**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.