Poker Game Requirement

Database

1. A database with player profiles consists of all of the register user's profiles, including user ID, password, nickname and historical record as personal information.
2. A database system reserved consists of different card types which can be compared to size,
3. Each time three players start a new game, there will a temporary database be assigned including three players' own poker cards, player's nickname and temporary player number which determine the dealing order, cards on table.
4. A deck of cards have two jokers(red and black are represented as 1 and 2 in card's attributes type) and four types: spade, heart, club, diamond (represented by 3-6 in card's attributes type) and every type have 13 cards from 1 to 10 and J Q K(represented by 1 to 13 in card's attributes size)
5. There are 11 types of card group players can play in game : signal card(单牌), pair of cards(对牌), three same cards(三牌), Bomb(炸弹), rocket(王炸), sequence(顺子), sequence of pairs(连对), sequence of triplets(飞机), triplet with an attached card(三带一), triplet with an attached card(三带一对), quadplex set(四带二). Rocket is the biggest type, bomb bigger than other type but smaller than rocket. Other cards must be of the same type and total number to compare to size. The size of cards type is bigger if total sizes of cards in this cards type is bigger.

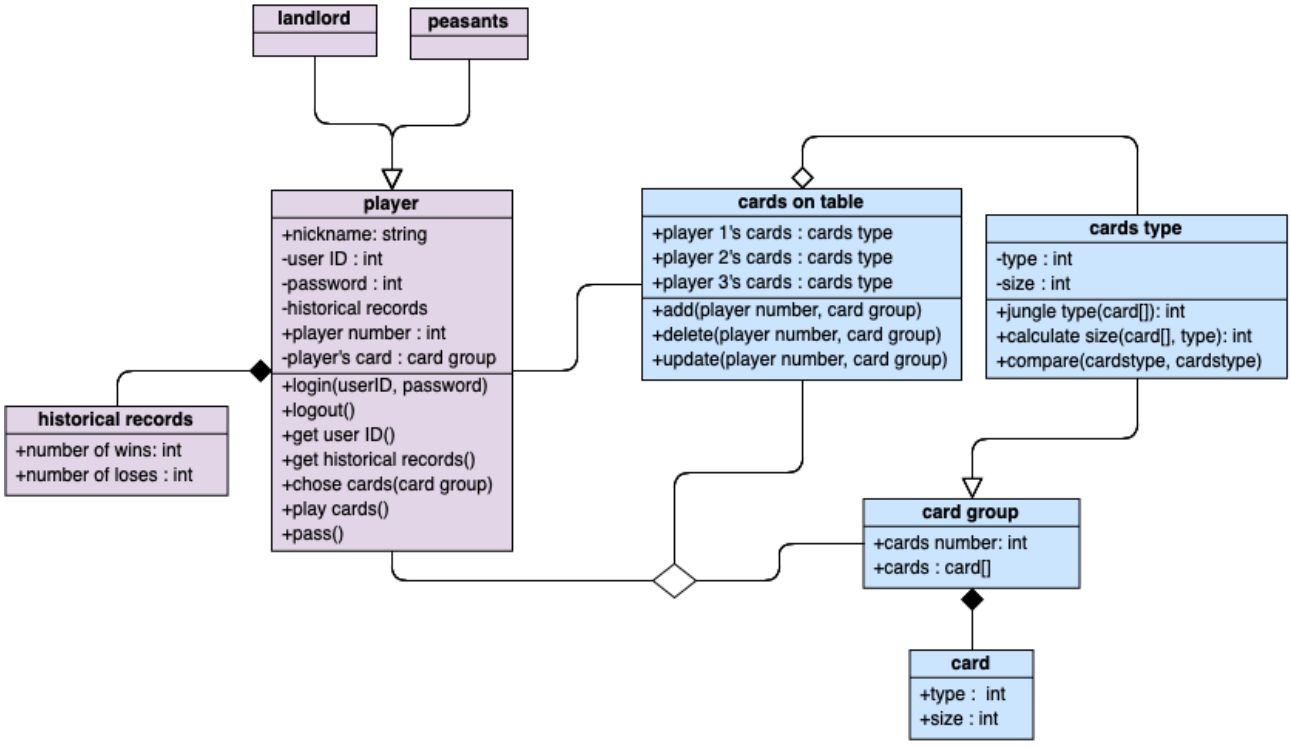


figure 1. domain analysis and system composition

A game engine

6. Register an account or login in, you can view your own information or start a new game.
7. when start a new game, inviting partner or obeying free match, randomly assign player number 1 2 3 to the three players, then game start.
8. Choose three cards from 54 cards, randomly divide the remaining 51 cards into three players. Every players can only know about their own cards and can not see the three cards selected.

