



Sprint 1 Notes

Important Links:

- Github Repo: https://github.com/University-of-Utah-CS3505/a9-edu-app-PA_CF_CH_JN_RN_LW
- Overall Features:  Black Jack Overall Features
- UI Sketch:  Blackjack UI Sketch

Theme

Get a working, configurable blackjack game program ready by the end of the week, so that we can create the lessons component next week.

Monday (11/27)

- Pablo
 - What did you do yesterday?
 - I have mostly just gone over the game and trying to understand the tactics. Other than that nothing else
 - What will you do today?
 - I want to try to communicate with the other's what our main goal is and how the overall game would work.
 - What (if anything) is blocking your progress?
 - I'm mainly waiting for mainly just waiting until their's something to do because most of this start-up stuff deals with setting up the project which most of you guys have already gotten to start on..
- Christian
 - What did you do yesterday?
 - Over the break, I worked on creating classes for a card and for a deck using the card class. I also worked on creating a rough draft for the UI, created this Sprint Notes document, and started working on the Overall Features document.
 - What will you do today?
 - I'm going to get started on the Model class and look at Ryan's card physics.
 - What (if anything) is blocking your progress?
 - Nothing is blocking my progress at the moment.
- Landon
 - What did you do yesterday?

- I messaged with Ryan to check where he was at with the Physics Engine. I discussed with him some issues we needed to fix with the UI, and explained what I planned to work on this week. I also set up a VM on my machine so I could get a view of the UI on both Mac and Windows without having to ask others.
 - What will you do today?
 - I plan on going through Ryan's Physics code and understanding it. I also plan to start sketching up a more refined UI design so we know exactly how we want the program to look as all of us develop.
 - What (if anything) is blocking your progress?
 - Images have been tricky to deal with in Qt. I was unable to figure out how to use SVGs in an easy way, and the images we are currently using are severely blurry. I hope to find a fix for this problem soon. I also imagine understanding the Physics code will take a little while.
- Caleb
 - What did you do yesterday?
 - Over break I mostly spent some time trying to understand the math and strategy behind the game. I am pretty familiar with it, however I did need to learn how to account for doubling down and insurance.
 - What will you do today?
 - There are certain situations where, statistically, it is best to double down or hit, and I want to familiarize myself with these situations so that we can teach them in our app.
 - What (if anything) is blocking your progress?
 - Nothing is blocking me at the moment.
- John
 - What did you do yesterday?
 - Absolutely nothing
 - What will you do today?
 - Create a model class and implement a shuffle class
 - What (if anything) is blocking your progress?
 - Making sure that the deck class that my classmate provides works with my model class, if not will work with them to ensure both work.
- Ryan
 - What did you do yesterday?
 - I worked on implementing Box2D into the program and setting it up to where it appeared within the UI and had a card element that slides to a certain area for both the dealer and player.
 - What will you do today?
 - I plan on refining the background of the Box2D scene widget more to have areas where the cards will settle and come out of and delve into making the cards slide.
 - What (if anything) is blocking your progress?

- Currently, getting a full grasp of the Box2D physics and its inner workings have been a bit difficult due to the large amount of code needed just to have an element slide to a certain location.

Tuesday (11/28)

- Pablo
 - What did you do yesterday?
 - Haven't done anything
 - What will you do today?
 - I will finish up the user story telling document and also do a brief code review of the current mainwindow.cpp code.
 - What (if anything) is blocking your progress?
 - nothing
- Christian
 - What did you do yesterday?
 - I got a good understanding of how Ryan's card physics works and edited the Model class to return Cards with the hit method and stand method.
 - What will you do today?
 - I will discuss the game loop with the rest of the team and begin working on functionality for flipping cards faceup or facedown.
 - What (if anything) is blocking your progress?
 - The biggest thing blocking my progress at the moment is figuring out where to start with the game loop.
- Landon
 - What did you do yesterday?
 - I set up the main layout of the UI. Both the player and dealer have distinct areas for their cards, and all user input is centered on the screen for easy understanding. I also worked on the card movement a little to get the sizings right.
 - What will you do today?
 - I will get the random card generation working. I will also get the turn states ready to implement so there is game logic for both the player and dealer turns. I will also work on the UI as usual :D
 - What (if anything) is blocking your progress?
 - I need to add the face down card png. I also need to figure out how to make the cards look sharper.
- Caleb
 - What did you do yesterday?
 - I researched into black jack probabilities. I think this will be useful for better understanding the game and when in the teaching mode of the game. Using win probabilities will help users to pick up on important patterns.
 - What will you do today?

