Artyom Martirosyan

Design document for assignment 2

10/13/2019

For this program(named lrc.c) we designed a game in which the user would provide a random seed and the number of players(up to 10 players) and the program would simulate the game. To start off I created several arrays: one holding the ten names(const char *names), one holding the amount of money each player holds(int money), and one for the dice which was(the format for the dice array and the names are provided for this assignment). I then created the variables, I had several ints named players(number of players the user selected), players_left, pot(money in center), position(whos turn it was), seed(seed for random number), roll(diceroll), numrolls, and counter. After this the program will ask and attain the number of players and the seed. Then the program will go into a while loop which will end when there is 1 player left. The loop will start off by resetting the player_left variable, then it will have 3 if statements to see how many rolls the player will have(if >2 3 rolls, if >1 2 rolls etc. etc.). Once it had the number of rolls the program would go into another while loop in which it will roll however many times, in this loop I created if statements so that if the randomiser prints left you hand one dollar to the left, if right you give one to the right, if center you give one dollar to the center, if pass you skip. After the rolls loop is completed I had another while loop which would check how many players are left then shift to the next player to the right(the loop would check the amount of money in the money array). If there was one player left the loop ends if not it restarts. After that large loop I had one more loop which would print out the winner and how much money he had won(logic for shifting left is (position + players - 1) %players; shifting to right is (position + 1) % players.