- User description enters invalid character
  - User will be prompted of entering invalid character
  - User will be able to reenter description
- User is unable to enter the mileage
  - User will be able to reenter mileage
- Users mileage isn't within 0 999,999 miles
  - User will be prompted of going over mileage limit
  - User will be able to reenter mileage
- User is unable to upload photos of evidence
  - User will be able to reupload photos
- User uploads not supported photo types
  - User will be prompted to convert to supported file types
  - User will be able to reupload photos
- User uploads a photo larger than 2 MB
  - Log will be created with timestamp, log level Warning, Business, and a description detailing how the photo is higher than the 2 MB limit
- User uploads a photo larger than 3 MB
  - User will be prompted to upload a smaller photo size saying the photo must be no larger than 3 MB
  - User will be able to reupload photo
- More than 100 service logs have been created
  - User will be prompted that current limit of service logs is 100
- An Service Log History log is not created after submission
  - User will be prompted of Entry failing to upload
- Service Log History log takes longer than 3 seconds to upload to Service Log History after submission
  - User will be prompted of entry failing to upload

- Error log will be created with timestamp, Warning log level, Business, and a description detailing the log took longer than 3 seconds
- Service Log History log is not able to be selected from Service Log History
  - User will be able reselect History Log
- Service log entry does not display all required user inputs and if entered optional user inputs
  - User will be able to refresh and reselect entry log

Dependant on VP - 1, as user must have Vehicle Profile

## **SL-2 Input Repair Log**

### **User Story**

As an authenticated user, I can enter a Repair Log which will be uploaded to my Service Log History.

## **Background**

This is where users can document any repairs they have done.

### **Effort Points**

Complexity: Low Effort Points: 40

## **Data Source**

N/A

# **App Permissions**

Permission = Service Log Scope = Create

# **Target Audience**

Authenticated users with Vehicle Profiles

#### **Pre Conditions**

- 1. Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must be on the service log feature

## <u>User inputs</u>

## Required User Inputs

- Repair category log type
  - o Categories list will contain:
    - Maintenance
    - Repair
    - Modification
    - Damage Report

- User must select the Repair category log type
  - Description can be found in Appendix under 'APPENDIX A'
- Part Repaired
  - Must be within 3 30 characters
- Date of Maintenance
  - User is able to enter the date as the following format
    - XX/XX/XXXX
  - o Date must be in format of Month/Day/Year
  - o Range of values allowed for Month being 01, 02, ..., 12
  - o Range of values allowed for Day being 01, 02, 03, ... 28
    - Values that could be entered 29, 30, 31 will depend on certain months
  - o Range of values allowed for year being 1992, 1993, ..., Current year
- Description of service
  - o Must be 10 400 characters
  - Valid characters include:
    - a-z
    - A-Z
    - **■** 0-9
    - Allow the following special characters:
      - •
      - ,
      - '
      - !
      - •
      - · -

#### Optional User Inputs

- Mileage at service
  - Must be 0 999,999 miles or below
- Photo evidence of repair done
  - Must be JPEG, PNG, or PDF file types
  - Must be around 2 MB or lower but no larger than 3 MB

- When report is submitted, if all inputs are accepted, generate log with timestamp,
  - o Log Level: Info
  - o Category: Data
  - Description: Records operation as successful
- Service Log History log takes 3 seconds or less to upload to Service Log History after submission
- An Service Log History log is created after submission
  - A log will be created after submission that log was created
- Service Log History log is able to be selected from Service Log History
  - Will display all required user inputs and if entered optional user inputs

- User is unable to select repair category for entry from list of categories
  - User will be reselect from list
- User is unable to enter part repaired
  - User will be able to reenter part repaired
- User isn't within the 3 30 character limit for Part Repaired
  - Error message will be displayed letting user know to re enter within the given range
- User is unable to enter date of maintenance
  - User will be able to reenter date
- Date entered doesn't follow XX/XX/XXXX format
  - o Error message will be displayed letting user know to enter in the following format
- Day for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
- Month for date entry isn't within range of values
  - Error message will be displayed letting know to enter within the given range of values
- Year for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
- User is unable to enter description of repair service
  - User will be able to renter description
- User description is not within 10 400 characters
  - User will be prompted of going under or over character limit
- User description enters invalid character
  - User will be prompted of entering invalid character
  - User will be able to reenter description
- User is able to enter the mileage
  - User will be able to reenter mileage
- Users mileage isn't within the 0 999,999 miles
  - User will be prompted of going over mileage limit
- User is unable to upload photos of evidence
  - User will be able to reupload photos
- User uploads not supported photo types
  - User will be prompted to convert to supported file types
- An Service Log History log is not created after submission
  - User will be prompted of Entry failing to upload
- Service Log History log takes longer than 3 seconds to upload to Service Log History after submission
  - User will be prompted of entry failing to upload
  - Error log will be created with timestamp
- User uploads a photo larger than 2 MB
  - Log will be created with timestamp, log level Warning, Business, and a description detailing how the photo is higher than the 2 MB limit
- User uploads a photo larger than 3 MB

- User will be prompted to upload a smaller photo size saying the photo must be no larger than 3 MB
- User will be able to reupload photo
- More than 100 service logs have been created
  - User will be prompted that current limit of service logs is 100
- Service Log History log is not able to be selected from Service Log History
  - User will be able reselect History Log
- Service log entry does not display all required user inputs and if entered optional user inputs
  - User will be able to refresh and reselect entry log

Dependant on VP - 1, as user must have Vehicle Profile

# **SL-3 Input Modification Log**

### User Story

As an authenticated user, I can enter a Modification Log which will be uploaded to my Service Log History.

## **Background**

This is where any changes users have doe to their vehicle is documented

#### **Effort Points**

Complexity: Low Effort Points: 40

## Data Source

N/A

#### App Permissions

Permission = Service Log Scope = Create

### Target Audience

Authenticated users with Vehicle Profiles

### **Pre Conditions**

- 1. Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must be on the service log feature

### User Input

### Required User Inputs

- Modification category log type
  - Categories list will contain:
    - Maintenance

- Repair
- Modification
- Damage Report
- User must select the Modification category log type
  - Description can be found in Appendix under 'APPENDIX A'
- Modification added
  - Must choose one from list of available modifications
  - List is available in the appendix under 'APPENDIX A'
- Date of Maintenance
  - User is able to enter the date as the following format
    - XX/XX/XXXX
  - Date must be in format of Month/Day/Year
  - Range of values allowed for Month being 01, 02, ..., 12
  - o Range of values allowed for Day being 01, 02, 03, ... 28
    - Values that could be entered 29, 30, 31 will depend on certain months
  - o Range of values allowed for year being 1992, 1993, ..., Current year
- Description of service
  - Must be 10 400 characters
  - Valid characters include :
    - a-z
    - A-Z
    - **O-9**
    - Allow the following special characters:
      - ullet
      - •
      - '
      - !
      - -
      - \*

### Optional User Inputs

- Mileage at service
  - Must be 0 999,999 miles or below
- Photo evidence of Modification done
  - Must be JPEG, PNG, or PDF file types
  - Must be around 2 MB or lower but no larger than 3 MB

- Service Log History log takes 3 seconds or less to upload to Service Log History after submission
- An Service Log History log is created after submission
  - A log will be created after submission that log was created
- Service Log History log is able to be selected from Service Log History
  - Will display all required user inputs and if entered optional user inputs
- When report is submitted and all inputs are accepted a log will be generated
  - o Log Level: Info

- o Category: Data
- Description: records operation as successful

- User is unable to select modification category for entry from list of categories
  - User will be reselect from list
- User is unable to enter Modification added
  - User will be able to reenter part repaired
- User isn't within the 2 30 character limit for Modification added
  - Error message will be displayed letting user know to re enter within the given range
- User is unable to enter date of maintenance
  - o User will be able to reenter date
- Date entered doesn't follow XX/XX/XXXX format
  - Error message will be displayed letting user know to enter in the following format
- Day for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
- Month for date entry isn't within range of values
  - Error message will be displayed letting know to enter within the given range of values
- Year for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
- User is unable to enter description of modification service
  - User will be able to renter description
- User description is not within 10 400 characters
  - User will be prompted of going under or over character limit
- User description enters invalid character
  - User will be prompted of entering invalid character
  - User will be able to reenter description
- User is able to enter the mileage
  - User will be able to reenter mileage
- Users mileage isn't within the 0 999,999 miles
  - User will be prompted of going over mileage limit
- User is unable to upload photos of evidence
  - User will be able to reupload photos
- User uploads not supported photo types
  - User will be prompted to convert to supported file types
- An Service Log History log is not created after submission
  - User will be prompted of Entry failing to upload
- Service Log History log takes longer than 3 seconds to upload to Service Log History after submission
  - User will be prompted of entry failing to upload
  - Error log will be created with timestamp
- User uploads a photo larger than 2 MB

- Log will be created with timestamp, log level Warning, Business, and a description detailing how the photo is higher than the 2 MB limit
- User uploads a photo larger than 3 MB
  - User will be prompted to upload a smaller photo size saying the photo must be no larger than 3 MB
  - User will be able to reupload photo
- More than 100 service logs have been created
  - User will be prompted that current limit of service logs is 100
- Service Log History log is not able to be selected from Service Log History
  - User will be able reselect History Log
- Service log entry does not display all required user inputs and if entered optional user inputs
  - User will be able to refresh and reselect entry log

Dependant on VP - 1, as user must have Vehicle Profile

## **SL-4 Input Damage Report**

## **User Story**

As an authenticated user , I can enter a Damage Report log which will be uploaded to my Service Log History.

# **Background**

This mostly for users uploading minor damages or sending their CarFax report.

