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Project Proposal	MotoMoto
Team Name	The New Panelists
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Goals

Main Goals

- Provide a consolidated platform of car builds, parts, events, and interaction.
- Offer part compatibility features to lessen user's time spent.
- Assist users in price analyses and finding popular parts.
- Help users connect with other users interested in similar products or events.

Audience

MotoMoto is intended for everyone interested in cars. Users seeking affordable prices, compatible parts, or car build advice will especially find it advantageous.

Pain Points

- **How do I know if a part is compatible with my vehicle?**
    - MotoMoto solves compatibility issues with community interactivity. We take advantage of multiple projects using the same part and user warning flags to label whether a part can be marked as compatible or not compatible.
- **Is there an easier way to share my specific parts and associated market analyses?**
    - MotoMoto allows users to share their car builds with a list of products directly linking to sites where others can purchase them based on market analyses. Such posts are also displayed with product popularity, price graphing trends, and part comparisons and compatibility.
- **How can I learn about cars from people in my community?**
    - There are many people who are interested in cars but, have nowhere to start or no one in their life to help them. Our app provides them a central location to learn and build on their knowledge of cars and car modifications from users with similar interests.
- **Where do I find a central hub for all car events in my area or car builds?**
    - MotoMoto provides a feed for users desiring convenient event discovery based on their specific interests, owned vehicle list, and filters.

Product Overview

Description

MotoMoto is a motor vehicle-centric application that promotes community, education, and products for every car enthusiast. There is currently no outlet for car building, modification part compatibility warning, or interactive car build descriptions. MotoMoto offers all of this and gives users the chance to virtually build cars from the ground-up and become involved in community features such as: interactive vehicle build posts, meetup events, comments and ratings. Users will learn from other users on how they can start their own build and what parts to use with the ability to browse build lists, check for compatibility, and purchase affordable parts, all in one place.

Use Cases

- Like, Comment, Share car builds
- Learn how to build a car based on interactive parts lists
- Gain inspiration from other users car builds
- Automatic check for car part compatibility
- Find quality parts at an affordable price
- Analyze parts prices and compare parts specs
- Explore in one place for car events based on location and interests

Value

What Users Need

MotoMoto creates a platform for every car enthusiast's needs, something not currently seen in the market. One possible competing website: Wheelwell. Wheelwell is similar in that you are able to look up parts that are compatible to your specific car make and model, however, it largely lacks the community thread we plan to implement into our system. MotoMoto will not be a part supplier website but an application to remove the stress of having to find a link to a compatible car part for the best prices. Compatibility will be tested using our flag system which will allow a user to determine whether parts within their list are incompatible with their build. MotoMoto allows users to build a list of modifications and reviews if they are compatible in relation to each other enabling a ground-up design of a vehicle.

Another item that sets us apart is our community where car enthusiasts are able to post their build with a parts list of items they used and an associated price graph of each individual part and the cost of the build as a whole. Optionally users can list tutorials of how exactly they pieced together each part and community members can like, comment, and share.

Investment Opportunities

MotoMoto gives companies who make and sell car parts an amazing opportunity to advertise their products on an application with paying customers.

Our product has the most room to expand as it can be applied to not only cars but all motor vehicles (i.e. motorcycles, dirtbikes, etc). Allowing for more investment opportunities.

Feature List

Unique Features

1. **Community Board** - The Community Board will contain prevalent information to the user. This will allow users to post, subscribe, and explore car builds and user accounts of different topics.
   a. Community boards will be updated upon new posts in them.
   b. Community boards consist of posts related by topics and users may explore community boards that appeal to their interests.
      i. Users may select from the list of available communities to view the posts within.
         - Community topics include, but are not limited to, supercars, lowriders, and sleepers.
      ii. Subscriptions made in these community boards will show new posts or updates on a user's main feed.
   c. Information on user's subscriptions will be contained in the main feed.
      i. More detail provided in Main Feed (Pg. 5).
   d. Community boards will allow users to comment and upvote on posts.
      i. Comments will range from 1 character to 1000 character limit.
      ii. Users are limited to one upvote per post.
   e. User or Event Profiles can be subscribed to.
      i. Users may subscribe to a profile to see new posts released by the subscribed profile.
      ii. Users can only subscribe to one profile at a time and is not limited to a number of subscriptions.
      iii. Notifications will be set in-app for users to be notified on specific profiles.
         I. More detail provided in Notification System (Pg. 10).

