USE CASES/ UML
FOR
ILLUMINATI

TEAM ARK

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PRE-GAME:

USE CASE # 1	Starting the Game	
Goal in Context	Start the Game, allow the player to begin the game	
Scope & Level	Own Individual scope,start the game. Level of importance is critical.	
Preconditions	N/A	
Success End Condition	The applications begins successfully. The player is in a game.	
Failed End Condition	The game does not start.	
Primary Actors	The player.	
Secondary Actors	N/A	
Trigger	The player wants to play a game. They start the application.	
DESCRIPTION	**Step**	**Action**
	1	The player wants to start the game.
	2	They open the application.

	3	They select the start option. (start( ) method).
	4	The game begins. Dice are rolled to determine player order. (rollDice( )).
	5	Deck() to create deck. Shuffle() to shuffle deck().
	6	transfer money() to initialize the players with starting amounts.
	7	Illuminati card is distributed to players.
EXTENSIONS	**Step**	**Branching Action**
	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Starting the game	
Priority:	High level of importance.	
Performance	One day to implement.	
Frequency	Will be used once every game - to start the game.	
Channels to actors	Interactive- the user will select the "start" option.	

OPEN ISSUES	The game doesn't start.
Due Date	July 3, 2019
AUTHOR	ARK
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USE CASE #2	Shuffling the cards	
Goal in Context	To put the cards in random order aka shuffle them efficiently	
Scope & Level	In the scope of cards. High priority level.	
Preconditions	The cards may be shuffled or in order.	
Success End Condition	The order of the cards is random.	
Failed End Condition	The order of the cards has not changed.	
Primary Actors	Players	
Secondary Actors	N/A	
Trigger	Player selects start the game.	
DESCRIPTION	**Step**	**Action**
	1	Take the cards as is in their current state
	2	Use the random java library to randomized the cards
	3	The cards are in a new order
	4	Finished- the deck of the cards are now shuffled

	5	
EXTENSIONS	**Step**	**Branching Action**
	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Shuffling the Cards	
Priority:	High Level of Priority.	
Performance	One day to implement.	
Frequency	Used one time at the beginning of the game	
OPEN ISSUES	N/A	
Due Date	July 3, 2019	
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USE CASE # 3	Draw Illuminati Cards
Goal in Context	Each player draws an Illuminati Card from the deck.
Scope & Level	Inside of Deck class.
Preconditions	All Illuminati cards are grouped together and shuffled.
Success End Condition	Each player will have one Illuminati Card.
Failed End Condition	If more than eight players try to play the game there will not be enough Illuminati cards.
Primary Actors	Illuminati Cards
Secondary Actors	Players
Trigger	Beginning of the Game

DESCRIPTION	Step	Action
	1	The illuminati cards are all placed at the top of the deck.
	2	Each player takes one Illuminati Card and places it face up in front of him/her.
	3	Each player draws its designated income and places it on the card. Reference Use Case 7.
	4	All the remaining unused Illuminati Cards are taken off the deck and not use for the remaining of the game.

EXTENSIONS	Step	Branching Action
		N/A

SUB-VARIATIONS	Step	Branching Action
	1	If there are more than eight players there will not be enough Illuminati Cards to play, remaining players will have to wait for the next game.

RELATED INFORMATION	Illuminati Cards
Priority:	High Level of Priority.
Performance	Two days to implement.
Frequency	Beginning of each game.
OPEN ISSUES	Not having enough cards for all the players.
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USE CASE # 4	Draw Four Uncontrolled Groups	
Goal in Context	Turns four cards face-up and places them in the center of the table.	
Scope & Level	It's own scope.	
Preconditions	Removes the eight Illuminati cards, each player drawing an Illuminati card, draws income from bank, and shuffling remaining cards.	
Success End Condition	Has 4 Uncontrolled groups, non special cards on uncontrolled group area.	
Failed End Condition	Does not get the amount of groups	
Primary Actors	Programmer	
Secondary Actors	N/A	
Trigger	When user starts the game.	
DESCRIPTION	**Step**	**Action**
	1	Turn four cards face-up and place them in the center of the table.
	2	If any Special cards are turned over, they have to be buried in the deck.
	3	Turn over new Groups and place them in the middle to replace the special cards.
EXTENSIONS	**Step**	**Branching Action**

	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Draw four uncontrolled groups	
Priority:	High level of Priority	
Performance	One day	
Frequency	Once in the beginning of the game	
OPEN ISSUES	N/A	
Due Date	July 3rd 2019	
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Game Logic:

USE CASE #5	Rolling the Dice	
Goal in Context	To roll the dice during the game- done by the player	
Scope & Level	Dice is its own scope. It is essential to the game. High Priority level.	
Preconditions	The dice may or may not have been rolled. It is a new user's turn and they wish to roll the dice.	
Success End Condition	The dice have been rolled and the user will/will not perform an action depending on the results of their roll.	
Failed End Condition	The dice are not rolled and the user does not know what to do because the dice were required to perform an action.	
Primary Actors	Players	
Secondary Actors	N/A	
Trigger	A players new turn. They need to roll the dice.	
DESCRIPTION	**Step**	**Action**
	1	At the beginning of each game the dice are rolled to determine which player will go first.
	2	If a player wants to attack another group, he subtracts power-resistance and based on the number he/she gets. She will need to roll a value of that amount or less.
EXTENSIONS	**Step**	**Branching Action**

	1a	The player that gets the highest value will go first.
SUB-VARIATIONS	**Step**	**Branching Action**
		N/A
RELATED INFORMATION	Rolling the Dice	
Priority:	High level of priority	
Performance	Two days to implement it	
Frequency	The dice will be rolled at the beginning of the game and whenever a player wants to perform an attack.	
Channels to actors	Interactive with players	
OPEN ISSUES	-The dice do not randomize -The dice do no function	
Due Date	July 3, 2019	
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USE CASE #6	Paying the Bank	
Goal in Context	The goal is to pay the bank whenever a user wants to get more power for an attack or defend themselves from an attack.	
Scope & Level	Inside of bank class.	
Preconditions	Player has enough money to pay the bank.	
Success End Condition	To successfully make the transaction with the bank.	
Failed End Condition	Not having enough money to give to the bank.	
Primary Actors	Players, bank.	
Secondary Actors	N/A	
Trigger	-User wants to attack another group and needs to increase power. - User is being attacked and needs to increase resistance.	
DESCRIPTION	**Step**	**Action**
	1	The user pays the bank when they want to attack another group, but do not have enough power or want to increase their chances.
	2	The user pays the bank if they are being attacked and want to increase their resistance, to decrease the chances of the other player's success on the attack.
EXTENSIONS	**Step**	**Branching Action**

