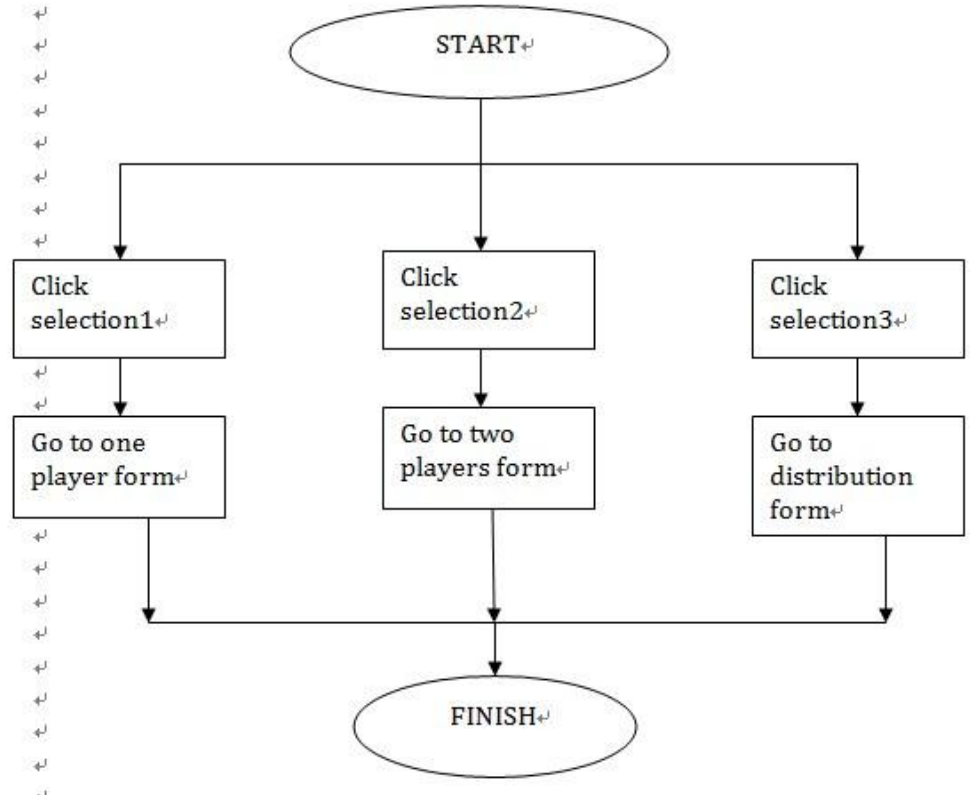
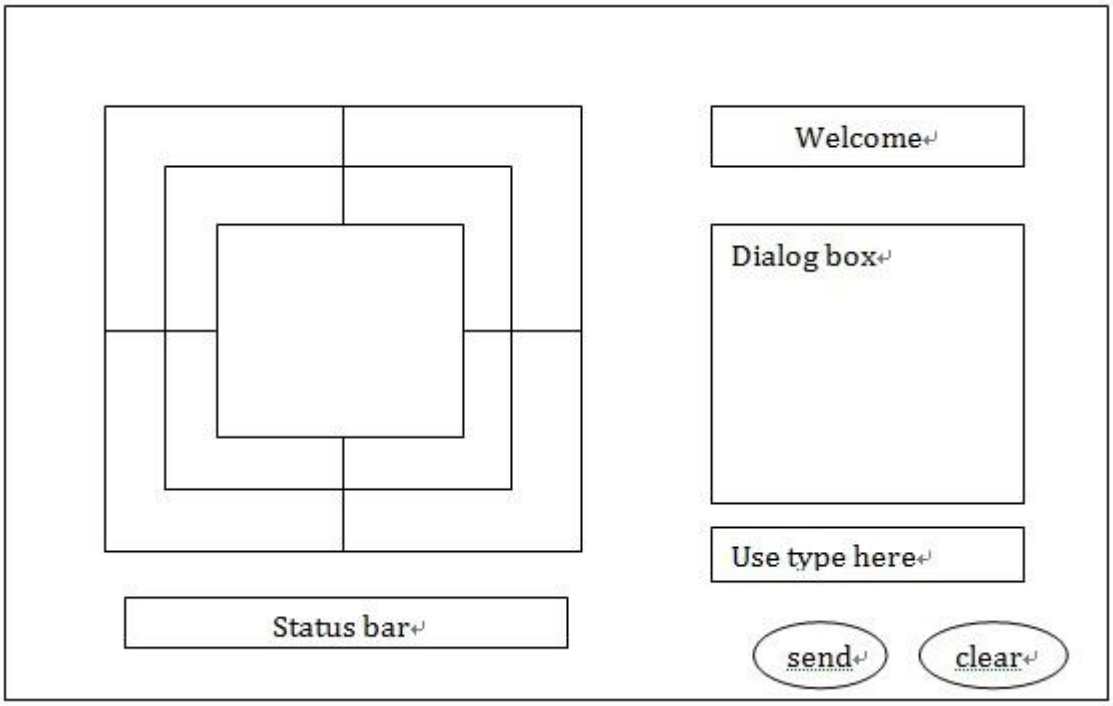
