**Capstone: Initial project ideas**

**1.Mock Ecommerce website**

**-Main Features:**

**-**Backend

* Stores products api (made by me, seeded with mock data)
* Sql database
* Using express
* Models for search bar and enhanced filtering options
* Stores products of “customers” cart ,etc will be related to the user or sign up info associated
* Admin accounts will be able to manually add products and save to db, could also implement that we could use an external api for vehicle names and parts and also make our own listings or product boxes
* Users can make account with stored cart items
* Users can submit email or phone for alerts on deals etc
* Bycrpyt hashing and JWT token verification
* If necessary I will use the ShowMeTheParts api or a similar api , for the admin side of creating listings. To provide a search bar from Car parts api data to inputs to streamline the process of adding parts to the site dynamically through a form in the front end. Such as for Make,Model,Year and part number, name , a link and/or a price for the part. The only thing with this is that some products for offroading might not be on this API, but I would still use it for the select drop down in the inputs for Make,Model,Year of the vehicle the part is compatible with. It might be simpler and more efficient to leave the external API out of the picture for things like part number due to the availability of an API that has information about off-road oriented brand parts(unless I find one).

**-**Frontend

* Using react to display everything, such as product boxes and other components/elements
* Interacts with backend
* Stores necessary things to local storage

**Overall:**

**An immersive Off-road vehicle themed ecommerce website using Express,React,SQL etc with the abilities for employees to make admin accounts and add new products to backend from frontend. For customer users they will have the option to make an account to save products associated with that users cart and as well store to local storage in the sense that they did not make an account. Users will be able to navigate to all features through a navbar. These will be things like “cart”, “products page” , “Home”,”About us”,**

**“Sales/deals” etc. One of the most important implementations will be the advanced search options to search products manually , have plenty of filter options such as “search by vehicle make , type or model”,”search by type of part” and more.**

**I think it is pretty useful that employees with admin permissions will be able to add new products for users to choose from. The automated message notifications from users that send their info will also be a neat implementation in my opinion showcasing the ability to make an ecommerce site that is useful and will hold up to standard.Also the routes will for products will be full CRUD with admins being able to remove products , add and edit them. As far as handling payments go I do not know if i should implement this future , it might be a lot of work for something that people will not actually be buying things from at this time , I could leave the payments aspect out of it entirely for now or create a mock representation for payments.The main takeaway is that it will be a to standard ecommerce website for a specific type of product (offroad parts) where users can search and add to cart some of the top of the line products matching their off-road needs and much more.**

**Capstone: Initial project ideas**

**1.CRM and customer visit page for a construction company**

**-Main Features:**

**-**Backend

* Express,SQL,Javascript
* Stores customer info such as their phone numbers , address, Name , email or if they are a commercial company and not residential than have information stores such as .. company name , manager phone, email , address etc
* Admin accounts for employee
* Users can create an account or go without it, might not be a great idea to implement this for this sites purpose
* Stores product and price of product information
* Has a functional user side price estimate of service generator
* Has a functional employee side quote generator that will make an official quote for the customer - this information will all be tied together in our database for purposes such as seeing if customer has generated an estimated automated quote from our site, see quotes from our employees side to that customer as well
* Have the ability to SMS and email customers from our CRM and those will be saved.
* SQL will include things for tables such as quotes like , “followed\_up\_in\_person”, “followed\_up\_sms\_email” ,”purchased” etc. Things that would make sense.
* Another important aspect will be that our employees can add products to the quote generator with an associated price ,image, name, description that will be displayed for both customer quote generator forms and the employee/admin forms selection for their side of making quotes and saving them.
* The CRM will feature a fully functional and advanced system for filtering information by customers name,phone,sign up date etc, by date of quote , has generated quote, has quote , followed\_up(boolean) , by job type etc. And the ability for a search bar for this as well.
* Customers that are added to the crm from finding our website will be stored in crm as well as customers that employees manually add to the system by meeting in person etc. And will both be very useful and similar , a difference could be we have a check element in the table if customer info was submitted from our site or from an employee using our site with admin permissions.So the form on the customer UI part of this site ,for entering information such as phone email and name will be stored in the db, as well as the form for the employees side manually putting information in a form from their side(for in person customers).
* There will be routing and querying for lots of options with an interactive search/filter in the CRM , and also for other parts of this such as the items and services tables for the quote generator.

**-**Frontend

* React ,Javascript

-Frontend(continued)

* Nice detailed home page with images for a showcase, a nav bar with access to different parts of the site such as home, quotes, sign up,info, about and locations etc.
* Once a customer signs up with their email name and phone, they will be prompted to generate an estimated quote and or leave messages for questions that will be sent to the CRM customer - employee messages page. If they generate a quote they can also leave notes. These quotes will be associated with customers within the db so the information for the quote and associated data will be included in the CRM.
* Customers will not have the option to sign up for an **account** or send messages via the site, our employees can send SMS and email through the CRM but customers will contact on their convenient cell phone and/or email. Plus this fits the purpose, use and volume expected of this site.
* Since this is not a real company I will send a mock email of some type of verification for the email the customer entered into the sign up form as well as an advertisement.
* .Footer with contact info , other necessary links and information.
* A portal to the CRM sign up form ,for existing users they must match email first upon arrival to the portal before continuing with further required credentials form ( sign-in employees only). For employee account creations ,the admin on this site will have to type the employee email that is making the account to the invite table form.Employees will then have to be validated by their email in an input being matched in the invite table and than be prompted to a form if matched to type in email ,receiving a code for email/sms verification and typing it in the form input this verification code. Afterwards continuing with the sign up process with password first and last name etc.

**Overall:**

**A website for a construction company using React,Express,Javascript,HTML,CSS etc.**

**This website will feature a customer side page with a home page with logos of company, nav bar with links to things like “about us”, “contact”,”estimated quote”,”info” and more.**

**This page will have nice pictures of the company's employees at work, products and before and afters. The main feature from the front end of the users side is the ability to sign up with basic info in a form like first name , last name , email and phone to get alerts on deals,be reached out to by employee over SMS,phone call or email, and after signing this form will be able to auto generate a quote, this information the user submitted will be saved to the CRM along with info from the quote if they did generate one. Also will be indicators of how they followed up or if they ever followed up.**

**There will be a portal on the site for employees to navigate to the CRM , before I explain the CRM in detail I want to cover security concerns. The users will have to be allowed by the admin by email matching the email table that the admin put in the table called employee\_invites… a user will type their email in the form to match it, than will be brought to another form where they can verify email and phone number to continue with the process to make a password fill out there first and last name etc.**

**The CRM will store all customer information , be able to send sms and email through it to customers on a company email and phone number. A main importance of this is the features that will be there for filtering or sorting customer info, such as name, location , date , has followed up, no follow up , contacted in person or online, if they have a quote or not and whether that quote was made by an employee or a generated one via the website. There will be forms for employees to fill out customer info and quote info themselves and save to db if they are doing work in person and speaking to people.**

**Going back to the quote generator for both the customers auto quote and the employee one for them making it themselves ,there will be forms for adding new products and services they can choose from with associated prices and other information.**

**The main detail for this site will be focused on the customer page where they will be able to submit their info, generate quotes and that being saved to our CRM db… as well as products and services like explained previously and a nice looking home page for this.**

**The CRM part is the biggest part , where a company will store and sort , contact etc customers and uphold good relations with customers as well as streamlining the customer relation process and quote process.**