## **Effort Points**

Complexity: Low Effort Points: 40

### Data Source

N/A

### App Permissions

Permission = Service Log Scope = Create

### Target Audience

Authenticated users with Vehicle Profiles

#### **Pre Conditions**

- 1. Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must be on the service log feature

### <u>User Inputs</u>

### Required User Inputs

- Damage Report category log type
  - Categories list will contain:
    - Maintenance
    - Repair
    - Modification
    - Damage Report
  - User must select the Damage Report category log type
    - Description can be found in Appendix under 'APPENDIX A'
- Location of Damage
  - Must be within 2 100 characters
- Date of Maintenance
  - User is able to enter the date as the following format
    - XX/XX/XXXX
  - O Date must be in format of Month/Day/Year
  - Range of values allowed for Month being 01, 02, ..., 12
  - o Range of values allowed for Day being 01, 02, 03, ... 28
    - Values that could be entered 29, 30, 31 will depend on certain months
  - o Range of values allowed for year being 1992, 1993, ..., Current year
- Description of damage
  - Must be 10 400 characters
  - Valid characters include:
    - a-z
    - A-Z
    - **•** 0-9
    - Allow the following special characters:
      - •
      - ,
      - '
      - !
      - -
      - \_
      - \*

# Optional User Input

- Mileage at service
  - $\circ$  Must be 0 999,999 miles or below
- Photo evidence of damage done
  - Must be JPEG, PNG, or PDF file types
  - Must be around 2 MB or lower but no larger than 3 MB

- When report is submitted, if all inputs are accepted, generate log with timestamp,
  - o Log Level: Info
  - o Category: Data
  - o Description: records operation as successful
- Service Log History log takes 3 seconds or less to upload to Service Log History after submission

- An Service Log History log is created after submission
  - A log will be created after submission that log was created
- Service Log History log is able to be selected from Service Log History
  - Will display all required user inputs and if entered optional user inputs

- User is unable to select Damage Report category for entry from list of categories
  - User will be reselect from list
- User is unable to enter Location of Damage
  - User will be able to reenter part repaired
- User isn't within the 2 100 character limit for Location of Damage
  - Error message will be displayed letting user know to re enter within the given range
- User is unable to enter date of maintenance
  - User will be able to reenter date
- Date entered doesn't follow XX/XX/XXXX format
  - o Error message will be displayed letting user know to enter in the following format
- Day for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
- Month for date entry isn't within range of values
  - Error message will be displayed letting know to enter within the given range of values
- Year for date entry isn't within range of values
  - Error message will be displayed letting user know to enter within the given range of values
- User is unable to enter description of modification service
  - User will be able to reenter description
- User description is not within 10 400 characters
  - User will be prompted of going under or over character limit
- User description enters invalid character
  - User will be prompted of entering invalid character
  - User will be able to reenter description
- User is able to enter the mileage
  - User will be able to reenter mileage
- Users mileage isn't within the 0 999,999 miles
  - User will be prompted of going over mileage limit
- User is unable to upload photos of evidence
  - User will be able to reupload photos
- User uploads not supported photo types
  - User will be prompted to convert to supported file types
- An Service Log History log is not created after submission
  - User will be prompted of Entry failing to upload
- Service Log History log takes longer than 3 seconds to upload to Service Log History after submission
  - User will be prompted of entry failing to upload
  - o Error log will be created with timestamp

- User uploads a photo larger than 2 MB
  - Log will be created with timestamp, log level Warning, Business, and a description detailing how the photo is higher than the 2 MB limit
- User uploads a photo larger than 3 MB
  - User will be prompted to upload a smaller photo size saying the photo must be no larger than 3 MB
  - User will be able to reupload photo
- More than 100 service logs have been created
  - User will be prompted that current limit of service logs is 100
- Service Log History log is not able to be selected from Service Log History
  - User will be able reselect History Log
- Service log entry does not display all required user inputs and if entered optional user inputs
  - User will be able to refresh and reselect entry log

Dependant on VP - 1, as user must have Vehicle Profile

## **SL-5 View Service Log**

## **User Story**

As an authenticated user, I can view my Service Log history to review my past logs made on a particular Vehicle Profile.

#### Background

This where all the logs will be located and the user will be able to pick and choose which ones to see.

### **Effort Points**

Complexity: Medium Effort Points: 60

#### Data Source

N/A

### App Permissions

Permission = Service Log Scope = View

#### **Target Audience**

Authenticated users who wish to view previous service log entries.

### **Pre Conditions**

- 1. Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must have at least one Service Log Entry logged in Service Log History
- 4. Must be on the service log history feature

## **User Input**

### Required User Inputs

N/A

## Optional User Inputs

• N/A

### Pass Requirements

- Service log history log displays 25 or less logs
- Service log history logs are sorted from most recent to oldest
- Service log history logs load within 3 seconds
- Logs display the required inputs information
- When a log is selected, will display optional inputs information:
  - o Photo of evidence
  - Mileage
- When log is selected, optional information must load within 3 seconds

- Service log displays more than 25 logs
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Over 25 logs are in view
- User has inputted service log entries but not being displayed
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description: No logs are in view
- Results aren't sorted from most recent entry to oldest entry date
  - o Log will be generated
    - Log Level: Error
    - Category: Data
    - Description: Logs are not sorted correctly
- Service log history logs don't load within 3 seconds
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: log history didn't load within 3 seconds
- Logs don't display the required and optional user inputs information
  - User will be able to refresh list
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: System failure unrecoverable
- User is unable to view an Service Log History entry
  - User will be able to retry again
  - o Log will be generated:

■ Log Level: Error

■ Category: View

■ Description: System failure unrecoverable

## Related User Stories

- Dependent on VP 1, as the user must have a Vehicle Profile.
- Dependent on SL 1, 2, 3, and 4, as the user must have at least one service log entry.

### **SL-6 Edit Service Log Entry**

#### **User Story**

As an authenticated user, I can edit an existing service log entry in order to change incorrect information.

## **Background**

Allows a user to change service log entries

## **Effort Points**

Complexity: Low Effort Points: 30

### **Data Source**

N/A

### **App Permissions**

Permission = Service Log Scope = Edit

### **Target Audience**

**Authenticated Users** 

## Pre Conditions

- 1. Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must have at least one Service Log Entry logged in Service Log History
- 4. Must be on the service log history feature

## **User Input**

### Required User Inputs

• N/A

### Optional User Inputs

N/A

- Users are only able edit information within the boundaries defined in the first four user stories SL 1, SL 2, SL 3, and SL 4.
- User is able to select and change the input of an pre existing log entry

- When created, system generates a log with timestamp,
  - Log Level: Info
  - Category: Data
  - Description: details that operation was successful
- System must update database within 3 seconds of submission

- User violates requirements or boundaries for input
  - User will be prompted of what error has occurred and how to fix
  - A log will be generated with timestamp, Log Level: Info, Category: Data, and a description of that the data wasn't valid
- User edits logs with valid inputs but is unable to upload
  - User will be prompted of upload failure
  - A log will be generated with the timestamp, Log Level: Info, Category: Server, and Description: General description of how uploading failed
- Edited log doesn't upload within 3 seconds of submission
  - A log will be generated with the timestamp, Log Level: Info, Category: Business, and Description: Uploading longer than 3 seconds

#### Related User Stories

N/A

# **SL-7 Delete Service Log Entry**

## **User Story**

As an authenticated user, I can delete an existing service log entry in order to delete unwanted service log entries.

### **Background**

Will allow a user to delete a service log

### **Effort Points**

Complexity: Low Effort Points: 30

#### Data Source

N/A

#### App Permissions

Permission = Service Log Scope = Delete

### Target Audience

**Authenticated Users** 

#### **Pre Conditions**

- 1 Must be an authenticated user
- 2. Must have at least one Vehicle Profile
- 3. Must have at least one Service Log Entry logged in Service Log History

4. Must be on the service log history feature

## User Input

Required User Inputs

• N/A

Optional User Inputs

• N/A

### Pass Requirements

- User is able to delete a service log entry
- Service log entry is removed from data store
- Deletion of service log entry is within 3 seconds
- When service log entry is deleted from data store, a log will be generated
  - o Log Level: Info
  - o Category: Data Store
  - o Description: Deletion operation successful

#### Fail Requirements

- User is unable to delete service log entry
  - User will be prompted of failure
  - Generate a log with timestamp, Log Level: Warning, Category: Data, and Description: failure to delete log
- Deleted service log entry isn't deleted from data store
  - Generate a log with timestamp, Log Level: Warning, Category: Data, and Description: failure to delete log
- Unable to access data store
  - User will be prompted that data store is unavailable
  - Generate a log with timestamp, Log Level: Debug, Category: Server and Description: data store unavailable to access
- Deletion of service log entry isn't within 3 seconds
  - A log will be generated with the timestamp, Log Level: Info, Category: Business, and Description: Uploading longer than 3 seconds

### Related User Stories

N/A

### **SL-8 Search Service Log**

#### **User Story**

As an authenticated user, I can search for any service log entry that meets all my filter criteria so that I can select an entry based on the results.

## **Background**

This is if the user want to find a specific service log

### **Effort Points**

Complexity: High Effort Points: 70

### **Data Source**

N/A

## **App Permissions**

Permission = Service Log Scope = Search

## Target Audience

Authenticated users who want to search their or filter their service log based on particular items.

### **Pre Conditions**

- 1. Must be an authenticated user, Vendor, Rental Fleet, or Admin user type
- 2. Must have at least one Vehicle Profile
- 3. Must have at least one Service Log Entry logged in Service Log History
- 4. Must be on the service log history feature

## User Input

## Required User Inputs

• N/A

Optional User Inputs

• N/A

- Display between zero or up to maximum 25 logs at a time
- Search results are loaded with 3 seconds of search request
- Results are initially sorted from most recent to latest date by default
- When user selects an Service Log History entry, the following info will be displayed:
  - o Required: Category, Date, Description
  - o Optional: Mileage, Evidence
- Available filters are:
  - Category
    - Maintenance
    - Repair
    - Modification
    - Damage Report
  - o Date
    - Most recent first to latest
    - Latest first to most recent
- Filters can be turned on and off by user discretion
- Log will be generated after search operation is completed
  - o Log Level: Info

- o Category: Business
- o Description: Search operation successful

- If search results take longer than 3 seconds
  - Log will be created with timestamp, Log Level Warning, Category Business, and description detailing process took longer than 5 seconds
- Results are sorted incorrectly
  - User will be able to refresh service log
- Logs don't display the required user inputs information
  - User will be able to refresh list
- User is unable to view an Service Log History entry
  - User will be able to retry again
- Upon selection, optional information doesn't load within 3 seconds
  - Log will be generated with timestamp, Log Level: Info, Category: Business, and Description: optional information didn't load within 3 seconds
- Search has missing filters
  - User will be able to refresh service log
- Filters are unable to turned on or off
  - User will be able to refresh service log

### Related User Stories

- Dependant on VP 1, as user must have Vehicle Profile
- Dependent on SL 1, 2, 3, and 4, as the user must have at least one service log entry.

