

# Car Finder Web Portal

## Team Members

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## Problem Statement

Due to the COVID-19 Pandemic, many small car dealerships have been unable to operate. Most have been permanently closed, while some have been able to see a few customers a day. However, most people do not want to leave their house out of fear of the pandemic. Additionally, these small dealerships are in to financial standing to afford a large-scale database system for their car sales lot. They do not need all the bells and whistles of a large-scale company database – they just need to sell cars.

This problem is interesting because it covers all of the database features. I will get to use multiple tables to keep track of cars, users, and admin. All data will be able to be edited by the appropriate user (user editing their info, admin adding/removing cars). The potential users for this program are people wishing to buy a car without leaving their home, a number that is exponentially growing day by day.

## Proposed Approach

To solve this problem, a number of services will be implemented together to form the final product. HTML/CSS will be used to build the basic web portal. JavaScript and PHP will be used to make the site more dynamic. MySQL will be used to create, insert, edit, and remove data from the tables. There will be multiple tables used: one to track registered users and their information, one to track cars, and possibly a few others depending on how the system grows and what needs are identified.

ER diagrams and modeling will be used to create the basic database schema. Once that design has been settled upon, the ER diagram will be converted to a relational model. This will be used to build out the database and proper tables required for operation.

## Functions Provided by Software

There will be a number of major functions. They are as follows:

- Add new user
  - A new user will be prompted to create a new account.
- Returning user login
  - Returning users will be prompted to login with their previously defined username and password. This will ping the database to get their username and password and verify them.
- Password verification
  - Upon creating a new account, the password must be entered twice and must match in order for the new account process to complete.
- Admin login
  - A special admin login page will be developed to allow admin to login and get access to special features/functionality.
- Car search
  - Once logged in, a user will be able to search the database for a car based on make, model, year, mileage, and possibly other factors like color or number of previous owners. This data will be displayed in a table on the page. This will require searching the database for cars that match the criteria.
- Editing user info
  - A user will be able to edit their saved personal information. This will require editing the database table at the proper index for their account.
- Admin editing cars
  - The admin will be able to add, remove, and edit the cars that are stored in the database.
- Admin removing users
  - The admin will be able to remove users in case of fraudulent or misuse incidents.

## Evaluation Plan

The metrics I will use for this project are that I would like for my portal to be fully functional. I will not focus heavily on the design (aka CSS and making it look pretty) heavily, I want to make sure the login/search features of the site function well. I think this is appropriate since this is what would be required of the website to function, it could be used once all of the features are working. While having CSS styling would be nice, it does not affect the functionality of the site and does not reflect ones knowledge of the database design and how MySQL works with HTML/Javascript/PHP.

## Bibliography

Valdes-Dapena, Peter. "Auto Dealers Are Closed. Sales Have Plunged. Online Sales Are Now the Industry's Best Hope." *CNN*, Cable News Network, 14 Apr. 2020, [www.cnn.com/2020/04/14/cars/online-car-shopping-coronavirus/index.html](http://www.cnn.com/2020/04/14/cars/online-car-shopping-coronavirus/index.html).

Boudette, Neal E. "Pandemic Forces Car Dealers to Do the Unthinkable: Sell Online." *The New York Times*, The New York Times, 29 May 2020, [www.nytimes.com/2020/05/29/business/car-dealers-sell-online-coronavirus.html](http://www.nytimes.com/2020/05/29/business/car-dealers-sell-online-coronavirus.html).

## Project Timeline

Date	Task
9/8/2020	Create ER diagram for database, figure out how to generate data
9/22/2020	Convert ER diagram to relational model, design basic web portal with HTML, generate small dataset
10/6/2020	Assemble and finalize interim report #1 for 10/10/2020 deadline, finalize relational model
10/20/2020	Create SQL queries for database, test with small dataset, begin implementing PHP into

	static HTML site, port to production site to test additionally
11/3/2020	Continue PHP development, generate large dataset for testing of SQL statements, finalize interim report #2 by 11/7/2020
11/17/2020	Test all aspects of site, make note of problem areas, work on fixing problems, polish site with CSS/JavaScript, port more finalized version to production site
12/1/2020	Finish error fixing, site polishing, ensure production site is up to date with test environment, finish final report by 12/3/2020

The final report is due December 3<sup>rd</sup>, 2020. There is a Final Report due, which includes the final production site being published and up to date with the test environment.