

Use Cases for Clue Program

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START GAME Use Case

Start and Run the Game

Pre-condition: Board is 25 by 25, there are 9 rooms, one closet, walkways between all the rooms, and room has at least one door.

1. Initialize the board.
2. Initialize the Player and 5 computers on the Board in their starting positions.
3. Assign a random player, weapon and room to an 'envelope' and deal out the remaining weapon values and room values randomly to the player and the computers. Make sure to assign the left over weapon values to any of the 9 rooms.
4. Player takes a turn (**PLAYER TURN Use Case**)
5. Computers take their turns (COVERED LATER – UPDATE LATER!!!!!!)
6. Loop through until finish (Finish is in **PLAYER ACCUSATION Use Case**)

Post-condition: Game tells the player if they won, or which computer won

PLAYER TURN Use Case

Player plays turn

1. Player 'rolls' the die.
2. Program will highlight all possible target locations (locations have exact number of steps, unless entering a room). Players may go down hallway, or enter a room.
3. Player will move to target location.

Alternate Flow: Moving into a room

1. When a player moves, and chooses to enter a room, they have to make a suggestion. (**PLAYER SUGGESTION Use Case**)

Alternate Flow: Making an Accusation

1. When a player starts their turn, they may make an accusation (**PLAYER ACCUSATION Use Case**)
2. If the accusation returns true, program is terminated. (**PLAYER ACCUSATION Use Case**)

PLAYER SUGGESTION Use Case

Player makes a suggestion to figure out the suspect

1. Before anything, the game must check that the player is in a room.
2. Player must supply a suspect and a weapon. Room will be determined from the room they are currently in.
3. Players will reveal if they have suggested weapons or 'room' cards.
4. Game gives back information to the player making the suggestion.

PLAYER ACCUSATION Use Case

Player may make an accusation, and the game will determine correctness of the accusation

1. Players may make accusations anywhere in the house; however it can only be made at the *beginning* of their turn.
2. Player must supply a suspect, weapon and the room that they think the murder happened.
3. Game will determine if that information is true from the 'envelope' made at the beginning

Alternate Flow: Game Ends

1. If the information is correct, the game terminates.