### **SL-9 Create Maintenance Reminder**

### **User Story**

As an admin, I can create a maintenance reminder to be stored for a user's Car News Center in order to remind users of their scheduled maintenance.

#### Background

Will create a reminder that will be sent to the Car News Center which will be displayed and allow users to know when to maintain their cars for maintenance category repairs.

#### **Effort Points**

Complexity: Medium Effort Points: 40

### Data Source

N/A

## **App Permissions**

Permission = Service Log Scope = Create

## **Target Audience**

Authenticated users with vehicle profiles needing to be reminded for recommended maintenance scheduling

## **Pre Conditions**

- 1. Must be an administrator user type
- 2. Must have at least one Vehicle Profile

## User Input

Required User Inputs

N/A

Optional User Inputs

N/A

# Pass Requirements

- Create a maintenance reminder
  - Will be created based on one of two inputs:
    - i. Mileage: If an user inputs their mileage 3 times on their Service Log History entries
    - ii. Recommended Time Interval: Based on mileage entered first creating a Vehicle Profile
- When a User inputs 3 service log entries changes the recommended time interval maintenance reminders to based on the users recent mileage statistics
- Log will be generated after maintenance reminder is created
  - o Log Level: Info
  - o Category: Business
  - o Description: Maintenance Reminder Created

#### Fail Requirements

- Default Maintenance reminder dates not created based on recommended time interval
  - Log will be generated
    - Log Level: Error
    - Category: Data
    - Description: Recommended time interval not present
- Maintenance Reminder dates not created based on mileage though user has entered 3 service log entries with mileage present
  - o A log will be generated
    - Log Level : Error
    - Category: Data
    - Description: Maintenance reminder based on mileage operation failed

#### Related User Stories

- Dependent on VP 1
- SL 1, 2, 3, and 4

### Communications Establishment

#### **CE-1 Chat Session**

#### User Story

Authenticated users can open a chat session with the seller or renter of the car that they are interested in.

## **Background**

This way the buyer has a way to communicate with the seller and ask questions about the vehicle.

# **Effort Points**

Complexity: Medium Effort Points: 55

### Data Source

Origin = Internal Type = Database Details = VehicleProfile, UserProfile

## App Permissions

Permission = Create Scope = Communication Establishment, Vehicle Marketplace

## Target Audience

Authenticated users want to talk about the vehicle profile post that they are interested in.

#### **Pre Conditions**

- 1. User must be logged in
- 2. User must be in the "Vehicle Marketplace" view
- 3. User must be in the vehicle profile post detail view

### **User Input**

### Required User Inputs

• N/A

### Optional User Inputs

• N/A

- User is able to send a chat session request with the seller/renter
- User is able to see seller/renter contact information
- Seller/renter will received a notification for the chat session request
  - If seller/renter does not end the chat session it will automatically end after a week has passed
  - If seller/renter confirm the request a chat session will be opened for buyers and seller/renter

- Log will be generated after chat session is opened or canceled
  - Log Level: InfoCategory: Business
  - Description: Creating chat session successful

- The sell/renter did not receive a contact alert
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Seller/renter did not receive alert for chat session
- The chat session does not end once the seller/renter has ended it
  - Application will display message to tell user to come back later
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Chat session remain active without permission
- The chat session does not end once a week has passed even though the seller/renter never enter the chat session
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Chat session remain active even though seller/renter never enter chat session
- Contact info is not displayed
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Contact information is not displayed

#### Related User Stories

• VPM-3 View Detail Marketplace Listing

### **CE-2 Managing Chat Session**

#### User Story

As an authenticated user, I can see all the chat sessions that I have opened or I have responded to.

### Background

This way the user is able to view and choose which chat session they want to use.

### **Effort Points**

Complexity: Medium

Effort Points: 55

#### Data Source

N/A

# **App Permissions**

Permission = Create

Scope = Communication Establishment, Vehicle Marketplace

#### Target Audience

Authenticated users wanting to sell/rent vehicles

#### **Pre Conditions**

- 1. User must be logged in
- 2. Must have a vehicle profile
- 3. Must have put vehicle profile as sell/rent in Vehicle Marketplace

## **User Input**

# Required User Inputs

• N/A

## Optional User Inputs

N/A

#### Pass Requirements

- All chat sessions are displayed within 3 seconds
- All chat sessions are displayed from order of earliest to oldest dates
- When a user selects one of the displayed conversations, the system will show the whole conversation and its content within 5 seconds.
  - Log will be generated after conversation is displayed
    - Log Level: Info
    - Category: View
    - Description: View chat session operation successful

- All chat sessions takes longer than 3 seconds to be displayed
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to show all chat session
- Chat sessions are not shown in correct order
  - Application should not go offline
  - Log will be generated:
    - Log Level: Warning
    - Category: View
    - Description: Chat sessions are not shown in correct order

- Chat sessions does not show the content when user select the conversation
  - Application redirects user to the last functional page
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Chat sessions are not displayed
- Chat sessions shows the content but take longer than 3 seconds
  - o Application should not go offline
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to show chat sessions content

N/A

#### CE-3 Confirm/Cancel Sell

#### User Story

As an authenticated user, I can confirm deals with any buyers, this will change the status of my vehicle profile on the marketplace from "Available" to "Sold" and provide the buyers with my location as well as guiding them. I can also cancel any request or deals that are ongoing and change the status of my vehicle profile post to "Available".

## **Background**

Allows users to select another user to "sell" their car to them and change status on Vehicle.

#### **Effort Points**

Complexity: Medium Effort Points: 55

### Data Source

N/A

#### App Permissions

Permission = Create Scope = Buy/Sell Vehicle

### Target Audience

Authenticated users selling a vehicle

### **Pre Conditions**

- 1. User must be logged in
- 2. You must have a for sale vehicle profile post on the market place
- 3. You must have an awaiting request

## **User Input**

## Required User Inputs

• User must select either confirm or cancel sell

## Optional User Inputs

N/A

## Pass Requirements

- 1. Sellers confirm the deal
  - Vehicle status change from "Available" to "Sold" in 3 seconds
  - Buyers are provided with location of the sellers
  - Buyers also received directions to the location of the sellers
  - Log will be generated
    - o Log Level: Info
    - o Category: Business
    - Description: Confirm sell operation successful, seller profile information, the buyers profile and the vehicle profile will be logged
- 2. Sellers cancel the deal
  - Vehicle status change from "Sold" to "Available" in 3 seconds
  - Application stop showing sellers' location to buyers
  - Application stop giving directions to buyers
  - Log will be generated
    - o Log Level: Info
    - o Category: Business
    - Description: Cancel sell operation successful, seller profile information, the buyers profile and the vehicle profile will be logged

- Vehicle profile post status take longer than 3 seconds to change
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds to post on the marketplace
- Vehicle profile post status change to the wrong status
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Vehicle status is not changed
- Application does not provide buyers with seller's location
  - Application will display message seller's location is not available at the moment and ask user to try again later
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: Seller's location is not displayed
- Application does not provide buyers with directions
  - Application will redirect the user to the last functional page

• Log will be generated:

Log Level: ErrorCategory: View

■ Description: Vehicle status is not changed

### Related User Stories

• UD-1 Seller Directions

# **App specific Features (Phase 2)**

#### User Directions

#### **UD-1 Seller Directions**

#### User Story

As an authenticated user, whenever I buy/rent a vehicle or vehicle part I am able to get directions to the seller so I know how to get there.

### **Background**

This is for the convenience of the buyer where the route is made for them instead of going to another application.

### **Effort Points**

Effort Points: 34 Complexity: Low

#### **Data Source**

Origin = External

Type = Google Maps API

Details = https://developers.google.com/maps/documentation/javascript

AuthN = TBD

### **App Permissions**

Permission = UserDirections Scope = All except Edit

## **Target Audience**

Any authenticated user that has bought a vehicle, rented a car, or has bought a vehicle part

#### **Pre Conditions**

- 1. Must have log in
- 2. Must have bought/rented a vehicle or bought a vehicle part
- 3. Must be in the user directions feature

#### **User Input**

### Required User Inputs

• N/A

## Optional User Inputs

N/A

### Pass Requirements

- 1. When the address is given to the buyer they are also able to get directions to that location
  - Must display directions within 3 seconds of requesting
- 2. Is able to show map and route details to the seller
  - Refreshing does not alter the route
  - The user is able to zoom in and out of the map
- 3. Log will be generated
  - o Log Level: Info
  - o Category: Business
  - o Description: Display seller direction operation successful

### Fail Requirements

- Directions took longer than 3 seconds to display
  - Log will be generated
    - Log Level: Warning
      - Category: Server
      - Description: Took longer than 3 seconds
- Directions are given outside Orange County and Los Angeles County
  - Will display that the route is outside Orange County and Los Angeles County
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Directions given outside supported area
- The wrong directions are given
  - User is able to reselect or edit the address to get the right directions
  - Log will be generated
    - Log Level: Erorr
    - Category: Business
    - Description: Incorrect directions given

### Related User Stories

• VPM-5 Send Buying Request

### **UD-2 Dealership Directions**

### <u>User Story</u>

As an authenticated user, I am able to see all the dealerships located in Orange County and Los Angeles County so that I know which ones are closest to me.

#### **Background**

This is for the convenience of the buyer where they are able to see all the dealerships and those closest to them.

