OKAGBUE FRANCIS

CMPT 317

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#ASSIGNMENT 8

1st Game:- Scrabble

Environment Properties:-

For the number of agents: There is no particular number of player caps mentioned or suppose to play. The range of players could be from a number of two (2) to four (4) players and the maximum game time could be 90 minutes. The number of players should be plural/more and not singular in number of agents. The players/number of agents are also described as "all the players in the game". All the players are to take 7 tiles from the tile bag (7 letters from the bag & place the tiles on their rack)

Partially Observable? → YES

Yes, It is partially obsrevable because part of the rules of the game states that when the player places a letter and to form a word then he/she places it on the board so that all the piece of tiles are put on the board for a turn by turn ratio. The player would need to place the letter on the board so that he or she can form a letter and is done turn by turn.

Rule 1:- the first player combines two or more of his/her letters to form a word and places it on the board either across or down with one letter on the center square. Diagonal words are not allowed.

STOCHASTC? → YES

Yes, it is stochastic because all the letters are going to be mixed and then the first player would place all letters faced down beside the board and then mix them and draw the same number of letters from the pool and then getting the letters, they are going to be chosen at a random pace/order and would return the letters to the pool, mix the discarded letter into the pool and this would end the player turn.

2nd Game:- CODENAMES

Environment Properties:-

This game has an environment of 3+ agents and a playing time of 15 minutes. The environment has a range of 2-8 players (3+ agents). But drawing back to the game rules → it states it would require four (4) least players to game. The game is multi agent because the game is divided into two red & blue and each has a team leader in which they know the card information and don't share the same information. Only the team leader can see the color of their card and let the team members find out the cards color.

Partially Observable: → YES

It is partially observable because the team members and one team does not have anyway of knowing the color of the opposition cards; Only the team member know their color and the color that is supposed to win the game.

STOCHASTIC? → NO

Codename is deterministic and not stochastic because they are no randomized elements. Each of the game state action is deterministic. It does not contain any elements of random chance that can influence the resulting state

3rd Game: KREMLIN

Environment Properties:-

The rules do not mention the particular number of player that should participate but just mention that it would be a plural number. The number of players ranges from 3 to 6 players and the game playing time is about 75 mins. The player counts are mentioned as "all players". All players secretly write on their sheet of paper the names of 10 politicians they seek to influence. and they number it from 1-10 and it does represent influence points. Ten (10) is the most favour and is in descending order. All players don't really need to expose all points on the politician. Everything would be filled on the initial influence pad.

Partially Observable:→ YES

So for this game, I would say the gameplay is not clockwise but that it happens from top to bottom in the politburo. Players can declare influence points on a politician at any time. A politician is always under control of the player having declared the most influence points on a politician. All cards are placed on the Politburo. Each of the game phase consists of Curses, Purging by the KGB, Imperialist Spy, Members Health, Funeral Commission, Replacements, Rehabilitations and October Parade.

STOCHASTIC? → YES

Yes, It is stochastic because the player would randomly deal/select seven (7) other politician cards and place them in the seven Politburo silhouettes and then the Player would need to fill the five positions on the candidate strip in the same way. The rest of the politican card are placed below the people card so that each can be clearly seen. Each part spaws random events where the available choices depend on the selected character. The player would need to randomly select seven politican cards and then place them in the Politburo silhouettes.

4th Game: SCOTLAND YARD

This game has an environment of two (2) agents and a playing time of 45 minutes. The environment has 2+ agents in the park whereby one (1) player plays as the role of Mr X and his job is to move from point to point around the map of London and the other player is a detective. The environment/game could have more than one people as the detectives but they do have the same information about the game state and utilities. The detectives knowns the positions of each other and share the same transport choices and the exact location. The detective should work together in choosing individual means of transport and if a detective no longer has any tickets or can't move from his current station with the tickets he has left, he has to sit out and Mister X would get the used tickets.

Partially Observable:— YES

It is partially observable because the detectives only know the position of Mr X sometimes and also not always all the time. Mr X moves around the map of Italian taking taxis, buses or subways and the detective can only know Mr X whereabout at times

STOCHASTIC? → NO

Scotland Yard is not stochastic but it is deterministic due to that there is no random/randomized elements. The game state action is deterministic. There is no contain elements of random chance that cause the resulting game state.

Group Names:- Francis, Emmanuella and Ayomide

Quiz Group → Modern Art

Environment Properties:- 3+ agents

This game has an environment of 3+ agents and a playing time of 45 minutes. The environment has 3+ agents and the game has five (5) different artists that have produced a bunch of paintings and the five artists consist of Manuel Carvalho, Sigrid Thaler, Daniel Melim, Ramon Martins and Rafael Silveira and the player's task is to be both the buyer and seller hopefully making a profit in both roles. And the player does it by putting a painting of his on auction and he gets the money when a player buys it and it has only four (4) rounds in the game. And after each round, the paintings are valued by the number of paintings that were sold of that type and the player with the most cash after 4 (four) rounds is the winner

Partially observable:- YES

Yes, I would say this game is partially observable, because the players don't really know much. The players don't know how much money each opponents have, or the artwork that will be put for auction and they don't know what the player will want to purchase or sell. There is no way to have/know the player dedision because the information is limited

STOCHASTIC? → YES

Yes, Modern Art is stochastic, because the outcome of the game is randomly. The artwork that are been auctioned are going to be done randomly and also the cards that the player receives are randomly. And this effect makes it very difficult ~~for~~ to determine/predict the outcome of the game and the artwork been purchased is randomly because is based on the values. The winner of the game is the player who has the most money at the end of the four rounds.