CSC 102 – project

Crazy Eights Card Game

TD ‘Moleli

G19M6062

Project proposal

Crazy eights, which has a number of variations and alternative names such as Crates (McLeod, 2019), is an easy to play, popular card game that can be played by two to five players using the standard deck of cards (54 cards). To accommodate for more than five players, an extra deck is required.

Crazy eights is a shedding type of game, which means the winner is the player with the lowest card points (or weight), therefore the objective of a player is to be the first to clear cards from their deck onto a discard pile. After one player manages to clear all their cards, the remaining players’ cards are weighed and the player whose cards weigh the most losses and cannot play in the next round, the process is repeated until two players go head to head for first place.

At the beginning of the game, the cards are shuffled and each player is dealt with five to seven cards and the remaining deck (called the stock) is put face down to the side. A player can clear a card from their deck only if it matches the previously played card’s suit or value. That is, if the previously played card is six of hearts, then the next player can play any card whose suit is hearts or play any suit whose value is six. If the player has no such card, then they have to draw a card from the stock and add it to their deck or play it if it satisfies the conditions. The jocker, however, can be played anytime and when one plays this card, the next player has to draw four cards from the stock and add them to their deck. This is the same case with a card whose value is two, except it cannot be played anytime like the jocker and the next player has to draw two cards not four. A card with a value of eight also has a specially ability; after playing this card, a player can force all the other players to play any suit of their choice or keep playing the same suit.

The objective of this project is to design and create the crazy eight card game that can be played by a maximum of five players. The reason behind creating such a game is not only because it is an enjoyable game but because it challenges players to think strategically and know how to time their moves. This game has medium complexity because it has standard rules and is easy to modify, hence some features will be added to increase its complexity and versatility.

The Java programming language will be used to implement this game and the following milestones will be undertaken: A deck of 54 cards will be created and shuffled using data structures such as arrays. Of the five maximum players, the game will include the option of computer players as well. That is, both human and computer players can play together or computer players can play by themselves. A scoreboard will be added to keep track of the progress of each player and a graphical user interface will be used not only to display information but to make the game have some visual structure and a pleasant look. To share and keep track of each team members progress, GitHub and a certain system development life cycle will be followed throughout the project. Finally, a presentation of the group’s work will be done through the GitHub code, the project document and visual representations such as storyboards to show and explain how the game works.

Predicted time line

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| Task | Date | Days to complete |
| Project proposal submitted and team formed. | 02/09/19 | 1 |
| 1st team meeting held and best proposal chosen | 03/09/19 | 1 |
| Deck created and shuffled realistically | 04/09/19 | 2 |
| Game concept developed. One human and one computer player created. Scoreboard created | 06/09/19 | 13 |
| Team meeting held to check on progress. Progress documented | 19/09/19 | 2 |
| Simple GUI created | 21/09/19 | 10 |
| Team meeting held to check on progress. Progress documented | 01/10/19 | 3 |
| GUI improved. | 04/10/19 | 5 |
| Final touches and final documentation | 09/10/19 | 1 |
| Visual guide and presentation prepared | 10/1019 | 1 |
| Project complete. Work is presented | 11/10/19 | 0 |

References

McLeod, J. (2019). *Rules of Card Games: Crazy Eights*. [online] Pagat.com. Available at: https://www.pagat.com/eights/crazy8s.html [Accessed 26 Aug. 2019].