		N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	If the player does not have enough money, he/she will not be able to increase their power nor resistance.
	2	The player can play the bank but that does not guarantee that they will successfully attack or resist the attacked.
RELATED INFORMATION	Paying the bank.	
Priority:	High Level of Priority.	
Performance	Three days.	
Frequency	Based on whether the player wants to increase their power/resistance.	
OPEN ISSUES	Players not having enough money to pay the bank.	
Due Date	July 07, 2019	
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USE CASE #7	Collecting Money from the Bank	
Goal in Context	To give the players money at the beginning of the game, each player's turn.	
Scope & Level	Inside of Bank class.	
Preconditions	Bank needs to have money in order to give the player.	
Success End Condition	Getting the right amount of money from the bank.	
Failed End Condition	Bank does not have enough money.	
Primary Actors	Bank, players.	
Secondary Actors	N/A	
Trigger	The bank needs to give the players money.	
DESCRIPTION	**Step**	**Action**
	1	The players collect the designated amount of income at the beginning of the game for each Illuminati card.
	2	The players collect income for all the cards that have income at each turn.
	3	If the group has a special ability, they collect income.
EXTENSIONS	**Step**	**Branching Action**
	1a, 2a	Money is placed on top of its designated card.

	2b	The IRS gets income by taxing each of the other players 2 MB on the owning player's turn.
	2c	The post office costs 1 MB per turn to control.
SUB-VARIATIONS	**Step**	**Branching Action**
		N/A
RELATED INFORMATION	Getting money from the bank	
Priority:	High Level of Priority.	
Performance	Two days to implement.	
Frequency	Each player's turn and when the groups perform their special ability.	
OPEN ISSUES	Bank not having money to pay players.	
Due Date	July 3, 2019	
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USE CASE # 8	Take Regular Actions	
Goal in Context	Player decides to take any of the regular actions that will count against their two actions during their turn.	
Scope & Level	Inside of the Gameclass.	
Preconditions	Currently the players turn	
Success End Condition	The player successfully took any of the regular actions.	
Failed End Condition	Player did not succeed when taking his desired action.	
Primary Actors	Player	
Secondary Actors	N/A	
Trigger	Player decides to take an action that will count towards his 2 actions allowed.	
DESCRIPTION	**Step**	**Action**
	1	The player can take an attack another group action. Reference Use Case 9.
	2	The player can transfer Money. Reference Use Case 10.
	3	The player can Move a Group. Reference Use Case 11.
	4	The player can Give a group Away. Reference Use case 12.
EXTENSIONS	**Step**	**Branching Action**

	1a	The player can attack to control, neutralize or destroy a group.
	2a	The player can transfer money to other players.
	3a	The player can move groups within their own set of groups.
	4a	The player can group away, and the group will become an uncontrolled group.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	The player takes his/her action, but does not succeed at attacking, moving groups, etc.
RELATED INFORMATION	Taking Regular Actions	
Priority:	High Level of Priority	
Performance	1 week	
Frequency	Everytime it is a players turn	
Channels to actors	Interactive with the player who selects the actions	
OPEN ISSUES	Taking the action, but not succeeding at it.	
Due Date	July 3, 2019	
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USE CASE #9	Attack a group	
Goal in Context	To take the right action against a group it could be control neutralized or destroy a group.	
Scope & Level	Inside of Gameclass	
Preconditions	The user needs to decide what action to take against a certain card.	
Success End Condition	Successfully taking action against a group.	
Failed End Condition	Failing to either neutralized, destroy or control a group	
Primary Actors	Groups	
Secondary Actors	Players	
Trigger	-User selects the action that will be taken	
DESCRIPTION	**Step**	**Action**
	1	User announces which group is attacking.
	2	User announces which one is being attacked.
	3	User announces the type of attack.
	4	The user then rolls two dice.

	5a	The user can use a special power to help attack or defend against certain opponents.
	6	The attacker can spend money to improve his/her chances of winning.
	7	The defending group can spend money to increase its chances of winning.
	8	Any group may aid one attack by adding transferable power.
EXTENSIONS	**Step**	**Branching Action**
	3a	User can attack to control (reference use case 9a), to neutralize a group(reference use case 9b), or to destroy a group(reference use case 9c).
	4a	To find the roll for a successful attack subtract the defending group's resistance from the attackers power.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	The player will receive an automatic failure if he/she rolls 11 or 12.
RELATED INFORMATION	Attack a group, taking these actions will count against their 2 allowed actions at each turn.	
Priority:	Moderate level of Priority.	
Performance	Five days to implement.	
Frequency	Whenever the user decides to attack another group.	
OPEN ISSUES	N/A	

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USE CASE #9a	Attack to Control
Goal in Context	To take control of uncontrol groups.
Scope & Level	Inside of Game class.
Preconditions	Is the player's turn and he/she decides to perform an attack to control.
Success End Condition	Successfully get the defending group.
Failed End Condition	Failing to get the defending group.
Primary Actors	Groups.
Secondary Actors	Players.
Trigger	The user decided to take an attack action.

DESCRIPTION	Step	Action
	1	The user follows the steps from Attack a group(Use Case 9).
	2	Decide the result of the attack.
	3	If the attacker wins, the new card is placed in the power structure, with its inward -pointing arrow next to an upward-pointing arrow.
	4	If the captured groups has groups of its owned, they are also captured.