Feature List continued...

1. **Community Board: Main Feed** - This section will contain information according to user subscriptions.
    i.   Main feed will be updated upon new subscription posts.
    c.   The feed will present user account and car builds of which users have subscribed to.
        i.   If no subscriptions were made (i.e. new user) then the feed will contain posts of highest popularity based on upvotes.
        ii. Available subscriptions are for user accounts and parts for the purpose of receiving notifications and updates to their feed.
            -   User accounts can be subscribed to by selecting the profile and selecting the subscribe button.
            -   Parts can be subscribed to by selecting them in the parts lists of posts and selecting the subscribe button.
    d.   Users will be able to place upvotes and be able to comment on their favorite car builds.
        i.   Each comment posted on a car build or user posts can range from a minimum of 1 character to 1000 characters
        ii. Users will be able to comment multiple of times if they exceed the 1000 character limit.
    e.   Posts will contain the user profile picture, title for the subject matter, preview of the description, related topics, and upvotes.
    f.   Posts can be selected to reveal more information.
        i.   Posts contain the following information:
            I.   An image(s) of the car and part or modification.
                -   All uploaded images will be converted to a jpeg image and must not exceed 1MB as a jpeg image.
            II.   Full description including a parts lists with interactive links and an estimated cost given the parts lists.
                -   More details provided on parts list and estimated cost in Part Price Analysis (Pg. 9).
            III. Comments made by other users.
            IV.   Compatibility flags used to alert users of specific parts.
                -   More details provided on Part Flagging feature (Pg. 7).

Feature List continued...

2. **Car Builder** - The Car Builder allows a user to select their vehicle by VIN number or stock vehicle, consisting of all original manufacturer parts, and customize it with OEM or Aftermarket parts.
    a. When the user enters the Car Builder, they are presented with two vehicle options to start with: input an owned vehicle or select a stock vehicle.
        i. The user selects an owned vehicle by inputting the VIN of the vehicle or selects a stock vehicle by inputting the make, model, and year.
            - The inputted information is accessed by our data sources (Pg. 12).
        ii. A stock vehicle is the base version of an original car model where no modifications exist.
            - Stock vehicles will include popular brands on the car market but not limited to Honda, Toyota, Mazda, Nissan, Chevy, Jeep, Chrysler, Cadillac.
            - Stock vehicles are imported to and sold legally in the U.S. and are present in our data sources (Pg. 12).
    b. Users may begin customization on a modification page with their select vehicle where a list of all current parts will be listed.
        i. Each item on the list will consist of main components of the vehicle
            - Sub-lists will be in a tab under a main component to select or exchange a specific part.
    c. Once a user is completed with their car build or they would like to move onto a new type of car build, they can either save or discard the custom vehicle.
        i. Users will be able to save as many builds as they want.
            - The car model and modified parts list will be saved to our database.
        ii. Each car build will have a subtotal price of all modified parts and breakdown of all current prices for each part so the user has a rough estimate on what the cost will be.

Feature List continued…

3. **Part Flagging** - Flags are indicators of modification compatibility and only appear as suggestions to the user in the Car Builder customizing session or car build posts.
   a. Flags are tagged onto modifications relative to the selected vehicle and have labels: Compatible and Non-Recommended.
      i. The Compatible label means that a part, OEM or Aftermarket, is manufactured to be installed with the selected car.
      ii. The Non-Recommended label means that a part is considered potentially incompatible which we do not recommend purchasing.
         - This label includes interactable user vehicle posts that contain the part, user reviews, and ratings.
   b. When users put incompatible parts into their online build, they are notified with a warning that their part is not recommended for their selected vehicle.
      i. Flags when selected here will present vehicle posts, user reviews, and ratings related to the part.
         - Ratings are upvotes from other users excluding the posting user.
   c. When users view car build posts, flags may appear in the parts lists set by the posting user.
      i. Flags when selected here will present a review set by the specific user in view and a rating based on other users' upvotes.
      ii. The flag database will update upon every new flag set given that a user provides the necessary information:
         - Car build post, part listed in the parts list, and short review regarding installation.
         - Shorts reviews must be within minimum 1 and maximum 1000 characters.
   d. Registered users can place new flags on parts that are incompatible.
      i. Flags for a specific part will be accessible when a users posts a public car build with a brand specific part.
      ii. Flags' credibility are improved by part assembly in vehicle posts, user reviews, and ratings.
         - When a user selects a flag on a part, they will be provided with the information above.