#### **Effort Points**

Effort Points: 34 Complexity: Low

#### **Data Source**

Origin = External

Type = Google Maps API

Details = <a href="https://developers.google.com/maps/documentation/javascript">https://developers.google.com/maps/documentation/javascript</a>

AuthN = TBD

## **App Permissions**

Permission = UserDirections Scope =All except Edit

## **Target Audience**

Authenticated users who want to locate a dealership

### **Pre Conditions**

- 1. The dealership must have an account in order to show on the map
- 2. Must be on the User Direction feature

## **User Input**

## Required User Inputs

• N/A

Optional User Inputs

• N/A

### Pass Requirements

- 1. The user is able to see all dealerships in Orange County and Los Angeles County that have an account with us
  - The user is able to zoom in and out of the map
- 2. The user is able to get directions to any of the dealerships displayed
  - Must give directions within 3 seconds
  - o Refreshing does not alter the route
- 3. Log will be generated
  - o Log Level: Info
  - o Category: Business
  - o Description: Displaying dealership location operation successful

- Directions took longer than 3 seconds to display
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds
- The dealerships took longer than 3 seconds to display on the map

- Log will be generated
  - Log Level: Warning
  - Category: Server
  - Description: Took longer than 3 seconds
- Dealerships with no accounts are also displayed
  - Should not be able to get the directions
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Non supported dealership was displayed
- Dealerships are displayed outside of Orange County or Los Angeles County
  - o The map is only able to zoom out within Orange County or Los Angeles County
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Map zooms out of targeted area
- Given the wrong directions to a dealership, a user didn't choose
  - User is able to retry to get directions
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: wrong directions given

• UM-1 Create User Account

### Inventory Management

### **IM-1 View Vendor Dashboard (Vendor)**

#### **User Story**

As a Vendor user type, I can view my inventory of cars to have easy access to prominent information about Vehicle Profiles and their status to the Vendor Dashboard.

### **Background**

Allow Vendor user types to have their entire inventory of cars based on their current status for easier viewing and managing. This would replace the Default user Dashboard for viewing vehicle profiles

### **Effort Points**

Complexity: Medium Effort Points: 89

#### Data Source

N/A

# **App Permissions**

Permission = Vendor Dashboard Scope = View

Permission = Vehicle Profile Scope = Request

### **Target Audience**

Vendor user types for handling their inventory of Vehicles Profiles

#### **Pre Conditions**

- 1. Must be a currently Authenticated User
- 2. Must be a Vendor user type
- 3. Must have at least one Vehicle Profile

## User Input

Required User Inputs

N/A

Optional User Inputs

N/A

- Dashboard must generate all of the Vendor's Vehicle Profiles
  - o Maximum Vehicle Profiles is 600 profiles per Vendor user type
  - o Maximum of 100 vehicles will be displayed to view
  - Vehicle Profiles will be sorted from first added to last added
- Each Vehicle profile must display the following 6 parameters:
  - Status of Vehicle Profile from one of the following:
    - Listed for sale
    - Needs Service
    - Unassigned
  - o VIN
  - Make
  - Model
  - Year
  - Color
- If a Vehicle Profile is sectioned into the Listed for sale status, the Vehicle profile must display:
  - Original date listed for sale
  - Current listed price
  - o Date Price was last updated
  - Number of inquiry requests for Vehicle profile
- If a Vehicle Profile is assigned the Needs Service status, the Vehicle profile must display:
  - Service Needed
- If a Vehicle Profile is assigned the Unassigned status, the Vehicle profile must display:
  - Warning message that Vehicle has not been assigned a status

- Generates dashboard with every Vendors Vehicle Profile
  - Dashboard must retrieve all information and add all items to view within 3 seconds

- Dashboard doesn't generate all Vendors Vehicle Profiles
  - o Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Some/All Vendor Vehicle profiles missing
- Dashboard doesn't generate results within 3 seconds
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Vehicle Profiles took longer than 3 seconds
- Vehicle Profiles don't display the 5 required parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Not all parameters displayed
- Assigned to "Listed for Sale" status, but doesn't display the listed parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Listed For Sale" parameters
- Assigned to "Needs Service" status, but doesn't display the listed parameter
  - o Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Needs Service" Parameters
- Assigned to "Unassigned" status, but doesn't display warning message
  - o Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Warning" Message

#### Related User Stories

• VP - 1 Create Vehicle Profile

#### **IM-2 Vendor Profile Search**

#### User Story

As an Authenticated Vendor User I can search through my inventory of vehicles by Make, Model, Year, Color, Status, and/or Last Price Change

### Background

A Vendor with a large collection or inventory of vehicles should be able to search through their inventory based on the vehicles criteria.

## **Effort Points**

Complexity: Medium Effort Points: 55

### **Data Source**

N/A

## App Permissions

Permission = Vendor Dashboard

Scope = View

Permission = Vehicle Profile

Scope = Request

# Target Audience

Vendor user types for managing their inventory of Vehicles Profiles.

#### **Pre Conditions**

- 1. Must be a currently Authenticated User
- 2. Must be an Vendor user type
- 3 Must have at least one Vehicle Profile

### User Input

#### Required User Inputs

- At least one of the following inputs must be given
  - Status of Vehicle Profile from one of the following:
    - Listed for sale
    - Needs Service
    - Unassigned
  - o VIN
  - Make
  - Model
  - Year
  - o Color
  - Date range of original listing
  - Date range of last price update

### Optional User Inputs

#### • N/A

### Pass Requirements

- Dashboard must generate view, with only Vehicle profiles matching the user input parameters
  - Maximum Vehicle Profiles is 600 profiles per Vendor user type
  - o Maximum of 100 vehicles will be displayed to view
  - Vehicle Profiles will be sorted from first added to last added
- Each Vehicle profile must display the following 6 parameters:
  - Status of Vehicle Profile from one of the following:
    - Listed for sale
    - Needs Service
    - Unassigned
  - o VIN
  - Make
  - o Model
  - Year
  - Color
- If a Vehicle Profile is sectioned into the Listed for sale status, the Vehicle profile must display:
  - Original date listed for sale
  - Current listed price
  - o Date Price was last updated
  - Number of inquiry requests for Vehicle profile
- If a Vehicle Profile is assigned the Needs Service status, the Vehicle profile must display:
  - o Service Needed
- If a Vehicle Profile is assigned the Unassigned status, the Vehicle profile must display:
  - Warning message that Vehicle has not been assigned a status
- Generates dashboard with every Vendors Vehicle Profile
  - Dashboard must retrieve all information and add all items to view within 3 seconds
- Log will be generated after search operation is successful
  - o Log Level: Info
  - o Category: Business
  - o Description: Search operation successful

- Dashboard generates vehicles that do not fall within search parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Search parameters are not successfully enforced
- Dashboard does not generate vehicles that do fall within search parameters
  - o Application should not go offline
  - o Log will be generated

- Log Level: Warning
- Category: Business
- Description: Some/All vehicle profiles missing from search
- UI doesn't show all Vendor's Vehicle Profiles
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Some/All Vehicle Profiles not Displayed in view
- Dashboard doesn't generate results within 3 seconds
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Vehicle Profiles took longer than 3 seconds
- Vehicle Profiles don't display the 5 required parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Not all parameters displayed
- Assigned to "Listed for Sale" status, but doesn't display the listed parameters
  - o Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Listed For Sale" parameters
- Assigned to "Needs Service" status, but doesn't display the listed parameter
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Needs Service" Parameters
- Assigned to "Unassigned" status, but doesn't display warning message
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Warning" Message

- IM- 1 View Vendor Dashboard
- VP 1 Create Vehicle Profile

## Fleet Management

## FM-1 View Rental Dashboard (Renter)

### User Story

As a Renter user type, I can view my entire fleet of cars to have easy access to prominent information about Vehicle Profiles and their status.

## **Background**

Allow Renter user types to better control their Rental Fleet by sectioning Vehicles based on their status. This would replace the Default user Dashboard for viewing vehicle profiles

## **Effort Points**

Complexity: Medium Effort Points: 89

### Data Source

N/A

## App Permissions

Permission = Rental Dashboard Scope = View

Permission = Vehicle Profile Scope = Request

Permission = Vehicle Service Log Scope = Request

### Target Audience

Rental user types accessing entire Fleet of Vehicle profiles

### **Pre Conditions**

- 1. Must be a currently Authenticated User
- 2. Must be an Renter user type
- 3. Must have at least one Vehicle Profile

### User Input

## Required User Inputs

• N/A

Optional User Inputs

• N/A

- Dashboard must generate all Rental Fleets Vehicle Profiles
  - Maximum Vehicle Profiles is 50 profiles per Renter user type
  - Vehicle Profiles will be sorted from first added to last added

- Dashboard must generate and add all Rental Fleets Vehicle profiles to view within 3 seconds
- Generates dashboard with every Renter Vehicle Profile placed into one of 3 Sections based on the following statuses:
  - o Ready to Rent
  - Out of Fleet
  - o Currently being Rented
- Each Vehicle profile must display the following 6 parameters:
  - o VIN
  - Make
  - Model
  - Color
  - Last Recorded Mileage
  - Approximate Due Date of next Maintenance Event
- If a Vehicle Profile is sectioned into the Ready to Rent status, the Vehicle profile must display:
  - No additional content
- If a Vehicle Profile is sectioned in the Out of fleet status, the Vehicle profile must display:
  - Reason Why it is out of fleet
  - o (Optional) Return Date
- If a Vehicle Profile is sectioned in the Currently being Rented status, the Vehicle profile must display:
  - Approximate Return Date

- Dashboard doesn't generate all Renter's Vehicle Profiles
  - Other Application features should continue to function
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Some/All Vehicle profiles not Generated
- UI doesn't show all Renter's Vehicle Profiles
  - Other Application features should continue to function
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Some/All Vehicle Profiles not Displayed in view
- Dashboard doesn't generate results within 3 seconds
  - Other Application features should continue to function
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Vehicle Profiles took longer than 3 seconds
- Dashboard doesn't generate Rental Fleets Vehicle Profiles into 3 separate categories based on status
  - Application should not go offline
  - Log will be generated

- Log Level: Error
- Category: Business
- Description: Vehicles not put in correct sections
- Vehicle Profiles don't display the 6 required parameters
  - o Application should not go offline
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Not all parameters displayed
- Listed in "Ready to Rent" category, but displays additional parameters
  - Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Incorrect parameters displayed
- Listed in "Currently being Rented" category, but doesn't display the listed parameters
  - Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Currently Being Rented" parameters
- Listed in "Out of Fleet" category, but doesn't display the listed parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Out of Fleet" parameters

- VP-1 Create Vehicle Profile
- SL-9 Create Maintenance Reminder

#### **FM-2 Renter Profile Search**

### <u>User Story</u>

As an Authenticated Renter User I can search through my fleet of vehicles that meets my filter options.

