Ride Along

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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 Chrome version 116.0.5845.179 for Windows, macOS, and Linux. 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 California, using USD as currency and the imperial system for measurement, as of release the application will support Pacific Standard Time (PST) and Pacific Daylight Time (PDT) while the default language will be American English. The application only supports vehicles between 1992 and 2022. Users will have to be 18 or older in order to sign up for our application.

All functions will have these requirements:

- All users must have an IP address within California
  - If users do not have an IP address within California, log the location and fail attempt to the data store

- All operations take no longer than 3 seconds

○ If operation takes longer than 3 seconds, log that failure to do so in the data store

○ Operation should still run even if it takes longer than 3 seconds

● All output will be shown using EN-US (American English)

● All operations will be logged to the data store using the start and stop times and details on the operation

○ Any operation log will be considered a Fail if the operation does not log to the data store, inaccurate details of the logs are stored, or if the incorrect operation gets logged to the data store.

User Type Requirements

User Roles	User Types				
	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	No	Yes	Yes	Yes	Yes

History					
Maintenance Service Reminder	No	Yes	Yes	Yes	Yes
Vehicle Market Analyzer	No	Yes	Yes	Yes	Yes
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
Viewing Telemetry Data	No	No	No	No	Yes
Managing User Roles	No	No	No	No	Yes

Administrator

The Administrator will manage all other user types as well as have administrative properties such as viewing telemetry data, deleting users, and 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 that make managing inventory easier for them. 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, like fleet management providing a better experience in observing rental vehicles' status

and their need for maintenance. 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.

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.

Scopes and Permissions

	Permissions					
Scope	Create	Delete	View	Edit	Search	Request
User Dashboard	No	No	Yes	No	Yes	No
User Management	Yes	Yes	Yes	Yes	No	Yes
Vehicle Profile	Yes	Yes	Yes	Yes	Yes	No
Vehicle Marketplace	Yes	Yes	Yes	Yes	Yes	No

Cost Center	No	No	Yes	No	No	Yes
Notification Center	Yes	No	Yes	No	Yes	No
User Communication	Yes	Yes	Yes	No	Yes	Yes
Donate your Car	Yes	No	Yes	Yes	Yes	Yes
Scrap your Car	Yes	Yes	Yes	Yes	Yes	Yes
Car Health Rating	Yes	No	No	No	No	No
Vendor/ Rental Management	Yes	No	Yes	No	No	No
Car Recommendation and Comparison	Yes	No	Yes	Yes	Yes	No
Uncertified/ Certified Vehicle Profile	Yes	No	No	No	No	No
Dealership Support	No	No	Yes	No	Yes	No
Vehicle Market Analyzer	No	No	Yes	No	No	No
Car News Center	No	No	Yes	No	Yes	No
User Directions	Yes	Yes	Yes	No	Yes	Yes

No: This value signifies that the permission is not allowed under that scope of the feature.

Yes: This value signifies that the permission is allowed under that scope of the feature.

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

App Specific Features (Phase 1)

Usage Dashboard

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

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Data Source

Origin = Internal

Type = Database

Details = To pull from to create Usage dashboard

App Permissions

Permission = View

Scope = UsageDashboard

Target Audience

Administrators who want to see how well the system is working

Pre Conditions

1. The user must be authenticated with Administrator access

2. Must be on the Usage Dashboard page

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

Pass Requirements

1. All Key performance indicators will be viewable all at once and are pulled from the internal data store.

   - Login Attempts - IP Address, Username Input, Success/Fail

   - Account Creation Attempts - IP Address, Email Input, Success/Fail

   - Longest Visited Feature - Feature Name, Time Spent (Years, Months, Days, Hours, Seconds)

   - Most Visited Feature - Feature Name, Number of Clicks

   - Logs - Feature Name, Log Details

Fail Requirements

- Retrieval of analytics takes longer than 3 seconds

  - Application should continue to function normally

  - This information will be logged:

    - Error type

    - Time stamp

- Retrieved analytics are not sorted correctly

- ○ Application should continue to function normally
- ○ This information will be logged:
    - ■ Error type
    - ■ Time stamp
- Retrieved analytics are out of the scope of the time frame given
    - ○ Application should continue to function normally
    - ○ This information will be logged:
        - ■ Error type
        - ■ Time stamp

<u>Related User Stories</u>

- UM-1 Create User Account

User Management 7

UM-1 Create User Account

<u>User Story</u>

As an unregistered user, I can register an account to become an authenticated user and choose what type of account so that I am able to fully use all the features.

<u>Background</u>

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

<u>Effort Points</u>

34

Data Source

 N/A

App Permissions

 Permission = Create

 Scope = UserManagement

Target Audience

 End-users who want to create an account and become an authenticated user

Pre Conditions

1. Must have selected the account creation option

2. Must have a valid email address

3. The user will choose one of the three options if they want to be a regular account, vendor account, or renter account

Required User Inputs

- Username

    - The username will only accept alphanumeric characters with a max limit of 30 characters and a minimum being 4

    - If the username is taken they will be prompted to enter a new username and will repeat until the user enters an untaken username

- Password

    - The password will only accept alphanumeric characters with a max limit of 30 characters and a minimum being 5

- Email
  - email will only accept alphanumeric characters with a maximum limit of 50 characters.
  - Must be a valid email with "@" followed by email service
- Date of Birth
  - The date of birth will only go as back as 1900 January 1st until the current date
- Location
  - Location will accept the city, state, and country as alphanumeric characters up to 100 characters

For Renters/Vendors additional information input

- Name of Business
  - name will only accept alphanumeric characters with a maximum limit of 100 characters.
- Address of Business
  - the address of the business will only accept alphanumeric characters with a maximum limit of 100 characters.
- Email of Representative
  - Email will only accept alphanumeric characters with a maximum limit 50
  - The email will be from a representative of the business
- Phone Number of Representative
  - Phone numbers will only accept numeric characters with the max limit being 15
  - Phone number will be of a representative of the business

<u>Pass Requirements</u>

1. The end user will be able to input a username, email, date of birth, location, and password

2. If the user chooses a vendor or renter they will have to give additional information

   ○ Will have the same permissions as a regular user until they have been approved by an administrator.

3. If the username is accepted it will display that the account has been successfully created

   ○ The operation of creating an account is logged

   ○ The new user entry is created in the data store

4. The user will be sent back to the login page

   ○ Must be sent back within 3 seconds of closing the display that the account has been created

<u>Fail Requirements</u>

● If email has already been used to create an account

   ○ Application will display a message that an account associate with this email already exists

   ○ This information will be log:

     ■ Error type

     ■ Time stamp

● The user did not put a valid email

   ○ Application will display a message that the provided email is invalid

   ○ This information will be logged:

     ■ Error type

     ■ Time stamp

- The user goes over or under the character limit for username or password

    - Application will display a message that they have violated the character limit

    - This information will be logged:

        - Error type

        - Time stamp

- The user enters a date of birth where they are under the age of 18

    - Application will display a message that they they are not old enough to create an account yet

    - This information will be logged:

        - Error type

        - Time stamp

- The user enters a location outside Orange County or Los Angeles County

    - Application will display a message that his application only supports residents within Orange County or Los Angeles County and account can't be created

    - This information will be logged:

        - Error type

        - Time stamp

- If any of the additional information is missing for the Vendor/Renter account

    - The user will be prompted for the missing information

    - This information will be logged:

        - Error type

        - Time stamp

- If any information is missing for account creation

- - The user will be prompted for the missing information
  - This information will be logged:
    - Error type
    - Time stamp
- The vendor and renter account have more permissions than a regular account before they have been approved by an administrator
  - Application will display a message to contact an administrator
  - This information will be logged:
    - Error type
    - Time stamp
- The username, email, and password were not saved into a data store
  - Application will display a message "Server Error"
  - This information will be logged:
    - Error type
    - Time stamp
- Does not tell the user if the account was created successfully
  - Application will display a message "Server Error"
  - This information will be logged:
    - Error type
    - Time stamp
- Takes more than 3 seconds to be sent back to the login screen
  - Application will display a message "Server Error"
  - This information will be logged:

- ■ Error type

- ■ Time stamp

Related User Stories

N/A

UM-2 User Account Login

User Story

      As an authenticated user, I am able to log in to my account anytime and use all the features of 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

      21

Data Source

      N/A

App Permissions

      Permission = Request

      Scope = UserManagement

Target Audience

      Any user that has created an account with us

Pre Conditions

1. Must have created an account already

2. Must be on the login page

<u>Required User Inputs</u>

- Username

  - The username will only accept alphanumeric characters with a max limit of 30 characters and a minimum being 4

- Password

  - The password will only accept alphanumeric characters with a max limit of 30 characters and a minimum being 4

<u>Pass Requirements</u>

1. Is able to input username and password for their account which will match the data from the internal data store

   - Is able to try up to 5 times until they are displayed a message if they want to recover their account

   - The operation of unsuccessful logins is logged

2. If they correctly put in their password and username they will be sent to their vehicle profile

   - The operation of successful logins is logged

   - Timestamp created when they have a login

<u>Fail Requirements</u>

- They are able to try more than 5 times to enter their username and password

  - Application will display a message that they have exceeded the number of tries

  - This information will be logged:

    - Error type

- ■ Time stamp
- ● Takes more than 3 seconds before they are sent to their vehicle profile if they put their credentials correctly
    - ○ Application should continue to function normally
    - ○ This information will be logged:
        - ■ Error type
        - ■ Time stamp
- ● Takes more than 10 seconds before they are sent to their vehicle profile if they put their credentials correctly
    - ○ Application will display a message of server timeout and redirect user to the last functional page
    - ○ This information will be logged:
        - ■ Error type
        - ■ Time stamp
- ● They are unable to go to the recovery page
    - ○ User can manually click the recovery page if they are not taken there, and the application should continue to function normally
    - ○ This information will be logged:
        - ■ Error type
        - ■ Time stamp
- ● If they incorrectly type their username or password
    - ○ Application will display a message that either their username or password
    - ○ This information will be logged:

- - Error type

- - Time stamp

Related User Stories

- UM-3 User Account Logout

- UM-6 Recover User Account

UM-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

21

Data Source

N/A

App Permissions

Permission = Request

Scope = User Management

Target Audience

Any user that has created an account with us

Pre Conditions

1. Must have created an account already

2. Must be signed in

<u>Required User Inputs</u>

- Is able to click the "Logout" button

  - A small message will display confirming if they want to log out or cancel

<u>Pass Requirements</u>

1. If they confirm they want to log out then they are sent to the login page and have signed off

   - A timestamp is created when they have logged off and logged into the internal data store

<u>Fail Requirements</u>

- Unable to cancel

  - Application will continue logging out the account

  - This information will be logged:

    - Error type

    - Time stamp

- They are not redirected to the login page

  - Application will display a message that user is unable to logout

  - This information will be logged:

    - Error type

    - Time stamp

- They are still signed in after confirming they want to log out

  - Application will display a message that user is unable to logout and that user should try again

- ○ This information will be logged:

  - ■ Error type

  - ■ Time stamp

- ● Takes more than 3 seconds before they are sent to the login page

  - ○ Application should continue to function normally

  - ○ This information will be logged:

    - ■ Error type

    - ■ Time stamp

- ● Takes more than 10 seconds before they are sent to the login page

  - ○ Application will display a message of server timeout and redirect user to the last

    functional page

  - ○ This information will be logged:

    - ■ Error type

    - ■ Time stamp

Related User Stories

- ● UM-2 User Account Login .

