

## Clue Use Cases

### **Game Start:**

Includes the logic for the start of the game

1. Initialize board
2. Pick the game ending condition (i.e. who, weapon, and where)
3. Set up player locations

### **Player takes a turn:**

Precondition: The game is already initialized.

The logic for when a player takes a turn, not including the computer turn logic

1. Check if player wants to make an accusation
2. Player rolls
3. Calculate possible paths
4. Player chooses path
5. Player location is updated
6. Check if player wants to make an suggestion
7. Turn end

Alternate Flow: Player decides to make an accusation

1. If at 5 the player wants to make an accusation, execute the accusation logic.

Alternate Flow: Player decides to make a suggestion

1. If at 5 the player wants to make a suggestion, execute the suggestion logic.

### **Player makes a suggestion:**

Precondition: There is currently a player taking a turn. That player is the one making the suggestion. The game is already initialized.

The logic for when a player wishes to make a suggestion, using the location of the player as an automatic guess for the location, such that we don't have to check if the location entered is valid.

1. Enter the person
2. Enter the weapon
3. Allow the other players to disprove the suggestion by showing a card
  - a) Player's suggestion narrows possibilities
  - b) Player's suggestion is disproved
4. Go back to player turn

Alternate Flow: Incorrect input

1. If at 1, 2, or 3 the user enters an entity that does not exist, reprompt for that entity

### **Player makes an accusation:**

Precondition: There is currently a player taking a turn. That player is the one making the accusation, the game is already initialized.

The logic for accusations, has the user enter the person, place, and weapon and checks if that matches the game ending condition setup in the initialization of the game.

1. Enter the person
2. Enter the weapon
3. Enter the location

4. Check if that matches the game ending condition

a) Accusation is correct, game ends

b) Accusation is incorrect, game continues and we continue at player turn

Alternate Flow: Incorrect input

1. If at 1, 2, or 3 the user enters an entity that does not exist, reprompt for that entity