### Background

A Renter with a large collection or fleet of vehicles should be able to search through their inventory based on the vehicles criteria.

## **Effort Points**

Complexity: Medium Effort Points: 55

### Data Source

N/A

## App Permissions

Permission = Rental Dashboard Scope = View

Permission = Vehicle Profile Scope = Request

Permission = Vehicle Service Log Scope = Request

## Target Audience

Renter user types for handling their fleet of Vehicles Profiles.

### **Pre Conditions**

- 1. User must be a currently Authenticated User
- 2. User must be an Renter user type
- 3. User must have at least one Vehicle Profile
- 4. User must be in Renter Dashboard view

### <u>User input</u>

Required User Input

• N/A

## Optional User Input

- Vehicle manufacturer's name
  - Must be within 0 100 characters
- Vehicle's model name
  - Must be within 0 100 characters
- Vehicle's model year
  - Must be within 0 100 characters

- Maximum Vehicle Profiles is 50 profiles per Renter user type
- User enter valid input to the search function
  - Results of vehicles that match the user's specifications within 3 seconds
  - Results will be sorted according to the post dates from earliest to oldest as default
  - o If there are more than 10 vehicles the that contain the keyword that the user provided, the application will display 10 at a time and each time the user requests to see more, the application will load 10 more posts at a time.
  - Generates dashboard with every Renter Vehicle Profile placed into one of 3 Sections based on the following statuses:
    - Ready to Rent
    - Out of Fleet

- Currently being Rented
- Each Vehicle profile must display the following 6 parameters:
  - VIN
  - Make
  - Model
  - Color
  - Last Recorded Mileage
  - Approximate Due Date of next Maintenance Event
- If a Vehicle Profile is sectioned into the Ready to Rent status, the Vehicle profile must display:
  - No additional content
- If a Vehicle Profile is sectioned in the Out of fleet status, the Vehicle profile must display:
  - Reason Why it is out of fleet
  - (Optional) Return Date
- If a Vehicle Profile is sectioned in the Currently being Rented status, the Vehicle profile must display:
  - Approximate Return Date
- If there are no vehicles that contain the keyword user provided, the application will display a blank page with a message about there are no vehicles that meet the searching keyword.
- User does not provide any input for the search function
  - Application will displayed a blank marketplace page with a message about user need to provide some input for the search function
- Log will be generated after search operation is successful
  - o Log Level: Info
  - o Category: Business
  - o Description: Search operation successful

- Dashboard generates vehicles that do not fall within search parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Search parameters are not successfully enforced
- Dashboard does not generate vehicles that do fall within search parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Some/All vehicle profiles missing from search
- Dashboard doesn't generate results within 3 seconds
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Server

- Description: Vehicle Profiles took longer than 3 seconds
- Dashboard doesn't generate Rental Fleets Vehicle Profiles into 3 separate categories based on status
  - Application should not go offline
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Vehicles not put in correct sections
- Vehicle Profiles don't display the 6 required parameters
  - o Application should not go offline
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Not all parameters displayed
- Listed in "Ready to Rent" category, but displays additional parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Incorrect parameters displayed
- Listed in "Currently being Rented" category, but doesn't display the listed parameters
  - o Application should not go offline
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Currently Being Rented" parameters
- Listed in "Out of Fleet" category, but doesn't display the listed parameters
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Missing "Out of Fleet" parameters

- VP-1 Create Vehicle Profile
- SL-9 Create Maintenance Reminder

#### Car News Center

## **CNC-1 View Vehicle News Articles**

## **User Story**

As an authenticated user, I can view news articles relevant to my car from the past 12 months so that I am informed about my vehicle.

## **Background**

They will only receive news relating to their vehicle and keep them up to date about their vehicle.

## **Effort Points**

Effort Points: 34 Complexity: Low

## Data Source

Source = External Type = API Details = News API AuthN = TBD

# **App Permissions**

Permission = Car News Center Scope = View

# **Target Audience**

Authenticated Users that want to view news articles on their vehicle

### **Pre Conditions**

- 1. User must have log in
- 2. User must have at least one Vehicle Profile tied to their account
- 3. User must be on a Vehicle Profile tied to their account

## **User Input**

Required User Inputs

• N/A

Optional User Inputs

• N/A

## Pass Requirements

- 1. Correct news articles relating to their vehicle(s) are retrieved and displayed in the correct order
  - The default order will be displayed from the latest news to the oldest news
  - It will display 10 news articles at a time and the user can load 10 more articles
  - The related news will show by using the information of the vehicle profile stored in the internal data store
- 2. Log will be generated

• Log Level: Info

o Category: Business

o Description: Vehicle News Retrieved

- News articles are not retrieved and/or displayed correctly
  - Application should not go offline

- o Log will be generated
  - Log Level: Warning
  - Category: Business
  - Description: Articles out of order
- Articles takes longer than 3 seconds
  - o Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds
- Articles take longer than 10 seconds to be retrieved
  - Application will display a message of server timeout and display message to user to come back later
  - o Log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Server timeout

• VP-4 Choose Vehicle Profile

## **CNC-2** View Vehicle Safety Recalls

### **User Story**

As an authenticated user, I can view new safety recall information on my vehicle within the last 10 years of the current date and know if my vehicle has the safety recall issue resolved already.

### Background

This is for users who want to know if there are any issues with their vehicle they do not know of.

## **Effort Points**

Effort Points: 55 Complexity: Low

#### Data Source

Source = External

Type = API

Details = NHTSA API

AuthN = TBD

## **App Permissions**

Permission = Car News Center, Vehicle Profile

Scope = View

## **Target Audience**

Authenticated Users that want to view safety recall articles on their vehicle

## **Pre Conditions**

- 1. User must have at least one Vehicle Profile tied to their account
- 2. User must be on a Vehicle Profile tied to their account

## <u>User Input</u>

Required User Inputs

- Select the "Safety Recall" option
- Optional User Inputs
  - N/A

## Pass Requirements

- 1. Safety Recall articles are retrieved and displayed correctly
  - They are shown from newest to oldest
- 2. Safety Recall issues that are already resolved are marked with a tag

- Safety Recall articles are not retrieved and/or displayed correctly
  - The user is displayed a message to come back later
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Safety recalls not displaying
- Articles take longer than 3 seconds to be retrieved
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds
- Articles are not relevant to their vehicle
  - Error message will display to contact administrator
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Unrelated safety recalls displayed
- Articles are not within the past 10 years
  - o If there are articles older than 10 years they will not display
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Articles older than 10 years displayed
- Articles are not sorted from newest to oldest
  - The user is able to manually set the order back to default
  - Log will be generated

- Log Level: Warning
- Category: View
- Description: Safety recalls out of order
- Safety Recall issues are not tagged correctly
  - o Error message will display to contact administrator
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Tagging not working
- Issues that are already resolved are not marked as resolved
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Safety recall resolve marking not working
- Issues that are not resolved are marked as resolved
  - Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Safety recall resolve marking is false

• VP-4 Choose Vehicle Profile

## **CNC-3 Receive Buy Offer**

## **User Story**

As an authenticated user, I would like to be notified when an offer has been sent to me to sell my vehicle so that I am able to respond to the offer.

## **Background**

Users have a quick way to be notified when people are interested in their vehicle.

### **Effort Points**

Effort Points: 34 Complexity: Low

## Data Source

N/A

## **App Permissions**

Permission = Car News Center

Scope = Create (The system will create the alert not the user)

### Target Audience

Authenticated users who have listed their vehicles for sale

#### **Pre Conditions**

- 1. Must have a vehicle profile
- 2. Must have put that vehicle profile up for sale
- 3. Optional can choose to receive alerts through SMS

## User Input

### Required User Inputs

N/A

## Optional User Inputs

• N/A

## Pass Requirements

- 1. Will state if there have been no offers for the vehicle profile
- 2. Receive an email alert about an offer for a vehicle profile the user has put up for sale
  - Optional receive an SMS alert about an offer for a vehicle profile the user has put up for sale
  - The email or SMS will contain information on what part or vehicle profile was sent an offer
  - The email or phone number of the user will be taken from the internal data store
- 3. Log will be generated
  - o Log Level: Info
  - o Category: Business
  - o Description: Buy Offer Received

- Alert took more than 3 seconds to send
  - User is still able to use the application
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Alert was send after 3 seconds
- An alert was given but an offer was not
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Alert sent but no offer was made
- There was an offer given but no alert was sent
  - User is still able to use the application
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Failed to send an alert when offer was made
- The user never receives an SMS message if they enabled that option
  - The user can check the phone number and edit it if it is wrong
  - User is still able to use the application
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message failed to send
- The user receives multiple SMS messages or emails of the same alert.

- o Only 1 alert will be sent per offer
- Application should not go offline
- Log will be generated:

Log Level: ErrorCategory: Server

■ Description: SMS message already sent

### Related User Stories

This user story will be working with the Buying Vehicle Part from Scrap Vehicle feature. The reason is that once a request is sent from the Scrap Vehicle feature this is what will trigger this user story. This user story will also be working with Request Vehicle Buy from Vehicle Marketplace. The reason is that once a request is sent from the Vehicle Marketplace feature this is what will trigger this user story

## **CNC-4 Receive Safety Recall Alert**

## **User Story**

As an authenticated user, I would like to be notified if there has been a safety recall for my vehicle so I can be able to get a replacement

## Background

Users have a quick way to be notified when a safety recall has been sent.