Feature List continued...

4. **Event List** - This section contains all events being hosted in a specified area. Users can select events to view details about them or to register to them to attend.
   a. Event list will be updated once in the beginning of the week and once in the middle of the week.
   b. Event posts will contain the host user's username, event title, description, location, time, and date.
      i. Selecting the post will expand details and reveal a register button for which a logged in user can confirm or cancel their intention of attending an event.
      ii. Address, City, State, and Zip code will be provided.
      iii. Description for event hosts to provide rules or any stipulations regarding attending the event itself.
   c. When users access the Event Feed they will be prompted to input a zip code to discover events in that area.
      i. Or the user can search for specific events by event title or event account.
   d. Users may input filters such as:
      i. Most popular based on upvotes, car type, new or old based on time of post, radial distance relative to the zip code, and date intervals.
         - Only upcoming events, or increasing order of time until the event starts, will be shown in the feed if no filters are set.
         - Radius filter limits the events shown. Minimum 5 mile distance and maximum distance can be set by the user.
   e. Users can create events by creating an event account.
      i. Event Account users can only post events and update their events.
         - Each event post requires the following: event title, location, time, and date.
         - A target audience is recommended to include, but not required.
         - An image of the event flyer can also be posted, but not required.
         - All uploaded images will be converted to a jpeg image and must not exceed 1MB as a jpeg image.
      ii. An Event Account is limited to one event post per day.
   f. After posting events, Event Account users can view their event's register activity.
      i. Activity includes all users that have registered for the event and when a new registered user appears.

Feature List continued...

5. **Part Price Analysis** - The Part Price Analysis will be a page that gives detailed price points (in USD) and a price graph of an brand specific part where comparisons are made from vendors who sell the same part.
    a. Updates on new part prices will be updated accordingly based on our affiliate program data sources (Pg. 12).
        i. Users may subscribe to a part to be notified of these updates.
            - More details provided in Notification System (Pg. 10).
    b. Part Comparison allows users to compare different brand specific parts.
        i. Prices can be ordered by lowest price to highest price or ratings.
            - Prices listed will be determined by the current lowest price of a brand specific part (prices will be listed by USD).
            - Ratings will determined by upvotes .
    c. Exact parts can be located either on the main feed, Car Builder, or parts lists.
        i. All picture icons of a specific part will have the ability to be selected by the user to view price table comparison and price graph.
        ii. Not every single part will have the same number of vendors.
    d. Price Table: Part price page will have a table where each vendors price is listed and compared so users can pick the link to where they'd like to buy from.
        i. Every vendor will have selectable icons that will link a user to the part to purchase (links will be embedded with vendors icons).
            - Part prices will be sorted on the table from lowest to highest where linked icons will be available for users next to prices.
        ii. The table will have all our current vendors and the parts price.
            - Users can compare the brand specific part prices with our vendors while also being able to source the best price.
    e. Price Graph: Product price page will also contain a line graph that has all vendors and their price of the brand specific part over the past 6 months
        i. Graph will illustrate price competition of our vendors and represent the price over time.
        ii. Users will be able to hover over a vendors line on the graph to see price points of previous or current prices of the item itself.
            - Each graph will be updated simultaneously with the table.

Feature List continued...