	5	Half of the money remaining in the captured groups treasures goes with them to the new owner; the rest goes to the bank.
EXTENSIONS	**Step**	**Branching Action**
	2a	If the attacker wins, he/she takes control of the defending group.
	2b	If the attacker loses, the defending group remains where it was.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	If the attack fails, the user will not take control of the defending group.
RELATED INFORMATION	Attack to control.	
Priority:	High level of priority.	
Performance	Two days to implement.	
Frequency	Whenever the user decides to take perform an attack to control.	
OPEN ISSUES	Failing to control the defending group.	
Due Date	July 3, 2019	
AUTHOR	ARK	
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USE CASE #9b	Attack to Neutralize
Goal in Context	The goal is to take control of a group owned by another player.
Scope & Level	Inside of Game class.
Preconditions	Is the player's turn and he/she decides to perform an attack to neutralize.
Success End Condition	Successfully neutralizing the other player's group.
Failed End Condition	Failing to neutralize the desired group.
Primary Actors	Groups.
Secondary Actors	Players.
Trigger	The player has decided to take an attack to neutralize.

DESCRIPTION	Step	Action
		The user follows the steps from Attack a group(Use Case 9).
	1	The user must target a group that is already controlled by another player.
	2	The attack gains an additional +6 bonus.
	3	The attacker does not need an open control arrow,
	4	If the attack succeeds, the target group and any subordinates are placed in the uncontrolled are.

	5	All their money is then returned to the bank.
EXTENSIONS	**Step**	**Branching Action**
	4a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	If the attack fails, the group remains in the attacked player's power.
RELATED INFORMATION	Attack to neutralized.	
Priority:	High level of Priority.	
Performance	One day to implement.	
Frequency	Whenever the user decides to take an attack to neutralized.	
OPEN ISSUES	The attacked might fail, and the attacked group will remain in the power of the attacked player.	
Due Date	July 3, 2019.	
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USE CASE # 9c	Attack to Destroy	
Goal in Context	The goal is to destroy a group.	
Scope & Level	Inside of Game class.	
Preconditions	Is the player's turn and he/she decides to perform an attack to destroy.	
Success End Condition	Successfully destroying a group.	
Failed End Condition	Failing to destroy the desired group.	
Primary Actors	Groups.	
Secondary Actors	Players.	
Trigger	The player has decided to take an attack to destroy.	
DESCRIPTION	**Step**	**Action**
	1	The user follows the steps from Attack a group(Use Case 9).
	2	Instead of Power minus resistance, it is power minus power.
	3	Groups with different philosophies destroy each other more easily.
	4	An attack to destroy gets a +4 bonus for every opposite alignment, and a -4 for every identical alignment.

	5	A group does not need an open control arrow in order to attempt destruction.
	6	If the attack succeeds the target group goes to the "dead pile".
EXTENSIONS	**Step**	**Branching Action**
	2a	A group with no power cannot be destroyed except by a special card(whispering campaign)
	6a	All the subordinate groups become uncontrolled. They can be revived only by a special card (media campaign).
SUB-VARIATIONS	**Step**	**Branching Action**
	1	If the attack fails, the attacked group where remain in its current position.
RELATED INFORMATION	Attack to destroy.	
Priority:	High level of priority.	
Performance	One day to implement.	
Frequency	Whenever the player decides to perform an attack to destroy.	
OPEN ISSUES	The attacked might fail, and the attacked group will remain in its current position.	
Due Date	July 3, 2019.	
AUTHOR	ARK	

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USE CASE # 10	Transfer Money	
Goal in Context	The goal is to transfer money between groups.	
Scope & Level	Inside Board class.	
Preconditions	Group has enough money to transfer.	
Success End Condition	Successfully transferring money between groups.	
Failed End Condition	-Transfering the wrong amount of money. -Transfering to the wrong group.	
Primary Actors	Groups	
Secondary Actors	Players	
Trigger	If the player decides to take the Transfer Money Action.	
DESCRIPTION	**Step**	**Action**
	1	If the player selects the Transfer Money Action, money is transfer between groups.
EXTENSIONS	**Step**	**Branching Action**
	1a	Taking this action will not count against the two actions a player is allowed.
	1b	This action may be taken before, between, or after a player's regular two actions.

SUB-VARIATIONS	Step	Branching Action
	1	N/A

RELATED INFORMATION	Transfer Money
Priority:	Moderate Level of Priority
Performance	One day
Frequency	Whenever the player decides to take any action.
OPEN ISSUES	Group not having enough money to transfer
Due Date	July 3rd 2019
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USE CASE # 11	Move a group	
Goal in Context	Allowing the player to reorganize his/her groups.	
Scope & Level	Inside of Board game.	
Preconditions	Player has groups at undesired positions.	
Success End Condition	Groups located at the desired positions.	
Failed End Condition	Groups located in the wrong places.	
Primary Actors	Groups	
Secondary Actors	Players	
Trigger	The player decides to take the Move a group action.	
DESCRIPTION	**Step**	**Action**
	1	Player selects the group that he/she wants to move.
	2	Cards may be moved, but not allowed to overlap.
	3	This action counts against one of the two allowed actions of a player.
EXTENSIONS	**Step**	**Branching Action**
	1a	Group can be moved to a vacant outgoing control arrow.

	1b	If the group has any puppets, then they are also moved.
	2a	If a moving group causes its puppets to overlap, any of them may be moved to different control arrows, as long as they are still controlled by the same master.
	2b	Any puppet that is not prevented from overlapping is lost.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Use-Case 10	
Priority:	Moderate level of priority	
Performance	One day	
Frequency	Whenever the user decides to take this action	
OPEN ISSUES	Having overlapping puppets will make a player lose that group and any puppets of it.	
Due Date	July 3rd 2019	
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USE CASE # 12	Give a group Away	
Goal in Context	To give your group to another player when they claim your group	
Scope & Level	Inside the board (game) class. This takes place during the game.	
Preconditions	Another player successfully claims your card, and you must hand it over	
Success End Condition	The group is successfully given away.	
Failed End Condition	The group (card) was not given away.	
Primary Actors	Groups	
Secondary Actors	Players	
Trigger	Another player decides he/she wants the group the user controls.	
DESCRIPTION	**Step**	**Action**
	1	In game, another player decides he/she wants to control a group.
	2	They roll the dice and the value returned does not exceed the value they bet on.
	3	The player pays and receives the new group.
	4	Money comes from the bank as a reward of the new group.
	5	The new group is now under control of the player.

