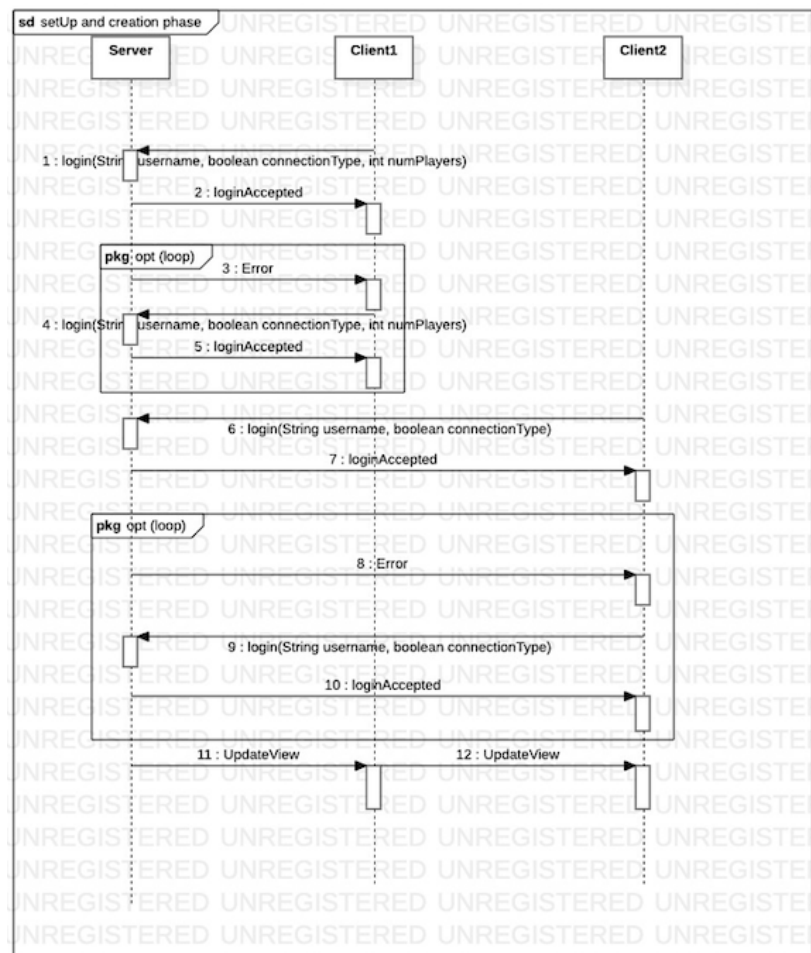


# COMMUNICATION PROTOCOL

## Gruppo AM27

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### 1 Connection Phase



After starting the server the client can connect to the game via login. There are two versions of the login method, the first takes three parameters as input (Username, connection type and number of players), this method is called only by the first player (the server here verifies that the number of players entered is consistent with the rules of the game); the second method contains only the Username and connection type.

After logging in the player is added to the lobby. During login, the server adds the player to the lobby and verifies that the username hasn't already been used by other players.

## 2 Game Phase

During the game phase of each player, the possible actions to be performed are three:

- pick, in which the tiles from the board are selected
- topUp, in which the tiles are inserted in the playerGrid
- quit, used to disconnect the player

At the end of each turn the server will notify each client who is the next player to play.

With each action the model changes and therefore the server sends an Update-View to all clients.

After the win condition is met the server does one last updateView sending the name of the winner.

## 3 Ping-Pong

After the connection has been established, the server sends Ping messages and the client replies with Pong messages, if the client does not respond to five consecutive messages it is considered disconnected.

When a player is considered disconnected, he can possibly reconnect using the join and using the same nickname with which it was previously identified, in this way the server puts it back in the game, otherwise it sends an error message.

If the client does not receive any message from the server within certain seconds, it is assumed that there has been a connection error and therefore the game must be closed.