## **Effort Points**

Effort Points: 34 Complexity: Low

### Data Source

N/A

## App Permissions

Permission = Car News Center

Scope = Create (The system will create the alert not the user)

## Target Audience

Users with vehicle profiles

### **Pre Conditions**

- 1. Must have a vehicle profile
- 2. Optional can choose to receive alerts through SMS

### <u>User Input</u>

## Required User Inputs

• N/A

Optional User Inputs

• N/A

- 1. Will state if no recalls have been issued
- 2. Will send an email alert if a new recall has been issued for the vehicle model the user has

- Optional receive an SMS alert about a safety recall for a vehicle profile the user has
- The email or SMS will contain information on what vehicle profile was sent a safety recall
- The email or phone number of the user will be taken from the internal data store
- Log will be generated after email/SMS is sent
  - Log Level: Info
  - Category: Business
  - Description: Email/SMS sent to user for safety recall alert

- Give an alert for a safety recall if the user does not have the model of the car
  - A server error message will display
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Wrong alert sent for safety recall
- An alert was not given even though a safety recall was issued for a model the user owns
  - A server error message will display
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Failed to sent alert for safety recall
- Alert took more than 3 seconds to send about safety recall
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Alert was sent after 3 seconds
- The user never receives an SMS message
  - The user can check the phone number and edit it if it is wrong
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message failed to send
- The user receives multiple SMS messages or emails of the same alert.
  - Only 1 alert will be sent per safety recall
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message already sent

## Related User Stories

This user story will be working with the SafetyRecall News from the Car News feature. The reason is that once a new safety recall has been reported the Car News will then trigger this user story if that safety recall matches the model of the user.

### **CNC-5** Receive Maintenance Alert

#### User Story

As an authenticated user, I want to be notified of when to do my next maintenance check so that I am always doing it on time.

## Background

Users have a quick way to be notified when their next maintenance is due.

# **Effort Points**

Effort Points: 34 Complexity: Low

## **Data Source**

Origin = External

Details = https://vehicledatabases.com/vehicle-market-value-api/

AuthN = TBD

# **App Permissions**

Permission = Car News Center

Scope = Create (The system will create the alert not the user)

## Target Audience

Registered users with vehicle profiles

### **Pre Conditions**

- 1. Must have created a vehicle profile
- 2. Must have completed a maintenance log on a vehicle part
- 3. A reminder is created when the part is completely logged

## **User Input**

### Required User Inputs

• N/A

## Optional User Inputs

N/A

## Pass Requirements

- 1. Will state if there are no parts due for maintenance anytime soon
- 2. Receive a notification that a maintenance check on a part is due
  - Receive an SMS alert about a maintenance reminder for a vehicle profile the user has maintenance due
  - The email or SMS will contain information on what vehicle profile needs a maintenance check
  - The email or phone number of the user will be taken from the internal data store
- 3. Log will be generated

■ Log Level: Info

■ Category: Business

■ Description: Email/SMS sent to user for maintenance alert

- Give an alert for maintenance for a vehicle that does not need maintenance check yet
  - A server error message will display
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Alert sent but maintenance not required yet
- An alert was not given even though a maintenance check was issued for the vehicle
  - A server error message will display
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Alert sent but no offer was made
- Alert took more than 3 seconds to send about maintenance reminder
  - User is still able to use the application
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Alert was sent after 3 seconds
- The user never receives an SMS message
  - The user can check the phone number and edit it if it is wrong
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message failed to send
- The user receives multiple SMS messages or emails of the same alert.
  - Only 1 alert will be sent per safety recall
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message already sent

#### Related User Stories

This user story will be working with the Reminder from Service Log feature. The reason is that once a reminder is created from the Service Log feature it will trigger this user story.

## **CNC-6 Receive Account Update Alert**

### **User Story**

As an authenticated user with a vendor or renter account, I want to be notified when my account has been approved by an administrator

## **Background**

Users have a quick way if they have been approved by an administrator for Vendo/Renter user types.

## **Effort Points**

Effort Points: 34 Complexity: Low

## **Data Source**

N/A

# **App Permissions**

Permission = Car News Center

Scope = Create

## Target Audience

Authenticated users with a vendor or renter account type

### **Pre Conditions**

- 1. Must have chosen vendor or renter account type when registering
- 2. Must have been approved by an administrator

### User Input

## Required User Inputs

• N/A

# Optional User Inputs

• N/A

## Pass Requirements

- 1. Will state that their account is still under review if not approved yet
- 2. Receive a notification that their account has been either approved or denied
  - Receive an SMS alert about whether their account has been approved or not
  - The email or SMS will contain information that they have been approved or denied
  - The email or phone number of the user will be taken from the internal data store
  - Log will be generated
    - i. Log Level: Info
    - ii. Category: Business
    - iii. Description: Email/SMS sent to user for account update alert

## Fail Requirements

- Give an alert for approval but the administrator has not approved
  - Server error message will display
  - o Log will be generated:

■ Log Level: Error

■ Category: Server

■ Description: False alert approval sent

- An alert was not given even though an administrator already approved the account
  - Server error message will display
  - o Log will be generated:

■ Log Level: Error

■ Category: Server

- Description: False to send approval alert
- Alert took more than 3 seconds to send about approval
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Alert was sent after 3 seconds
- The user never receives an SMS message
  - The user can check the phone number and edit it if it is wrong
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message failed to send
- The user receives multiple SMS messages or emails of the same alert.
  - Only 1 alert will be sent per safety recall
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: SMS message already sent

This user story will rely on the approval of an administrator user.

### **CNC-7** View Alerts

## **User Story**

As an authenticated user, I can view all my alerts on one single page to view the details and have them all in one place

### Background

This will be the hub of alerts, and users can see the latest alerts they have received

# **Effort Points**

34

## **Data Source**

N/A

## **App Permissions**

Permission: Car News Center

Scope: View

### Target Audience

Authenticated users who want to see all their alerts

### **Pre Conditions**

- 1. You must be logged in
- 2. You must be in the "Car News Center" view

## **User Input**

Required User Inputs

N/A

Optional User Inputs

N/A

#### Pass Requirements

- All alerts on the notification center will be displayed to the user from latest to oldest date
  - If there are no alerts, the application will display a blank notification center page with a message about there are currently no alerts.
  - o If there are more than 10 alerts, the application will display 10 at a time and each time the user requests to see more, the application will load 10 more alerts at a time.
- All alerts will display the type:
  - o Maintenance check alert
  - Approval alert
  - o Recall alert
  - Offer alert
- All alerts will be displayed in under 3 seconds
- Log will be generated after completion of operation:
  - o Log Level: Info
  - o Category: View
  - o Description: How long the user views alerts

- Alerts are not shown accordingly to order from latest to oldest date
  - o Alerts should still display even if they are out of order
- Alerts does not show type
  - o Application should not go offline but information will log the timestamp and error
- Alert took more than 3 seconds to display
  - User is still able to use the application
  - Log will be generated:
    - Log Level: Warning
    - Category: View
    - Description: Displaying alerts took more than 3 seconds
- Does not display a message if there are 0 alerts
  - User is still able to use the application
  - o Log will be generated:
    - Log Level: Warning
    - Category: View

- Description: Failed to display message of having no notifications
- Application shows more than 10 alerts without requesting to see more
  - User is still able to use the application
  - Log will be generated:
    - Log Level: WarningCategory: View
    - Description: Failed to display 10 alerts at a time

This user story is related to NC-1 through NC-4 since it will display all the different types of alerts.

### Donate Your Car

### **DYC-1 List of Charities**

## **User Story**

As an authenticated user with a vehicle profile, I will be given a list of charities to choose from in order to donate my car.

## **Background**

In order for a user to donate to a charity, we will list multiple charities to give users a selection to choose from based on their values.

## **Effort Points**

55

### Data Source

```
Origin = External
Type = Websites
Details = https://ccoc.careasy.org/home
AuthN = TBD

Origin = External
Type = Websites
Details = https://kids.wheelsforwishes.org/car-donation-form/
AuthN = TBD

Origin = External
Type = Websites
Details = https://www.vehiclesforveterans.org/
AuthN = TBD

Origin = External
Type = Websites

Origin = External
Type = Websites
```

Details = https://www.kars4kids.org/

#### AuthN = TBD

## App Permissions

Permission = Donation feature

Scope = Search

## Target Audience

Authenticated Users with vehicle profiles looking to get rid of their vehicle

### **Pre Conditions**

- 1. Must have a vehicle profile
- 2. User must be on the Donate Your Car view

## **User Input**

### Required User Inputs

- Mileage
  - Mileage will be pulled from Vehicle profile whether from most recent service log or Vehicle Profile
- The user must choose a particular charity to donate to
  - o CCOC
  - Wheels 4 Wishes
  - Vehicles for Veterans
  - o Kars 4 Kids

### Optional User Inputs

• N/A

### Pass Requirements

- 1. The user is able to navigate to the Donate Your Car view from the vehicle profile. The view loads within 3 seconds.
- 2. The user is able to see descriptions for the charities that they can donate to. The user is able to select what charity to donate to after the description is shown to the user.
- 3. Log will be generated
  - o Log Level: Info
  - o Category: View
  - Description: User visited the Charity feature

- If the user is able to navigate to the Donate Your Car view but does not have a vehicle profile to submit
  - Application should return user to vehicle profile view
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: User accessed Donate Your Car view without vehicle profile

- If the user is able to navigate to the Donate Your Car view with their submitted vehicle profile, but is unable to view charities or the descriptions of charities
  - o Application should function as normal
  - Log will be generated
    - Log Level: Warning
    - Category: View
    - Description: User unable to view charity information
- If the user is able to navigate to the Donate Your Car view with their submitted vehicle profile, but is unable to submit charity selection
  - Application will return user to vehicle profile view
  - Application will send a message telling the user to try again, contact an administrator, or come back later
  - o Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: User unable submit charity selection
- If the user is able to navigate to the Donate Your Carview with their submitted vehicle profile, but it takes longer than 3 seconds to view the page
  - Application should not go offline
  - o Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: Donate Your Car took longer than 3 seconds to load
- If the user is able to navigate to the Donate Your Carview with their submitted vehicle profile, but it takes longer than 10 seconds to view the page
  - o Application should redirect user to vehicle profile view
  - APplication will send a message telling the user to try again, contact an administrator, or come back later
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Donate Your Car took longer than 10 seconds to load or did not load at all

• VP-1 Create Vehicle Profile

## **DYC-2 Communication with Charity**

#### User Story

As an authenticated user with a vehicle profile, once I have selected my vehicle, the form will be partially filled out with my vehicle's information (if applicable), and I will be taken to the page of the donation website where I am supposed to fill out my contact information.