EXTENSIONS	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Give a group away	
Priority:	High level of Priority	
Performance	1 week	
Frequency	Every game, very high frequency of use.	
Channels to actors	Interactive, user has to decide whether a group is wanted or not	
OPEN ISSUES	The group is not successfully given away.	
Due Date	July 3 2019	
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USE CASE #13	Gifts And Trades	
Goal in Context	To transfer groups, special cards, and money between players: sold, or given away.	
Scope & Level	Inside of Game class.	
Preconditions	The player has special cards, groups and money to trade or gift.	
Success End Condition	-Giving away the desired group, special card or money. -Trading and gaining whatever the player wanted to get.	
Failed End Condition	Not having enough of the things he wants to give away or trade.	
Primary Actors	Groups, money, special cards.	
Secondary Actors	Players.	
Trigger	The player selects that he wants to give away or trade a special card, group or money.	
DESCRIPTION	**Step**	**Action**
	1	Groups, special cards and money may be transferred between players.
	2	Cash or special cards may be transferred any time. This does not count as an action.
	3	Groups may be transferred or given away during each player's turn.
EXTENSIONS	**Step**	**Branching Action**

	2a	When cash is transferred it must come from an Illuminati card and go to another.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	The player wants to trade for something else, but he/she does not have anything to trade for. He/she will not be able to trade.
RELATED INFORMATION	Gifts and trades.	
Priority:	Moderate level of priority	
Performance	Four days to implement.	
Frequency	Whenever the player decides he wants to give away or trade a special card, money or a group.	
OPEN ISSUES	Not having enough money, special cards, groups to give away or trade.	
Due Date	July 3, 2019.	
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USE CASE # 14	Transfer Group	
Goal in Context	To transfer a desired group to another player.	
Scope & Level	Inside Board Class.	
Preconditions	Having a group that the player does not need.	
Success End Condition	Giving , selling trading a group to get a group or groups in return with another player.	
Failed End Condition	Trading a group and not receiving the group that the player wants.	
Primary Actors	Groups	
Secondary Actors	Players	
Trigger	If the player decides to take the transfer group action.	
DESCRIPTION	**Step**	**Action**
	1	If it's the user's turn he/she will decide if she wants to give away/ transfer or trade a group. Reference use case 13.
EXTENSIONS	**Step**	**Branching Action**
	1a	A player can only move a group away with the permission of the player who receives it.
	1b	When a group is transferred to another group, its puppets must go with it, along with all treasuries involved.

	1c	If the group received is overlapping, the player must eliminate them.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	If the receiving player does not want that group, the transfer will not suceed.
RELATED INFORMATION	Transfer Group	
Priority:	Moderate Level of Priority	
Performance	One day	
Frequency	Whenever the user decides to take the Transfer Group action.	
OPEN ISSUES	Not having groups to transfer.	
Due Date	July 3rd 2019	
Create date	June 11, 2019	

USE CASE # 15	Throwing the Game	
Goal in Context	To perform a trade that will let both players involved win.	
Scope & Level	Inside Board class.	
Preconditions	Player decides to throw the game to either help another player or help himself/herself.	
Success End Condition	To successfully accomplished their desired goal.	
Failed End Condition	N/A	
Primary Actors	Players	
Secondary Actors	N/A	
Trigger	-If a player is losing and wants to help the odds of another player. -When a player wants to take a surprise action against another player.	
DESCRIPTION	**Step**	**Action**
	1	Player decides to trade with another player money, groups, etc.
EXTENSIONS	**Step**	**Branching Action**
	1a	Player can trade at the beginning of his/her turn and then surprise everyone by revealing a special card or pulling an unexpected attack.
	1b	If a player is losing and decides to throw his game, he can not decide the winning user but he can decide who else loses.

SUB-VARIATIONS	Step	Branching Action
	1	N/A
RELATED INFORMATION	Throwing the Game	
Priority:	Moderate Level of Priority	
Performance	One day to implement	
Frequency	-Whenever a player is losing. -Whenever a player decides to surprise others with a special card or unexpected attack.	
OPEN ISSUES	Not getting the desired outcome planned.	
Due Date	July 3rd 2019	
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USE CASE #16	Deal Binding	
Goal in Context	To successfully making an exchange between players.	
Scope & Level	Inside of Game class.	
Preconditions	The players have money, special cards or groups to deal.	
Success End Condition	Players exchanging and receiving desired things.	
Failed End Condition	Player promising that they will pay up next turn, but not paying.	
Primary Actors	Special cards, groups and money.	
Secondary Actors	Players.	
Trigger	If the player decides to make an exchange with another player.	
DESCRIPTION	**Step**	**Action**
	1	Both players have to agree on making a deal.
	2	The deal is binding if they make the exchange immediately.
	3	Once they have agreed on the deal, they can successfully exchange things.
EXTENSIONS	**Step**	**Branching Action**
	2a	The deal is not binding if it involves an exchange of one thing now for something in the future

SUB-VARIATIONS	Step	Branching Action
	1	If someone offers to exchange next turn, and they give a player one thing the player does not have to pay in that turn if he/she does not want to.

