Dostonbek Toirov

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CSC 226 – Dr. Heggen

Final Write-Up

**MOTIVATION**: One of the reasons why I chose this project is that it has a very interesting logic, and requires players to use critical and mathematical thinking in order to win the game. Another reason is that I am interested in creating computer games, and I found this game particularly intriguing.

**PURPOSE**: The main purpose of this project is to give the players a good game experience that enable them have fun playing it. It can also be used for other purposes; one is that it can be used by two people to decide who gets to do a certain thing, just like a rock-scissor-paper game.

**FILES**: https://github.com/Dostonbek1/Final-Project---CS-226

**SUMMARY**: In all fairness, I was surprised how my initial design plan has evolved during the whole process. When I had the initial plan, I had no idea how I was going to make it happen, and how they were all going to work. However, once I dived into the project, it became clearer, and new ideas kept coming. Even though I had achieved almost everything in the initial design plan, I came to realize that I could add more improvements that could make the game more interesting. As a result, I ended up making the game more improved with background pictures, different sounds, and nice buttons.

I spent one or two hours each day over a week, and mostly at the computer science lab. I experienced quite a bunch of challenges in my code where I was trying to make the beer objects disappear once "drink" button is clicked, and also where I had to keep track of the beers drunk for each player. With the help of TA's, I was able to overcome these problems. They always tried to show me the logic of the problems, and how and what ways they can be solved.

Some innovations in this game was adding sounds when certain functions (methods) are called.

I learned this on the internet, and accomplished it by using pygame.

**VIDEO**: https://youtu.be/n7gDIUQU4tk

**INSTRUCTIONS**: The logic of this game is very simple. Once it is run, there is a window where it explains the rules of how to play the game. Rules: there are two players, and a pack of beers. Each user takes turns to drink beers from the pack, and should drink only 1 to 3 beers each time. The player who drinks the last beer in the pack loses the game, and has to buy a new pack of beers. The other player is a winner, and gets to drink for free. On this window, there is a button that says "Play Now", which starts the game.

Once the game is started, there will be 14 beers on the top to select from, and "Drink" button to drink the selected beers, and two places which shows the number of beers each player drinks. Players click on the beers to determine how many they want to drink each time, and presses the "Drink" button to drink them. Once the button is clicked, the selected beers disappear, and the number is written down on the players' score accordingly. They keep doing this until the last one is drunk. When the last one is drunk, it brings up a new window where it shows the winner and the loser. On this page, there is also a "Play Again" button, where players can start over without quitting and restarting the game.

## **ERRORS**:

 Problem with selecting the beers: user should click somewhat right part of beers to select them. If somewhat left part is clicked, it selects the beer next to that beer.

**REFLECTION**: I truly enjoyed creating this project. Even though there were several challenges that I had a hard time with, it was fun doing it. This project boosted my interest in programming even more, and helped me to have a better understanding of programming. After this project, now I can say I almost accomplished the skill of how to think like a programmer. I am even more

energized to dive into programming, and explore more. I am very excited to learn what is to come next.

**REFERENCES**: The idea is mainly structured and improved around the Game of Nim that we explored in the earlier classes. And, I made considerable changes in order to make the game more interesting, and changed some rules of the game. Moreover, the reason why I chose beers to play with, and the rules I made is that at some point in the past I heard elderly people telling me "Don't drink the last drink, or else you are gonna have to buy us all a new one". So, I think these are the main ideas that I developed my game around.

I hope you have fun exploring the code, and playing the game.