## **Background**

After the user selects a charity, the user will be able to contact the charity directly or take it to their website for donation.

## **Effort Points**

55

### Data Source

• We will use both the internal database for the user's car information, and a variety of external websites to donate to.

```
Origin = External
Type = Websites
Details = https://ccoc.careasy.org/home
```

AuthN = TBD

Origin = External Type = Websites

Details = https://kids.wheelsforwishes.org/car-donation-form/

AuthN = TBD

Origin = External Type = Websites

Details = https://www.vehiclesforveterans.org/

AuthN = TBD

Origin = External

Type = Websites

Details = https://www.kars4kids.org/

AuthN = TBD

## **App Permissions**

Permission = Donate Your Car Scope = Create

# **Target Audience**

Authenticated Users with vehicle profiles looking to get rid of their vehicle

## **Pre Conditions**

- 1. Must have a vehicle profile
- 2. User must be on Donate Your Car view
- 3. User must have selected a charity to donate their car to

## User input

Required User Input

- Mileage of vehicle
  - Mileage will be pulled from Vehicle profile whether from most recent service log or Vehicle Profile

## Optional User Input

N/A

## Pass Requirements

- The start page on "<a href="https://www.vehiclesforveterans.org/">https://www.vehiclesforveterans.org/</a>" will be filled out for you, up until we get to contact info
- The initial vehicle details for "<a href="https://www.kars4kids.org/">https://www.kars4kids.org/</a>" will be filled out, leaving the user to fill in their contact information details
- The user will be taken straight to the "Donor Information" page for the "<a href="https://ccoc.careasy.org/home#form-iframe">https://ccoc.careasy.org/home#form-iframe</a>" webpage
- The donation details will be filled in, up until the "Pickup address" on the "<a href="https://kids.wheelsforwishes.org/car-donation-form/">https://kids.wheelsforwishes.org/car-donation-form/</a>" webpage

## Fail Requirements

- If the user cannot view the donate page or is blocked for any reason
  - User will be redirected to the vehicle profile
  - Application will send a message telling the user to try again, contact an administrator, or come back later
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description: Unable to view donation page for the selected charity
- If the user can view the donation page, but the vehicle details on the web page are not filled out
  - Application will send a message telling the user to manually input the information
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Unable to view donation page for the selected charity
- If the user can view the donation page, but it takes more than 3 seconds load and fill in the details
  - Application will continue to function until 10 seconds passes on invocation
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took more than 3 seconds to fill in
- If it takes longer than 10 seconds to view the donation page and fill in the details
  - Application will redirect user to the vehicle profile and will send a message telling the user to try again, contact an administrator, or come back later
  - o Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took more than 10 seconds to load and/or fill in

## Related User Stories

- VP-1 Create Vehicle Profile
- VP-2 Update Vehicle Profile

#### • DYC-1 List of Charities

## Car Health Rating

#### **CHR-1 Give Rank**

## User Story

As an authenticated user, the system will give me a score if I have performed 10 vehicle maintenance events

## **Background**

The system is going to assign every user a score automatically, but will only do so if they have sufficient data to collect from. This will encourage users to consistently maintain their car

### **Effort Points**

Complexity: Medium-Low

Effort Points: 34

### Data Source

N/A

## App Permissions

Permission = Vehicle Health Ranking

Scope = View

Permission = Service Log Events

Scope = Request

### Target Audience

App users who want to keep track of their maintenance history, get an overview of how well they are taking care of their vehicle.

## **Pre Conditions**

- 1. Must be a currently Authenticated user
- 2. Must have at least one vehicle profile
- 3. Must be on the Vehicle Health Ranking view

## User input

Required User Input

• N/A

Optional User Input

N/A

- 1. If the user has have no maintenance history, or less than 10 maintenance events, the vehicle will be given the status "Not enough Maintenance History" and will not be assigned a score
- 2. If the User has 10 or more Maintenance events, we will assign them a score
  - Log will be generated after user is assigned rank

- Log Level: Info
- Category: Business
- Description: Score assigned operation successful, username and score assigned to them will be logged

- User is assigned score, if the vehicle profile has less than 10 maintenance events
  - Other features will continue to function as specified in their requirements
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Score assigned, but vehicle profile did not have 10+ maintenance events
- User is not assigned score, if the vehicle profile has 10 or more maintenance events
  - Other features will continue to function as specified in their requirements
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description : Score failed to be assigned, but vehicle profile has 10+ maintenance events
- My score is not displayed to view
  - Other features will continue to function as specified in their requirements
  - Log will be generated
    - Log Level: Error
    - Category: View
    - Description : Score has failed to be displayed to view

## Related User Stories

- SL-1 Input Maintenance Log
- SL-2 Input Repair Log
- SL-3 Input Modification Log
- SL-4 Input Damage Report
- SL-5 View Service Log
- SL-9 Create Maintenance Reminder

#### **CHR-2 Calculate Rank**

### User Story

As an authenticated user, I will be given a score based on whether my vehicle maintenance was done Early, On Time, or Late.

## Background

Based on their recent maintenance history, a score will be given to their vehicle (based on whether they are on track with the suggested maintenance schedule or not).

### **Effort Points**

Complexity: Medium

Effort Points: 55

### Data Source

N/A

# **App Permissions**

Permission = Vehicle Health Ranking Scope = Create/View

Permission = Service Log History Scope = Request

## **Target Audience**

Authenticated users

#### **Pre Conditions**

- 1. Must be a currently Authenticated user
- 2. Must have at least one vehicle profile
- 3. Must have a service log with at least 10 maintenance events
- 4. Must be on the Vehicle Health Ranking view

### User input

Required User Input

• N/A

Optional User Input

N/A

- Points are assigned as follows:
  - o Fluid Maintenance
    - Oil, Coolant, Brake Fluid, Power Steering Fluid, and Transmission Fluid
    - Will give 5 points if it is within 10% of the mileage between the respective maintenance events (This is on time). 6 points will be assigned if it is earlier. 3 points will be assigned if it is later. Only 1 point will be assigned if it is done 50% more miles or later than it should have been.
  - Mechanically wearing parts
    - Brakes pads/rotors, Tires, belts/chains, Air filter, spark plugs
    - Will give 10 points if they are done within 10% of the mileage between the respective maintenance events (This is on time). 12 points will be assigned if it is earlier. 6 points will be assigned if it is later. Only 2 points will be assigned if it is done 50% more miles or later than it should have been.
  - Non mechanical maintenance
    - Tire alignment, Tire rotations rotations, Battery health
    - Will give 5 points if it is done within 10% of the mileage between the respective service events (This is on time). 6 points will be assigned if it is earlier. 3 points will be assigned if it is later. Only 1 point will be assigned if it is done 50% more miles or later than it should have been.

- Will list the total points the user got from the past 10 maintenance events
- Will list the number of points gained from each maintenance event
- Will list the total points they would have all their maintenance was done on time
- Log will be generated at the end of operation and all score has been assigned:
  - o Log Level: Info
  - o Category: Business
  - Description: Total points form past 10 maintenance events, poins gain from each event and total points associated with user profile are logged

- Does not assign a score, if the user has more than 10 maintenance events
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: User does not have score assigned, despite having more than 10 events
- Assigns a score if the user has less than 10 maintenance events
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: User does not have sufficient maintenance events, but score has been assigned
- Takes more or less than just the last 10 maintenance events into account
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Score is not assigned correctly, based on events
- The application will accurately assign points as to whether the maintenance is early, on-time, late, or very late
  - Log will be generated
    - Log Level: Error
    - Category: Business
    - Description: Score is inaccurately assigned
- The Car Health Ranking Score must be calculated and updated within 3 Seconds of when the user adds a new entry to their maintenance log
  - Log will be generated
    - Log Level: Warning
    - Category: Server
    - Description: Took longer than 3 seconds
- The user's actual score is not displayed to view
  - Other features will continue to function as specified in their requirements
  - o Log will be generated
    - Log Level: Error
    - Category: View
    - Description : Score has failed to be displayed to view
- The user's potential score based on "on time maintenance" is not displayed to view
  - Other features will continue to function as specified in their requirements

- Log will be generated
  - Log Level: ErrorCategory: View
  - Description : Score has failed to be displayed to view

- SL-1 Input Maintenance Log
- SL-2 Input Repair Log
- SL-3 Input Modification Log
- SL-4 Input Damage Report
- SL-5 View Service Log
- SL-9 Create Maintenance Reminder

# Scrap Your Car

### **SYC-1 List Vehicle**

## **User Story**

As an authenticated user, I am able to list a car as scrap, which should automatically list supported items.

## **Background**

Allows users to list their Vehicle as scrap and list supported parts on their Vehicle.