- My hope is to get started on the game loop so that we can have a functional game to work with as we develop.
 - What (if anything) is blocking your progress?
 - I am currently sick which has inhibited me from making so progress. Individual game functions need to be polished first before working on the game loop.
- John
 - What did you do yesterday?
 - Created an exoskeleton for the model class and had some of the game logic set into place.
 - What will you do today?
 - Try to connect the model to the UI for basic functionality. Making sure that the model is up to par with the UI.
 - What (if anything) is blocking your progress?
 - Learning how to connect the model to the UI. Since there is lots of coding and finding where certain things should go.
- Ryan
 - What did you do yesterday?
 - I worked on cleaning up the background image that will be displayed on the Box2D scene widget and also delved into creating sliding physics for the cards and different animations like adding cards and splitting them.
 - What will you do today?
 - I will continue working on the physics of the cards by developing them to slide from out of view into a certain location properly according to a screen. As well as making different card mechanics for the dealer and the player. And additionally, I will take care of adjusting positions so even on different monitors the cards will be in the correct spot.
 - What (if anything) is blocking your progress?
 - Right now, determining and coding the locations in which the cards will stop and pause is proving to be difficult, as well as removing the bouncing effect from the cards.

Wednesday (11/29)

- Pablo
 - What did you do yesterday?
 - I worked on a small fix to be able to quit the game, and I spent most of my time filling out the Google Docs user stories.
 - What will you do today?
 - I will try to come up with more user stories and find a complexity for each user story.
 - What (if anything) is blocking your progress?
 - nothing
- Christian

- What did you do yesterday?
 - Yesterday, I worked on getting the dealer and player cards to deal out when the game begins. However, I didn't make much progress and Caleb ended up finishing that.
- What will you do today?
 - Today, I will finish, clean up, and submit this Sprint. I also will likely begin brainstorming ideas for lessons.
- What (if anything) is blocking your progress?
 - At the moment, nothing is blocking my progress.
- Landon
 - What did you do yesterday?
 - I got started on some of the game states functionality. Not too much work was done with this.
 - What will you do today?
 - I will make sure all the necessary buttons and widgets are in place so others can implement logic. I also plan on helping with some of the logic for player and dealer turns.
 - What (if anything) is blocking your progress?
 - Nothing is blocking my progress besides other classes.
- Caleb
 - What did you do yesterday?
 - I did not accomplish anything yesterday as I was recovering from a sickness that I had.
 - What will you do today?
 - Today I plan to continue to implement the deal function which is essentially the main game loop. This will entail understanding all the game logic.
 - What (if anything) is blocking your progress?
 - Nothing should be blocking my progress, all the pieces should be there.
- John
 - What did you do yesterday?
 - Fixed hit method that was returning the incorrect totals when multiple aces were incorporated.
 - What will you do today?
 - Work on connecting some of the game logic to the UI making sure the game works as intended
 - What (if anything) is blocking your progress?
 - UI missing some buttons that are essential to the game
- Ryan
 - What did you do yesterday?
 - I worked on getting the cards for both the dealer and the player to settle in a nice stack at a location I desire on different monitors. As well as cleaning up the code I already added.
 - What will you do today?

- Since I am responsible for developing most of the animations, I plan to work on different animations like doubling down, flipping the hidden card of the dealer, and tutorial animations.
- What (if anything) is blocking your progress?
 - Since the cards will need to rest at a certain point, developing different animations will be difficult. And also I will need to figure out how I will do the flipping animation or just settle for changing the image of a card.

Accomplished Working Software

Much of the currently working software we have is individual pieces that need to be connected to create a functioning blackjack game. Currently when the program is run, the user can add cards to the player's hand and add cards to the dealer's hand. The program will keep score depending on the cards in each hand. If the player hand has exactly two cards, the player can split, and the program will keep track of the individual scores in the split hands. In addition, there is a bank with \$1500 of virtual money that the player can bet. However, at the moment betting and winning or losing money isn't fully functional.

Project Board

