

System request

1. Project name : new game big 2
Big Two is a popular playing card game all throughout Asia. The object of the game is to be the first to get rid of all your cards. Ideally played with four people.
2. Project sponsor : provider
3. Business need : for increase income
4. Business requirement :
 - a. Must have manage room and table game
 - b. Game can played with min 2 players and max 4 players.
Each player get 13 cards.
 - c. Each player takes turns playing by dealing the card with the higher value.
 - d. The player whose card runs out first is the winner and the player who has the remaining cards must pay according to the remaining cards.

Feasibility analysis

1. Feasibility technical
 - a. Feasibility with current system : low risk, because this is new game and new environment.
2. Organizational feasibility : low risk, because for increase company revenue.

Product backlog:

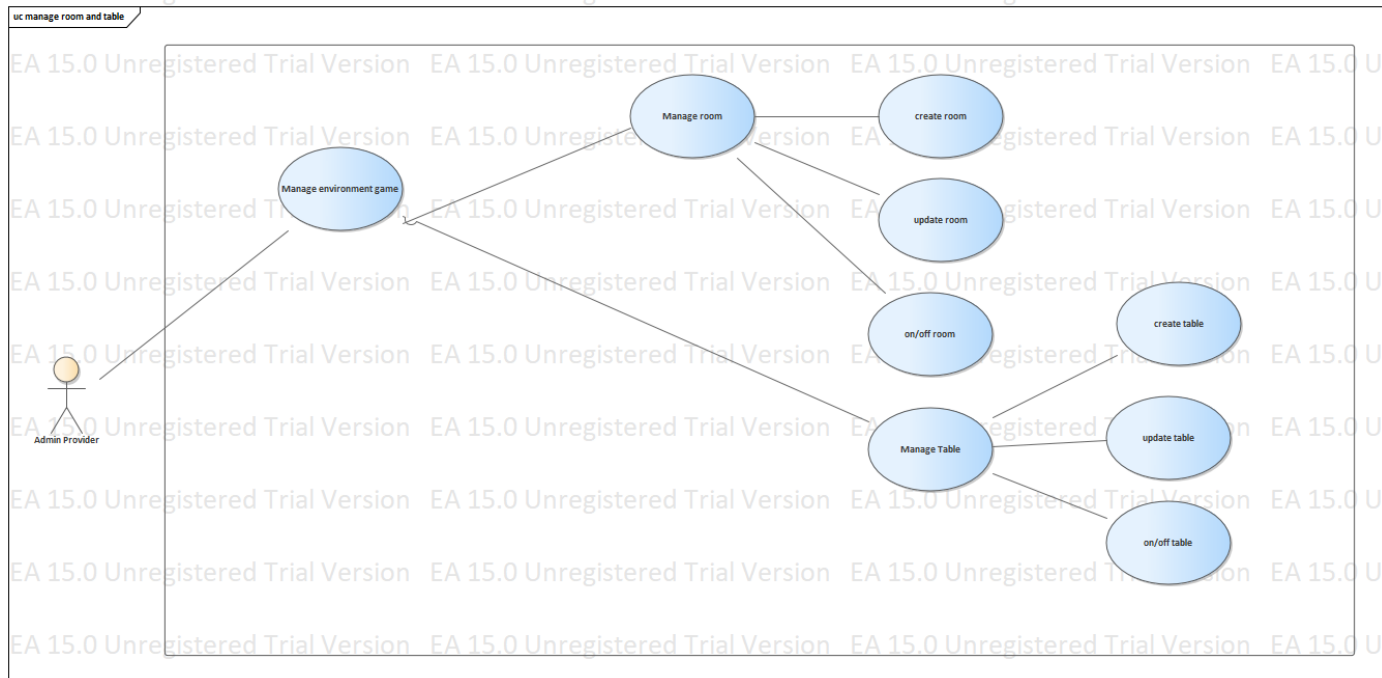
User stories :