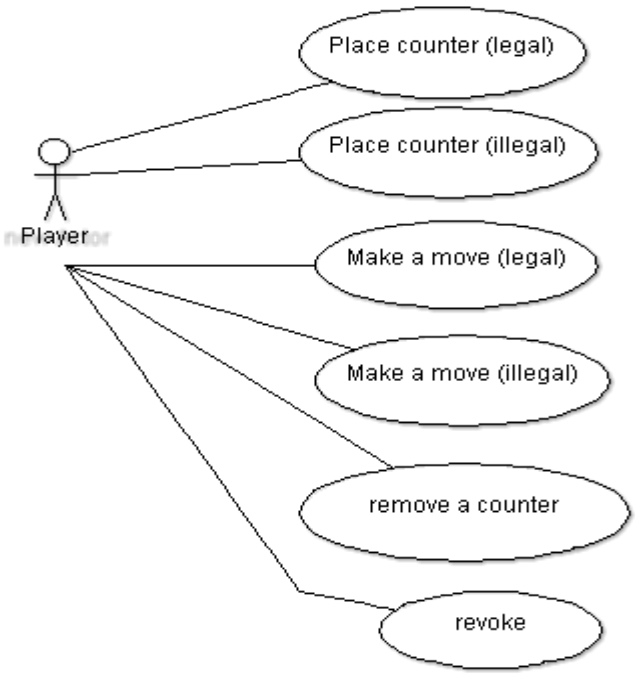
Full design diagram

