Supplementary Specification for Use Cases

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Revision History

Date	Version	Description	Author
3/23/2020	Version 1.0	Initial release	Clue-Dunit Team

Supplementary Specification

1. *Objective:* The purpose of this document is to identify use cases for Clue-Less game and use this model to capture complete set of requirements on Clue-Less Game System.
2. *Scope*: This supplementary Specification applies to Clue-Less game, TARGET version, which will be developed by Clue-Dunit team.

Game Setup Use Cases

Use Case: Player installs game	
Identifier:	UC01
Description:	Player installs game on the system
Actor:	Player
Trigger:	User double clicks on .msi file
Precondition:	Game is not on the player's system
Flow of events:	1. Player downloads msi file 2. Player navigates through setup wizard
Postcondition:	Clue-Less app installed on the player's system
Priority:	2

Use Case: Player uninstalls game	
Identifier:	UC02
Description:	Player uninstalls game from the system
Actor:	Player
Trigger:	User selects uninstall option for the game from control panel in OS
Precondition:	Game is on the player's system
Flow of events:	1. Player launches Control Panel on the OS 2. Player finds Clue-Less program 3. Uninstalls
Postcondition:	Clue-Less app is not on the Player's system
Priority:	2

Game Start Use Cases

Use Case: Player connects to the game server	
Identifier:	UC03
Description:	Player connects to the game server
Actor:	Player, Game Manager
Trigger:	Player launches a client
Precondition:	There are 0 to 5 players in the queue
Flow of events:	1. Player connects to the game server and enters a queue 2. Player chooses a role
Postcondition:	Game Manager sets Player's position to the hallway between rooms according to the role
Priority:	1
Notes:	Game roles shall be assigned in this order: 1. Miss Scarlet 2. Col. Mustard 3. Mrs. White 4. Mr. Green 5. Mrs. Peacock

	6. Prof. Plum

Use Case: Game Manager sets up the game	
Identifier:	UC04
Description:	Game Manager sets up the game by creating a case file with suspect, weapon and room. Then distributes remaining cards to the players.
Actor:	Game Manager, Players
Trigger:	Game Manager detects that there are enough players
Precondition:	1. There are 3 to 6 active players in the queue
Flow of events:	1. Game Manager starts new instance of the game 2. Game Manager creates case file 3. Cards are reshuffled and distributed clockwise around the board starting with Miss Scarlet, to the rest of players
Postcondition:	1. Case file created, and it contains 3 cards (suspect, weapon, room) 2. Each player received set of cards 3. Game Manager notifies all players that game started
Priority:	1
Notes:	Cards required for the game: 6 Suspects: Miss Scarlet, Co. Mustard, Mrs. White, Mr. Green, Mrs. Peacock, Prof. Plump 9 Rooms: Hall, Lounge, Dining Room, Kitchen, Ballroom, Conservatory, Library, Billiard Room, Dining Room, Study 6 Weapons: Wrench, Candlestick, Lead Pipe, Rope, Revolver, Knife

Game Play Use Cases

Use Case: Player makes an accusation	
Identifier:	UC05
Description:	Player makes an accusation by stating three cards - accuser, weapon and room, then the Game Manager validates selection and notifies Players with results. If the Player's accusation is correct, he wins the game, else - loses and becomes inactive.
Actor:	Player, Game Manager
Trigger:	Player makes an accusation
Precondition:	Player on his turn
Flow of events:	1. Player states three cards: accuser, weapon and room 2. Game Manager validates cards against casefile 3. Game Manager notifies all players
Postcondition:	
Priority:	1

Use Case: Player makes correct accusation	
Identifier:	UC06
Description:	Player makes the correct accusation and wins the game
Trigger:	Player makes an accusation
Actor:	Player, Game Manager
Precondition:	1. UC05 Player makes an accusation 2. Player states three cards that matches cards in the case file
Flow of events:	1. Game Manager notifies all Players what selection is in the accusation 2. Game Manager validates that accusation against case files 3. Player wins 4. All Players notified
Postcondition:	Game is over
Priority:	1

Use Case: Player makes incorrect accusation	
Identifier:	UC07
Description:	Player makes an incorrect accusation
Trigger:	Player makes an accusation
Actor:	Player, Game Manager
Precondition:	1. UC06, Player makes an accusation 2. Player picks three cards that do not match cards in the case file
Flow of events:	1. Game Manager indicates incorrect accusation 2. All Players notified
Postcondition:	A Player becomes inactive but remains in the investigation
Priority:	1