1. As an administrator provider, I can manage room and table game, so I can create, update, on/off room and table for new game and then can appears on lobby provider.
 - a. administrator provider can create, update, on/off room and select server, select 4 chairs, stakes,
 - b. administrator provider can create, update, on/off table on admin master provider.
 - c. After on room and table will appears on lobby provider.
2. As an administrator provider, I can turn on/off game on admin controller, so that icon game can appear on website.
3. As a player, I can chat with another player, so that I can communicate with another player.
4. As a player, I can move to another room, so that I can play with another player in another room.
5. As a system, I can Shuffle 1 deck (52 cards) and deal card to player, so that each player can prepare to play.
 - a. Deal cards starts from the player at 12 o'clock, cards are dealt one by one clockwise until 13 cards with facing down.
6. As a player, I can playing big 2, so that I can play with another players.
 - a. Player can play with 2 or 3 or 4 players.
 - b. **Begin the game by playing the three of diamonds.** In the rules of big two, the three of diamonds is the lowest ranked card, so it must be placed first either by itself or in some combination. The rules of big two revolve around the game's own ranking of the cards and suits. The gameplay is essentially successive players placing increasingly ranked cards until no longer able.
 - i. The namesake of the game comes from it's ranking of the game's cards (from high to low): 2, Ace, King, Queen, Jack, 10 to 3. The suits are ranked (from high to low): spades, hearts, clubs, and diamonds.
 - ii. There are four combinations in which cards can be played: single cards, pairs of cards, triples, and five card groups.

