CaViTi

19F7919, 19J1101, 19M0394

Project Documentation

**Title:**

Karma Card Game

**Background and Motivation:**

*Karma* (most commonly known as “Shithead”)is a multi-player or two-player “shedding game”(Parlett, 2008) in which the aim is to lose all your cards (also known as a “beating game”(Curtis, 1996)). The final player is known as the “Shithead” or is considered to have bad karma.

The game is most likely derived from the Swedish game “[Vändtia](https://www.pagat.com/beating/vandtia.html)”(Curtis, 1996). Its creator has been identified as Gauthier Malzac. In modern times, it is characterized as a “pub game”, played by backpackers in Europe (Curtis, 1996). Interestingly, it also has a role to play in modern works of literature. It has been used as a metaphor in exploring class (eg. the role of “shithead” fathers) in various works, most notably Markus Zusak’s *The Messenger* and *Fighting Ruben Wolfe* (Bullen, 2006).

Karma is played with a 52 standard playing card deck. It consists of three levels (representative of class structures at a stretch, continuing the link to literature). Each player has three blind cards (face-down cards), three face-up cards and three hand cards. Before the game starts, players are allowed to swap their hand cards with face-down cards. The starting player is the player who has a three or the highest card. Each player has to play a card equal or higher to the previous card (in numerical value i.e ace is the highest). A player has to have three cards in their hand until the deck runs out – thereafter the player moves onto their face-up cards and then the blind cards. There are also special cards (wildcards) which vary throughout different versions. A two resets the play. A three is like an invisible card – it mirrors whatever was previously played. A ten discards the cards played thus far – those cards will be out of the game. A seven forces the next player to play under a seven or a wildcard. The seven and ten can only be played when they can beat the a card lower than them while a two and three can be played on anything. If a player cannot play the appropriate card, they pick up the pile of played cards – obviously putting them at a disadvantage. As players finish all their cards, they drop out of the game (provided their last blind card beats the previous card).

There are various variations of wildcards and other aspects of the game. This main version of *Karma* will be implemented in the card game as it has clearly defined structures and wildcards with logical purposes. For simplification, the players will not have the option to swap their hand cards and face-up cards. Equally, it might be better to define the starting player as left of the dealer.

**Problem Statement:**

The goal of this version of *Karma* is to deal out a higher card or equal card with the integration of wildcards to achieve the endgame of a completion of the players’ hands through the prescribed levels. The idea would be to solve the cascading effect of the levels. This is a medium to high complexity if one considers the exceptions and implications of each rule. If it turns out to be simple to employ, the features of the starting player and the ability to swap hand cards and face-up cards can also be executed for added complexity.

**Approach:**

This project should produce a working computerized *Karma* game in Java. Initially, a deck of 52 cards would be coded. The shuffling and dealing would be important features in this game since it would be important to know the hand of each player in order to follow the game’s efficiency and effectiveness. The game should cater to at least two players, including the option of a computer player. Ideally, it could work for up to four players (including computer players). However, the task of coding the computer player would be of last priority – initially the approach would be to code a completely working game with normal user players. The various levels would need to be coded in such a way that the game prompts players to play a card higher or equal to the previous card (or a wildcard). The game would then respond in certain ways to the wildcards , and in the event of a player being allowed to move on to the next level. Various entry points into the next level would need to be designed and coded. Once the game is actually working, an appropriate GUI or other user interface would be developed to improve the aesthetics of the game. JavaFx, after doing some research, seems to be the best option for this. All the work will be uploaded to GitHub and presented. This presentation will include a Visual Guide of playing the game and how we used our process to create the game. The Visual Guide will most likely be a screen recording of the game being played as well as storyboards with explanations and descriptions, detailing the start of the game , middle and end of the game. Particular mention of the Software Development Life Cycle (our SDLC is the Waterfall model) will be made. It will include various evaluations on the project’s progress and group meet-ups so as to monitor everyone’s quality and functionality of work. As can be seen in the timeline, milestones or individual tasks overlap. In the timeline, extra days have been described so as to compensate for unforeseen changes and adjustments to the program. This promotes flexibility.

**Timeline (See Excel document too):**

**References:**

Bullen, E. (2006). A sporting chance: Class in Markus Zusaks The Messenger and Fighting Ruben Wolfe. *Papers: Explorations into Children's Literature*, *16*(2), 46-50.

Curtis, J. (1996). *Shithead*. (J. Mcleod, Editor). Accessed: 29 August 2019 from Pagat: <https://www.pagat.com/beating/shithead.html>.

Parlett, D. (2008). *The Penguin book of card games*. Penguin UK.