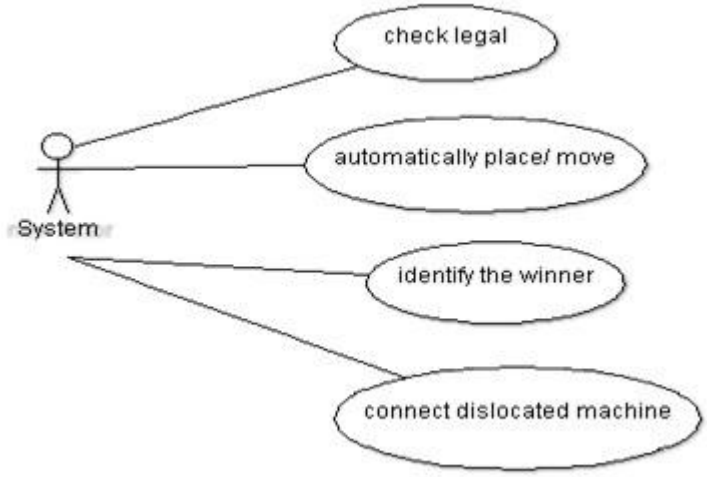
Game screen



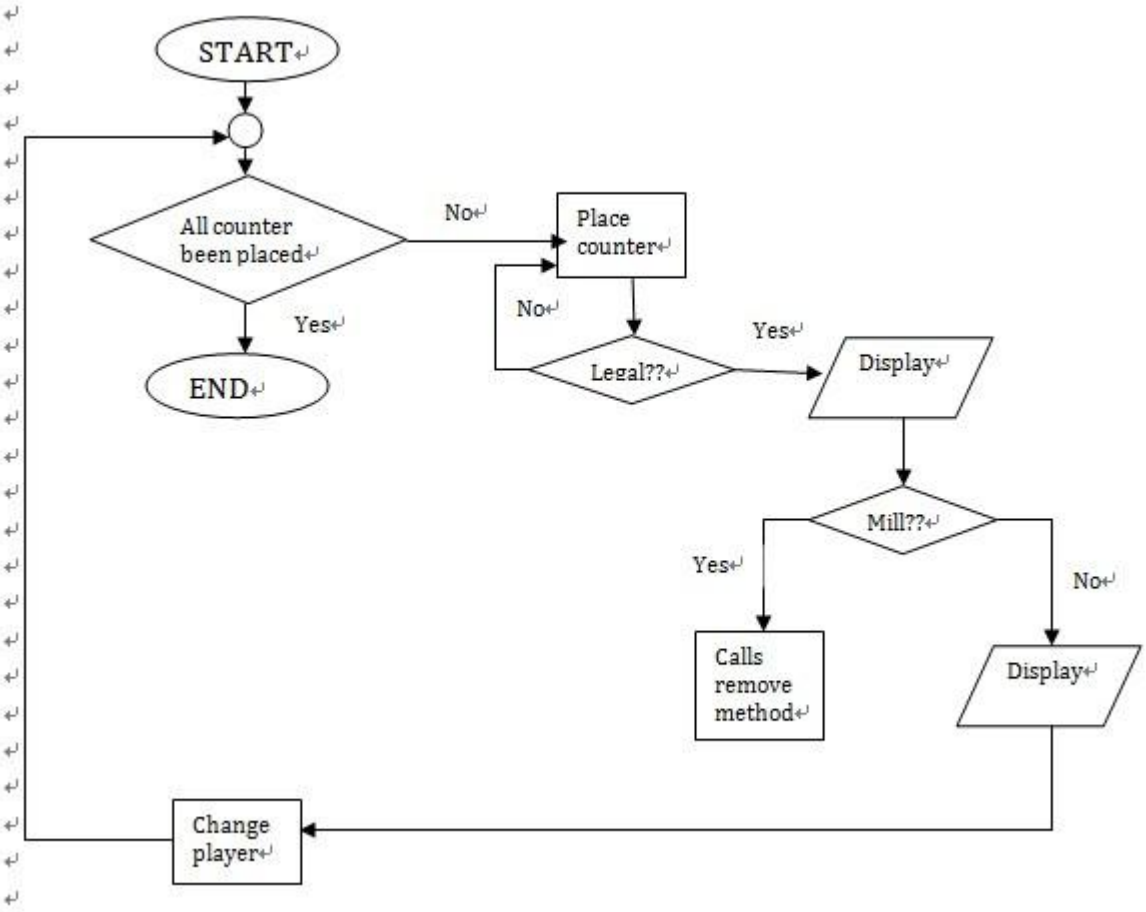


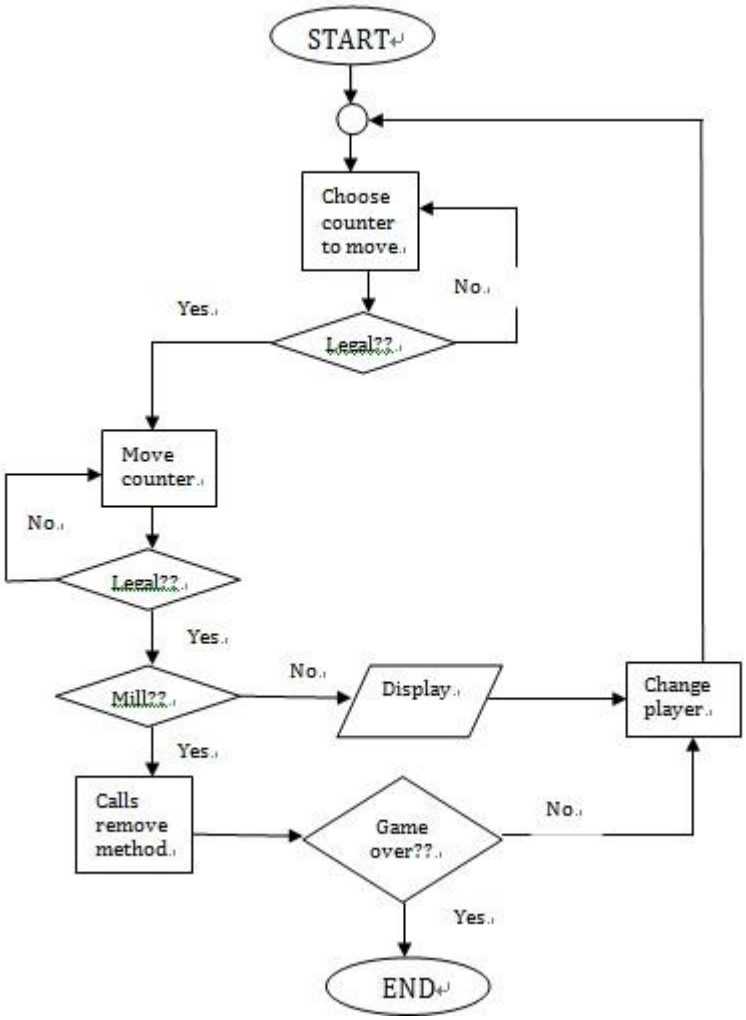
Use Case View

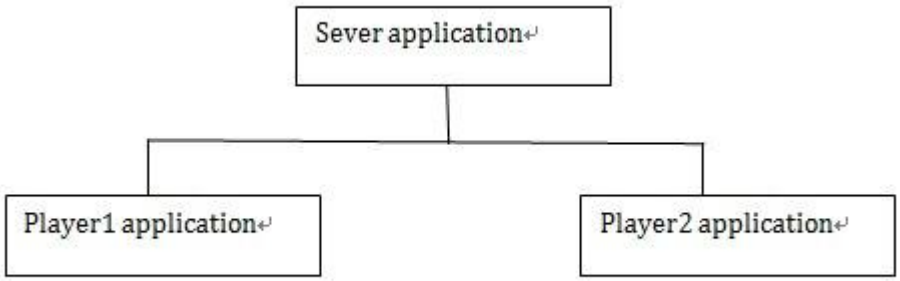

Place counter (legal)
Place counter (illegal)
Player
Make a move (legal)
Make a move (illegal)
remove a counter
revoke

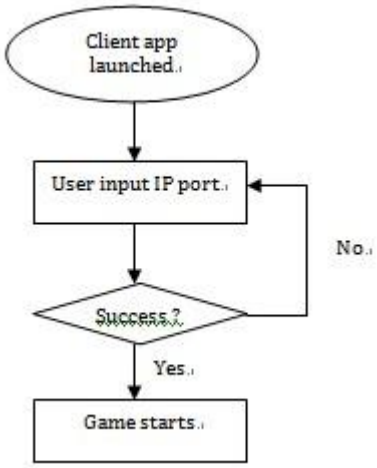

check legal
automatically place/ move
System
identify the winner
connect dislocated machine

