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Name	Illuminati App Start
ID	UC_S01
Description	When the app is selected from the user's app window, the app begins running
Actors	User
Benefits	Allows the user to play the game
Frequency	Every time the user selects the app
Trigger	The user selects the app from the app window
Preconditions	The user has the app installed
Postconditions	The game begins running The app is closed
Main	 Main menu is loaded and shown to user User selects an option from the menu User selection is displayed (see A1, A2, A3) If A3 occurs, app is closed (EX2)
Alternate	AC1 User selects to begin a game 1. See "Game Start" Use Case (see EX1) AC2 User selects to open the options menu 1. See "Options Menu" Use Case AC3 User selects to exit the app 1. App is closed
Exception	EX1 App crashes when loading a game 1. System notifies user that game was not loaded correctly 2. Return to Main step 1 EX2 App crashes on close 1. System notifies user that game ended unexpectedly 2. App is closed

Name	Game Start
ID	UC_M01
Description	Pregame setup
Actors	User
Benefits	Allows the user to set up the game before start
Frequency	Whenever the user selects to begin the game
Trigger	The user selects to begin a game from the main menu
Preconditions	The user selected to begin the game from the main menu
Postconditions	The game session is closed The app is closed
Main	 Game setup menu is shown to the user User selects how many players there are User creates their display name for game session User enters a password for the game session (see AC1) Game now waits for other players to connect (see AC2) (see EX3) Other users enter their display name and corresponding password (see EX2) All connected players can be seen by other players Game starts (see Pre-Game Run use case)
Alternate Cases	AC1 The password is already in use 1. Connect the user (see AC1.2) (see EX1) AC1.2 The session is already full 1. The user is told that the session is full 2. User is returned to main menu (see Illuminati App Start use case) AC2 Other users connect, but the number of connected players is not the same as the number of players selected 1. See AC2.2 AC2.2 The host chooses to begin the game anyway 1. Game begins anyway with connected players
Exception Cases	EX1 The user fails to connect to the game session 1. An error is displayed 2. The user is returned to the main menu EX2 The correct password is entered, but the user is not allowed to connect 1. If the user enters the same password multiple times, report the error to the user 2. Have the user confirm that the password is correct EX3 The session was not created 1. The error is displayed to the user

2. The user is returned to the main menu

Name	Pre-Game Run
ID	UC_G01
Description	The user has selected to begin a game with connected users
Actors	Host and all connected players (<=8)
Benefits	Allows the host and players to play the game together
Frequency	When the game has been set-up and the session has been created successfully
Triggers	The host chooses to begin the game
Preconditions	The session was created successfully More than one user is connected to the game session
Postconditions	The host disconnects from the session All users return to main menu
Main	 (At any time, see EX2) Each player rolls a pair of dice to determine the playing order (see EX1) Each player chooses an Illuminati group card (see AC1) 4 cards are placed face up from the deck (see AC2) See Player Turns use case
Alternate Cases	AC1 A player draws an Illuminati group card 1. Each player receives their starting money based on their group card AC2 One or more of the cards turned face up are special cards 1. The special card is re-added to the deck and re-shuffled 2. A new card is drawn from the deck (see AC2)
Exception Cases	EX1 Two or more players roll the same number 1. The players all re-roll 2. The order between the players is determined by the re-rolls EX2 A user that is not the host disconnects from the session 1. The disconnected user is returned to the main menu 2. System displays an error to the user 3. The disconnected user is allowed to reconnect if they enter the exact name and password they used

Name	Player Turns
ID	UC_G02
Description	The game has been set-up and pre-game setup has also occurred
Actors	Host and all connected users
Benefits	Allows all players to begin playing the game
Frequency	When the game has been set-up and pre-game has occurred
Triggers	Pre-game has completed
Preconditions	Users have chosen their display name Users have chosen their Illuminati Group card Each user has a starting amount of money The order of players has been determined
Postconditions	A player is deemed the winner All players are disconnected from the session
Main	 (This process continues for all players until a winner is determined) (At any action phase, the player can choose to for go an action) (At any point during play, a player can enter the pause menu, see AC8) Player collects income from all groups from the bank Player draws a card from the deck (see AC1, AC2) Player takes two "actions" (see AC3) Player takes a "free action" (see AC4) Player transfers money to adjacent groups (see AC5) Player takes special-power actions (see AC6) Add targets (see AC7) Next player begins their turn (return to Main step 2)
Alternate Cases	AC1 The card drawn by the user was a group card 1. The group is placed within the other uncontrolled groups AC2 The card drawn by the user was a special card 1. The player determines to place the card face up or down 2. The card is placed in front of the player AC3 The player chooses between 3 actions, attack, money transfer, move a group 1. See AC3.1, AC3.2, AC3.3 AC3.1 The player chooses to attack another group (see AC3.1.1) 1. See Attacking Group use case (see AC3.1.1) AC3.1.1 The player chooses to cancel attack 1. Return to AC3 AC3.1.2 The player has already attacked this turn 1. Display error message 2. Return to AC3 AC3.2 The player chooses to transfer money 1. See Money Transfer use case AC3.3 The player chooses to move a group