RELATED INFORMATION	Deal Binding.
Priority:	Low level of Priority.
Performance	One day to implement.
Frequency	Whenever two players agree on an immediate exchange.
OPEN ISSUES	If the deal is not for an immediate exchange it is not a deal binding.
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USE CASE #17	Action: Passing	
Goal in Context	Skip a turn- no actions taken when its the players turn.	
Scope & Level	Within the player's actions when it's their turn. Important to the game as it is an option the user may take.	
Preconditions	It is currently the players turn.	
Success End Condition	The player doesn't take action on their turn.	
Failed End Condition	The user is forced to take action on their turn.	
Primary Actors	The player.	
Secondary Actors	N/A	
Trigger	The player does not want to take action. They would rather have their turn be skipped over. The game goes on to the next player.	
DESCRIPTION	**Step**	**Action**
	1	It is currently the player's turn. They choose to pass their turn.
	2	The game skips them and the next player plays.
	3	The player receives 5 MB.
EXTENSIONS	**Step**	**Branching Action**

	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Taking action: Passing	
Priority:	Passing is important to the game as it is an option for the player. It has a high priority.	
Performance	This action can be done every time it is a player's turn.	
Frequency	Can be used every turn, if the player desires.	
Channels to actors	Interactive. The player can decide whether he/she wants to pass or not.	
OPEN ISSUES	The player's selection to pass doesn't work. They are forced to take action.	
Due Date	July 3, 2019.	
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USE CASE #18	Add Targets	
Goal in Context	Adding more cards to the uncontrolled group.	
Scope & Level	Inside of Board class.	
Preconditions	If there are fewer than two groups in the uncontrolled area.	
Success End Condition	Having two or more cards in the uncontrolled area.	
Failed End Condition	Not having cards left to put in the uncontrolled area.	
Primary Actors	Groups	
Secondary Actors	Cards	
Trigger	When there are two cards in the uncontrolled area.	
DESCRIPTION	**Step**	**Action**
	1	At the end of each player's turn, if the uncontrolled are has fewer than two groups. Draw cards until there are two uncontrolled groups.
EXTENSIONS	**Step**	**Branching Action**
	1a	If a special card is drawn, discard it and keep drawing cards until a group shows up.
SUB-VARIATIONS	**Step**	**Branching Action**

	1	If there are no more cards to draw from the deck of cards, there will be less than two cards in the uncontrolled area.
RELATED INFORMATION	Add targets.	
Priority:	Low level of priority.	
Performance	Two days to implement.	
Frequency	Whenever there are less than 2 cards in the uncontrolled area.	
OPEN ISSUES	Not having any more cards to draw.	
Due Date	July 3, 2019.	
AUTHOR	ARK	
Create date	June 12, 2019	

USE CASE # 19	Draw a card	
Goal in Context	To get special cards or groups to control.	
Scope & Level	Inside Board class.	
Preconditions	Have cards from special groups and other groups face down in a stack.	
Success End Condition	Keeping special cards to use in the future or getting to control groups.	
Failed End Condition	No more cards on the deck.	
Primary Actors	Free Turn	
Secondary Actors	Players	
Trigger	Player's turn in the game.	
DESCRIPTION	**Step**	**Action**
	1	At each player's turn, they get to draw a card from the deck.
EXTENSIONS	**Step**	**Branching Action**
	1a	If the card is a special card, the player gets to keep the card, can place the card face-up or face-down in front of him/her.
	1b	If the card is a Group, the player places it facing-up in the center of the table, with the other uncontrolled cards.

SUB-VARIATIONS	Step	Branching Action
	1	N/A
RELATED INFORMATION	Draw a Card	
Priority:	High level of Priority	
Performance	Two days to implement.	
Frequency	At each player's turn.	
Channels to actors	N/A	
OPEN ISSUES	Not having more cards on the deck to draw.	
Due Date	July 3rd 2019	
...any other management information...	N/A	
Superordinates	N/A	
Subordinates	N/A	
AUTHOR	ARK	
Create date	June 12, 2019	

USE CASE # 20	Take any free action	
Goal in Context	To take an action, without affecting the two actions the player has.	
Scope & Level	Inside board class	
Preconditions	Player has already taken a card from the deck and collected his/her income during her turn.	
Success End Condition	Taking the free action and still having the two remaining actions for her/his turn.	
Failed End Condition	N/A	
Primary Actors	Player	
Secondary Actors	N/A	
Trigger	The player decides to take an action, that will not affect his/her two giving actions at each turn.	
DESCRIPTION	**Step**	**Action**
	1	Player can drop a group as his/her free action.
	2	Player can give away money or specials as his/her free action.
	3	Player can use a special as his/her action.
	4	Player may aid an attack as his/her action.
EXTENSIONS	**Step**	**Branching Action**

	1a	Player can remove a Group from his/her power structure and return it to the uncontrolled area. Reference Use Case 22.
	2a	Player can give away money or specials at any time, not just during his/her turn. Reference Use Case 23.
	3a	The player can decide to use the special power of his/her assigned Illuminati card. Reference Use Case 18.
	4a	Player can use transferable power to assist another group during an attack. Reference Use Case 25.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	Taking any Free Action	
Priority:	Moderate Level of Priority	
Performance	One day to implement	
Frequency	Whenever the player decides to take this type of action.	
Channels to actors	N/A	
OPEN ISSUES	N/A	
Due Date	July 3rd 2019	
AUTHOR	ARK	

Create date	June 12, 2019

USE CASE # 21	Dropping a Group	
Goal in Context	Player wants to remove a group from their possession	
Scope & Level	-within the scope of the board during the players turn -in the game and within the deck	
Preconditions	-You can only give away a group to another player with their permission -Transferring one group counts as an action -You cannot "throw the game" by giving another player a group	
Success End Condition	- The group is no longer in the players possession	
Failed End Condition	The player still has the group they intended to drop.	
Primary Actors	Player	
Secondary Actors	N/A	
Trigger	The player wants to drop one of the groups in their possession.	
DESCRIPTION	**Step**	**Action**
	1	Player has a group they no longer want
	2	It is the players turn
	3	With the permission of another group, they give their group away.
EXTENSIONS	**Step**	**Branching Action**

	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION	N/A	
Priority:	High, essential to playing the game correctly	
Performance	-Per turn -to implement, should take at most 1 week	
Frequency	-Done everytime there is the	
Channels to actors	Interactive	
OPEN ISSUES	-Group doesn't get dropped	
Due Date	July 3, 2019	
...any other management information...	N/A	
Superordinates	N/A	
Subordinates	N/A	
AUTHOR	ARK	

Create date	June 12, 2019

USE CASE #22	Aiding An Attack
Goal in Context	Aids an attack implemented by another user within their turn during action phase.
Scope & Level	Scope within the action phase, level low priority
Preconditions	User has to be under action phase.
Success End Condition	Another user decides to aid the attack.
Failed End Condition	The user trying to aid does not successfully aid the attack.
Primary Actors	Other players
Secondary Actors	Player in turn
Trigger	User is under action phase and selects to attack a group. Use-Case#8

DESCRIPTION	Step	Action
	1	Player hits Action Phase and selects to attack a group.
	2	Then Computer asks if any other player wants partake in free a free action.
	3	A user selects they want to partake in the attack and aids the current user.
	4	The user moves to the roll dice phase.

