MIDTERM PROJECTS

The Midterm Project is an opportunity for bootcamp students to

- Begin to pull together a number of different things they've learned so far
- Work on a larger and more complicated case study than lab exercises as a prelude to the Final Project
- Collaborate with teammates on a software project, experiencing the need for proper documentation, and version control, and project management

Every student will participate in this project in an assigned group. The majority of 3 days will be committed to the project (although outside work may still be required) and there will be multiple check-ins during those days to make sure groups are on-track.

The entire group will work together on one of the three projects. Take a little time to decide which one you want to tackle, because once you get started you cannot move to another project!

Possible projects:
- Memory Game
- Point-Of-Sale Website
- Budget Buddy

See the following pages for more information on each project. Please recognize that the descriptions are minimum versions; it's hoped each group will go beyond these requirements and incorporate features of interest to them. **ALL CHOICES MUST BE MADE MOBILE FIRST AND MUST ALSO INCLUDE A DESKTOP LAYOUT.**

MEMORY GAME

We all remember the classic memory game where we had to choose two cards at a time to see if they match, right? Good! You're building this. At a minimum, this game should include:

- A game board that displays all of the current cards face down in a random order.
- A start button that will initiate the game.
- Cards must flip when the user clicks on them.
- If a pair of matching cards has been selected, remove the cards from the playing board after 3 seconds.
- If a pair of cards do not match, they should flip back to being face down after 3 seconds.
- Must include a reset button which will reset the game board

POS WEBSITE

(That stands for Point-Of-Sale, but what you think of your project is up to you.)

Write a cash register or self-service application for some type of consumer-driven business. Obvious choices include a small store, a coffee shop, or a fast food restaurant. At a minimum, this should include:

- A list of twelve products that have properties for: name, category, description, and price.
- Present a menu to the user and let them choose an item or items to purchase.
  - The item(s) the user will buy will be added to a cart until they are ready for checkout.
- Provide a way for the user to checkout and view their cart.
- Give the subtotal, sales tax, and the grand total.
- If the user is paying in cash, ask for the amount tendered and provide change.
- If the user is paying with a card, ask for the card number, expiration, and CVV.
- Provide a receipt for the payment which includes the item(s) bought, the subtotal, grand total, and anything else of interest.

BUDGET BUDDY

Create an application that allows users to enter their weekly budget and track how much is left based on their purchases throughout the week. At a minimum, this should include:

- Displaying the user's weekly budget which will be updated every time a new item is added to the list of purchased items.
- Allow the user to choose between four categories for each purchase.
  - Entertainment
  - Food
  - Clothing
  - Bills
- Must clearly indicate to the user how much money has been spent, which requires an easy-to-understand layout.
- The user should be able to see how much money is being spent on each of the four categories.
- If their budget is consumed within the week, they must be notified that they cannot purchase any more.