UM-4 Delete User Account

User Story

As an authenticated user, I am able to 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

21

Data Source

N/A

App Permissions

Permission: Delete

Scope: UserManagement

Target Audience

Authenticated users who longer wish to use our product

Pre Conditions

1. Must have an account to delete

2. Must be logged in

3. Must have chosen "Request for Account Deletion" choice

Required User Inputs

● Username

○ The username will only accept alphanumeric characters with a max limit of 30

characters and a minimum being 4

● Password

○ The password will only accept alphanumeric characters with a max limit of 30

characters and a minimum being 4

● Email

- email will only accept alphanumeric characters with a maximum limit of 50 characters.
- Must be a valid email with "@" followed by email service

Pass Requirements

1. Will ask for a username, password, and email of the current account and will then use the internal data store to verify.
   - A "Confirm" choice will display
   - Is able to cancel also
2. Once the "Confirm" option has been selected their account will be deleted with all data related to them.
   - A timestamp will be created of when the account was deleted
3. The user will then be transferred to the login screen
   - Will be transferred within 3 seconds

Fail Requirements

- The user incorrectly put information for username, password, or email
  - Application will display a message that either one of these provided input are invalid
  - This information will be logged:
    - Error type
    - Time stamp
- The account is not deleted within 3 seconds
  - Application should continue to function normally
  - This information will be logged:

- ■ Error type

- ■ Time stamp

- ● Takes more than 10 seconds before they are sent to the login page

    - ○ Application will display a message of server timeout and redirect user to the last functional page

    - ○ This information will be logged:

        - ■ Error type

        - ■ Time stamp

- ● The account was not deleted and the user is still able to log in

    - ○ Application will display a message of unable to delete account and user is able to retry to delete the account if it still persists they should contact an administrator

    - ○ This information will be logged:

        - ■ Error type

        - ■ Time stamp

- ● The user is not transferred to the login screen

    - ○ Application should function normally and delete the account

    - ○ User is able to close the window to end connection with the application

    - ○ This information will be logged:

        - ■ Error type

        - ■ Time stamp

Related User Stories

- ● UM-2 User Account Login

UM-5 Update User Account

<u>User Story</u>

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

<u>Background</u>

This is how users are able to personalize their accounts.

<u>Effort Points</u>

21

<u>Data Source</u>

N/A

<u>App Permissions</u>

Permission = Edit

Scope = UserManagement

<u>Target Audience</u>

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

<u>Pre Conditions</u>

1. Must already have an account

2. Must be on the edit account

<u>Required User Inputs</u>

- Address
  - Will accept alphanumeric characters up to 100

- Name
  - Will only accept alpha characters up to 50

Optional User Input

- Phone number

  - Will only accept numeric characters up to 15

Pass Requirements

1. If the user is updating account information for the first time sections will be blank

   - Is able to change the name, phone number, and address

   - Is able to leave edit account without making any changes

2. If the user wishes to update or change the password they will be sent to a different page dedicated to changing passwords

   - will be asked to input their new password and will have to input it again to confirm

3. The operation is logged

Fail Requirements

- Changes are not saved to the database within 3 seconds of submitting

  - Application should continue to function normally

  - These information will be log:

    - Error type

    - Time stamp

- The old information is still visible

  - The user is able to retry to edit

  - Application should continue to function normally

  - This information will be logged:

    - Error type

- Time stamp

- Takes more than 10 seconds before they are sent to the page to change passwords

  - Application will display a message of server timeout and redirect user to the last functional page

  - This information will be logged:

    - Error type

    - Time stamp

- Updated information is not visible

  - User is able to refresh the page to see if it has updated

  - If the refresh does not update they should contact an administrator

  - Application should continue to function normally

  - This information will be logged:

    - Error type

    - Time stamp

- They violate the character limit for either name, address or phone number

  - Application will display a message that they have violated the character limit

  - This information will be logged:

    - Error type

    - Time stamp

Related User Stories

- UM-2 User Account Login

UM-6 Recover User Account

<u>User Story</u>

As an authenticated user, I am able to recover my account if I forget either my username or password when I try to log in.

<u>Background</u>

This is for users who have an account and are trying to log in but have forgotten either their username or password.

<u>Effort Points</u>

21

<u>Data Source</u>

N/A

<u>App Permissions</u>

Permission = Request

Scope = UserManagement

<u>Target Audience</u>

Authenticated users who have forgotten their username or password

<u>Pre Conditions</u>

1. Must know the email they used to make an account

2. Must be on the recovery page

<u>Required User Inputs</u>

- Email

  - email will only accept alphanumeric characters with a maximum limit of 50 characters.

- ○ Must be a valid email with "@" followed by email service

Pass Requirements

1. If they misspelled or incorrectly put their email it will display that the email is wrong and they can keep entering their email

2. Is able to choose if they forgot their username or password
   - ○ If they choose a username an email will be sent to them to verify it's them and contain their username for the account
   - ○ If they choose a password an email will be sent to verify it's them and have a link that sends them to a dedicated page for changing passwords
   - ○ The operation is logged

Fail Requirements

- ● Email is not in the database
  - ○ Application will display a message that there is no account related to this email
  - ○ This information will be logged:
    - ■ Error type
    - ■ Time stamp
- ● Takes more than 10 seconds to send the email
  - ○ Application will display a message of server timeout and redirect user to the last functional page
  - ○ This information will be logged:
    - ■ Error type
    - ■ Time stamp
- ● The email sent to the user is empty or missing information

- ○ Application will resend another email to user

- ○ This information will be logged:

  - ■ Error type

  - ■ Time stamp

Related User Stories

N/A

UM-7 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

21

Data Source

Origin = Internal

Type = Database

Details = Able to retrieve data related to the account

App Permissions

Permission = Retrieve

Scope = UserManagement

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

Required User Inputs

- Will have to click "Request Data"

    - Can click only once every 1 hour

Pass Requirements

1. A display message will appear saying "Request made" after they have chosen the

    requested data and redirect user to homepage

    - An email will be sent to them containing all their data in the form of a PDF

    - Operation of when the request was made will be logged

    - Request will be time stamped

Fail Requirements

- The email is never sent

    - The user is able to make another request in an hour or contact an administrator

    - Application will continue to function normally

    - This information will be logged:

        - Error type

        - Time stamp

- The display message is missing

    - Application will continue to function normally

- ○ This information will be logged:

    - ■ Error type

    - ■ Time stamp

- ● 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

    - ○ This information will be logged:

        - ■ Error type

        - ■ Time stamp

- ● User is not redirected to homepage

    - ○ Application will continue to function normally

    - ○ This information will be logged:

        - ■ Error type

        - ■ Time stamp

Related User Stories

N/A

Vehicle Profile 5

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

34

Data Source

Origin = External

Type = API

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

AuthN = TBD

App Permissions

Permission = Create

Scope = Vehicle Profile

Target Audience

Any authenticated user

Pre Conditions

1. You must be a registered user

2. Must be on the Vehicle Profile feature

3. You must provide the VIN number

Required User Inputs

- 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

- License plate

  - - Will only accept alphanumeric characters up to 8

Optional User Inputs

- Make

  - - Will only accept alphanumeric characters up to 50

- Model

  - - Will only accept alphanumeric characters up to 50

- Year

  - - Will only accept year of a date with 1900 being the oldest

- Color

  - - Will only accept alphanumeric characters up to 50

- Description

  - - Will only accept alphanumeric characters up to 500

- Photo evidence of vehicle

  - - Must be JPEG, PNG, or PDF 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. The operation of creating a vehicle profile is logged

   ○ The new entry is created in the data store for each new vehicle profile created

   ○ For a regular authenticated user they can only make up to 50 vehicle profiles

   ○ For a vendor/renter user they can make up to 600 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

Fail Requirements

- 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

  ○ This information will be logged:

    ■ Error type

    ■ Time stamp

- 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

  ○ This information will be logged:

    ■ Error type

    ■ Time stamp

- 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
- ○ This information will be logged:
  - ■ Error type
  - ■ Time stamp
- ● Vehicle information is visible to any user
  - ○ Application should continue to function normally
  - ○ This information will be logged:
    - ■ Error type
    - ■ Time stamp

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

21

Data Source

N/A

App Permissions

Permission = Edit

Scope = Profile

Target Audience

Authenticated user that owns a vehicle

Pre Conditions

1. Must be a registered user

2. You must own a vehicle profile

3. You must choose certain information that will be viewable to the public

Required User Inputs

● Able to click specific information to make public

○ Color

○ Make

○ Model

○ Year

○ Name

○ VIN

○ Photo

<u>Pass Requirements</u>

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 operation of publishing will be logged

    ○ The changes must be done within 3 seconds

<u>Fail Requirements</u>

● Information that was not chosen is visible to all end users

    ○ Application should continue to function normally

    ○ This information will be logged:

        ■ Error type

        ■ Time stamp

● The chosen information is not visible to other end users

    ○ The user is able to retry to make the chosen information public

    ○ Application should continue to function normally

    ○ This information will be logged:

        ■ Error type

        ■ Time stamp

- Information that was not chosen is visible to all end users

  - The user is able to retry to make the chosen information private

  - Application should continue to function normally

  - This information will be logged:

    - Error type

    - Time stamp

- Takes more than 10 seconds to publish

  - Application will display a message of server timeout and redirect user to the last functional page

  - This information will be logged:

