

## Week 1 & 2

Legal Age - Practices variables, print, and if else logic statements

Calculating Area - Practices doing calculations within code and variable calling

Blast Off - Practice using fixed variables and looping to simulate a very simple rocket blast-off

## Week 3

Carmax playground - This code creates a structured way to compare cars in a CarMax-like app by assigning a score based on user preferences, such as car type, fuel efficiency, and budget. It uses structs, arrays, and sorting functions to help users make informed decisions.

Zillow - This is similar to Carmax code, it reinforces the same concepts using structs, sorting, and arrays but in a different application

Splitwise - This project helped with working through the logic and reasoning behind splitwise. This helped reinforce the basics of structs and calculations through Swift.

## Week 4

4 Queen - this was mainly working out the logic of the 4 queens problem proposed in class. I learned how to use backtracking and inout to solve this problem.

Tic Tac Toe - This project focused on the logic of a tic tac toe game. It was a bit difficult working with a 3D array, but working through this project helped reinforce these principles

Home System - I did struggle quite a bit with last week's projects, so I decided to do a project similar to the Zillow home project to reinforce structs, classes, subclasses, etc.

## Week 5

CarMax Front end - Using the TicTacToe file we worked on in class, I emulated the same concepts using enums and structs for our Carmax problem. I did it within a basic playground at first, but I transferred it to an app playground after.

Color Picker - Same as above, I used this as a practice to get used to front-end coding. Using simple colors allowed me to focus solely on the user-facing screen.

## Week 6

4 Queens Logic - this is using the tic tac toe game view as a reference!! but applied to 4 queens' game. This means using a lot of similar logic when creating functions like `isSafe`, `placeQueen`, and `removeQueen`.

Rock Paper Scissor - This one utilizes the tic tac toe game as well but more so regarding each player taking turns. Going through the winning logic and outputting a message was also good practice.

## Week 7

TicTacToe - I tried my best to follow throughout the lecture and added various comments after each class. I will add the user use case diagram below and within the folder as well.