EXTENSIONS	Step	Branching Action

	3a	When the user aids the attack, the player chooses a group that will help aid the attack.
	3b	There is now a combined power of the player attacking power with the transferable power that the other player chose to assist with the attack.
SUB-VARIATIONS	**Step**	**Branching Action**
	1	Other players can decline to aid with the attack.
RELATED INFORMATION		
Priority:	Low priority	
Performance	1 Week	
Frequency	At each of the attacking phases.	
Channels to actors	Interactive	
OPEN ISSUES	n/a	
Due Date	July 3rd 2019	
AUTHOR	ARK	
Create date	June 12, 2019	

USE CASE # 23	Giving away groups, special card, or money	
Goal in Context	A user gives away their groups, special card, or money.	
Scope & Level	Within the gifts and trades. Done at any time except when a privileged attack is underway.	
Preconditions	User most have groups, special cards, or money to give away.	
Success End Condition	Player is successful with gifting what they initially requested to give.	
Failed End Condition	Player does not successfully give away their card or money.	
Primary Actors	Player that is gifting their card or money.	
Secondary Actors	The player that is being gifted the card or money.	
Trigger	When under User Case 13 Gifts and trades	
DESCRIPTION	**Step**	**Action**
	1	User calls for gifting or trades.
	2	User decides to gift.
	3	The sequence goes on.
EXTENSIONS	**Step**	**Branching Action**
	2a	User selects to gift either special card, group, or money.

SUB-VARIATIONS	Step	Branching Action
	1	N/A
RELATED INFORMATION		
Priority:	Low	
Performance	1 week	
Frequency	At any moment except when under privileged attack.	
Channels to actors	Interactive	
OPEN ISSUES	N/a	
Due Date	July 3rd 2019	
AUTHOR	ARK	
Create date	June 12, 2019	

USE CASE # 24	Using a Special Card		
Goal in Context	To use a card that is considered special in game		
Scope & Level	Own scope. Level: During the gameplay phase within the board		
Preconditions	No pre condition		
Success End Condition	Use of special card		
Failed End Condition	Special card was neutralized.		
Primary Actors	Player using the special card.		
Secondary Actors	Player that is affected by the special card.		
Trigger	When player activates the special card during phase required.		
DESCRIPTION	**Step**	**Action**	
	1	Player activates special card.	
	2	Depending on the card, it can be activated whenever the card states.	
	3	Activate the card.	
	4	Discard the card.	
	5	Resume sequence of play.	

EXTENSIONS	Step	Branching Action
	1a	Special card can be activated once.
	2b	The special card is not an action unless it is stated on the card.
	3a	User can use the special ability within the card.
SUB-VARIATIONS	Step	Branching Action
	1	User can use any two special card to abolish someone else's privilege.
	2	Someone else can cancel by using "Secrets Man was not meant to know. "
	3	The player can replace the lost special card.
RELATED INFORMATION		
Priority:	low	
Performance	1 week	
Frequency	At any moment that the card is stated that can be used or when the user uses two special cards to abolish.	
Channels to actors	interactive	
OPEN ISSUES	none	
Due Date	July 3rd 2019	

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USE CASE # 25	Take Special-Power Actions	
Goal in Context	To use a card that is considered special in game	
Scope & Level	Depends on each card	
Preconditions	n/a	
Success End Condition	Activates special ability	
Failed End Condition	Ability is neutralized	
Primary Actors	Player using ability	
Secondary Actors	Player that is affected by ability	
Trigger	When the ability is activated.	
DESCRIPTION	**Step**	**Action**
	1	Player activates ability
	2	Depending on the ability itself, complete the ability that describes its action.
	3	Complete ability.
	4	Follow next sequence of play.
EXTENSIONS	**Step**	**Action**

	2a	If "any attempt" this gives an extra power to the holder of the card.
	2b	Receive indicated bonus.
	2c	Other abilities apply only to the card itself.
	2d	Oddball specials follow the instructions on the card.
SUB-VARIATIONS	**Step**	**Action**
	1	n/a
RELATED INFORMATION		
Priority:	High	
Performance	1 week	
Frequency	Once per turn or of amount of time ability desires.	
Channels to actors	Interactive	
OPEN ISSUES	na	
Due Date	July 3rd 2019	
AUTHOR	ARK	
Create date	June 12, 2019	

USE CASE # 26	Interference	
Goal in Context	A player or players decide to interfere in an attack.	
Scope & Level	In the scope of deck. High priority level	
Preconditions	At a players turn when he decides to attack a group.	
Success End Condition	The player interfering will spend MB he wishes to help with the interference.	
Failed End Condition	Player could not interfere with an attack from another player.	
Primary Actors	The person calling the interference.	
Secondary Actors	The individual player placing the attack.	
Trigger	When a person calls for the interference during the attack of another player within his or her turn.	
DESCRIPTION	**Step**	**Action**
	1	Player in turn places an attack to control a group.
	2	Another player that is not in turn can decide to interfere the attack.
	3	The User interfering contributes money from his Illuminati treasury only.