    - Error type

    - Time stamp

Related User Stories

- VP-2 Create Vehicle Profile

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

   21

Data Source

       Origin = Internal

       Type = Database

       Details = Vehicle profile

App Permissions

       Permission = Delete

       Scope = Vehicle profile

Target Audience

       Authenticated users with vehicle profiles

Pre Conditions

1. Must be on the vehicle profile feature

2. Must have a vehicle profile to delete

3. Must have the vehicle profile unlisted on the vehicle marketplace

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

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

    ○ A timestamp will be created of when the vehicle profile was deleted

<u>Fail Requirements</u>

- 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

    - This information will be logged:

        - Error type

        - Time stamp

- 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

    - This information will be logged:

        - Error type

        - Time stamp

- Takes more than 10 seconds to delete

    - Application will display a message of server timeout and redirect user to the last functional page

    - This information will be logged:

        - Error type

        - Time stamp

<u>Related User Stories</u>

- VP-1 Create Vehicle Profile

VP-4 Choose Vehicle Profile

User Story

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

21

Data Source

Origin = Internal

Type = Database

Details = Vehicle profile

App Permissions

Permission = View

Scope = Vehicle profile

Target Audience

Authenticated users with vehicle profiles

Pre Conditions

1. Must be on the vehicle profile feature

2. Must have at least one vehicle profile to view (If not can create one)

Required User Inputs

- The user is able to view 10 vehicle profiles at a time

  - If they have more vehicle profiles they are able to load another 10 to view

<u>Pass Requirements</u>

1. The vehicle profiles will each show the make, model, and Vin to differentiate them

   ○ They will be ordered from newest created to oldest by default

   ○ This operation will be logged and time spent here by the user will also be logged

2. If there are no vehicle profiles they will be given the option to create one

<u>Fail Requirements</u>

- The vehicle profiles are not ordered correctly

   ○ The user is able to refresh the page to set the order to the default

   ○ This information will be logged:

      ■ Error type

      ■ Time stamp

- The vehicle profiles are not displayed within 10 seconds

   ○ Application will display a message of server timeout and redirect user to the last functional page

   ○ This information will be logged:

      ■ Error type

      ■ Time stamp

<u>Related User Stories</u>

- VP-1 Create Vehicle Profile

VP-5 View Detailed Vehicle Profile

<u>User Story</u>

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

21

Data Source

Origin = Internal

Type = Database

Details = Vehicle profile

App Permissions

Permission = View

Scope = Vehicle profile

Target Audience

Authenticated users with vehicle profiles

Pre Conditions

1. Must be on the vehicle profile feature

2. Must have at least one vehicle profile to view (If not can create one)

3. Must have selected the vehicle profile

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

<u>Pass Requirements</u>

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 and time spent here by the user will also be logged

<u>Fail Requirements</u>

● 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

    ○ Application will display a message of server timeout and redirect user to the last functional page

    ○ This information will be logged:

        ■ Error type

        ■ Time stamp

● The vehicle profile does not display the correct information

    ○ User will be able to edit the vehicle profile information

● The vehicle profile does not have the edit or service log functions

    ○ Error message will display to contact the administrator

● The vehicle profile is not viewed within 3 seconds

    ○ Error will be logged

<u>Related User Stories</u>

● VP - 1

Service Log

SL-1 Input Maintenance Log

As an authenticated user , I can enter a Maintenance Log 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

32

Data Source

Origin = Internal

Type = Database

Details = VehicleServiceLog

App Permissions

Permission = Input

Scope = Service Log

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

Required user inputs

- Maintenance category log type

    - Categories list will contain:

        - Maintenance

        - Repair

        - Modification

        - Damage Report

    - User must select the Maintenance category log type

- Part receiving maintenance

    - User is able to select from list of maintenance parts

        - Must only be select parts that can receive maintenance as defined in the glossary of cars receiving 'Maintenance'

        - See "Maintenance" in Glossary 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

    - Range of values allowed for year being 1992, 1993 …, Current year

- Description of service

    - Must be 10 - 400 characters

- Mileage at service

  - Must be 0 - 999,999 miles or below

- Photo evidence of maintenance done

  - Must be JPEG, PNG, or PDF file types

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

  - 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

Fail Requirements

- 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

- 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 maintenance 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 is able 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 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

- 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

Related User Stories

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

32

Data Source

Origin = Internal

Type = Database

Details = VehicleServiceLog

App Permissions

Permission = Input

Scope = Service Log

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

Required user inputs

- Repair category log type

    ○ Categories list will contain:

        ■ Maintenance

        ■ Repair

        ■ Modification

        ■ Damage Report

    ○ User must select the Repair category log type

- 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

- 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

- Range of values allowed for year being 1992, 1993, …, Current year

- Description of service

  - Must be 10 - 400 characters

<u>Optional User Inputs</u>

- Mileage at service

  - Must be 0 - 999,999 miles or below

- Photo evidence of maintenance done

  - Must be JPEG, PNG, or PDF file types

<u>Pass Requirements</u>

- 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

<u>Fail Requirements</u>

- 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
    - ○ 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 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

- 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

Related User Stories

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

       32

Data Source

       Origin = Internal

       Type = Database

       Details = VehicleServiceLog

App Permissions

       Permission = Input

       Scope = Service Log

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

Required User Input

- Modification category log type

- ○ Categories list will contain:

    - ■ Maintenance

    - ■ Repair

    - ■ Modification

    - ■ Damage Report

  - ○ User must select the Modification category log type

- ● Modification added

  - ○ Must be within 2 - 30 characters

- ● 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

  - ○ Range of values allowed for year being 1992, 1993, …, Current year

- ● Description of service

  - ○ Must be 10 - 400 characters

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

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

  - 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

Fail Requirements

- 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

  - 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 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

- 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

Related User Stories

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

32

Data Source

Origin = Internal

Type = Database

Details = VehicleServiceLog

App Permissions

Permission = Input

Scope = Service Log

<u>Target Audience</u>

Authenticated users with Vehicle Profiles

<u>Pre Conditions</u>

1. Must be an authenticated user

2. Must have at least one Vehicle Profile

3. Must be on the service log feature

<u>Required User Inputs</u>

- Damage Report category log type

    ○ Categories list will contain:

        ■ Maintenance

        ■ Repair

        ■ Modification

        ■ Damage Report

    ○ User must select the Damage Report category log type

- 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

    ○ 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

- ○ Range of values allowed for year being 1992, 1993, …, Current year

- ● Description of service

  - ○ Must be 10 - 400 characters

- ● Mileage at service

  - ○ Must be 0 - 999,999 miles or below

- ● Photo evidence of maintenance done

  - ○ Must be JPEG, PNG, or PDF file types

- ● 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

    - 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 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

- 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

Related User Stories

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

32

Data Source

Origin = Internal

Type = Database

Details = VehicleServiceLog

App Permissions

Permission = View

Scope = Service Log

Target Audience

Authenticated users who wish to view previous service log entries.

Pre Conditions

1. Must have at least one Vehicle Profile

2. Must have at least one Service Log Entry logged in Service Log History

3. Must be on the service log history feature

Pass Requirements

- Results are originally sorted from most recent to latest date

- When user selects an Service Log History entry, the following info will be displayed:

    ○ Required: Category, Date, Description

    ○ Optional: Mileage, Evidence

Fail Requirements

- Results aren't sorted from most recent entry to latest entry date

    ○ User will be able to refresh log

- User is unable to view an Service Log History entry

    - User will be able to retry again

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 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

      55

Data Source

      Origin = Internal

      Type = Database

      Details = VehicleServiceLog

App Permissions

      Permission = Search

      Scope = Service Log

<u>Target Audience</u>

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

<u>Pre Conditions</u>

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

<u>Pass Requirements</u>

- Search results are loaded with 5 seconds of search request

- Results are initially sorted from most recent to latest date

- When user selects an Service Log History entry, the following info will be displayed :

  ○ Required: Category, Date, Description

  ○ Optional: Mileage, Evidence

- Available filters are:

  ○ Category

    ■ Maintenance

    ■ Repair

    ■ Modification

    ■ Damage Report

  ○ Date

    ■ Most recent first to latest

    ■ Latest first to most recent

- Filters can be turned on and off by user discretion

Fail Requirements

- If search results take longer than 5 seconds

- Results are sorted incorrectly

- Required or optional data is not displayed upon selection

- Search has missing filters

- Filters are unable to turned on or off

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-7 Create Maintenance Reminder

User Story

As an authenticated user, I can create a maintenance reminder to be sent to the

Notification Center for a user in order to remind a user of maintenance.

Background

This is how the reminder will be created and sent to the notification center

Effort Points

34

Data Source

Origin = Internal

Type = Database

Details = VehicleServiceLog

App Permissions

Permission = Create Alert

Scope = Service Log, Notification Center

Target Audience

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

Pre Conditions

1. Must have a valid IP address in California

2. Must be an administrator user type

3. Must have at least one Vehicle Profile

Pass Requirements

1. Create a maintenance reminder to be sent to Notification Center of an authenticated user

    ○ 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

2. Maintenance is sent to notification center

    ○ Alert will be time stamped

Fail Requirements

1. Maintenance reminder not generated correctly

    a. Error will be logged

2. Alert not timestamped

   a. Error will be logged

3. User doesn't receive Maintenance reminder

   a. Error will be logged

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 may have 3 service log entries where mileage was inputted.

Dependent on NC - 3, as the Notification Center will send out the Maintenance reminder.

Cost Center 2

CC-1 Cost of Vehicle Ownership

User Story

   As an authenticated user, I can get an estimate on the cost of vehicle ownership to track the approximate expenses of my Vehicle for the next 5 years.

Background

   This way the user can stay informed about the cost of their vehicle and know when to sell.

