COMMUNICATION PROTOCOL

When the connection is initialized the server sends a "ping" message (plain text) and the client replies with a "pong" message (plain text).
This procedure is performed every second between the server and the client to verify that the client is still connected.
In case of missed "pong" message, the server considers the client disconnected.

The server gives only "success" messages if the client request has been accepted and "update" messages from which everyone can upload the new table status.

The messages given by the client to the server are JSON files for the in-game quests and plain text to verify the connection and the operations.
The messages given by the server are "success" or "error" messages to inform the clients if the operations went well.
Success messages are followed by GUI tabs which give the opportunity to the clients to interact again and make new requests.

The server is reactive. Every request starts from the client, and it is followed by the server response, which if there is a successful action it gives an update of the involved components on the model, that is reflected to the user with a CLI/GUI change.

Login

Game login starts with username selection, then game mode selecction.
In multiplayer mode case he will decide whether to create a new multiplayer lobby or join an existing one.

Start Game

Once all the players have entered the lobby and the lobby creator starts the game, they made a selection request in which they choose their two leader cards out of four (and eventually the resources).
"Start Game" is the input given by the lobby creator to the server, that verifies the presence of at least another player (in multiplayer case).
In single player mode the game starts right after the correct single player selection.

Player Turn

The player sends his turn request, that is processed by the server only if it is effectively his turn.
The request could be market, buycard or production type.
The server, after checking out if the request is correct, sends a success response and updates all the players by sending them the new references of the table.
During the turn, players can activate, if possible, one of their leader cards.
A player cannot do any action out of his turn.
Player ends up his turn and server and turn is passed to another one.

```
            ------                      --------
           |CLIENT|                    | SERVER |
            ------                      --------
              |                            |
              |    PING                    |
              |<--------------------------|
              |                            |
              |                  PONG      |
              |-------------------------->|
              |                            |
              |                 REQUEST    |
              |-------------------------->|
              |                            |
              |  RESPONSE                  |
              |<--------------------------|
              |                            | model action
              |  UPDATE                    |
GUI/CLI action |<--------------------------|
              |                            |
```