	4	This money will go to the bank.	
	5	Each MB spent affects the the needed dice roll by 1.	
	6	The user in turn may call their attack "Privilege!"	
	7	The other player may abolish the privileged attack.	
	8	Lastly, the user at turn rolls the dice to determine if their attack is successful.	
EXTENSIONS	**Step**	**Branching Action**	
	1a	See use-case 8.	
	2a	User that interferes can decide to interfere with the attack by aiding the attack.	
	2b	User that interferes can decide to interfere with the attack by opposing the attack.	
	4a	See Use Case # 4.	
	5a	See Use Case # 7.	
	6a	If a player calls privilege, he must discard any one special card when first the other player declares the attack.	
	6b	No one can interfere either for or against a privileged attack.	
	7a	The user trying to abolish may use the special card "Deep Agent, or by discarding two special cards.	
	7b	If the attack is abolished, it cannot be reinstated on the attack.	

SUB-VARIATIONS	Step	Branching Action
	1	If User has the Bavarian Illuminati, he/she can declare this ability.
	2	User can declare one attack per turn as privilege.
	3	User has to pay 5 MB from their Illuminati treasury for the privilege attack.
RELATED INFORMATION	Use-Case 4, 7, and 8	
Priority:	High	
Performance	2 day	
Frequency	When a player implements an attack to a group	
Channels to actors	N/a	
OPEN ISSUES	n/a	
Due Date	July 3rd 2019	
...any other management information...	n/a	
Superordinates	n/a	
Subordinates	n/a	

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USE CASE #27	Calling Off an Attack	
Goal in Context	Call off an Attack to be done or in progress	
Scope & Level	In the board(game) and during the play of a player	
Preconditions	The attack is to happen or is currently happening and the player is within right to call it off	
Success End Condition	The attack was successfully cancelled	
Failed End Condition	The attack move was not cancelled and went through	
Primary Actors	Player	
Secondary Actors	N/A	
Trigger	The player wants to stop an attack	
DESCRIPTION	**Step**	**Action**
	1	An attack is about to happen or is in progress
	2	The player activates an ability to stop the attack
	3	The attack stops
	4	The player was successful in acting against it

EXTENSIONS	Step	Branching Action
	1a	An attack is in progress or happening
	2a	The player is capable of stopping the attack

SUB-VARIATIONS	Step	Branching Action
	1	N/A

RELATED INFORMATION	N/A
Priority:	High Priority- essential to stopping an attack
Performance	Anytime the player desires to stop the attack
Frequency	(Semi-Frequent) The player wants to stop the attack
Channels to actors	Interactive (decision)
OPEN ISSUES	-Attack continues on
Due Date	July 3, 2019
AUTHOR	ARK
Create date	June 12, 2019

USE CASE #28	Capturing several groups at once
Goal in Context	The attack is successful and there are other groups controlled by that group.
Scope & Level	In the board game and during the play of a player
Preconditions	User Calls an attack and is successful with the attack.
Success End Condition	The attack was successfully done and those groups have more groups that are controlled by it. They will be placed back on the uncontrolled group area.
Failed End Condition	The attack was unsuccessful because of the dice roll.
Primary Actors	Player
Secondary Actors	Secondary player that is affected by the attack.
Trigger	Player attacks a group from another player that is controlled.

DESCRIPTION	Step	Action
	1	Player calls an attack. Use Case # 9b
	2	Roll of dice is successful to the attack.
	3	If the group has a tree of groups within it, place all those groups and the group attack to the uncontrolled area.

	4	Place all income collected back to the bank.
	5	Resume next sequence.

EXTENSIONS	**Step**	**Branching Action**
	1a	N/A

SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A

RELATED INFORMATION	
Priority:	High Priority - after attack is committed.
Performance	1 week
Frequency	At each attack phase when a player attacks other players and if it has controlled groups.
Channels to actors	Interactive (decision)
OPEN ISSUES	none
Due Date	July 3, 2019
AUTHOR	ARK
Create date	June 12, 2019

USE CASE #29	Transferring money	
Goal in Context	Success in transferring money to adjacent group.	
Scope & Level	In the board game and during the action phase.	
Preconditions	User selects action phase.	
Success End Condition	Action is depleted and transfers money to adjacent group.	
Failed End Condition	User has no money to transfer to adjacent group.	
Primary Actors	Player.	
Secondary Actors	N/A	
Trigger	Player selects Action Phase.	
DESCRIPTION	**Step**	**Action**
	1	Player selects action phase. See USE CASE # 8
	2	Player selects to transfer money as an action.

	3	Player chooses a group to transfer money.
	4	Player selects amount of money to transfer.
	5	Player then selects the group adjacent to it to transfer.
	6	Transfer successful then goes to next phase.
EXTENSIONS	**Step**	**Branching Action**
	1a	N/A
SUB-VARIATIONS	**Step**	**Branching Action**
	1	N/A
RELATED INFORMATION		
Priority:	High Priority - after action is committed.	
Performance	1 week	
Frequency	When user selects this action during action phase.	
Channels to actors	Interactive (decision)	
OPEN ISSUES	none	
Due Date	July 3, 2019	

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USE CASE # 30	Negotiation	
Goal in Context	Successful Negotiation from the player.	
Scope & Level	At any moment of the game.	
Preconditions	N/a	
Success End Condition	Action from negotiation is committed.	
Failed End Condition	User does not do the negotiation that was agreed.	
Primary Actors	Player making negotiation	
Secondary Actors	Player that agrees with the negotiation.	
Trigger	Player selects Negotiation phase.	
DESCRIPTION	**Step**	**Action**
	1	Any Player selects negotiation.
	2	Player activating declares negotiation.
	3	The other player that is negotiated with agrees or disagrees with negotiation.
	4	Player makes the action according with negotiation.
	5	The turn then follows following sequence.