9. Decide who is the landlord : you can chose to be a landlord or not, the first one who want to be a landlord will become the landlord in this round of the game. If no one wants to be a landlord after the countdown ends, the landlord will be randomly decided.
10. Give the three cards selected in (6) to the landlord, then show the three cards to all three players.
11. The landlord first plays the cards, then players plays the cards in order of player number. When the user picks up the cards, next user can choose pass or a play a bigger card.
12. When a player want to play card, he can chose cards from his cards and chose play, system will compares the cards chosen with the cards played by previous player, if card the player chosen is bigger, system will update the player's cards on table and go next, if not, system will return wrong massage and the player can chose cards again or chose pass.
13. If a players has played a card and no one chose play card on a turn, then the player can feel free to choose a card after the turn.
14. Every one of three players played once in order called a turn, the cards on the table just keep cards displayed the latest turn.
15. End a game when a player quit the game, the player quit the game will lose and the other players will neither win nor lose.
16. End a game when a player have no cards, if landlord has no card firstly, then the landlord will won the game; if one of the two other players has no card firstly, then both of the two players will won the game.

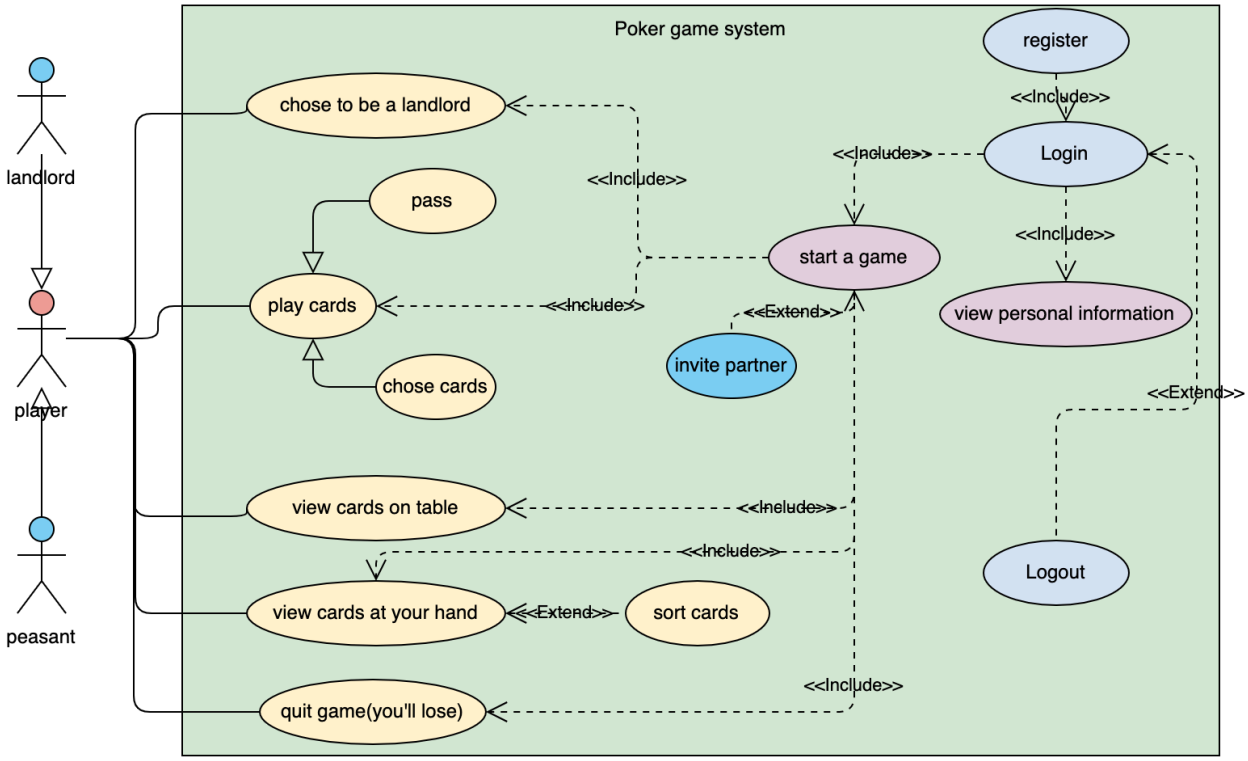


figure 2. Use case diagram

Interface for 3 players

17. Game interface : every player will have a different game interface. A game interface consists of three players' nickname and their cards on table, player's own cards and the number of cards of other player.
18. Player can see his own cards, which shown below the game interface.
19. User personal interface : include personal information displayed on the interface and you can change password or nickname and start a new game on this interface.

figure 3. user personal interface