	See Moving A Group use case
	AC4 The player chooses between 4 free actions, drop group, aid attack, gift to player, use special 1. See AC4.1, AC4.2, AC4.3, AC4.4 AC4.1 Player chooses to drop a group 1. Return the chosen group and all subordinates to the uncontrolled groups (see EX1) AC4.2 Player chooses to aid an attack 1. See Aiding A Player use case AC4.3 Player chooses to give away a card or money to another player 1. See Gifting To A Player use case AC4.4 Player chooses to use a special card 1. See Using A Special Card use case
	AC5 Player transfers money 1. Player chooses giver and receiver for money (see EX1) 2. Money is given to the receiver from the giver
	AC6 The player chooses to user their special action 1. See Special Powers use case
	AC7 The number of uncontrolled groups is less than 2 1. See AC7.1 AC7.1 The card drawn was a special card 1. Discard and redraw until a group is selected
	AC8 The player opens the in-game menu 1. See In-Game Menu use case
Exception Cases	EX1 The group chosen by the player is not one they own 1. An error is displayed to the user 2. Re-choose group

Name	Attacking Group
ID	UC_T01
Description	To be used when the player decides to attack another group
Actors	Player, including groups, target
Benefits	Handle attacks by the player
Frequency	At most twice per turn, but only if the attacker has the UFO group, otherwise only once per turn
Trigger	The player chooses to attack another player
Preconditions	Player has initiated an attack on another player's group
Postconditions	Attack has completed, damage done, group standing, money involved has changed
Main	 Choose type of attack (see AC1) Attack is announced (see AC2) (Other players may choose to intervene) (see AC3) Attack is conducted (see EX1) Return to Player Turns step 4
Alternate Cases	AC1 Player picks between attack to control, neutralize or destroy 1. See AC1.1, AC1.2, AC1.3 AC1.1 Player chooses to attack to control 1. See Attack to Control use case AC1.2 Player chooses to attack to neutralize 1. See Attack to Neutralize use case AC1.3 Player chooses to attack to destroy 1. See Attack to Destroy use case AC2 Attacker cancelled their attack before money was spent 1. Return to Player Turns step 4, no action taken AC3 A player that is not an attacker or defender chooses to aid either side 1. The player adds their power to either defender or attacker
Exception Cases	EX1 Attack is attempted, but not conducted 1. System displays error to player 2. Action is not taken 3. Return to Player Turns step 4

Name	Attack to Control
ID	UC_A01
Description	The player chooses to attack a group someone owns or an uncontrolled group in an attempt to seize control
Actors	Attacker, target
Benefits	Potentially allows the attacker to gain control of another group
Frequency	Only when an attack to control is announced and made
Trigger	Upon the announcement of an attack and money is spent to conduct the attack
Preconditions	The attack was announced, including the target, assistance and type
Postconditions	If the attacker succeeded the group is now owned by the attacker, including all subordinate groups If the attacker failed, nothing changes
Main	 Roll two dice (see AC1) (see EX4) Request aid for attack (see AC2) Attacker spends money on attack Defender responds (see AC3) (see EX2) Return to step 3 until both players stop spending (see AC4)
Alternate Cases	AC1 The sum of the dice roll is 11 or 12 1. Automatic failure 2. Return to step 4 if a second action has not been taken, otherwise, step 5 AC2 Transferable power added to attacker power 1. Add transferable (#/#<-this one) power to the attackers power (this one->#/#) (see AC2.1) (see EX1, EX3) AC3 The defender chooses to defend themselves 1. Defender can spend money to defend themselves (see AC5) AC4 The attacker's roll is greater than the defender resistance (see AC5 for a list of different effects on attacks) 1. Attack failed 2. Return to Player Turn step 4 if second action not taken, else return to Player Turn step 5 AC5 List of different effects upon attack (see AC6) 1. Attacker aids their own attacking group with other groups a. Attacker Power = Attacker Power + Aid Power 2. Attacker pays to boost their power a. Attacker Power = Attacker Power + 1 * every MB spent 3. The alignment of the attacker group is the same as the defender group a. Attacker Power = Attacker Power + 4 * per alignment 4. Defender has their resistance boosted by the power structure a. If within 1 of Illuminati, +10, 2 = +5, 3 = +2, >3 = 0 5. Defender pays to boost their resistance a. Defender Resistance = Defender Resistance + 1 * every MB spent from Illuminati, + 2 *