Use Case: Player makes correct suggestion	
Identifier:	UC08
Description:	Player makes the correct suggestion by selecting a suspect and weapon. Room in the suggestion must be one Player currently in.
Actor:	Player, Game Manager
Trigger:	Player makes a suggestion
Precondition:	1. Player in the room 2. The room player is in must be part of the suggestion
Flow of events:	1. Player selects suspect, weapon and room for suggestion in the Game Manager (unknowingly to Player, all three cards matching the cards in the case file) 2. Suspect, weapon tokens are moved to the room 3. The Game Manager notifies all Players that suggestion is correct
Postcondition:	
Priority:	1

Use Case: Player makes an incorrect suggestion	
Identifier:	UC09
Description:	Player makes incorrect suggestions by selecting a suspect and weapon. Room in the suggestion must be one Player currently in.
Actor:	Player, Game Manager
Trigger:	Player makes a suggestion

Precondition:	1. Player in the room 2. The room Player is in must be part of the suggestion 3. Cards that Player selected in the suggestion do not match cards in the case file
Flow of events:	1. Player selects suspect, weapon and room for a suggestion in the Game Manager 2. Suspect and weapon are moved to the room 3. Game Manager prompts Next player with clue to disprove the suggestion 4. UC10
Postcondition:	Next player becomes an active player
Priority:	1

Use Case: Player disproves a suggestion	
Identifier:	UC10
Description:	The player to the left of the active player, making the suggestion, examines the cards he has, if he has any of the suggested cards he shall secretly show a clue, exactly one of the matching cards to the player making the suggestion. The suggestion is disproved at this point. If a suggestion is not disproved, the player can make an accusation.
Trigger:	Player sends the clue
Actor:	Players, Game Manager
Precondition:	1. UC09
Flow of events:	1. Player to the left of the player making the suggestion examines the cards at hand 2. He compares cards at hand to the cards in the suggestion 3. If he has a matching card, he sends it to the Game Manager (If he doesn't have matching cards, the next player to his left will follow disproving steps (1 - 3)) 4. This will continue until the suggestion is disproven or all players have a chance to disprove the suggestion 5. Once Game Manager receives clue, it sends it to the active Player and disproves the suggestion
Postcondition:	Game Manager notifies all players that suggestion disapproved and indicates which Player had a clue.
Priority:	1

Use Case: Player leaves the game	
Identifier:	UC11
Description:	Player can leave at any time during the game
Trigger:	Player leaves the game
Actor:	Players, Game Manager
Precondition:	Game in progress
Flow of events:	1. Player leaves the game by sending "leave" command to the Game Manager 2. Game Manager notifies all Players 3. Game Manager ends Game
Postcondition:	Game over
Priority:	1

Player Moves Subsystem

Use Case: Player making first move	
Identifier:	UC12
Description:	Each player on the first move shall move to the hallway adjacent to their home square accordingly
Trigger:	Player moves to a new location
Actor:	Player
Precondition:	1. Player on his first turn and is active 2. Player in the home square on the gameboard 3. Hallway does not hold other players
Flow of events:	Move Player to the hallway adjacent to their home square
Postcondition:	Player in the hallway
Priority:	1
Notes:	Below are hallways between two rooms where each player shall move • Miss Scarlet between Hall and Lounge • Col. Mustard between Lounge and Dining Room

	• Mrs. White between Kitchen and Ballroom • Mr. Green between Ballroom and Conservatory • Mrs. Peacock between Conservatory and Library • Prof. Plum between Library and Study

Use Case: Player moves from hallway to the room	
Identifier:	UC13
Description:	Player moves from hall to the room
Trigger:	Player moves to new location
Actor:	Player
Precondition:	1. Player in the hallway 2. The room Player will move is adjacent to the hallway
Flow of events:	Player move from the hallway to the adjacent room
Postcondition:	Player in the room
Priority:	1

Use Case: Player moves through passage	
Identifier:	UC14
Description:	Player moves through passage to the room across the gameboard
Trigger:	Player moves to location
Actor:	Player
Precondition:	1. Player on his turn 2. Player in the corner room with hidden passage
Flow of events:	Player moves from current room to the adjacent corner room
Postcondition:	Player in the corner room
Priority:	1
Notes:	Following rooms have hidden passages • Lounge • Kitchen • Conservatory • Study

Use Case: Player moves to the hallway	
Identifier:	UC15
Description:	Player moves from a room to an unoccupied hallway
Trigger:	Player moved to a new location
Actor:	Player, Room, Hallway
Precondition:	Player in the room adjacent to unoccupied hallway
Flow of events:	Player moves to the unoccupied hallway
Postcondition:	Player in the hallway
Priority:	1