EXTENSIONS	Step	Branching Action
	1a	N/A

SUB-VARIATIONS	Step	Branching Action
	1	N/A

RELATED INFORMATION	
Priority:	Low priority.
Performance	1 week
Frequency	When a user selects to negotiate.
Channels to actors	Interactive (decision)
OPEN ISSUES	none
Due Date	July 3, 2019
AUTHOR	ARK
Create date	June 12, 2019

USE CASE #31	Eliminating Player	
Goal in Context	A player is eliminated from the game (lose)	
Scope & Level	During the game (in board)	
Preconditions	he/she has no control over other groups other than his/her illuminati, after third turn	
Success End Condition	They are eliminated from the game.	
Failed End Condition	They are not eliminated from the game	
Primary Actors	Player (user)	
Trigger	He/she does not have any other control over groups after the third turn	
DESCRIPTION	**Step**	**Action**
	1	3 turns have passed
	2	Player has no control over other groups over the illuminati
	3	Elimination
Priority:	High Priority in the game. This is a way for players to be eliminated	

Performance	Happens once per player
Frequency	Occurs every game
Channels to actors	Interactive (involves the player)
Due Date	July 3, 2019
AUTHOR	Alex Schein
Create date	June 12, 2019

USE CASE #32	Leaving The Game	
Goal in Context	Player drops out	
Scope & Level	During the game(board)	
Preconditions	Player drops out -groups go uncontrolled -treasuries go to bank	
Success End Condition	They drop out	
Failed End Condition	The player cannot drop out	
Primary Actors	The player(s)	
Trigger	Player requests to drop out	
DESCRIPTION	**Step**	**Action**
	1	Player does not want to play anymore
	2	Groups go uncontrolled
	3	Treasuries go to bank
Priority:	High Priority- player should be able to do whenever	
Performance	Happens once per player	

Frequency	Happens once per player (semi-frequent)
Channels to actors	Interactive(desire to exit)
Due Date	July 3, 2019
AUTHOR	Alex Schein
Create date	June 12, 2019

USE CASE #33	Cheating	
Goal in Context	Various forms of cheating are Permitted in Illuminati	
Scope & Level	In game (board)	
Preconditions	Various methods of cheating are included	
Success End Condition	Dice are misread Bank robbery Stacking deck and peeking ahead	
Failed End Condition	Cheating does not occur	
Primary Actors	Players	
Trigger	Player(s) want to cheat and use various methods	
DESCRIPTION	**Step**	**Action**
	1	Cheating is permitted in Illuminati
	2	The player decides how they want to cheat
	3	The player successfully cheats the game
Priority:	Low (cheating is optional)	

Performance	Happens every turn (if player decides to)
Frequency	Very Frequent (every turn)
Channels to actors	Interactive (based on players moves)
OPEN ISSUES	-Counterfeit Money -Tipping table -Cheating on amount of money drawn
Due Date	July 3, 2019
AUTHOR	ARK
Create date	June 12, 2019

END GAME:

USE CASE # 34	End the Game	
Goal in Context	End the game, allow the player(s) to exit the application	
Scope & Level	Own Individual scope. Exit the game. Level of importance is low.	
Success End Condition	The application closed successfully	
Failed End Condition	The application does not close.	
Primary Actors	Players.	
Trigger	The Player wants to end the game and doesn't want to play anymore.	
DESCRIPTION	**Step**	**Action**
	1	The player wants to exit the game.
	2	He/She selects the option to terminate the game and exit the application.
	3	The game closes.
RELATED INFORMATION	This should close the application. The game should not resume where it ended when the user decides to play again- they should be playing a new game.	
Priority:	Low priority. Exiting the game falls behind all other methods and functions.	
Performance	Should take 1 week to implement.	

Frequency	Occurrence is dependant on the player. However, exiting Illuminati will occur every game- at the end.
Channels to actors	Interactive- needs player's initiative to terminate the game.
OPEN ISSUES	The game doesn't exit.
Due Date	July 3, 2019
AUTHOR	ARK
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USE CASE #35	Basic goals	
Goal in Context	control # other groups according to the group type given at beginning of game	
Scope & Level	in game (board)	
Preconditions	based on group type	
Success End Condition	achieve basic goals	
Failed End Condition	basic goals not met	
Primary Actors	player	
Secondary Actors	other players	
Trigger	motivated to win game	
DESCRIPTION	**Step**	**Action**
	1	To complete a basic goal a player needs to take control of a certain amount of groups
	2	goals need to be met to win game
Priority:	High Priority	
Performance	should take 1 week	

Frequency	every game
Channels to actors	interactive
Due Date	July 3, 2019
AUTHOR	Alex Schein
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USE CASE #36	
	Special Goals
Goal in Context	Dependent on the assigned type at beginning of game
Scope & Level	in game(board)
Preconditions	based on assigned type at start of game
Success End Condition	special goals are met
Failed End Condition	special goals are not met
Primary Actors	player
Secondary Actors	other players
Trigger	inspiration to win based on special goals

DESCRIPTION	Step	Action
	1	players are assigned special goals at start of game
	2	players need to meet special goals to win faster

Priority:	high priority
Performance	once every game to win

Frequency	once per player
Channels to actors	interactive
Due Date	July 3, 2019
AUTHOR	Alex Schein
Create date	June 12, 2019

USE CASE #37	Sharing the Win with another player based on an alliance	
Goal in Context	to win the game via help of other player(s)	
Scope & Level	in game (board)	
Preconditions	alliance must be made between players	
Success End Condition	game won	
Failed End Condition	game lost	
Primary Actors	player	
Secondary Actors	other players	
Trigger	winning via alliance	
DESCRIPTION	**Step**	**Action**
	1	players of same type team up
	2	players work together to meet goals
	3	game is won
Priority:	high- winning is end goal of game	

Performance	every game- players team up
Frequency	often - players forming alliance to win
Channels to actors	interactive
Due Date	July 3, 2019
AUTHOR	Alex Schein
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USE CASE #38	Winning With The Highest Score	
Goal in Context	to win the highest score in the game	
Scope & Level	in game (board) based on score	
Preconditions	player's score must be higher than all others	
Success End Condition	player ends game with highest score	
Failed End Condition	player doesn't have highest score	
Primary Actors	Player	
Trigger	Player motivation to get highest score	
DESCRIPTION	**Step**	**Action**
	1	players score is higher than everyone else's
	2	player wins game
Priority:	high	
Performance	happens per game	
Frequency	high frequency- happens every game	

Channels to actors	interactive
OPEN ISSUES	Highest score is not met by user(s)
Due Date	July 3, 2019
AUTHOR	Alex Schein
Create date	June 12, 2019

UML DIAGRAM