every MB spent from group treasury 6. The alignment of the attacker group is the opposite of the defender group a. Attacker Power = Attacker Power - 4 * per alignment AC6 Checks to be made at all points during attack/defense modification 1. The difference between attacker power and defender resistance is greater than 10 a. Stop attack modification **Exception** EX1 Group chosen for transferable power is not owned by the attacker or ally Cases 1. Display error message 2. Return to Player Turn step 4 EX2 The amount of money spent by either side makes the roll impossible or automatically fail 1. Display error message 2. Return to Attack to Control step 3 EX3 The player attempts to use a group that has already attacked or aided in an attack on the 1. System returns error message 2. Return to Attack to Control step 3 EX4 The player has no open control arrows 1. System returns error message 2. Return to Attack Group use case

Name	Attack to Neutralize
ID	UC_A02
Description	The attacker chooses to neutralize a group owned by another player, moving it into the uncontrolled groups
Actors	Attacker, target
Benefits	Allows an attacker to remove a group from the control of another
Frequency	Only when an attack to neutralized is announced and made
Trigger	Upon the announcement of an attack and money is spent to conduct the attack
Preconditions	The attack was announced, including the target, assistance and type
Postconditions	If the attacker succeeded the group is now no longer owned by the defender If the attacker failed, nothing changes
Main	 Roll two dice (see AC1) (see EX4) Request aid for attack (see AC2) Attacker spends money on attack Defender responds (see AC3) (see EX2) Return to step 3 until both players stop spending (see AC4)
Alternate Cases	AC1 The sum of the dice roll is 11 or 12 1. Automatic failure 2. Return to step 4 if a second action has not been taken, otherwise, step 5 AC2 Transferable power added to attacker power 1. Add transferable (##<-this one) power to the attackers power (this one->#/#) (see AC2.1) (see EX1, EX3) AC3 The defender chooses to defend themselves 1. Defender can spend money to defend themselves (see AC5) AC4 The attacker's roll is greater than the defender resistance (see AC5 for a list of different effects on attacks) 1. Attack failed 2. Return to Player Turn step 4 if second action not taken, else return to Player Turn step 5 AC5 List of different effects upon attack (see AC6) 1. Attacker aids their own attacking group with other groups a. Attacker Power = Attacker Power + Aid Power 2. Attacker Power = Attacker Power + 6 3. Attacker Power = Attacker Power + 1* every MB spent 4. The alignment of the attacker group is the same as the defender group a. Attacker Power = Attacker Power + 4* per alignment 5. Defender has their resistance boosted by the power structure a. If within 1 of Illuminati, +10, 2 = +5, 3 = +2, >3 = 0

6. Defender pays to boost their resistance a. Defender Resistance = Defender Resistance + 1 * every MB spent from Illuminati, + 2 * every MB spent from group treasury 7. The alignment of the attacker group is the opposite of the defender group a. Attacker Power = Attacker Power - 4 * per alignment AC6 Checks to be made at all points during attack/defense modification 1. The difference between attacker power and defender resistance is greater than 10 a. Stop attack modification **Exception** EX1 Group chosen for transferable power is not owned by the attacker or ally Cases 1. Display error message 2. Return to Player Turn step 4 EX2 The amount of money spent by either side makes the roll impossible or automatically fail 1. Display error message 2. Return to Attack to Neutralize step 3 EX3 The player attempts to use a group that has already attacked or aided in an attack on the same turn 1. System returns error message 2. Return to Attack to Neutralize step 3 EX4 The target group is not controlled by a player 1. System returns error message 2. Return to Attack Group use case