Effort Point

   55

Data Source

   Origin = External

Type = API

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

AuthN = TBD

Apps Permissions

Permission = View, 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 on a Vehicle Profile

User Inputs

- Required User Inputs

  - Vehicle Identification Number (VIN)

    - Must be able to access Vehicle Profiles VIN number

  - API Key

    - Must have correct API key to access API

  - State

    - Will be automatically set to CA due to scope

  - Format

    - Will be automatically set to JSON

Pass Requirements

- The API call must return the following parameters:

  ○ VIN

  ○ mileage _start

    ■ Current mileage of the vehicle

  ○ Mileage_year

    ■ Estimated yearly mileage of the Vehicle

  ○ Vehicle

    ■ The Vehicle title (Year, Make, Model, Trim)

  ○ Depreciation_cost

    ■ Estimated yearly depreciation cost

  ○ Insurance_cost

    ■ The estimated insurance cost

  ○ Fuel_cost

    ■ Estimated yearly fuel cost

  ○ Maintenance_cost

    ■ Estimated yearly maintenance cost

  ○ Repairs_cost

    ■ Estimated yearly repairs cost

  ○ Fees_cost

    ■ Estimated yearly state fees and taxes cost

  ○ Total_cost

    ■ Estimated yearly total cost

- ○ total _cost_sum

  - ■ Estimated overall total cost over the next 5 years

- API call must return within 3 seconds or less

- Must display the API returned parameters in easily content

Fail Requirements

- Users Vehicle Profile VIN is not accessible

  - ○ An error message will be displayed

- The API key is not correct

  - ○ An error log will be created noting how the API was unable to be connected

- Users state is not correct

  - ○ An error message will be displayed saying the state is not supported

- User format is not in JSON format

  - ○ An error message will be displayed saying data is unavailable

- The API doesn't return all the following parameters

  - ○ An error message will be displayed saying data is unavailable

- API call takes longer than 3 seconds

  - ○ An error message will be displayed saying data is unavailable

- API returned not displayed in easily digestible content

Related User Stories

- VP - 1

CC-2 Vehicle Market Value

<u>User Story</u>

As an authenticated user, I can get an estimate on the cost of vehicle ownership to track the approximate expenses of my Vehicle for the next 5 years.

<u>Background</u>

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

<u>Effort Point</u>

55

<u>Data Source</u>

Origin = External

Type = API

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

AuthN = TBD

<u>App Permissions</u>

Permission = View, Request

Scope = Cost Center

<u>Target Audience</u>

Any authenticated user with a Vehicle Profile

<u>Pre Conditions</u>

4. Must be an authenticated user type

5. Must have at least one Vehicle Profile

6. Must be on a Vehicle Profile

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

- Optional User Inputs

  - Period

    - Must be within 1 - 365 days

    - Default value will be 90 days

Pass Requirements

- The API call must return the following parameters:

  - Success

    - Whether market value data has been retrieved

  - VIN

  - Vehicle

    - Vehicle title (Make, Model, Year, Trim)

  - Mileage

- - ■ Mileage used to compute the market value

  - ○ Count

    - ■ Number of data points used estimate

  - ○ Mean

    - ■ Estimate average market price

  - ○ Stdev

    - ■ Standard deviation of prices

  - ○ Certainty

    - ■ Statistical confidence in market value

  - ○ Period

    - ■ Data range of the historical sales data used

  - ○ Prices

    - ■ Estimated average market, below market, and above market prices

- API call must return within 3 seconds or less

- Parameters will be displayed in easily digestible format

Fail Requirements

- Users Vehicle Profile VIN is not accessible

  - ○ An error message will be displayed

- The API key is not correct

  - ○ An error log will be created noting how the API was unable to be connected

- User format is not in JSON format

  - ○ An error message will be displayed saying data is unavailable

- Users mileage is unable to be accessed

- ○ An error message will be displayed saying data is unavailable

- ● User inputs a period outside of the range of values 1 - 365

  - ○ User will be prompted to enter a days within the given range: 1 - 365

- ● The API doesn't return all the following parameters

  - ○ An error message will be displayed saying data is unavailable

- ● API call takes longer than 3 seconds

  - ○ An error message will be displayed saying data is unavailable

Related User Stories

VP - 1

Vehicle Profile Marketplace - 5

VPM-1 Vehicle Profile Post Management

User Story

     As an authenticated user, I can publish any vehicle profiles of mine to the marketplace for sale. I can also take down my post any time from the marketplace.

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

     34

Data Source

     Origin = Internal

Type = Database

Details = ForSale

<u>App Permissions</u>

Permission = List/Unlist Vehicle

Scope = Buy/Sell Vehicle

<u>Target Audience</u>

Any authenticated users

<u>Pre Conditions</u>

1. You must be logged in

2. You must have your own vehicle profile

3. You must be in the "Sell your car" feature view

4. You must select a public vehicle profile that you own

<u>User Input</u>

Required User Input

● User pick one of their own personal vehicle profiles that is available

Optional User Input

● User pick one of their personal vehicle profiles that are posted on the marketplace

<u>Pass Requirements</u>

● User picked a valid vehicle profile from their to post

   ○ The chosen vehicle profile is listed on the marketplace within 3 seconds

   ○ The chosen vehicle profile status is changed to "For Sale" within 3 seconds

   ○ The chosen vehicle profile post should include all of this information: vehicle photos, current mileage, make, model, color, vehicle's Car Health Ranking,

existing Service Log (Maintenance History, Repair History, and CarFax

document), and if implemented if the profile is certified or uncertified.

- ○ User is redirected to the homepage of the marketplace

- ○ This information will be log by the system:

  - ■ Vehicle profile information

  - ■ Profile of the owner of the post

  - ■ Timestamp of the operation

- ● User picked a valid vehicle profile post to remove from marketplace

  - ○ Vehicle profile is unlisted on the marketplace within 3 seconds

  - ○ Vehicle profile status is changed to "Sold" within 3 seconds

  - ○ User is redirected to the homepage of the marketplace

  - ○ This information will be log by the system:

    - ■ Vehicle profile information

    - ■ Profile of the owner of the post

    - ■ Timestamp of the operation

Fail Requirements

- ● The chosen vehicle to post is not visible on the marketplace

  - ○ Application will redirect user to the "Sell your car" view

  - ○ This information will be log:

    - ■ Vehicle profile that was chosen to post

    - ■ Error type

    - ■ Time stamp

- ● The chosen vehicle profile is listed but does not have enough information

- ○ Application display the public post to the user

- ○ This information will be log:

  - ■ All the information of the post

  - ■ Error type

  - ■ Time stamp

● The chosen vehicle profile takes longer than 3 seconds to be listed

  - ○ Application should continue to functions normally

  - ○ This information will be log:

    - ■ All the information of the post

    - ■ Error type

    - ■ Time stamp

● The chosen vehicle profile takes longer than 10 seconds to be listed

  - ○ Application should display a message of the error

  - ○ This information will be log:

    - ■ All the information of the post

    - ■ Error type

    - ■ Time stamp

● The chosen vehicle profile status is listed as "Sold"

  - ○ Application display the public post to the user

  - ○ This information will be log:

    - ■ All the information of the post

    - ■ Error type

    - ■ Time stamp

- Vehicle profile is still listed on the marketplace with status "For Sale"
  - Application display the public post to the user
  - This information will be log:
    - All the information of the post
    - Error type
    - Time stamp
- Vehicle profile takes longer than 3 seconds to be unlisted
  - Application should continue to functions normally
  - This information will be log:
    - All the information of the post
    - Error type
    - Time stamp
- The chosen vehicle profile takes longer than 10 seconds to be unlisted
  - Application should continue to functions normally
  - This information will be log:
    - All the information of the post
    - Error type
    - Time stamp
- Vehicle profile status is not changed
  - Application display the public post to the user
  - This information will be log:
    - All the information of the post
    - Error type

■ Time stamp

Related User Stories

- ● VP-1 Create Vehicle Profile

- ● VP-2 Update Vehicle Profile

VPM-2 View Marketplace

User Story

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

Background

Any users can view the marketplace if they want to browse what vehicles are for sale or

rent at the moment.

Effort Points

34

Data Source

Origin = Internal

Type = Database

Details = ForSale

App Permissions

Permission = View

Scope = Buy/Sell Vehicle

Target Audience

Any users

<u>Pre Conditions</u>

1. You must be logged in

2. You must be in the "Vehicle Marketplace" view

<u>Pass Requirements</u>

- 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.

    - 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

    - 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

- This information will be log by the system:

- ○ Timestamp of the operation

<u>Fail Requirements</u>

- Vehicle profile posts are not shown accordingly to order from latest to oldest date

  - ○ Application display the public post to the user

  - ○ This information will be log:

    - All the information of the post

    - Error type

    - Time stamp

- Vehicle profile posts does not show enough information

  - ○ Application should continue to functions normally

  - ○ This information will be log:

    - Error type

    - Time stamp

- Vehicle profile posts are shown after 3 seconds

  - ○ Application should continue to functions normally

  - ○ This information will be log:

    - Error type

    - Time stamp

- Application crashes or does not show a message while displaying a blank marketplace when there are 0 posts

  - ○ Application display the public post to the user

  - ○ This information will be log:

    - Error type

- - - - - ■ Time stamp

- - ● Applications show more than 10 posts without request to see more from user

- - - ○ Application should continue to functions normally

- - - ○ This information will be log:

- - - - ■ Error type

- - - - ■ Time stamp

Related User Stories

- ● VPM-1 Vehicle Profile Post Management

VPM-3 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

This is when they choose a particular vehicle profile to see more details about it.

Effort Points

34

Data Source

Origin = Internal

Type = Database

Details = ForSale

App Permissions

Permission = View

Scope = Buy/Sell Vehicle

Target Audience

Any users

Pre Conditions

1. You must be in the "Vehicle Marketplace" view

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

  - 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

- This information will be log by the system:

  - Timestamp of the operation

<u>Fail Requirements</u>

- Vehicle profile post does not show enough information

  - Application should continue to functions normally

  - This information will be log:

    - Error type

    - Time stamp

- Vehicle profile posts are shown after 3 seconds

  - Application should continue to functions normally

  - This information will be log:

    - Error type

    - Time stamp

<u>Related User Stories</u>

- VPM-1 Vehicle Profile Post Management

- VPM-2 View Marketplace

VPM-4 Search Vehicle Profile Post

<u>User Story</u>

As an authenticated user, I can search for any vehicle profile post on the Vehicle

Marketplace that meets my filters options.

<u>Background</u>

This is if they are searching for a specific type of vehicle.