### **Effort Points**

Complexity: Medium Effort Points: 55

### Data Source

N/A

# App Permissions

Permission = Scrap Your Car Scope = Create

## Target Audience

Users who no longer want their vehicle

### **Pre Conditions**

- 1. You Must be an Authenticated User
- 2. You must be in the Scrap Your Vehicle feature
- 3. You must select a public vehicle profile that you own

## **User Input**

Required User Input

- User can pick one of their own personal vehicle profiles that is available
- Optional User Input
  - N/A

## Pass Requirements

- 1. Vehicle profile is listed on the marketplace
- 2. Vehicle profile status is changed to "Parts For Sale"
- 3. The supported list of parts will be listed for sale (Engine, Transmission, Catalytic Converter, Wheels and Tires, Car Seats, Front and Rear Bumpers, Doors, Airbags, Tailgates (From trucks) or Trunk Lids (from cars), The Headlight and Taillight housings, and the Radio/Infotainment system).
- 4. User is able to receive offers for parts
- 5. Log will be generated
  - o Log Level: Info
  - o Category: Business
  - o Description: Successfully listed car to scrap

- Vehicle profile is not listed on the marketplace
  - Application will redirect the user to the last functional page
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Failed to list vehicle profile
- Vehicle profile takes longer than 3 seconds to be listed
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category:Server
    - Description: Took longer than 3 seconds to list vehicle
- Vehicle profile status is not changed
  - Application will redirect user to the last functional page
  - Log will be generated:
    - Log Level:Error
    - Category: View
    - Description: Vehicle profile status failed to change
- Wrong vehicle part is listed for sale
  - User can take down the post to reupload the correct one
  - Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: Data
    - Description: User chose wrong part
- No vehicle part is listed for sale
  - Application will redirect user to the last functional page to retry
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Failed to list vehicle part
- Parts can be sold before user uploads pictures
  - Application will redirect user to the last functional page

o Log will be generated:

Log Level: ErrorCategory: Business

■ Description: must upload picture first before selling

## **SYC-2 Verify Vehicle Parts**

### **User Story**

As an authenticated user, when I list a car for scrap, I must be required to upload a picture of each relevant part of the car before I can accept any requests

### **Background**

Forces user to upload a picture of the part to ensure for validation

### **Effort Points**

Complexity: Medium Effort Points: 55

## **Data Source**

N/A

## App Permissions

Permission = ScrapYourCar Scope = Create

## **Target Audience**

Users who no longer want their vehicle and have already decided to scrap it for parts

## **Pre Conditions**

- 1. You must be an Authenticated User
- 2. You must be in the Scrap Your Vehicle feature
- 3. You must select a public vehicle profile that you own
- 4. You must have already listed your vehicle for parts

#### User Input

Required User Input

- Photo evidence of maintenance done
  - Must be JPEG, PNG, or PDF file types
  - Must be around 2 MB or lower but no larger than 3 MB

## Optional User Input

N/A

- 1. Each Individual picture should be uploaded within 10 seconds (Time to upload may be longer based on individual's internet speed)
- 2. Pictures must be uploaded to the intended target vehicle part
- 3. Users are able to accept offers for parts they have already listed for sale.
- 4. Log will be generated:

o Log Level: Info

o Category: Business

o Description: Upload picture for scrap parts operation successful

## Fail Requirements

- Pictures are uploaded to unintended parts
  - Application will redirect user to the last functional page to retry
  - Log will be generated:

■ Log Level: Warning

■ Category: View

■ Description: Pictures are not associated with this vehicle part

- Pictures take longer than 10 seconds to upload
  - Application will display a message of server timeout and redirect user to the last functional page
  - o Log will be generated:

■ Log Level: Error

■ Category: Server

- Description: Server timeout took longer than 10 seconds
- Users are not able to accept offers for parts with uploaded pictures
  - Application should not go offline
  - User can report this error to administrator
  - Log will be generated:

■ Log Level: Error

■ Category: Server

■ Description: Failed to accept offers

## Related User Stories

N/A

### **SYC-3 List Vehicle Parts (Individual)**

### User Story

As an Authenticated User I am able to list individual spare parts, that are not attached to vehicles, for sale. Before approving requests, I must provide a picture, name and/or part number, an optional description, and the year/make/model vehicle that the part belongs to. All details will be saved to the data store

### Background

Allows users to list a part on the marketplace.

### **Effort Points**

Complexity: Medium Effort Points: 55

### Data Source

N/A

# **App Permissions**

Permission = ScrapYourCar Scope = Create

## **Target Audience**

Users who have spare parts they need to get rid of. This could be people who are getting rid of their current vehicle, or people who have leftover parts from a project car

## **Pre Conditions**

- 1. You must be an Authenticated User
- 2. You must be in the Scrap Your Vehicle feature view

### <u>User Input</u>

Required User Input

• N/A

Optional User Input

- Photo evidence of maintenance done
  - Must be JPEG, PNG, or PDF file types
  - o Must be around 2 MB or lower but no larger than 3 MB

## Pass Requirements

- 1. Part is listed within 3 seconds
- 2. Users are able to receive offers for their part 3 seconds after it is listed
- 3. Pictures must be uploaded to the intended target vehicle part
- 4. Users are not able to accept offers for parts with no uploaded pictures
- 5. Log will be generated after operation successfully uploaded the part:
  - Log Level: Info
  - Category: Business
  - Description: Vehicle's part post is visible on the marketplace, vehicle's part profile information of the post is logged and the information of the account that posted it

- Vehicle Part is not listed on the marketplace
  - A log will be generated
    - Log Level: Error
    - Category: Server
    - Description: Part not listed on marketplace
- Vehicle part takes longer than 3 seconds to be listed
  - o A Log will be generated
    - Log Level: Warning
    - Category: Business
    - Description: listing took longer than 3 seconds
- Pictures take longer than 10 seconds to upload
  - Application will display a message of server timeout and redirect user to the last functional page
  - o Log will be generated:

- Log Level: Error
- Category: Business
- Description: Pictures took longer than 10 seconds to upload
- Parts can be sold before user uploads pictures
  - Application will redirect user to the last functional page
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Parts available to sell but no picture

None

#### **SYC-4 Vehicle Parts Search**

## **User Story**

As any user, I can search for vehicle parts by entering the type of part, or vehicle year/make/model. By default it is sorted by price (ascending).

# **Background**

Allows user to search for Vehicle parts from users who are selling parts on the marketplace

## **Effort Points**

Complexity: Medium Effort Points: 55

## Data Source

N/A

## App Permissions

Permission = Search Scope = ScrapYourCar

## Target Audience

Users looking to buy vehicle parts

## **Pre Conditions**

- 1. You must be an Authenticated User
- 2. You must be in the Buy Vehicle Parts feature
- 3. Can select another attribute to sort by

### User input

Required User Input

• N/A

## Optional User Input

- Vehicle part year
  - o Must put a valid 1970-2020

- Vehicle part name
  - Must be within 0 100 characters
- Vehicle part make
  - o Must be within 0-100 character
- Vehicle part model
  - Must be within 0 100 characters

## Pass Requirements

- Results of vehicles are sorted based on user's selected attribute or the default
- No results show if there are no vehicles with the user's selected attributes
- Asks the user to search again with different attributes if no results show
- User enter valid input to the search function
  - Results of vehicles' parts that match the user's specifications within 3 seconds
  - Results will be sorted according to price (ascending)
  - o If there are more than 10 posts on the marketplace that contain the keyword that the user provided, the application will display 10 at a time and each time the user requests to see more, the application will load 10 more posts at a time.
  - If there are no posts on the marketplace that contain the keyword user provided, the application will display a blank marketplace page with a message about there are currently no posts.
- User does not provide any input for the search function
  - Application will displayed a blank marketplace page with a message about user need to provide some input for the search function
- Log will be generated after search function complete and all results are displayed
  - o Log Level: Info
  - o Category: Business
  - Description: Search operation for vehicle's part successful, keyword enter by user will also be logged
- System failures from this feature must not result in the system going offline

- No results show even though there are vehicles that meet the searched criteria
  - Application should not go offline
  - o Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: No result show even though there are available options that fit criteria
- Private vehicles are shown
  - o Application should not go offline
  - Log will be generated:
    - Log Level: Error
    - Category: View
    - Description: System failure unrecoverable
- Results are shown after 3 seconds

- Application should not go offline
- Log will be generated:

■ Log Level: Warning

■ Category: Server

■ Description: Took longer than 3 seconds to show results

## Related User Stories

N/A

## **SYC-5 Buy Part Request**

## User Story

As an authenticated user, I can request to buy a vehicle part I searched for and retrieve contact information of the seller after they accept the request.

## **Background**

Allows user who is searching for parts to send a buy request to another user

## **Effort Points**

Complexity: Medium Effort Points: 55

## **Data Source**

N/A

# App Permissions

Permission =Buy/Sell Vehicle parts, Car News Center Scope = Request

## Target Audience

Authenticated users looking to buy vehicle parts

### **Pre Conditions**

- 1. You must be an Authenticated User
- 2. The vehicle profile must be on the marketplace

## **User Input**

Required User Input

- Users can confirm or deny request sent to them
- Optional User Input
  - N/A

- Request is sent to the seller within 3 seconds
  - Log will be generated:
    - Log Level: Info
    - Category: Business
    - Description: Buy part request operation successfully sent

- Request is not sent within 3 seconds
  - o Application should not go offline
  - o Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Took longer than 3 seconds

## **SYC-6 Receive Buy Requests**

## <u>User Story</u>

As an authenticated selling user, I can receive requests sent by other users and confirm their offer.

## **Background**

Allows users selling parts to get requests for parts the user is selling.

## **Effort Points**

55

### **Data Source**

Origin = Internal

Type = Database

Details = PartsForSale, UserProfile

## App Permissions

Permission = Buy/Sell Vehicle part, Car News Center

Scope = Create

## **Target Audience**

Authenticated users selling vehicle parts

### **Pre Conditions**

- 1. You must be an Authenticated User
- 2. You must have an awaiting request
- 3. You must provide some contact information (email or phone number)
- 4. You must have a picture of the item you are trying to sell

## User Input

Required User Input

• Users can confirm or deny request sent to them

Optional User Input

• N/A

- Action confirmation is shown within 3 seconds
- Request is confirmed and notification is sent to the other user
- Accepted requests send contact information to the other user
  - Log will be generated:

- Log Level: Info
- Category: Business
- Description: Buy part request operation successfully received
- Denied requests do not send contact information to the other user

- Action confirmation takes longer than 3 seconds
  - Log will be generated:
    - Log Level: Warning
    - Category: Business
    - Description: Confirmation took longer than 3 seconds
- Request is still awaiting confirmation
  - Log will be generated:
    - Log Level: Warning
    - Category: Server
    - Description: Waiting for confirmation from action
- Request does not send a notification to the other user
  - Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Request wasn't sent to user
- Accepted requests do not send contact information
  - o Log will be generated:
    - Log Level: Error
    - Category: Server
    - Description: Contact information not sent over
- Denied requests send contact information
  - Unrecoverable error

## Related User Stories

N/A