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Homework 8 - Project Proposal

Have you ever played a killing game? If not, here is the rule for this game. The players will be divided into two groups, the good guys group and the killers group. There will be daytime and night-time during the game, and at night-time, all the players must close their eyes except the killers. The killers will discuss silently and finalize their decision and then kill their target. Then, at the daytime, all the players except the ones that are out will sit together and discuss who might be the killer, and then they will vote. The player that gets the most votes will be out. This game will go on until all the good guys are killed or all the killers are voted out. If all the killers are voted out, then the good guys win. Otherwise, the killers win.

The game I am going to design for this project is very similar to the killing game described above, however, it is a bit more complicated. The game is called “The Werewolves of Millers Hollow”. The reason this game is more complicated is because it involves three groups of players instead of two groups. There will be nine players, and they will be equally divided into three groups: humans, gods, and werewolves. gods include a prophet, a witch, and a hunter. The prophet is able to see whether a player is good or bad, but he/she will not be able to see that player’s identity, and at the daytime, if the prophet is not dead, players will be able to know who the prophet chose over the night and whether if that player is good. The witch can choose to save a person or poison a person each for one time. The hunter can choose to kill a person when he/she is dead.

The goal of this project is to design this game in C++ language and make sure that the code can interact with user to complete the game.

For this project, I plan to use 4 classes: humans, gods, werewolves, and an administrator class. The first three classes represent the three groups of this game, they each have four data members: name, identity, status, and numalive. My code will first ask a user's name and then assign that user an identity, which could be human, prophet, witch, hunter, or werewolf. The status will display whether the user is alive or dead, and the numalive is the total number of players of that class that are still alive, when numalive of any of the three class is 0, the game will end and will congrats the winner. As for the last administrator class, there will be six data members: identitycards[9], killed[3], poisoned, saved, foresighted[1][2], and voted[]. Identitycards[] will read from a file that stores identity in random order and store them in an array. killed[] will store the names that werewolves chose to kill and the player that appears the most time will die. Poisoned stores the player the witch poisoned and saved will store the player the witch saved. Foresighted will store the player the prophet chose to foresight and whether if that player is good or bad, and voted will store the names that all players voted and the player that appears the most time will be voted out.

There will be couple of times my game will need to read from and write to a file. The first time reading from a file is needed is when the administrator has to read identity cards from a file and then store them in the identitycards[] array before assigning identity to the users. The other time will be writing the player's name and his/her identity to a file to help the administrator when the prophet is trying to know a player's identity. The last time will be the commenting part. All the players will comment in order at daytime before the voting procedure. Each player's comment will be inputted by that player and then will be written to a new file, so that players are able to see what everyone said this round and the round before.

My design will meet the requirement because the game I designed is all about interacting with users. Also, my design has enough declared classes, data members, string variables, as well as for loops, while loops, and if statements