Effort Points

34

Data Source

Origin = Internal

Type = Database

Details = ForSale

App Permissions

Permission = Search

Scope = Buy/Sell Vehicle

Target Audience

Any users

Pre Conditions

1. You must be logged in

2. You must have your own vehicle profile

3. You 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

- 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
- This information will be log by the system:
  - ○ Any keywords that are provided by the user to the search function
  - ○ Timestamp of the operation

Fail Requirements

- No results show even though there are vehicles that meet the searched criteria
  - ○ Application should redirect user to homepage of Vehicle Marketplace
  - ○ This information will be log:
    - ■ Error type
    - ■ Time stamp
- Vehicles shown does not fit the user's listed filters
  - ○ Application should continue to function normally
  - ○ This information will be log:
    - ■ Error type
    - ■ Time stamp
- Private vehicles are shown
  - ○ Application should continue to function normally
  - ○ This information will be log:
    - ■ Error type
    - ■ Time stamp
- Results are shown after 3 seconds
  - ○ Application should continue to function normally

- ○ This information will be log:

    - ■ Error type

    - ■ Time stamp

Related User Stories

    None

VPM-5 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

    55

Data Source

    N/A

App Permissions

    Permission = Request

    Scope = Buy/Sell Vehicle, Notification Center

Target Audience

    Authenticated users looking to buy a vehicle

Pre Conditions

1. The vehicle must be on the marketplace

2. User must be in the detail view of the vehicle post

<u>User input</u>

Required User Input

N/A

Optional User Input

- User select to send a request to the seller

<u>Pass Requirements</u>

- 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

- This information will be log by the system:

    ○ Profile of the buyer and the seller

    ○ Timestamp of the request send

<u>Fail Requirements</u>

- Request is not sent within 3 seconds

    ○ Application should continue to function normally

    ○ This information will be log:

        ■ Error type

        ■ Time stamp

- Request is sent but missing information

    ○ Application should continue to function normally

    ○ This information will be log:

        ■ Error type

■ Time stamp

Related User Stories

- VPM-3 View Detail Market Listing

VPM-6 Transfer Vehicle Profile

User Story

As an authenticated user with at least one public vehicle that I own, I can transfer a

vehicle profile to the buyer after selling it on the marketplace.

Background

Allows users who have sold their Vehicle to another user for easy transfer of records and

logs on their Vehicle.

Effort Points

55

Data Source

Origin = Internal

Type = Database

Details = VehicleProfile, UserProfile

App Permissions

Permission = Transfer

Scope = Buy/Sell Vehicle

Target Audience

Sellers of public vehicles on the marketplace

<u>Pre Conditions</u>

1. You must have at least one vehicle profile posted on the marketplace

2. The vehicle must be the vehicle that the other user requested to buy

3. The seller must confirm the sale of the vehicle profile post

4. The seller must transfer the vehicle profile post

<u>User input</u>

Required User Input

N/A

Optional User Input

- User chooses a valid profile who they sold their car to

<u>Pass Requirements</u>

- User provided a valid profile to transfer

  - The vehicle profile has been transferred to the other user within 3 seconds

  - The vehicle is no longer in the current user's profile

  - All history attached to the vehicle is transferred with the vehicle profile

  - Vehicle profile is removed from marketplace

- This information will be log by the system:

  - Timestamp of the transfer operation

<u>Fail Requirements</u>

- The vehicle profile has not been transferred to the other user

  - Application redirect user to the last functional page

  - This information will be log:

    - Error type

- ■ Time stamp

- The transfer took longer than 3 seconds

  - ○ Application should continue to function normally

  - ○ This information will be log:

    - ■ Error type

    - ■ Time stamp

- The vehicle is still in the current user's profile

  - ○ Application redirect user to the last functional page

  - ○ This information will be log:

    - ■ Error type

    - ■ Time stamp

- Some or all vehicle history is not attached to the vehicle profile

  - ○ Application redirect user to the last functional page

  - ○ This information will be log:

    - ■ Error type

    - ■ Time stamp

- Vehicle profile remains on the marketplace

  - ○ Application redirect user to the last functional page

  - ○ This information will be log:

    - ■ Error type

    - ■ Time stamp.

Related User Stories

- VPM-1 Vehicle Profile Post Management

- VPM-2 View Marketplace

- VPM-3 View Detail Marketplace Listing

Donate Your Car

DYC-1 List of Charities

<u>User Story</u>

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.

<u>Background</u>

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.

<u>Effort Points</u>

55

<u>Data Source</u>

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

Origin = Internal

Type = Database

Details = Vehicle Profile Details

AuthN = TBD

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 = Search

Scope = Donation feature

Target Audience

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

<u>Pre Conditions</u>

1. Must have a vehicle profile

<u>Required User Inputs</u>

- 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

  - CCOC

  - Wheels 4 Wishes

  - Vehicles for Veterans

  - Kars 4 Kids

<u>Pass Requirements</u>

- From the vehicle profile, the user is able to choose to donate their vehicle

- The user is able to pick what charity they want to donate to

- The user is able to see a description for the charities

<u>Fail Requirements</u>

- The donate page does not show up

  - The user's attempt to open will be logged, along with vehicle currently selected

- The page took longer than 3 seconds to open

  - Application should continue to function normally

  - This information will be log:

    - Error type

- ■ Time stamp

- The charities or their details do not show up

  - ○ Application should continue to function normally

  - ○ This information will be log:

    - ■ Charities information that fail to load

    - ■ Vehicle currently selected

    - ■ Error type

    - ■ Time stamp

- The user cannot click a charity to interact with

  - ○ Application should continue to function normally

  - ○ This information will be log:

    - ■ Charities information that fail to load

    - ■ Vehicle currently selected

    - ■ Error type

    - ■ Time stamp

Related User Stories

- 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.

<u>Background</u>

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

<u>Effort Points</u>

55

<u>Data Source</u>

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

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

  Origin = Internal

  Type = Database

  Details = Vehicle Profile Details

  AuthN = TBD

  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

Scope = Donation feature

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 have selected an charity to donate their car to

Required User Inputs

● Mileage of vehicle

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

Pass Requirements

- The start page on "https://www.vehiclesforveterans.org/" will be filled out for you, up until we get to contact info

- The initial vehicle details for "https://www.kars4kids.org/" 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 "https://ccoc.careasy.org/home#form-iframe" webpage

- The donation details will be filled in, up until the "Pickup address" on the "https://kids.wheelsforwishes.org/car-donation-form/" webpage

Fail Requirements

1. The donate page does not show up, or is blocked for any reason

   - ○ Application should continue to function normally

   - ○ This information will be log:

     - ■ Charities information

     - ■ Vehicle currently selected

     - ■ Error type

     - ■ Time stamp

2. The vehicle details on the web page are not filled out

   - ○ Application should continue to function normally

   - ○ This information will be log:

     - ■ Current website information

- Current vehicle profile

- Error type

- Time stamp

3. The details take more than 3 seconds to fill ins

   ○ Application should continue to function normally

   ○ These information will be log:

      - Error type

      - Time stamp

Related User Stories

- VP-1 Create Vehicle Profile

- VP-2 Update Vehicle Profile

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

   55

Data Source

   Origin = Internal

Type = Database

Details = PartsForSale

App Permissions

Permission = List Vehicle

Scope = Buy/Sell Vehicle

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

Pass Requirements

● Vehicle profile is listed on the marketplace

● Vehicle profile status is changed to "Parts For Sale"

● 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).

● User is able to receive offers for parts

Fail Requirements

● Vehicle profile is not listed on the marketplace

○ Application will redirect the user to the last functional page

○ These information will be log:

- - ■ Error type

    - ■ Time stamp

- ● Vehicle profile takes longer than 3 seconds to be listed

    - ○ Application should continue to function normally

    - ○ These information will be log:

        - ■ Error type

        - ■ Time stamp

- ● Vehicle profile status is not changed

    - ○ Application will redirect user to the last functional page

    - ○ These information will be log:

        - ■ Error type

        - ■ Time stamp

- ● Wrong vehicle part is listed for sale

    - ○ User can take down the post to reupload the correct one

    - ○ Application should continue to function normally

    - ○ These information will be log:

        - ■ Error type

        - ■ Time stamp

- ● No vehicle part is listed for sale

    - ○ Application will redirect user to the last functional page to retry

    - ○ These information will be log:

        - ■ Error type

        - ■ Time stamp

- Parts can be sold before user uploads pictures

    - Application will redirect user to the last functional page

    - These information will be log:

        - Error type

        - Time stamp

SYC-2 Verify Vehicle Parts

<u>User Story</u>

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

<u>Background</u>

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

<u>Effort Points</u>

55

<u>Data Source</u>

Origin = External/Internal

Type = User Upload/Database

Details = PartsForSale

<u>App Permissions</u>

Permission = List Vehicle

Scope = Buy/Sell Parts

<u>Target Audience</u>

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

Pass Requirements

● Each Individual picture should be uploaded within 10 seconds (Time to upload may be longer based on individual's internet speed)

● Pictures must be uploaded to the intended target vehicle part

● Users are able to accept offers for parts they have already listed for sale.

Fail Requirements

● Pictures are uploaded to unintended parts

○ Application will redirect user to the last functional page to retry

○ These information will be log:

■ Error type

■ Time stamp

● Pictures take longer than 10 seconds to upload

○ Application will display a message of server timeout and redirect user to the last functional page

○ This information will be logged:

■ Error type

■ Time stamp

● Users are not able to accept offers for parts with uploaded pictures

- ○ Application shuold continue to function normally

- ○ User can report this error to administrator

- ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

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 for users to list a part on the marketplace.

Effort Points

55

Data Source

Origin = Internal

Type = Database/User Pictures

Details = PartsForSale

App Permissions

       Permission = List Parts

       Scope = Buy/Sell Parts

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

Pass Requirements

- Part is listed within 3 seconds

- Users are able to receive offers for their part 3 seconds after it is listed

- Pictures are uploaded to unintended parts

- Users are not able to accept offers for parts with uploaded pictures

Fail Requirements

- Vehicle Part is not listed on the marketplace

- Vehicle part takes longer than 3 seconds to be listed

- Pictures take longer than 10 seconds to upload

  ○ Application will display a message of server timeout and redirect user to the last

    functional page

  ○ This information will be logged:

    ■ Error type

    ■ Time stamp

- Details are not displayed correctly

    - Application should continue to function normally

    - This information will be logged:

        - Error type

        - Time stamp

- Parts can be sold before user uploads pictures

    - Application will redirect user to the last functional page

    - These information will be log:

        - Error type

        - Time stamp

Related User Stories

    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. If no vehicle parts meet the requirements, ask

me to change my specifications.