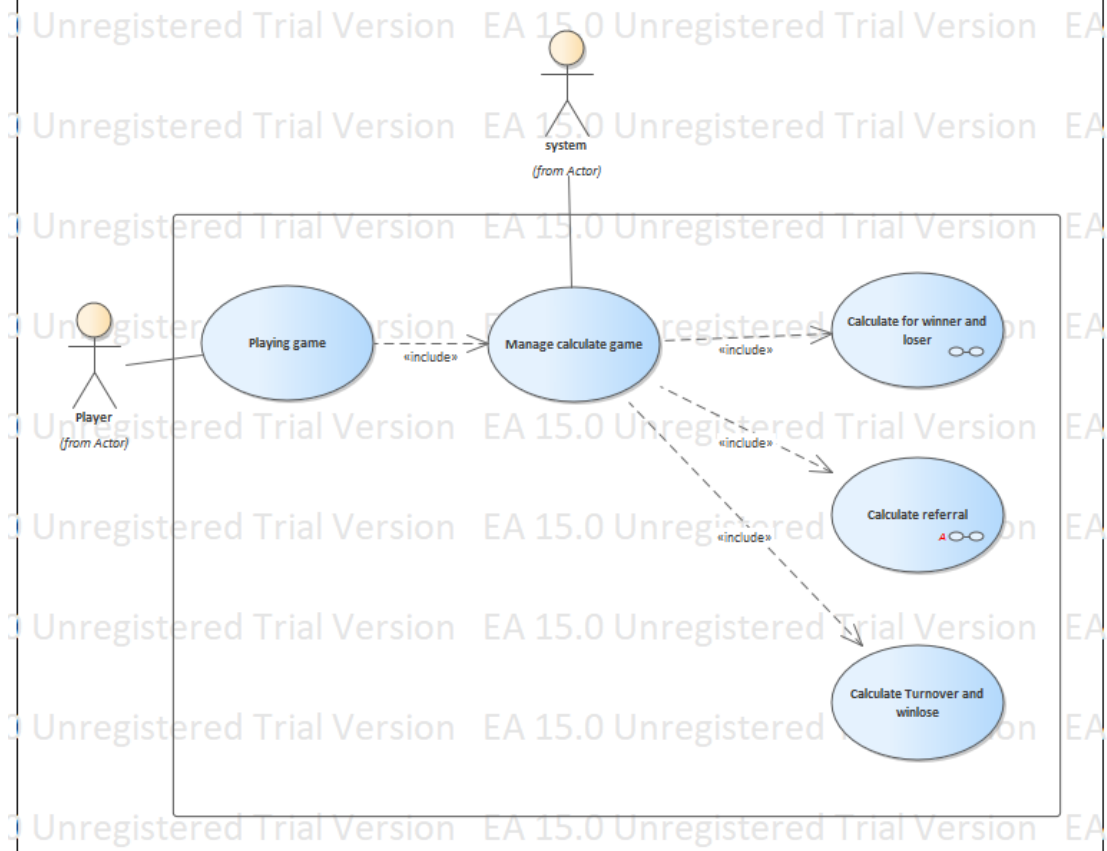
- c. **Play the three of diamonds in a pair or triple.** If the player with the three of diamonds has another three in their hand, or two threes, they might consider playing the card in a double or triple. The advantage to this is that it forces the remaining players to also play a double or triple, potentially damaging their ability to get cards out of their hand.
 - i. When playing a pair of cards, they must be of equal rank (ex. two nines or two jacks). Triples work in the same way.
 - ii. Higher suits will determine rank among equal pairs (ex. a nine of spades and of diamonds beats a nine of hearts and of clubs, because the spade is higher).
 - d. **Play the three of diamonds in a group of five.** For groups of five cards, there are five different ways to play them, many of the combinations similar to ones in poker. Naturally, five card groups are considered the most valuable because they are the most difficult to match and outrank. The groups are listed here in rank from lowest to highest:
 - i. You can play a straight, which is five cards of successive rank using any suits (ex. six of hearts, seven of diamonds, eight of hearts, nine of clubs, and ten of spades). When ranks are identical, the suit of the highest ranked card determines supremacy.
 - ii. Four of a kinds are also possible, and you include any other card to make a combination of five. The four must be of the same rank (ex. all 4 sevens, and a three of spades). Choosing between two four of a kinds, the rank of the four cards decides supremacy.
 - iii. You can play a flush, which is a five card combination of any cards of the same suit (ex. nine of hearts, seven of hearts, six of hearts, ten of hearts, and three of hearts). Higher suits beat lower suits, irrespective of the ranks. Between identical suits, highest card determines supremacy.
 - iv. The next five card combination is a full house, which is essentially a pair and a triple. Three cards of one rank and two of another (ex. 3 fours and 2 sevens, of any suit). Deciding between two full houses, supremacy goes to the one whose triple is of a higher rank.
 - v. Straight flushes are also possible as five successive cards of the same suit (with twos in this case ranking below threes, with aces able to be high or low)--an example would be an eight of spades, a nine of spades, a ten of spades, a jack of spades, and a queen of spades. Between equal ranked flushes, suit determines which is higher.
 - e. **Continue play until everybody passes.** The rules of big two require you to place increasingly higher-ranked cards, and always of whatever number combination the round began with. For example, if the first player (with the three of diamonds) plays it in a triple each successive player must play a triple of higher rank.
 - i. Note, you are never obligated to play cards. If you believe it's advantageous to hold on to your cards, you can pass at will.
 - ii. A five card group can be surpassed by a five card group of another, stronger type. They are listed in ascending order above (ex. a straight flush can beat any five card combination).
 - iii. When you are unable to play a higher card or combination of cards, you must pass.
 - iv. Once everyone save one player has passed, a new round will begin.
 - f. **Begin a new round.** To start again, take the previous round's pile of cards and set them aside. The player who did not pass (who played highest) will play first by playing any single card or combination of cards. As with previous rounds, succeeding players may only play higher rank card combinations of the same number (or singles if a single card).
 - i. The game will continue in this way until one person has played their last card. Once a player has emptied their hand of cards, they are automatically determined the winner.
7. As a system, I want after finished game, the scoring system will calculate, so that the game will finished and continue to new game.
- a. **Score the remaining players.** Traditionally, big two will include scoring to determine who is second, third, and last. This takes the form of penalty points counted up, determined by the number of cards left in hand. The player with the lowest number of the points will be second, the next lowest, third; and the player with most will be last.

