CUSTOM API FROM SCRATCH

Project Context

Using all of the skills you've developed over the last two trimesters, you're going to team up with a partner in creating your very own API from start to finish. You'll develop a design, narrow down what should be in your MVP (minimum viable product), and work together as a team to bring your idea to life. You have a limited number of days to work on this project, so be sure to keep your scope reasonable for you and your team.

Challenge

There is one rule that must be followed…your application must follow the theme, *"What's Outside?".* You and your team are free to interpret that in any way you see fit (keep it Safe For Work, though)!

Manual Review

When manually reviewing your peers, have them share with you (on their local computer) the API that they built. This will make reviewing easier than trying to set up their database and API on your local system. What this means when developing your API/database is to make sure that everything runs locally so that the manual review process is straightforward.

Final Note

You are expected to have this project run locally on your machine (or sandbox environment), but you are welcome to find a way to host this online for your own purposes (especially if you wish to share this with others). If you choose to host this online, there is definitely a free/cheap way to do so, so be sure to look at the tools you are interested in using and verify their functionality as well as pricing model. Many tools online have a free tier that would be more than sufficient for this project.

THEME: *What's Outside?*

* From ancient Roman mythology, Mercury was associated with being the roman God of speed

Writeup: I will be building an **application that hosts a luxury sports car auction**, providing users with the option to view selections available in the auction on the client side of the UI, and the functionality to be able to filter out what is available through the database that is connected to the API.

- ❖ This fits the theme because the sports car auction is held in an outdoor event space, and sports cars are driven outside.
- ❖ Tools likely to be used for API: MERN?...Express, Node.js, MongoDB
- ❖ For single page application: HTML, CSS, JavaScript, jQuery
- ❖ Expected to spend majority of allotted project time on the API development, and save outlining tasks, or allot time equivalent to one or two days for the others.
- ❖ API documentation will be listed in the README.md of the project.
- ❖ Database documentation: *below*

CUSTOM API FROM SCRATCH (UML Documentation)

Bree Browder | February 15, 2022
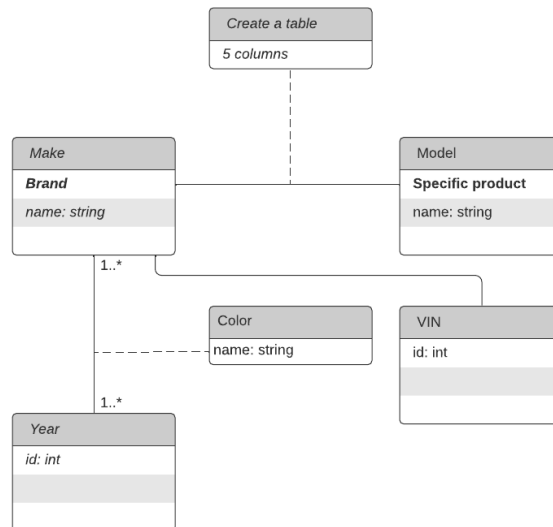

API must do the following:

- Authenticate users of your API
- Allow for pagination of data
- Allow for caching of data to reduce hits to your database when possible and improve responsiveness to your users

Your API must also implement one of the following features:

- Queuing systems (for long-running process on your server)
- Web sockets (two-way communication between client and server)