Background

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

marketplace

Effort Points

    55

Data Source

      Origin = Internal

      Type = Database

      Details = PartsForSale

App Permissions

      Permission = Search

      Scope = Scrap Your Vehicle

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

Pass Requirements

- Results of vehicles that match the user's specifications within 3 seconds

- 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

Fail Requirements

- No results show if there are vehicles that meet the searched criteria

  - Application should continue to function normally

  - These information will be log:

    - Error type

- ■ Time stamp

- ● Private vehicles are shown

  - ○ Application should continue to function normally

  - ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

- ● Results are shown after 3 seconds

  - ○ Application should continue to function normally

  - ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

- ● Does not ask the user to search again if no results show

  - ○ Application should continue to function normally

  - ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

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

55

Data Source

N/A

App Permissions

Permission = Request

Scope = Buy/Sell Vehicle parts, Notification Center

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

Pass Requirements

● Request is sent to the seller within 3 seconds

Fail Requirements

● Request is not sent within 3 seconds

  ○ Application should continue to function normally

  ○ These information will be log:

    ■ Error type

    ■ Time stamp

SYC-6 Receive Buy Requests

Bold: User Story

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 = Accept

Scope = Buy/Sell Vehicle part, Notification Center

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

<u>Pass Requirements</u>

- 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

- Denied requests do not send contact information to the other user

<u>Fail Requirements</u>

- Action confirmation takes longer than 3 seconds

  - Application should continue to function normally

  - These information will be log:

    - Error type

    - Time stamp

- Request is still awaiting confirmation

  - Application should continue to function normally

  - These information will be log:

    - Error type

    - Time stamp

- Request does not send a notification to the other user

  - Application should continue to function normally

  - These information will be log:

    - Error type

    - Time stamp

- Accepted requests do not send contact information

  - Application should continue to function normally

- ○ These information will be log:
  - ■ Error type
  - ■ Time stamp
- ● Denied requests send contact information
  - ○ Application should continue to function normally
  - ○ These information will be log:
    - ■ Error type
    - ■ Time stamp

Related User Stories

N/A

Notification Center

NC-1 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

34

Data Source

N/A

App Permissions

        Permission = Create

        Scope = Notification Center

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

Required User Inputs

        None

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

Fail Requirements

● Must send out the alert within 3 seconds of getting an offer

    ○ Application should continue to function normally

    ○ These information will be log:

- - - Error type

    - - Time stamp

- An alert was given but an offer was not

    - Application should continue to function normally

    - These information will be log:

        - Error type

        - Time stamp

- There was an offer given but no alert was sent

    - Application should continue to function normally

    - These information will be log:

        - Error type

        - Time stamp

- The user never receives an SMS message

    - The user can check the phone number and edit it if it is wrong

    - Application should continue to function normally

    - These information will be log:

        - Error type

        - Time stamp

- The user receives multiple SMS messages or emails of the same alert.

    - Only 1 alert will be sent per offer

    - Application should continue to function normally

    - These information will be log:

        - Error type

■ Time stamp

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

NC-2 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

34

Data Source

N/A

App Permissions

Permission = Create

Scope = Notification Center

<u>Target Audience</u>

Users with vehicle profiles

<u>Pre Conditions</u>

1. Must have a vehicle profile

2. Optional can choose to receive alerts through SMS

<u>Required User Inputs</u>

None

<u>Pass Requirements</u>

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

<u>Fail Requirements</u>

● Give an alert for a safety recall if the user does not have the model of the car

   ○ A server error message will display

● An alert was not given even though a safety recall was issued for a model the user owns

   ○ A server error message will display

● Must send out the alert within 3 seconds of getting a safety recall

   ○ If it takes longer the time will be logged

● The user never receives an SMS message

- ○ The user can check the phone number and edit it if it is wrong

- The user receives multiple SMS messages or emails of the same alert.

    - ○ Only 1 alert will be sent per safety recall

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.

NC-3 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

 34

Data Source

 Origin = External

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

 AuthN= TBD

App Permissions

 Permission = Create

 Scope = Notification Center

<u>Target Audience</u>

      Registered users with vehicle profiles

<u>Pre Conditions</u>

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

<u>Required User Inputs</u>

      None

<u>Pass Requirements</u>

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

<u>Fail Requirements</u>

● Give an alert for maintenance for a vehicle that does not need maintenance check yet

    ○ A server error message will display

● An alert was not given even though a maintenance check was issued for the vehicle

    ○ A server error message will display

● Must send out the alert within 3 seconds of getting the maintenance check

    ○ If it takes longer the time will be logged

- The user never receives an SMS message

    - The user can check the phone number and edit it if it is wrong

- The user receives multiple SMS messages or emails of the same alert.

    - They will only receive 1 alert per maintenance check

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.

NC-4 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

34

Data Source

N/A

App Permissions

Permission = Create

Scope = Notification Center

<u>Target Audience</u>

Authenticated users with a vendor or renter account type

<u>Pre Conditions</u>

1. Must have chosen vendor or renter account type when registering

2. Must have been approved by an administrator

<u>Required User Inputs</u>

None

<u>Pass Requirements</u>

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

<u>Fail Requirements</u>

● Give an alert for approval but the administrator has not approved

    ○ Server error message will display

● An alert was not given even though an administrator already approved the account

    ○ Server error message will display

● Must send out the alert within 3 seconds of getting approved by an administrator

    ○ If it takes longer the time will be logged

● The user never receives an SMS message

    ○ The user can check the phone number and edit it if it is wrong

- The user receives multiple SMS messages or emails of the same alert.

    ○ They will only receive 1 alert for approval

Related User Stories

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

NC-5 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: View

Scope: Notification Center

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 "Notification Center" view

Required User Inputs

None

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.

    - 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:

    - Maintenance check alert

    - Approval alert

    - Recall alert

    - Offer alert

- All alerts will be displayed in under 3 seconds

- These information will be logged by the system:

    - Timestamp of the operation

Fail Requirements

- Alerts are not shown accordingly to order from latest to oldest date

    - Alerts should still display even if they are out of order

- Alerts does not show type

- - ○ Application should continue to function normally but information will log the timestamp and error

- - Alerts are shown after 3 seconds

    - ○ The time taken will be logged

- - Does not show a message while displaying a blank notification center when there are 0 alerts

    - ○ Application should continue to function normally but information will log the timestamp and error

- - Application shows more than 10 alerts without request to see more from user

    - ○ Application should continue to function normally but information will log the timestamp and error

Related User Stories

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

Communications Establishment 3

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.

<u>Effort Points</u>

55

<u>Data Source</u>

Origin = Internal

Type = Database

Details = VehicleProfile, UserProfile

<u>App Permissions</u>

Permission = Contact

Scope = Communication Establishment, Vehicle Marketplace

<u>Target Audience</u>

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

<u>Pre Conditions</u>

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

<u>Pass Requirements</u>

● Is able to open a chat session with the seller/renter

● Is able to see seller/renter contact information

● Seller/renter will received a notification for the chat session

● If seller/renter does not end the chat session it will automatically end after a week has

   passed

● These information will be log by the system:

   ○ Any keywords that are provided by the user to the search function

- ○ Timestamp of the operation

Fail Requirements

- The sell/renter did not receive a contact alert
  - ○ Application should continue to function normally
  - ○ These information will be log:
    - ■ Error type
    - ■ Time stamp
- The chat session does not end once the seller/renter has ended it
  - ○ Application redirects user to the last functional page
  - ○ These information will be log:
    - ■ Error type
    - ■ Time stamp
- The chat session does not end once a week has passed even though the seller/renter never enter the chat session
  - ○ Application should continue to function normally
  - ○ These information will be log:
    - ■ Error type
    - ■ Time stamp
- Contact info is not displayed
  - ○ Application should continue to function normally
  - ○ These information will be log:
    - ■ Error type
    - ■ Time stamp

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

55

Data Source

N/A

App Permissions

Permission = Contact

Scope = Communication Establishment, Vehicle Marketplace, Notification Center

Target Audience

Authenticated users wanting to sell/rent vehicles

Pre Conditions

1. Must have a vehicle profile

2. Must have put vehicle profile as sell/rent in Vehicle Marketplace

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.

<u>Fail Requirements</u>

- All chat sessions takes longer than 3 seconds to be displayed

  - Application should continue to function normally

  - These information will be log:

    - Error type

    - Time stamp

- Chat sessions are not shown in correct order

  - Application should continue to function normally

  - These information will be log:

    - Error type

    - Time stamp

- Chat sessions does not show the content when user select the conversation

  - Application redirects user to the last functional page

  - These information will be log:

    - Error type

    - Time stamp

- Chat sessions shows the content but take longer than 3 seconds

  - Application should continue to function normally

  - These information will be log:

    - Error type

■ Time stamp

Related User Stories

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

55

Data Source

Origin = Internal

Type = Database

Details = ForSale, UserProfile

App Permissions

Permission = Accept

Scope = Buy/Sell Vehicle, Notification Center

<u>Target Audience</u>

Authenticated users selling a vehicle

<u>Pre Conditions</u>

1. You must have a for sale vehicle profile post on the market place

2. You must have an awaiting request

<u>Pass Requirements</u>

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

    ● Application will log the time stamp of the confirmation, the seller profile information, the buyers profile and the vehicle profile.

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

    ● Application will log the timestamp of the cancellation, the seller profile information, the buyers profile and the vehicle profile.

<u>Fail Requirements</u>

● Vehicle profile post status take longer than 3 seconds to change

    ○ Application should continue to function normally

    ○ These information will be log:

        ■ Error type

- - ■ Time stamp

- ● Vehicle profile post status change to the wrong status

  - ○ Application should continue to function normally

  - ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

- ● Application does not provide buyers with seller's location

  - ○ Application will redirect the user to the last functional page

  - ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

- ● Application does not provide buyers with directions

  - ○ Application will redirect the user to the last functional page

  - ○ These information will be log:

    - ■ Error type

    - ■ Time stamp

Related User Stories

None

Car News Center 2

CNC-1 View Vehicle News Articles

<u>User Story</u>

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.

<u>Background</u>

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

<u>Effort Points</u>

21

<u>Data Source</u>

Source = External

Type = API

Details = News API

AuthN = TBD

<u>App Permissions</u>

Permission = View

Scope = Car News Center

<u>Target Audience</u>

Authenticated Users that want to view news articles on their vehicle

<u>Pre Conditions</u>

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>Required User Inputs</u>

None

<u>Pass Requirements</u>

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

<u>Fail Requirements</u>

● News articles are not retrieved and/or displayed correctly

   ○ When it is refreshed it should set the order back to default

● Articles takes longer than 3 seconds

   ○ The time taken will be logged

● Articles take longer than 10 seconds to be retrieved

   ○ Application will display a message of server timeout and redirect user to the last

      functional page

   ○ This information will be logged:

      ■ Error type

      ■ Time stamp

<u>Related User Stories</u>

This user story is directly related to VP-4 since the news articles will appear alongside

the Vehicle Profile.