Name	Attack to Destroy
ID	UC_A03
Description	The attacker chooses to neutralize a group owned by anyone, removing it from play
Actors	Attacker, target
Benefits	Allows an attacker to remove a group from play entirely
Frequency	Only when an attack to neutralized is announced and made
Trigger	Upon the announcement of an attack and money is spent to conduct the attack
Preconditions	The attack was announced, including the target, assistance and type
Postconditions	If the attacker succeeded the group is now no longer owned by any player and is moved to the dead group pile All subordinates of killed group are now uncontrolled If the attacker failed, nothing changes
Main	 Roll two dice (see AC1) (see EX4) Request aid for attack (see AC2) Attacker spends money on attack Defender responds (see AC3) (see EX2) Return to step 3 until both players stop spending (see AC4)
Alternate Cases	 AC1 The sum of the dice roll is 11 or 12 1. Automatic failure 2. Return to step 4 if a second action has not been taken, otherwise, step 5 AC2 Transferable power added to attacker power 1. Add transferable (#/#<-this one) power to the attackers power (this one->#/#) (see AC2.1) (see EX1, EX3) AC3 The defender chooses to defend themselves 1. Defender can spend money to defend themselves (see AC5) AC4 The attacker's roll is greater than the defender resistance (see AC5 for a list of different effects on attacks) 1. Attack failed 2. Return to Player Turn step 4 if second action not taken, else return to Player Turn step 5 AC5 List of different effects upon attack (see AC6, AC7) 1. Attacker aids their own attacking group with other groups a. Attacker Power = Attacker Power + Aid Power 2. Attacker pays to boost their power
	 Attacker pays to boost their power a. Attacker Power = Attacker Power + 1 * every MB spent The alignment of the attacker group is opposite as the defender group a. Attacker Power = Attacker Power + 4 * per alignment Defender has their resistance boosted by the power structure a. If within 1 of Illuminati, +10, 2 = +5, 3 = +2, >3 = 0 Defender pays to boost their resistance

- a. Defender Power = Defender Power + 1 * every MB spent from Illuminati, + 2 * every MB spent from group treasury
- 6. The alignment of the attacker group is the same of the defender group
 - a. Attacker Power = Attacker Power 4 * per alignment

AC6 Checks to be made at all points during attack/defense modification

- 1. The difference between attacker power and defender resistance is greater than 10
 - a. Stop attack modification

AC7 The defending group has no power

- 1. Unless the card Whispering Campaign is played, the group cannot be directly targeted for destruction
- 2. Return to Attack Group use case

Exception Cases

EX1 Group chosen for transferable power is not owned by the attacker or ally

- 1. Display error message
- 2. Return to Attack Group use case

EX2 The amount of money spent by either side makes the roll impossible or automatically fail

- 1. Display error message
- 2. Return to Attack to Destroy step 3

EX3 The player attempts to use a group that has already attacked or aided in an attack on the same turn

- 1. System returns error message
- 2. Return to Attack to Destroy step 3

EX4 The target group is not controlled by a player

- 1. System returns error message
- 2. Return to Attack Group use case

EX5 The target group is itself

- 1. System returns error message
- 2. Return to Attack Group use case

Name	Money Transfer
ID	UC_T02
Description	Player moves money between their controlled groups
Actors	Player
Benefits	Allows the user to move money among their controlled groups as necessary
Frequency	Once per turn
Trigger	The user chooses to move money as one of their two actions per turn
Preconditions	The user has a group other than their Illuminati group
Postconditions	Money has moved between two chosen groups
Main	Choose a group to transfer money from Choose a group to transfer money to
Alternate Cases	None
Exception Cases	EX1 The player does not have any group other than their Illuminati card 1. Display error. 2. Return to Player Turns Use Case Step 6 EX2 Player transfers more money than they have 1. Displays error "invalid amount" EX3 Player tries to transfer money to or from a group they don't own 1. Display error 2. Return to Player Turns Use Case Step 6

Name	Moving A Group
ID	UC_T03
Description	The player can restructure their controlled groups as the player deems necessary
Actors	Player
Benefits	Allows the user to restructure their groups, including all of the groups that those groups control
Frequency	Once per turn
Trigger	The user chooses to restructure their groups as one of their two actions per turn
Preconditions	The user is in control of another group
Postconditions	The power structure for the player's groups has changed
Main	Player moves group(s)
Alternate Cases	None
Exception Cases	EX1 The player does not have any group other than their Illuminati card 1. Return to Player Turn step 4 EX2 Player attempts to move unowned group 1. Display "error" message 2. Return to Player Turns Use Case

