

COMP206 Computer Architecture

Semester Project Report

EE

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Project Description:

It is a betting game called EE that is played with 4 people. While the game develops players should raise the previous bets or call them.

Because of difficulties faced during the project, I had to simplify some parts of the game. First the game is played by fixed 4 players. Although the betting conditions haven't changed, I couldn't write the efficient code to prevent users to enter unreasonable inputs. Other than that, rules that was in the initial proposal is still valid as shown in the next section.

Rules of the game

- Each player starts the game with 3 cards.
- There is no winner of the game just one loser.
- After every round game starts from the first player, players start to bet from the low value cards to high value cards respectively. next player obligated to call or raise the bluff of the previous player. If they call the bluff every player opens their hands and see if the last persons and last person only bluff is true or false. Then next round starts with new cards, depending on the bluff true or false, caller or the callee gets one extra card. Example case.
 - 1. Player: there is a three in the game
 - 2. Player: there is there is an ace in the game
 - 3. Player: there is 2 threes in the game
 - 4. Player: decides to call the bluff

Then every player shows their cards and see if there are 2 threes in the game. If the fourth player is wrong which means there are 2 threes in the game, gets one extra card in the next round. If the fourth player is right which means there are not 2 threes in the game, third player gets one extra card in the next round. And depending on which player is right, that player start to bet in the next round.

Hint for the players: even though having high card count make you lose the game, in the first rounds getting more cards gives an advantage because you have more information than other players.

- Value order of the card are from lowest card two to the highest card ace.

Then players can bet on multiple cards such as two twos which greater than one ace.

One card < two cards < three cards < three cards + two cards < three cards + three cards < four cards < four cards + two cards < four cards + three cards < four cards + three cards + two cards....so on

- After several rounds players who have reach out seven cards, don't get to see cards and must bet out of blue with no information.

- Lastly the person who reaches the card amount of 8 loses.

[illegible]

Figure1: start of game.

As can be seen from the figure 1, game shows the cards of the players respectively and shows the previous bets of the players. First, users enter how many cards are they going to bet and then enter ever card single handedly. Array that shows the previous bets is adding an extra element,0, to

Video presentation link:

<https://youtu.be/LXnuG7G2zuA>

Resources:

[1] benwrk, Benjapol Worakan, "Insertion Sort - MIPS Assembly Version" GitHub. [Online].

Available: <https://gist.github.com/benwrk/9d2c8c735885348a270b>

[2] Missouri State University, "Introduction to MIPS Assembly Language Programming," Open Textbook Library. [Online].

Available: <https://courses.missouristate.edu/kenvollmar/mars/help/MacrosHelp.html>

[3] Chukwu, "CS 271: Computer Architecture and Assembly Language Programming", GitHub. Available: <https://github.com/lionthroat/cs271-project.git>