CNC-2 View Vehicle Safety Recalls

<u>User Story</u>

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.

<u>Background</u>

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

<u>Effort Points</u>

55

<u>Data Source</u>

Source = External

Type = API

Details = NHTSA API

AuthN = TBD

<u>App Permissions</u>

Permission = View

Scope = Car News Center, Vehicle Profile

<u>Target Audience</u>

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

<u>Pre Conditions</u>

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

Required User Inputs

● Select the "Safety Recall" option

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

Fail Requirements

● Safety Recall articles are not retrieved and/or displayed correctly

   ○ The user is able to refresh to set the order back to default

● Articles take longer than 3 seconds to be retrieved

   ○ Time taken will be logged

● Articles are not relevant to their vehicle

   ○ Error message will display to contact administrator

● Articles are not within the past 10 years

   ○ If there are articles older than 10 years they will not display

● Articles are not sorted from newest to oldest

   ○ The user is able to refresh to set the order back to default

● Safety Recall issues are not tagged correctly

   ○ Error message will display to contact administrator

● Issues that are already resolved are not marked as resolved

   ○ Server error will display

● Issues that are not resolved are marked as resolved

○ Server error will display

<u>Related User Stories</u>

This user story is directly related to VP-4.

Car Health Rating

CHR-1 Give Rank

<u>User Story</u>

As an authenticated user, I will be given a Reputation-based status based on how reputable my maintenance history is.

<u>Background</u>

This is a main feature where the user is given a ranking based on how well they take care of their vehicle.

<u>Effort Points</u>

55

<u>Data Source</u>

N/A

<u>App Permissions</u>

Permission = Create

Scope = Vehicle Health Ranking

<u>Target Audience</u>

App users who want to keep track of their maintenance history, get an overview of how well they are taking care of their vehicle, and want a good history when selling their car.

<u>Pre Conditions</u>

1.   Must have a vehicle profile

2.   Must be on the Vehicle Health Ranking feature

Pass Requirements

- All self reports will be stored in the internal data store

- If I have no maintenance history, or less than 10 maintenance events, my vehicle will be given the status "Not enough Maintenance History"

- If I have a self reported history, my vehicle will be given the status "Self reported"

- If I have a self reported history, along with pictures of receipts for maintenance parts, I will have the status"Self Maintained"

- If I have a self reported history, along with receipts for maintenance from dealerships, I will have the status "Verified maintenance".

- My status will be based on the median (most common) type of maintenance I've had, from my last 10 maintenance events

Fail Requirements

- My Status takes into account more than just the last 10 maintenance events

- My status is not displayed

- My status displays anything other than the median type of maintenance that I've done

Related User Stories

None

CHR-2 Calculate Rank

User Story

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

<u>Background</u>

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

<u>Effort Points</u>

55

<u>Data Source</u>

Origin = Internal

Type = Database

Details = UserProfile, Service Log

<u>App Permissions</u>

Permission = Create

Scope = VehicleHealthRanking

<u>Target Audience</u>

Authenticated users

<u>Pre Conditions</u>

1. Must have a vehicle profile

2. Must have a service log with at least 10 maintenance events

3. Must be on the Vehicle Health Ranking feature

<u>Pass Requirements</u>

- 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

- 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. 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. 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. 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.

Fail Requirements

- Does not assign a score, if the user has more than 10 maintenance events

- Assigns a score if the user has less than 10 maintenance events

- Takes more or less than just the last 10 maintenance events into account

- The application will accurately assign points as to whether the maintenance is early, on-time, late, or very late

- 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

Related User Stories

This user story is directly dependent on Service Log

App specific Features (Phase 2)

Certified/Uncertified Vehicles

CUV-1 Certify Vehicle

User Story

As an authenticated user, I can verify that my vehicle is real and mine by uploading official documents.

Background

To prove a Vehicle is owned by the user to gain Certified status.

Effort Points

55

Data Source

Origin = External

Type = API

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

AuthN = TBD

Origin = External

Type = API/Dataset

Details = https://www.nhtsa.gov/nhtsa-datasets-and-apis/

AuthN = TBD

Origin = Internal

Type = Data store

Details = VehicleVerification

App Permissions

Permission = Create

Scope = Certified/Uncertified Vehicle, Vehicle Profile

Target Audience

Any authenticated user wanting to verify their vehicle status

Pre Conditions

1. User must have at least one uncertified vehicle profile

2. User must be viewing the Vehicle Profile that they want to certify

Required User Inputs

- Vehicle Document

  - File provided must be in one of these formats: JPEG, TIFF, GIF, GMP, PNG, or

    PDF

- User Verification

- After the document has been read, the user will need to verify that the computer-read information is correct

Pass Requirements

- The information on the documents can be read

- The information read from the documents is correct and verified by the user

- Users get a confirmation that their file(s) have been read properly and their car has been certified

- Vehicle Profile is updated to being Certified

Fail Requirements

- The information on the documents cannot be read

- The user did not verify that the information from the documents are correct

  - The user rejected the information read from the documents, deeming them incorrect

  - The user did not verify the information the documents within 5 minutes of asking for verification

- Confirmation is not sent correctly

  - Confirmation is sent with the files not being read properly

  - Confirmation is not sent when the files were read properly

- Vehicle Profile is not updated correctly

  - Vehicle profile is updated to Certified when it should not have

  - Vehicle profile is not updated to Certified when it should have

  - Wrong vehicle profile is updated

- Dependent on VP - 1 due to the user needing a Vehicle Profile.

CUV-2 Certify Service Log

User Story

      As an authenticated user, I can verify that the maintenance done to my vehicle is accurate and up to spec via the receipts given by dealerships, mechanics, and/or products I buy. As I use this feature, it should update my car's health ranking as well.

Background

      To certify that the maintenance done on a Vehicle is true and correct.

Effort Points

      55

Data Source

      Origin = Internal

      Type = Database

      Details = ServiceLogVerification

      Origin = External

      Type = API

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

App Permissions

      Permissions = Create

      Scope = Certified/Uncertified Vehicles, Service Log, Car Health Ranking

Target Audience

Any authenticated user wanting to verify their vehicle status and increase their car health ranking.

Pre Conditions

1. User must have at least one uncertified vehicle profile

2. Selected vehicle must have items in the Vehicle Service Log

3. User must be viewing the item in Vehicle Service Log that they want to certify

User Input

● Receipt Documents

○ File provided must be in one of these formats: JPEG, TIFF, GIF, GMP, PNG, or PDF

● User Verification

○ After the document has been read, the user will need to verify that the computer-read information is correct

Pass Requirements

1. The information on the documents can be read

2. The information read from the documents is correct and verified by the user

3. Users get a confirmation that their file(s) have been read properly and their service log has been certified

4. Vehicle Service Log item is updated to being Certified

5. Their Vehicle Health Rating adjusts appropriately

Fail Requirements

1. The information on the documents cannot be read

2. The user did not verify that the information from the documents are correct

   ○ The user rejected the information read from the documents, deeming them incorrect

   ○ The user did not verify the information the documents within 5 minutes of asking for verification

3. Confirmation is not sent correctly

   ○ Confirmation is sent with the files not being read properly

   ○ Confirmation is not sent when the files were read properly

4. Vehicle Service Log is not updated correctly

   ○ Vehicle Service Log item is updated to Certified when it should not have

   ○ Vehicle Service Log is not updated to Certified when it should have

   ○ Wrong item in Vehicle Service Log is updated

5. Vehicle Health Rating is not adjusted correctly

   ○ Vehicle Health Rating has no rating change

<u>Related User Stories</u>

● Dependent on VP-1 due to the user needing a Vehicle Profile.

● Dependent on SL-5 since it requires the user to be on the service log page to verify their vehicle's service log.

● Dependent on CHR-2 since it adjusts the car's health ranking based on the certification of the service log.

User Directions

UD-1 Seller Directions

<u>User Story</u>

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.

<u>Background</u>

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

<u>Effort Points</u>

34

<u>Data Source</u>

Origin = External

Type = Google Maps API

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

AuthN = TBD

<u>App Permissions</u>

Permission = Create

Scope = User Directions

<u>Target Audience</u>

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

<u>Pre Conditions</u>

1. Must have bought/rented a vehicle or bought a vehicle part

2. Must be in the user directions feature

<u>User Input</u>

None

<u>Pass Requirements</u>

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

<u>Fail Requirements</u>

● Directions took longer than 3 seconds to display

   ○ Time taken will be logged

● Directions are given outside Orange County and Los Angeles County

   ○ Will display that the route is outside Orange County and Los Angeles County

● The wrong directions are given

   ○ User is able to reselect or edit the address to get the right directions

<u>Related User Stories</u>

This user story is related to VPM-5 since it requires the user to send a request first so that seller can confirm it and the address is given to the buyer.

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.

<u>Background</u>

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

<u>Effort Points</u>

34

<u>Data Source</u>

Origin = External

Type = Google Maps API

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

AuthN = TBD

<u>App Permissions</u>

Permission = Retrieve

Scope = UserDirections

<u>Target Audience</u>

Authenticated users who want to locate a dealership

<u>Pre Conditions</u>

1. The dealership must have an account in order to show on the map

2. Must be on the User Direction feature

<u>User Input</u>

None

<u>Pass Requirements</u>

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

    ○ Refreshing does not alter the route

<u>Fail Requirements</u>

● Directions took longer than 3 seconds to display

    ○ Error will be logged

● The dealerships took longer than 3 seconds to display on the map

    ○ Error will be logged

● Dealerships with no accounts are also displayed

    ○ Should not be able to get the directions

● Dealerships are displayed outside of Orange County or Los Angeles County

    ○ The map is only able to zoom out within Orange County or Los Angeles County

● Given the wrong directions to a dealership, a user didn't choose

    ○ User is able to retry to get directions

<u>Related User Stories</u>

This user story will be related to User management UM-1 so that it will be able to identify all the Vendors or Renters who are also dealerships so that they show up on the map.

Inventory/Fleet Management

IFM-1 View Vendor Dashboard (Vendor)

User Story

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

Background

 Allow Vendor user type to have entire catalog of cars organized under categories for easier viewing

Effort Points

 55

Data Source

 Origin = Internal

 Type = Database

 Scope = Vehicle Profiles

App Permissions

 Permission = View

 Scope = Vendor Dashboard

Target Audience

 Vendor user types for handling their catalog of Vehicles Profiles.