Name	Trade to a Player
ID	UC_T05
Description	Players can giveaway or trade groups, special cards, or money
Actors	Players
Benefits	Players can gain necessary cards or lose unnecessary cards
Frequency	Transferring money or special cards can happen anytime during the game
Trigger	Player decides to transfer or trade with another player
Preconditions	During a player's turn Player has something to gift or trade
Postconditions	Gifter loses card or money. Giftee receives card or money
Main	Choose a player to trade or gift Choose what to trade or gift
Alternate Cases	AC1 Player chooses to transfer group 1. Can only transfer during the turn of one of the players involved
Exception Cases	EX1 Player attempts to transfer cash not form an Illuminati Card 1. Display error message "Cash must transferred to and from Illuminati cards only" 2. Return to Player Turns Use Case Step 7 EX3 If Player doesn't anything to gift or trade 1. Display "error" and return to player turn

Name	Use a Special Card				
ID	UC_T06				
Description	Player can choose to use or discard a Special Card				
Actors	Player				
Benefits	Gives advantage to players who plays the special card				
Frequency	Used once either during player's turn or another player's turn depending on restrictions on the card				
Trigger	Player announces to use a special card				
Preconditions	Player must have a special card				
Postconditions	Discard special card after use				
Main	 Player announces and decides to use or discard a Special Card when usable (AC1 or AC2 depending on restrictions) Player declares an attack (see AC2) Player declares to abolish another player's "privilege" (see AC3) Special Card effects are activated, affecting the players involved 				
Alternate Cases	AC1 The special card has no restrictions 1. Can use anytime during the game AC2 The special card has listed restrictions 1. Card must be used at a specific time depending on the restriction AC3 Player declares an attack "privileged" 1. Must discard 1 of player's, who declared it, special cards AC4 Player declares to abolish another player's "privilege" 1. Must discard 2 of player's, who declared it, special cards				
Exception Cases	EX1: Player attempts to use a non-special card 1. Returns to user "cannot use that card as a Special card"				

Name	Special Powers
ID	UC_T07
Description	Player can use special-power actions
Actors	Player
Benefits	Gives a slight advantage to the player near the end of their turn
Frequency	Once per turn
Trigger	Player decides to use special-power
Preconditions	Player's turn Must be done after the 5th sequence of play
Postconditions	Gnomes of Zurich has transferred money Bermuda Triangle has reorganized their groups
Main	1. See AC1
Alternate Cases	AC1 Actions differ for each Illuminati Card 1. The Gnomes of Zurich: May move money freely at end of turn 2. The Bermuda Triangle: May reorganize groups freely at the end of turn
Exception Cases	EX1 If another Illuminati Card attempts to do these actions 1. Do Nothing 2. Return to Player Turns Step 10

Name	In-Game Menu			
ID	UC_G03			
Description	Menu that allows the user to select what they want			
Actors	Player			
Benefits	Allows the user to adjust settings or leave the session			
Frequency	Whenever the player wants			
Trigger	The player presses the button to open the menu			
Preconditions	The player is in a game, at any stage			
Postconditions	The player returns to the game The player leaves the session			
Main	Player presses menu button (see AC1)			
Alternate Cases	AC1 The player chooses between different menu options 1. Return to game 2. Adjust game settings (see EX1) 3. Leave game session			
Exception Cases	EX1 Changing the settings causes the player to leave the game session 1. System displays error to user 2. Return player to main menu 3. Attempt to re-connect player to session			

Name	Options			
ID	UC_M02			
Description	Allows the user to adjust specific game settings			
Actors	User			
Benefits	Can adjust game settings fit for user's own personal needs			
Frequency	Any time before game starts			
Trigger	User selects "options" in the in-game menu			
Preconditions	Illuminati Game started and running			
Postconditions	Game is adjusted according to settings set			
Main	 Player selects the options and opens option menu Player can select settings within the option menu (see AC1) 			
Alternate Cases	AC1: Player chooses settings within the option menu: 1. Select Display Settings Adjusts game resolution size 2. Select Sound Settings Increases or Decreases background music or sound effects 3. Select Control Settings Adjust keyboard and mouse mapping controls			
Exception Cases	EX1 Game crashes when changing settings 1. Display error to user 2. If in a game, attempt to re-connect on restart			