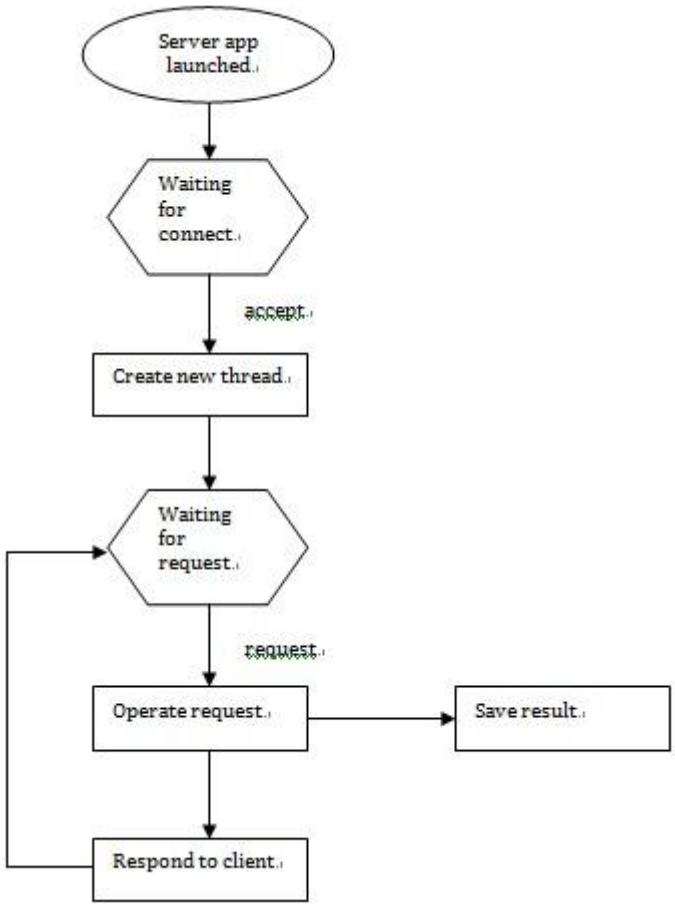
Flow chart


START
All counter been placed
No
Place counter
Yes
END
No
Legal??
Yes
Display
Mill??
Yes
No
Calls remove method
Display
Change player

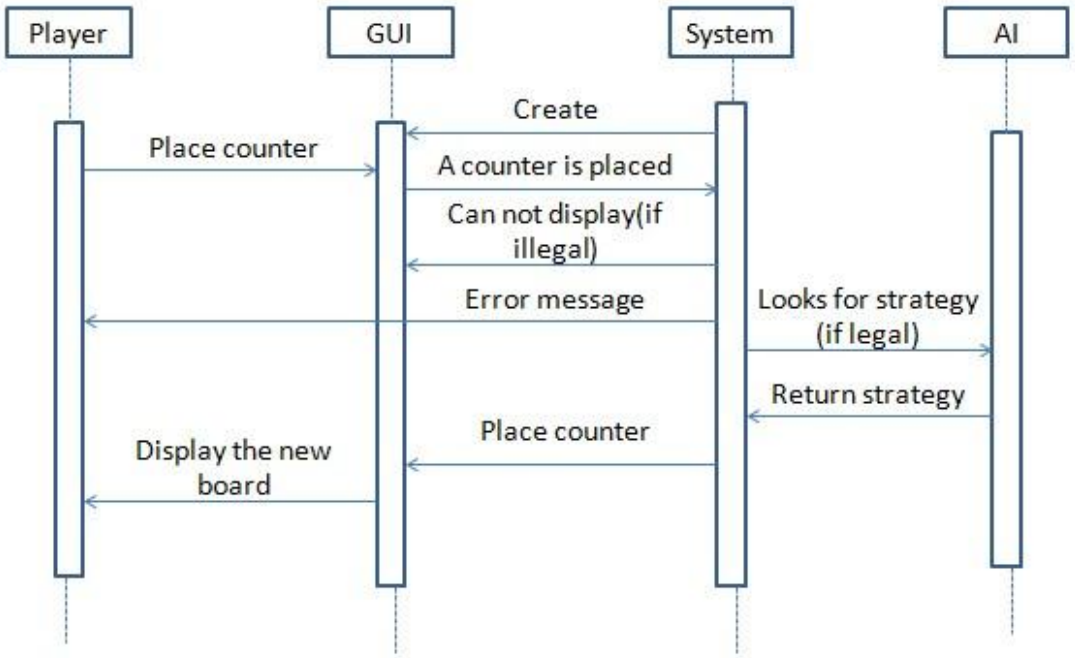

START
Choose counter to move.
No.
Yes.
Legal??
Move counter.
No.
Legal??
Yes.
Mill??
No.
Display.
Change player.
Yes.
Calls remove method.
Game over??
No.
Yes.
END