Pre Conditions

1. Must be an Vendor user type

2. Must have at least one Vehicle Profile

<u>Required User Inputs</u>

None

<u>Pass Requirements</u>

- Dashboard must generate all Vendors Vehicle Profiles

    - Maximum Vehicle Profiles is 600 profiles per Vendor user type

- Dashboard must generate all vendors Vehicle profiles within 3 seconds

- Generates dashboard with every Vendors Vehicle Profile sectioned into 3 status categories

    - Listed for sale

    - Needs Service

    - Unassigned

- Each Vehicle profile must display the following 5 parameters:

    - Status of Vehicle Profile

    - VIN

    - Make

    - Model

    - Color

- If a Vehicle Profile is sectioned into the Listed for sale status, the Vehicle profile must display:

    - Current listed price

    - Number of inquiry requests for Vehicle profile

- If a Vehicle Profile is sectioned in the Needs Service status, the Vehicle profile must display:

- ○ No additional content

- If a Vehicle Profile is sectioned in the Unassigned status, the Vehicle profile must display:

  - ○ Warning message that Vehicle has not been assigned a status

<u>Fail Requirements</u>

- Dashboard doesn't generate all Vendors Vehicle Profiles

  - ○ Error

- Dashboard doesn't generate results within 3 seconds

  - ○ Error

- Dashboard doesn't generate Vendors Vehicle Profiles into 3 separate status categories

  - ○ Erro

- Vehicle Profiles don't display the 5 required parameters

  - ○ Error

- Listed in "Listed for Sale" category, but doesn't display the listed parameters

  - ○ Error

- Listed in "Needs Service" category, but displays additional content

  - ○ Error

- Listed in "Unassigned" category, but doesn't display warning message

  - ○ Error

<u>Related User Stories</u>

Dependent on VP - 1 since Vendor needs at least one Vehicle profile.

Dependent on VPM - 1 since Vendor needs to know if Vehicle Profile is listed for sale.

IFM-2 View Rental Dashboard (Renter)

User Story

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

Background

       Allow Renter user types to better control their Rental Fleet by sectioning Vehicles based on their status.

Effort Points

Data Source

       Origin = Internal

       Type = Database

       Scope = Vehicle Profiles

App Permissions

       Permission = View

       Scope = Rental Dashboard

Target Audience

       Rental user types accessing entire catalog of Vehicle profiles and fleet

Pre Conditions

1. Must be an Vendor user type

2. Must have at least one Vehicle Profile

Required User Inputs

       None

Pass Requirements

- Dashboard must generate all Rental Fleets Vehicle Profiles

    - Maximum Vehicle Profiles is 600 profiles per Vendor user type

- Dashboard must generate all Rental Fleets Vehicle profiles within 3 seconds

- Generates dashboard with every Rental Fleets Vehicle Profile sectioned into 3 status categories

    - Ready to Rent

    - Out of Fleet

    - Currently being Rented

- Each Vehicle profile must display the following 5 parameters:

    - Status of Vehicle Profile according to 4 status categories

    - VIN

    - Make

    - Model

    - Color

- If a Vehicle Profile is sectioned into the Ready to Rent status, the Vehicle profile must display:

    - description

- If a Vehicle Profile is sectioned in the Out of fleet status, the Vehicle profile must display:

    - Description

- If a Vehicle Profile is sectioned in the Currently being Rented status, the Vehicle profile must display:

    - Description

-

<u>Fail Requirements</u>

- Dashboard doesn't generate all Vendors Vehicle Profiles

  - Error

- Dashboard doesn't generate results within 3 seconds

  - Error

- Dashboard doesn't generate Rental Fleets Vehicle Profiles into 4 separate status categories

  - Erro

- Vehicle Profiles don't display the 5 required parameters

  - Error

- Listed in "Ready to Rent" category, but doesn't display the listed parameters

  - Error

- Listed in "Currently being Rented" category, but displays additional content

  - Error

- Listed in "Out of Fleet" category, but doesn't display warning message

  - Error

<u>Related User Stories</u>

Dependent on VP - 1 since Vendor needs at least one Vehicle profile.

Car Recommendations and Comparisons

CRC-1 Information gathering from series of questions

User Story

Authenticated users will be prompted with a series of questions and this input will be logged for determining the type of vehicle that user wants.

Background

In order for us to accurately recommend Vehicles, we will ask users a series of questions to recommend them a Vehicle.

Effort Points

55

Data Source

Origin = Internal

Type = Database

Details = ForSale

App Permissions

Permission = Search

Scope = Buy Vehicle

Target Audience

Any authenticated user.

Pre Conditions

1. You must be logged in

2. You must be in the "Vehicle Marketplace" feature view

<u>User Input</u>

Required User Input

- The price range of vehicles they are looking for

- Choose one of these options for vehicle's purpose:

    ○ Daily Drive

    ○ Family

    ○ Business

    ○ Fun car

Optional User Input

- Number of seats on the vehicle

    ○ Range of values allowed from 1 to 10

- Color of the vehicle

    ○ Must be within 0 - 100 characters

- Large or small trunk space

    ○ Must be within 0 - 100 characters

<u>Pass Requirements</u>

1. Questions are prompted to user along with editable input fields

2. User provides valid information

    - User is redirect to a loading screen with a message "Please wait"

    - This information will be log by the system:

        ○ User's input is logged by the system

        ○ Timestamp of the operation

<u>Fail Requirements</u>

- Questions are not prompted to users

  - Application will redirect user to the last functional page

  - This information will be log:

    - Error type

    - Time stamp

- Take longer than 3 seconds to log user's input

  - Application should continue to function normally

  - This information will be log:

    - Error type

    - Time stamp

- Table are not created to store user's input

  - Application will display database error and redirect user to the last functional

    page

  - This information will be log:

    - Error type

    - Time stamp

- User's input are invalid

  - Application will display a message to tell user to enter valid input

  - This information will be log:

    - Error type

    - Time stamp

<u>Related User Stories</u>

N/A

CRC-2 Gathering vehicles that meet requirements

User Story

>   The application will search for vehicles that meet the user's answers from multiple APIs.

Background

>   Based on the questions given from CRC - 1, CRC - 2 will calculate and recommend

Vehicles on the input they have given.

Effort Points

>   55

Data Source

>   Origin = External

>   Type = API

>   Details = "https://vehicledatabases.com/vehicle-specifications-api" and

"https://www.goodcarbadcar.net/".

>   Authentication =

App Permissions

>   Permission = Search

>   Scope = Buy Vehicle

Target Audience

>   Any authenticated user.

Pre Conditions

1.   User must have provided valid input to the questions prompted by the application

<u>User Input</u>

N/A

<u>Pass Requirements</u>

- Application retrieves information on vehicles that meet the requirements

- Applications success in information retrieval in 5 seconds

- These information will be log by the system:

  - Vehicles' detail received from APIs

  - Timestamp of the operation

<u>Fail Requirements</u>

- Application does not retrieve any information

  - Application redirect user to the last functional page while display message of API errors

  - This information will be log:

    - Error type

    - Time stamp

- Application retrieved information but does not meet users' requirement

  - Application should continue to function normally

  - This information will be log:

    - Error type

    - Time stamp

- Application takes longer than 5 seconds to retrieve information

  - Application should continue to function normally

  - This information will be log:

    - Error type

■ Time stamp

<u>Related User Stories</u>

- CRC-1 Information gathering from series of questions

CRC-3 Displaying recommended vehicles

<u>User Story</u>

The application will display all the vehicles that it found match the requirements

provided by users.

<u>Background</u>

Allows users to have visual representation of all the cars recommended to them based on

the input they gave.

<u>Effort Points</u>

55

<u>Data Source</u>

Origin = External

Type = API

Details = "https://vehicledatabases.com/vehicle-specifications-api" and

"https://www.goodcarbadcar.net/".

Authentication =

<u>App Permissions</u>

Permission = Search

Scope = Buy Vehicle

<u>Target Audience</u>

Any authenticated user.

<u>Pre Conditions</u>

1. User must have provided valid input to the questions prompted by the application

2. Number of vehicles gathered by the application that meets the requirements are more than 0

<u>User Input</u>

N/A

<u>Pass Requirements</u>

- All vehicles that meet the requirements are displayed within 5 seconds
- Displayed vehicles should include the all of these listed information:
  - Vehicle image (if applicable)
  - Vehicle name
  - Vehicle's Model and Trim level
  - Vehicle's Year
  - Vehicle asking price
  - 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

- Displayed vehicles do not meet requirement provided by user

- Vehicles takes more than 5 seconds to display

- Displayed vehicles do not have enough information

Related User Stories

- CRC-1 Information gathering from series of questions

- CRC-2 Gathering vehicles that meet requirements

Dealership Support

DS-1 Find Dealership

User Story

    As an authenticated user, I can find dealerships associated with my Vehicle make in order to contact me for further communication.

Background

    Allows users to contact dealerships for receiving maintenance or for parts for your specific Vehicle make.

Effort Points

    32

Data Source

    Origin = Internal

    Type = Database

    Details = Dealerships

    Origin = Internal

Type = Database

Details = Zipcodes

App Permissions

Permission = View/ Search

Scope = Dealership Support

Target Audience

Authenticated Users looking for service or parts from an official dealership

Pre Conditions

1. Must have a Vehicle Profile

Required User Inputs

- Make of Vehicle

  ○ Will be pulled from Vehicle Profile information

- Zip Code

  ○ Must be a valid zip code in LA and OC county

    ■ LA county :

    https://geohub.lacity.org/datasets/71b2fed2c1f24fc8850f5b7f8d2a320a/explore

    ■ OC county :

    https://www.ciclt.net/sn/clt/capitolimpact/gw_ziplist.aspx?FIPS=06059

  ○ Must be strictly 5 digit value

Pass Requirements

- Must generate at most 10 results for one page

- Results must be ordered closest to zip code to farthest

- Must display the following information of the dealership:

  - Address

  - City

  - State

  - Zip Code

  - Phone number

  - Website

Fail Requirements

- Make of Vehicle is unable to be entered from Vehicle Profile

- Not a valid zip code in LA and OC county

- Must be 5 digit value zip code

Related User Stories

- Dependent on VP - 1, The user needs a Vehicle profile to access dealership support