Blackjack

Group 5

Project Description

How to play Blackjack ?

♣

Other ways to win

♥

Goal of the Game

Draw Cards with a value close to 21 but not going over it.
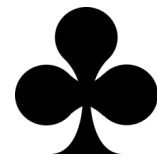
Other than BLACKJACK, a player can win the game by having a total card value greater than dealer but don't bust. Another way is when the dealer bust.
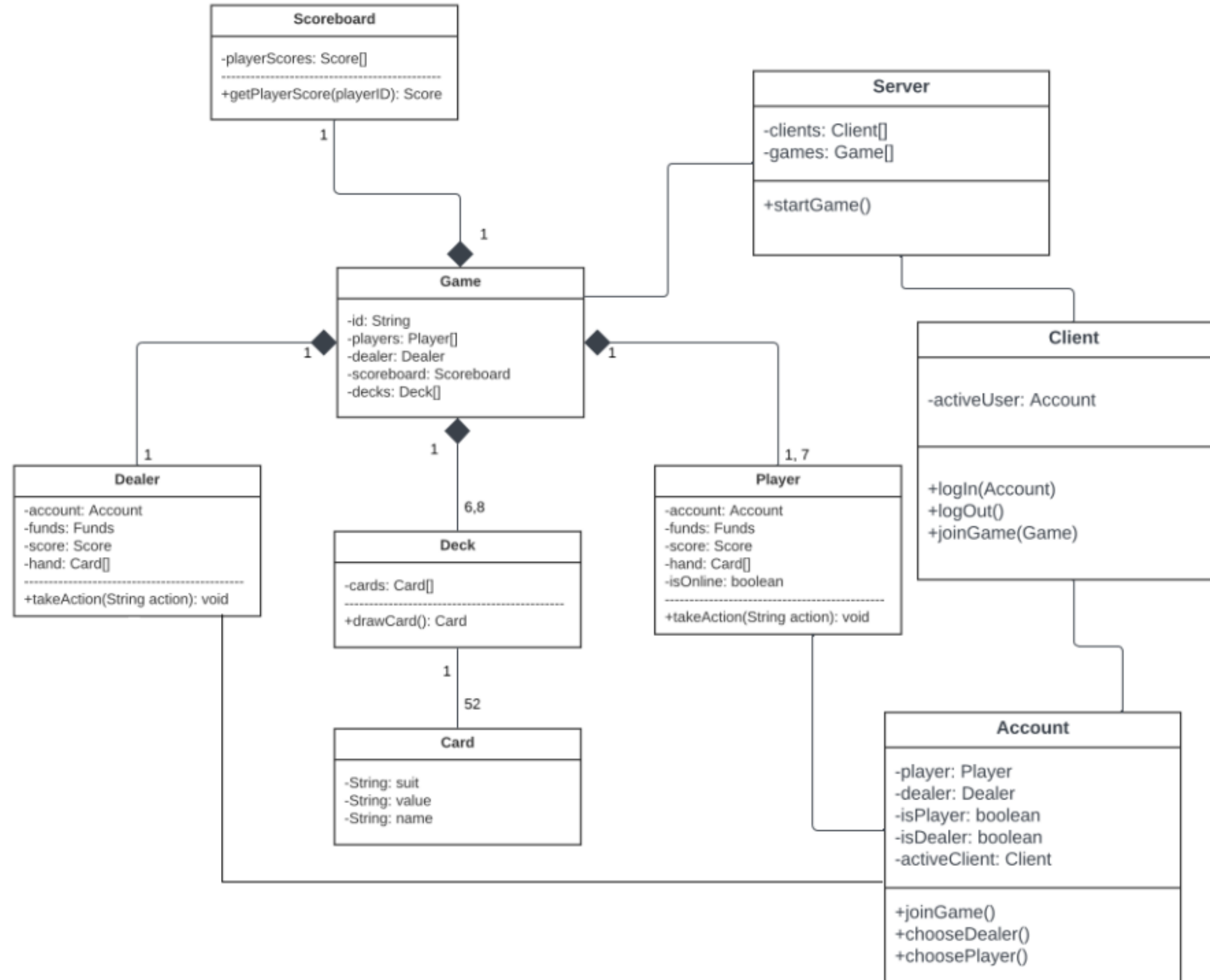
♦

Hand Rules

If a player goes over 21, then it's a bust. If a player draws cards that values 21, then its BLACKJACK.

♠

Card Values

All numbered cards retain the values of the number. Aces can be played as either 1 or 11. All face cards have the value of 10.

UML Diagram

Scoreboard

-playerScores: Score[]

+getPlayerScore(playerID): Score

Server

-clients: Client[]
-games: Game[]

+startGame()

Game

-id: String
-players: Player[]
-dealer: Dealer
-scoreboard: Scoreboard
-decks: Deck[]

Client

-activeUser: Account

+logIn(Account)
+logOut()
+joinGame(Game)

Dealer

-account: Account
-funds: Funds
-score: Score
-hand: Card[]

+takeAction(String action): void

Deck

-cards: Card[]

+drawCard(): Card

Player

-account: Account
-funds: Funds
-score: Score
-hand: Card[]
-isOnline: boolean

+takeAction(String action): void

Card

-String: suit
-String: value
-String: name

Account

-player: Player
-dealer: Dealer
-isPlayer: boolean
-isDealer: boolean
-activeClient: Client

+joinGame()
+chooseDealer()
+choosePlayer()

Functional

Logging In

The game is able to look up username and see if its on the list of registered users. If the user is not a registered user, the system will not let them in.

Creating An Account

The game is able to register a user with a simple button. As soon as they are registered, the user can click login again and play the game.

Picking a Role

The user can choose either a Dealer or Player Role.

Server/ Client

Communication between Server and multiple Clients worked and is able to pass on a message class.

Need Improvements

Better Server-Client Communications

We were able to make them talk to each other, but with the lack of time, we were not able to test the rest of the game.

Thread Handler

The server is able to keep track of the players, but is not able to track that only one dealer is needed. If the dealer is not chosen in the beginning, it will give an error message.

GUI Components

The GUI components for the project lacks the main game section, where users can see theirs and others' hands.

Support MultiGame

Though the game can handle multiple clients, the game is not able to show different tables, or games.

What's next for the project?

- ✓ **With more time and resources, we will expand on this game to show different features, including pictures of each cards.**

- ✓ **We will also update the game to cater more players and have a more-developed lobby room to wait on other players.**

- ✓ **Lastly, we will provide a better look on our main game component to make it more interactive so that players can see their current funds, amount of bets, etc..**

Thank You for your time!