6. **Notification System** - The Notification System will notify users on any subscription activity inside and outside the application depending on the type of notification.
   a. Notifications are divided into two categories:
      i. In-Application (in-app) which notify users when logged in the application upon new subscription activity specified below.
      ii. Email (out-app) which notify users when logged out of the application and are sent via email services upon event activity specified below.
         - Potential email services include, but are not limited to: SendinBlue and Omnisend.
   b. In-app notifications will be sent to a virtual inbox within the application and will consist of all subscription activity:
      i. Price drops of a subscribed part.
      ii. New posts or events from a subscribed account.
      iii. Upcoming registered events based on date.
      iv. Updates to a registered event details.
   c. An in-app notification will contain:
      i. A message allowing the user to understand the reason of notifying.
      ii. A notification summary of each subscribed activity or accounts.
         - Every summary will present the type of activity, user profile name, and date of occurrence.
         - When a summary is selected the user will be redirected to the origin of the notification (e.g. a part price drop will redirect to the part in Part Price Analysis).
   d. Out-app notifications will be sent to a user's email inbox that was used during sign-up and may consist of all or some of the following subscription activity:
      i. New events posted by a subscribed event account.
      ii. Upcoming registered events based on closeness to the date of event.
      iii. Updates for a registered event if event details are changed.
   e. An out-app notification email will contain:
      i. A notification summary of each subscribed event activity.
         - Every summary will present the type of activity, event, and date of occurrence.
         - If changes to the event were made, the summary will present the new post and a link redirecting to the specific post.
         - A button linking to the application.
         - May contain a electronic flyer for the event but will always not be the case
      ii. Unsubscribe option.
   f. If an event has already passed, then users will not receive any new information on a former event.
      i. Notification of an event will stop the day it starts to ensure that users will no longer receive notifications once an event has past.

Feature List continued...

Alternative Features

1. **3D Modeling** - Allows account holding users to view a 3D version of a vehicle or part to get a realized visualization of possible builds.
    a. Exact Parts can be located either on Main Feed, Car Builder, and parts lists.
    b. All picture icons of a specific part will have the ability to be selected by the user to view the 3D rendering of the part.
        i. All parts will be able to be scaled and can spin to get an idea of what the part(s) actually look like.
2. **Smart Part Recommendation** - This feature will notify a user if a a co-existing part is missing in which an A.I. will generate possible substitutes to fill the role of the missing part in the car build.
    a. Registered users can place new flags on parts that are incompatible
        i. Flags for a specific part will be accessible when a users posts a public car build with a brand specific part.
    b. There will exist two different types of flags for and modification flags. Co-Existing Labels: Compatible, Not Compatible
        i. Indicates if a new part that is added on a specified vehicle build is missing a part that must coexist with the main part (e.g. An added Rim that has different lug nuts than the original can have different size lug nuts).
        ii. Our system will recommend new parts that complement the newly added part as all original manufactured parts are replaced.
    c. Modification Flags are verified by part assembly in vehicle posts, user reviews, and ratings. Warning flags do not prevent users from selecting parts.
    d. When users input incompatible parts into their online build, they are notified with a warning that their part is not compatible with their car make/model.

Obstacles & Solutions

Information Gathering

Vehicle/part data will be automatically imported to this application once a week from the following sources:

Source Name	Website Hyperlinks	OEM	Aftermarket	Status
Web Scraping	-	✓	✓	Temporary
NHTSA (Gov)	NHTSA	✓		Awaiting Approval
CarMD	CarMD	✓		Awaiting Approval
Amazon Services LLC Associates Program	Amazon	✓	✓	Awaiting Approval
Autozone Affiliate Program	Autozone	✓	✓	Awaiting Approval
Demon-tweeks Affiliate Program	Demon		✓	Awaiting Approval
Jegs Affiliate Marketing Program	Jegs		✓	Awaiting Approval

Vision

Expanding the Product

MotoMoto has the potential to expand its core component of community into various vehicle communities. This can be done by supporting more vehicle types such as motorcycles, boats, and planes. MotoMoto would expand into these communities offering an extremely diverse platform that centralizes modification, building inquiries, advice, and parts lists. Consequently, the vehicle builder, event hosting system, and compatibility systems will improve thanks to large community interactivity allowing niche interests and parts to be more prevalent than before. MotoMoto will facilitate a larger network of vehicle enthusiasts to entice more companies to join the moto scene and advertise their products. MotoMoto will unify users of all types for the purpose of teaching, learning, and inspiring in a community.