Zachary Kuchar Senior Project paper 3 3-20-19

Week 7

* Snip Snap Snorum Online
  + Set up ability to go online
  + Put down cards
  + Update with server
    - Only needed to sync when passing the turn
* Restructure Go Fish
  + Original implementation was not correct
    - Asked for a card for opponent
    - Removed any pairs in hand
    - Winner was first to no cards in hand
  + Correct version
    - Ask for a card and get all copies of that card
    - Remove a four of a kind from hand to score a point
    - When no cards are left, person with most 4 of a kinds wins.

The easy part of this game was that, it does not sync up with the server as often. It only needed to sync with the server when the turn was passed to the other player. After some time, I managed to get all functionality working in the game with two people. Two different players can sign on and playing the game against each other.

Once that was done, I moved to make tweaks to go fish. The original writeup of the game was not on par with usual ways that the game can be played. Before moving into setting up go fish online, I began reworking the offline version of the game. The initial set up of the game that I programed did not run like other iterations of the game. This version was based on removing two of a kind, and then winning by running out of cards. A more correct version involved attempting to get four of one kind of card in hand, and then removing those cards. When no more cards are present, the winner is the player with the most four of a kind. To fix this problem, I would have to do a complete rework of the game mechanics. This involved removing some initial functionality put in, and then setting up new functions for the game to perform. I started off by reworking how the game determined that a player’s hand contained four of one type of card in hand. It did this by going through each card and then counting each instance of that card’s value. After that, I moved into working on how to move cards from one player’s hand to another. This involved keeping track of which card we wanted to move, removing it from one hand, and then placing it in the other player’s hand. I would also need to change up how a player wins the game. When a player runs out of cards in their hand, they would draw a new five cards from the main deck. Then, when no more cards are present, the player who had the most four of a kind of cards would then win. One minor problem that I encountered was that the whole thing would appear to lock up when attempting to remove cards from a player’s hand when finding a four of a kind. On further inspection, I discovered that the code I was using created an infinite loop. I was making changes to the normal hand, while iterating through the hand copy. With some work, I managed to get everything to work properly. The only things left to do were to fix a couple of minor bugs that would still occur as well as touch up some other features. I fixed a bug that allowed you to hit the go fish button at any time, even when you did not need to, and have the computer draw a card. I simply set up a condition, that tested if the scenario to hit the button was correct. I then changed the look of how the cards were printed out so that the card on the right was laying over the card on its left. This allowed for printing out more cards on the current line. After that was done, I began to set up for switching over to play go fish online with two players. However, since time was running short for the week, I was unable to get a full set up completed.

Week8

* Worked on Go Fish
  + Implemented online mode
  + Players can now get on for normal functionality
    - Ask for a card
    - Give cards to the opponent
  + Problems
    - Had issues removing cards
      * Was looping through copy of hand that was not updating
      * Had to JSON parse a stringified object because hand copy on server was not an array of card objects

Week 9

* Plan
  + Fix server problems in order to allow for multiple games to happen at the same time
  + Begin setup for database functionality
* Go Fish
  + Online
    - Fixed some issues, game is now functional between two players
    - Bugs
      * Can still interact with screen when grayed out.
  + Addition made
    - When a four of is made, the game notes which card was used and plants it in a separate pile
      * This means that you know how many points each player has and what cards are no longer in play.