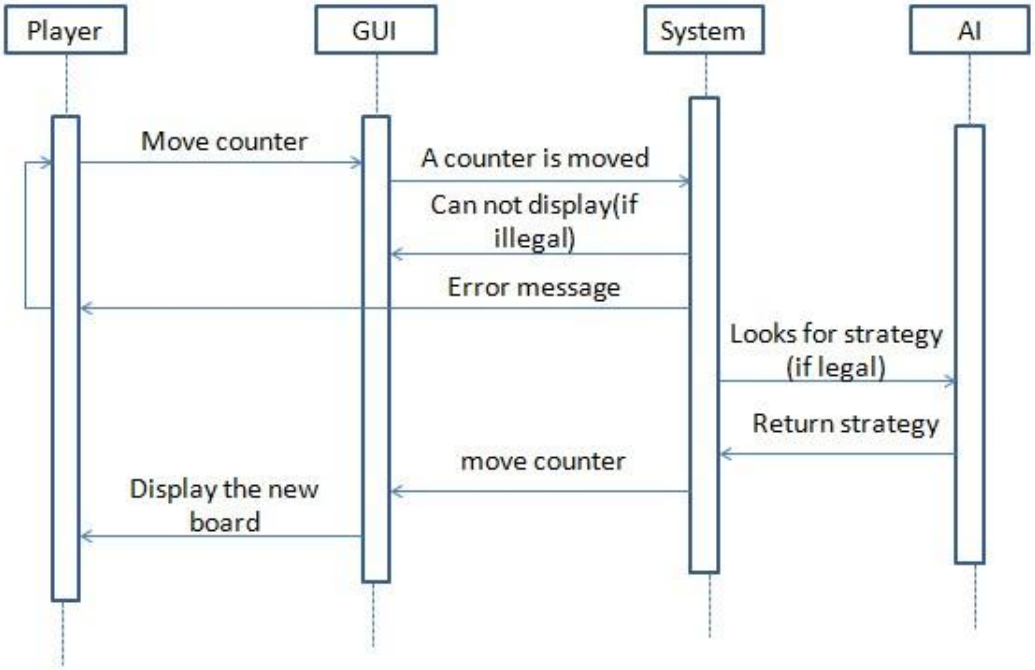

Sever application
Player1 application
Player2 application

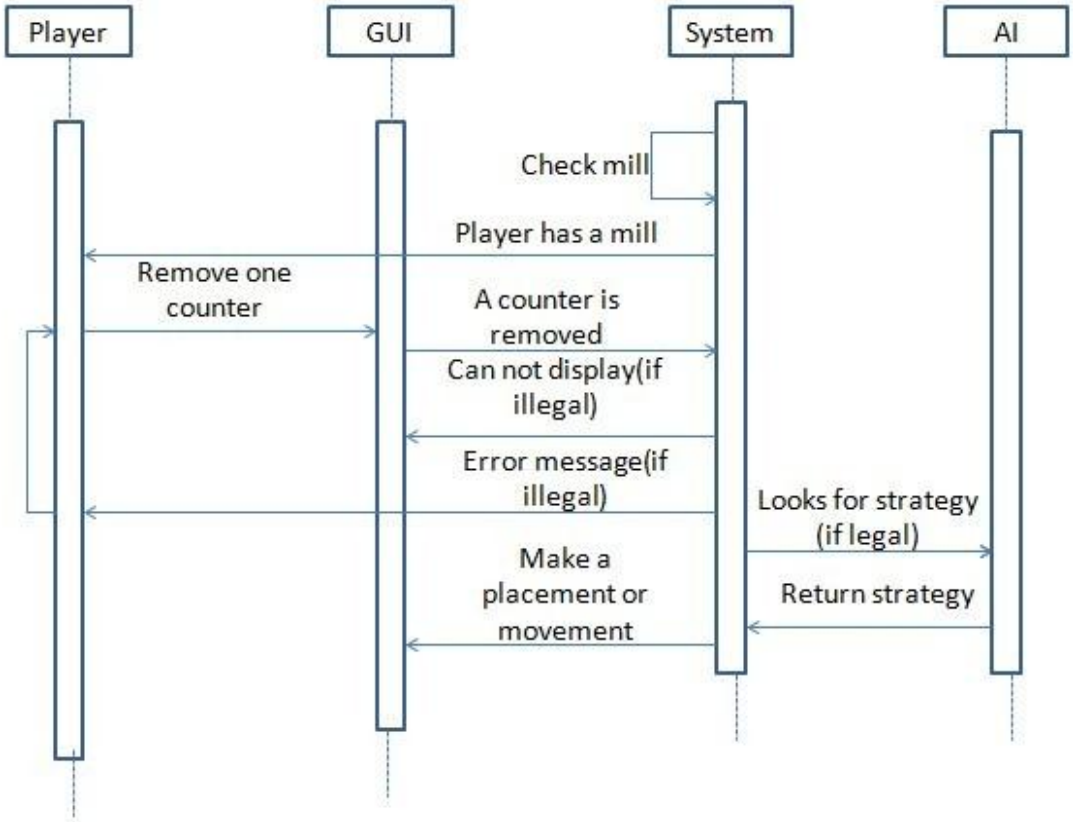

Client app launched
User input IP port
No
Success ?
Yes
Game starts