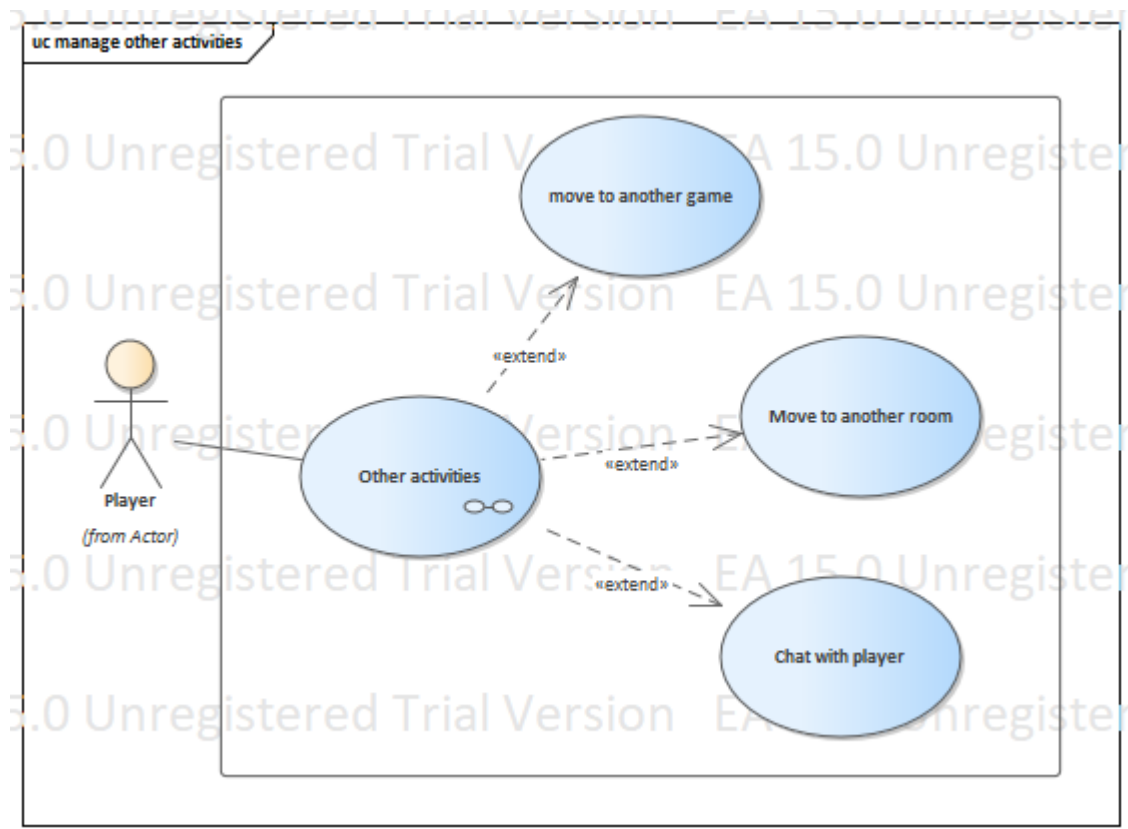
- i. For those with nine cards or less in their hand, they will count one point per card.
- ii. For those with ten, eleven, or twelve cards in their hand, they will count two points per card.
- iii. For those with all cards still in their hand, their score will automatically be 39 (3 points per card).

Use case manage room and table



Use case Playing game big 2





Example calculate winner and loser, calculate turnover and winlose, calculate referral.

upline	player1	
downline	player1ref1	
downline	player1ref2	
downline	player1ref3	
stake	1000	
player	card left	status
player1ref1	13	
player1ref2	11	
player1ref3	9	
Player1	0	winner

Player	Compare with other player	Difference card	multiplier payment	payment	Status player on game
player1ref1	player1ref2	-2	3	-6000	Lose
player1ref1	player1ref3	-4	3	-12000	Lose
player1ref1	Player1	-13	3	-39000	Lose
total				-57000	Lose overall

Player	Compare with other player	Difference card	multiplier payment	payment	Status player on game
player1ref2	player1ref1	2	-	6000	Win
player1ref2	player1ref3	-2	2	-4000	Lose
player1ref2	Player1	-11	2	-22000	Lose
total				-20000	Lose overall

Player	Compare with other player	Difference card	multiplier payment	payment	Status player on game
player1ref3	player1ref1	4	-	12000	Win
player1ref3	player1ref2	2	-	4000	Win
player1ref3	Player1	-9	1	-9000	Lose
total				7000	Win overall

Player	Compare with other player	Difference card	multiplier payment	payment	Status player on game
Player1	player1ref1	13	-	39000	Win
Player1	player1ref2	11	-	22000	Win
Player1	player1ref3	9	-	9000	Win
total				70000	Win overall

Player	payment	status	fee	payment after fee	referral payment	Turnover	Win	Lose	WinLose
player1	70000	winner	2100	67900		70000	67900	0	67900
player1ref1	-57000	lose	-1710		1710*0.5% 8.55	57000	0	57000	-57000
player1ref2	-20000	lose	-600		600*0.5% 3	20000		20000	-20000
player1ref3	7000	win	210	6790		7000	6790		6790
total					11.55	154000			

so player1 will get referral = 11.55

