Jack’s Arcade: Design

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1. Introduction

Background

As part of the application process for the 2020 Kleiner Perkins Fellowship, applicants are tasked with creating “a console-based (i.e. runs in terminal) unix-compatible interactive card game.”

Desired Outcomes

The goal of this projects is to showcase engineering talent during the application review process and to highlight applicant creativity. Key stakeholders include the reviewers of the application.

Brainstorming Process

During ideation, I began by simplifying the question to it’s core: to create an interactive experience using playing cards, through a console-based medium. Starting from this, I was able to generate a mind map of all activities a player can use cards for. This mind map included card games, throwing cards, magic, etc. I narrowed it further to activities that fit the prompt best, then did a second round to narrow activities that were feasible through a console.

As I continued to brainstorm terminal-based games, I remembered the classic “Hitchhiker’s Guide to the Galaxy” and wondered if there was way to rebuild a story-like experience, while fitting the prompt of building “interactive card games.”

Build

I first developed “Slapjack,” as it was a simple game to understand for new users, and relatively easy to develop compared to most card games.

Once this was developed, I began crafting an adventure game, centered around the theme of “cards.” I recognized this might not be viewed as a *card* game, however, part of the prompt assesses candidates on creativity on their submission, therefore I concluded this would stretch this prompt just enough to showcase creativity.

Finally, I developed a more intricate, classic card game with a modern take (White Jack), which is a more typical and intricate card game.

1. Playing Games

**Slapjack**

Time to play: ~3 min

The goal of Slapjack is to accumulate as many cards as possible, and the game finishes when all players (except one) run out of cards. The player who holds all the cards at the end wins.

Each player is given a pile of cards, face down, and is not allowed to look at their cards. Players take turns placing their top card in a center pile, then revealing the card. If the player is not a Jack, nothing happens and the pile grows. Otherwise, the card is a Jack, the first player to slap the Jack wins the round and collects all the cards in the pile.

In our modified version, players play against a CPU. The program will automatically place the cards in the pile for each player and keeps track of how many cards each player has. The task of the player is to quickly respond and “slap” the card before the CPU responds. The CPU gets faster as the game progresses.

**White Jack**

Time to play: ~5 min

A modern take on the casino classic “Black Jack”, White Jack is a game.

**Magic Jacques**

Time to play: 5 - 7 min

One of the most fascinating uses of playing cards is magic. Though re-creating the experience through a computer is challenging, Magic Jacques explores a different kind of magic: the magic of story.

Magic Jacques is an adventure-based story game where users explore a new world they wake up into. They must make decisions as they progress, and use playing cards to stay alive. A comprehensive rule list is below:

1. Do not die

If players fail the quest, they restart from the last stage they passed. Part of the game is figuring out the available moves and looking critically for hints in the game. At any stage, users can ask for:

1. Options (all the possible moves)
2. Hints
3. Help (explains the rules)
4. Design Choices
   1. Language
   2. Technologies
5. Edge Cases