See low fidelity wireframes for UI below…

The idea behind this wireframe is that the single page application will include a navigation bar with simple elements such as "information", "about" "featured' and "contact". The hero will display a car selection and the user will be able to navigate just under the hero section to view "featured" cars from the auction, complete with make, model, year, color, and VIN number. This will be made possible with jQuery by using ajax requests that pull directly from the given URL of the API.
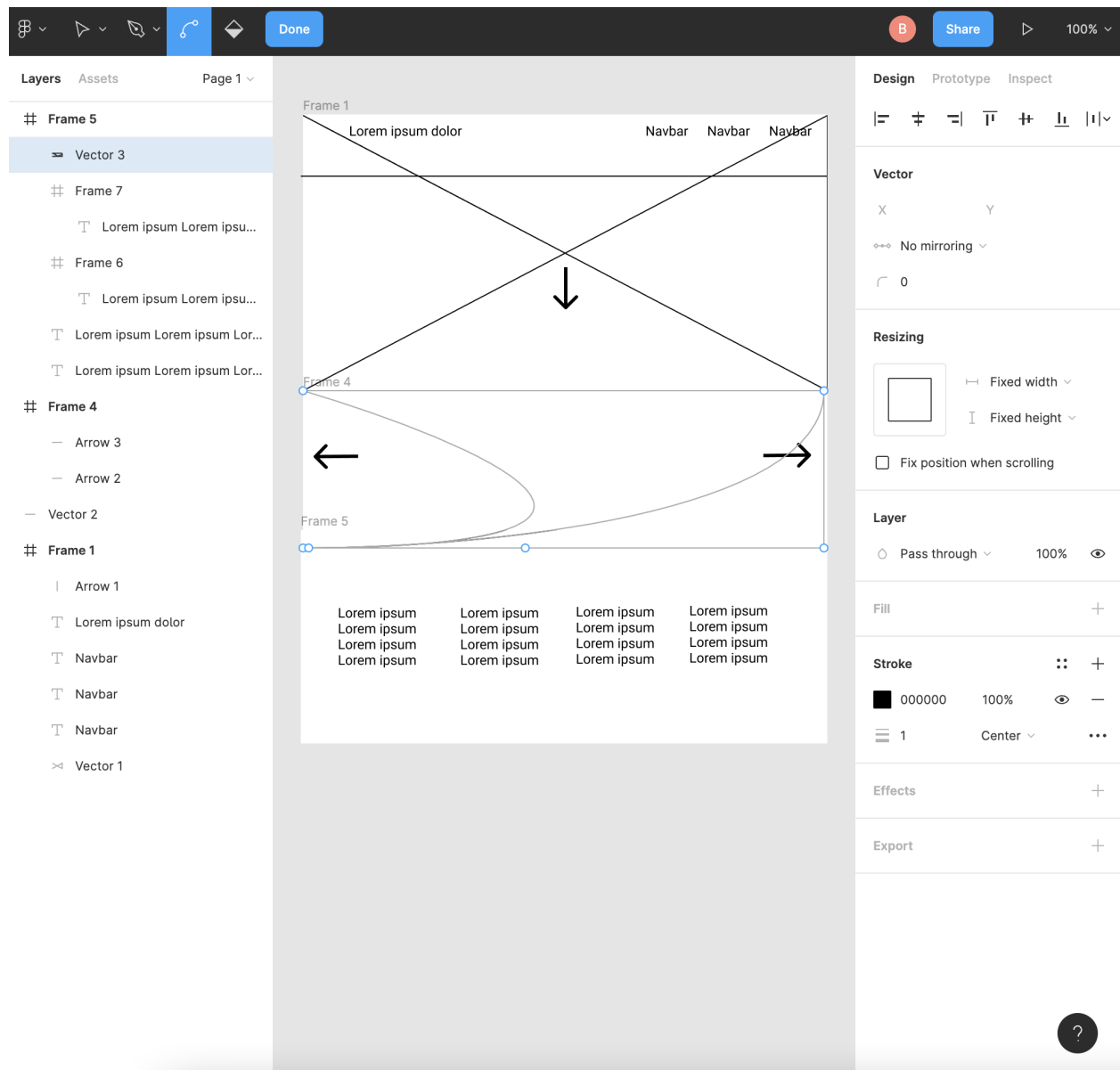
The single page application will include a gallery of inventory the user should expect to see auctioned off at the events. Inventory is inconsistent, and "changes" on a regular basis…but won't be reflected in the UI because no tool is implemented to update it. Include social media links/contact.

Drafts / Low Fidelity Mockup

Layers   Assets   Page 1

Frame 6
　　Vector 3
T   Social Media
○   Ellipse 5
○   Ellipse 4
○   Ellipse 3
○   Ellipse 1
—   Vector 2
Frame 4
T   Photo Gallery
▢   Rectangle 4
▢   Rectangle 3
▢   Rectangle 2
▢   Rectangle 1

Design   Prototype   Inspect

Background
E5E5E5   100%

Export   +

Frame 4

Photo
Gallery

Frame 6

Social Media