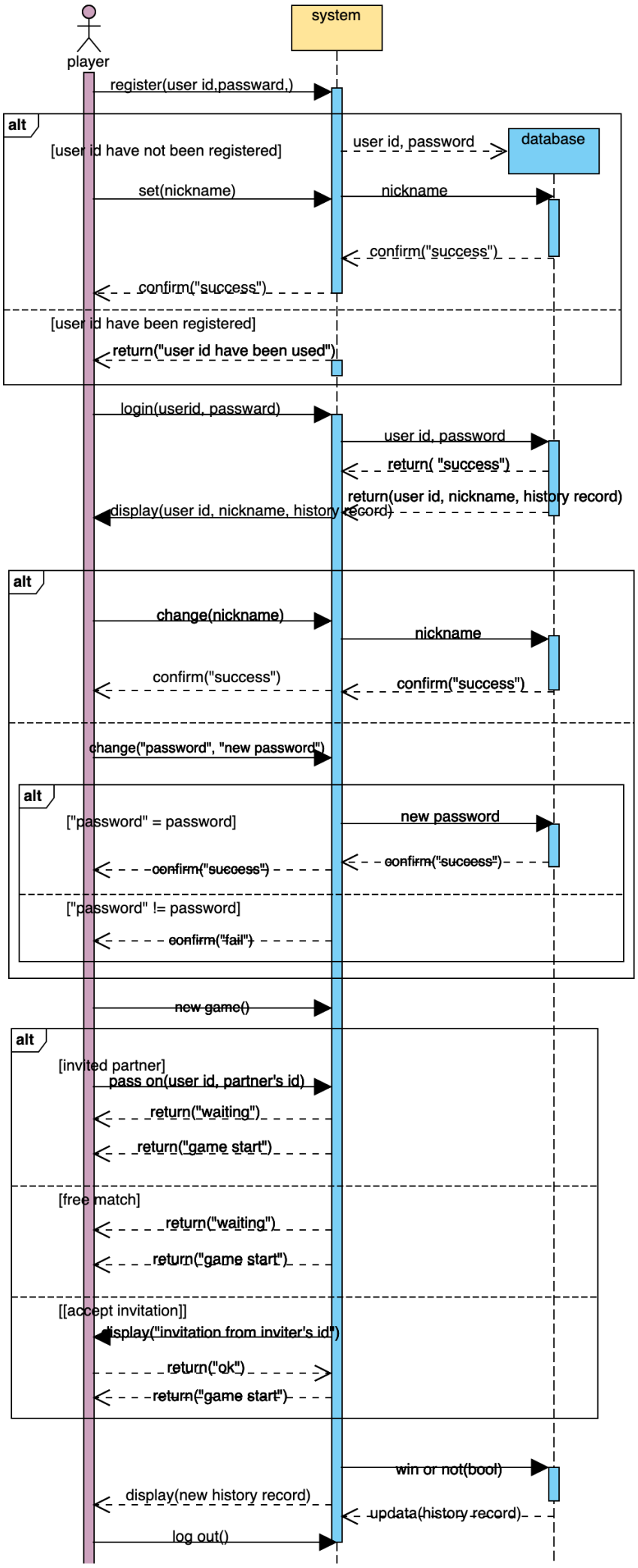
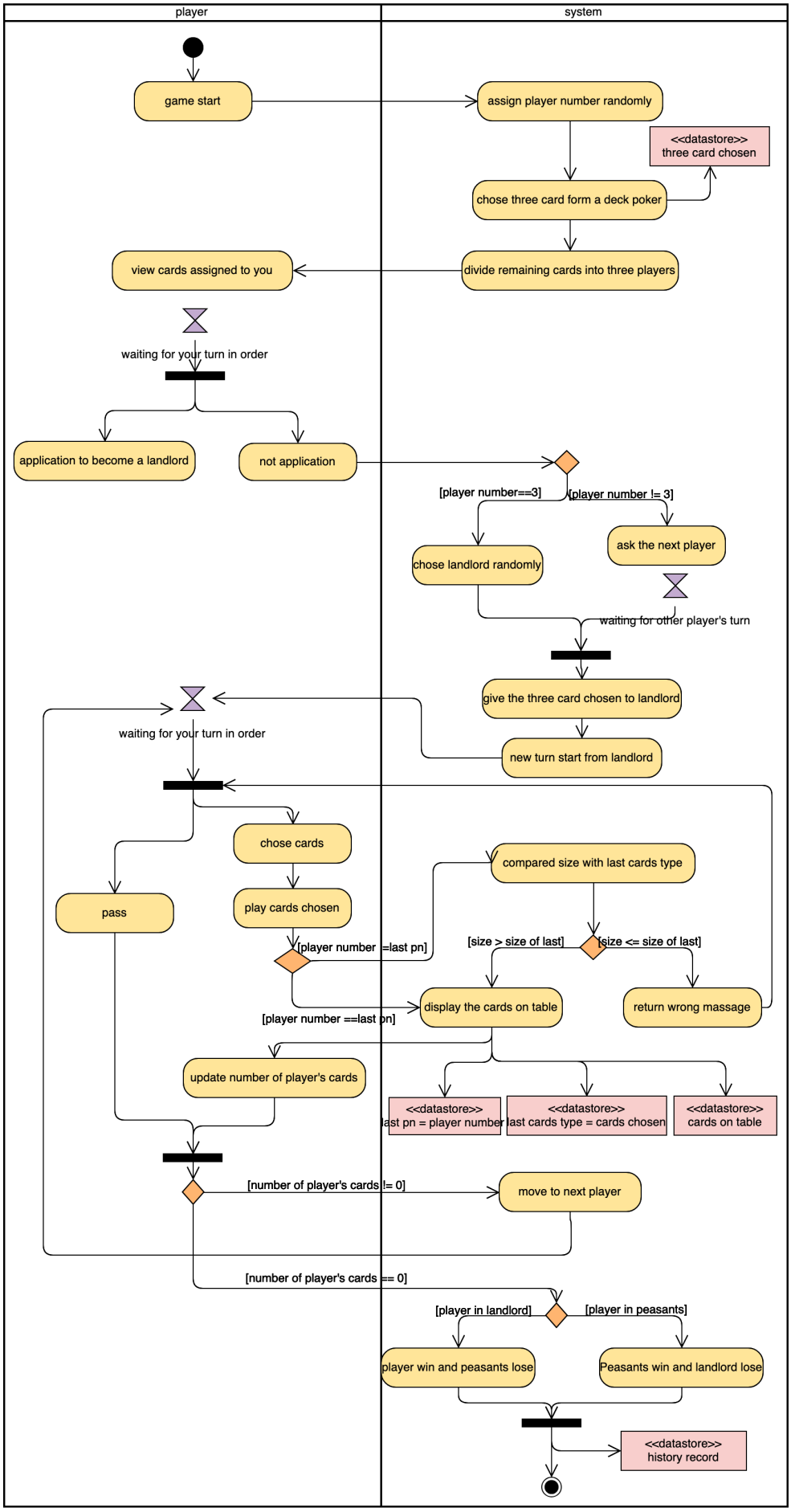


figure 4. game flow



Requirement prioritization

1. Interoperable game interface.
2. Divide cards to three players randomly, the function of chose to pass or play the card in a turn.
3. Judging the size of the card(judging if the card can be played).
4. Loop of players play the cards in order.
5. Do a user database to store user's personal information.
6. Free match to start the game.
7. Chose the landlord.
8. Jungle the winner.
9. Invite parents to start the game.
10. Record historical winning percentage.
11. Match by history record.

System iteration plan

1. down the game interface.
2. down the basis game function: including divide cards, view cards' number and cards list, chose cards, play cards or pass between three players.
3. down the function of compare the size of different cards types.
4. down the user personal interface and matching function.
5. down the function of chose landlord.
6. down the non-essential function(invite friends, about history record and so on)