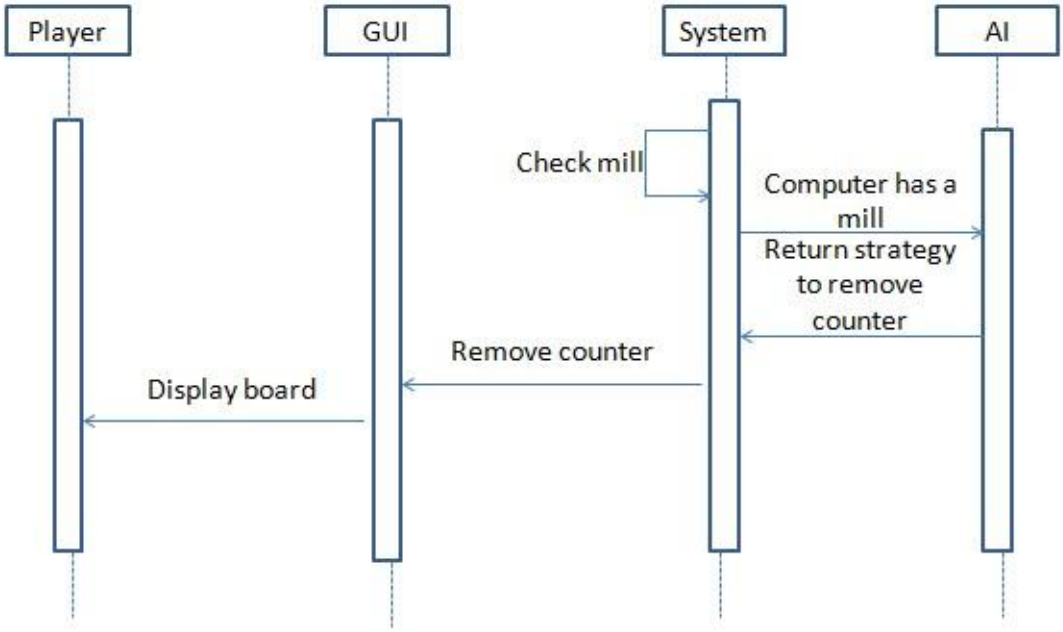

Server app launched
Waiting for connect
accept
Create new thread
Waiting for request
request
Operate request
Save result
Respond to client

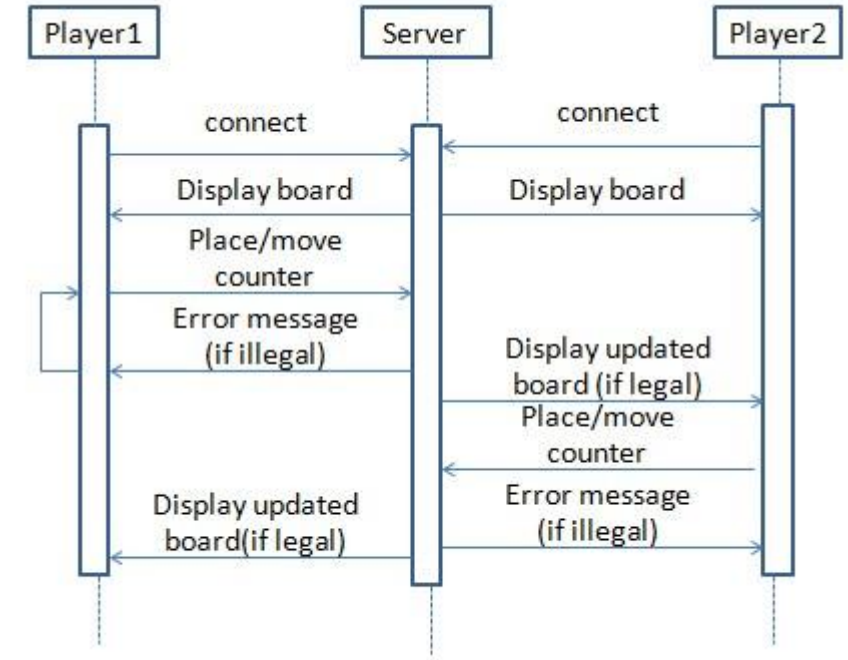
Sequence diagram

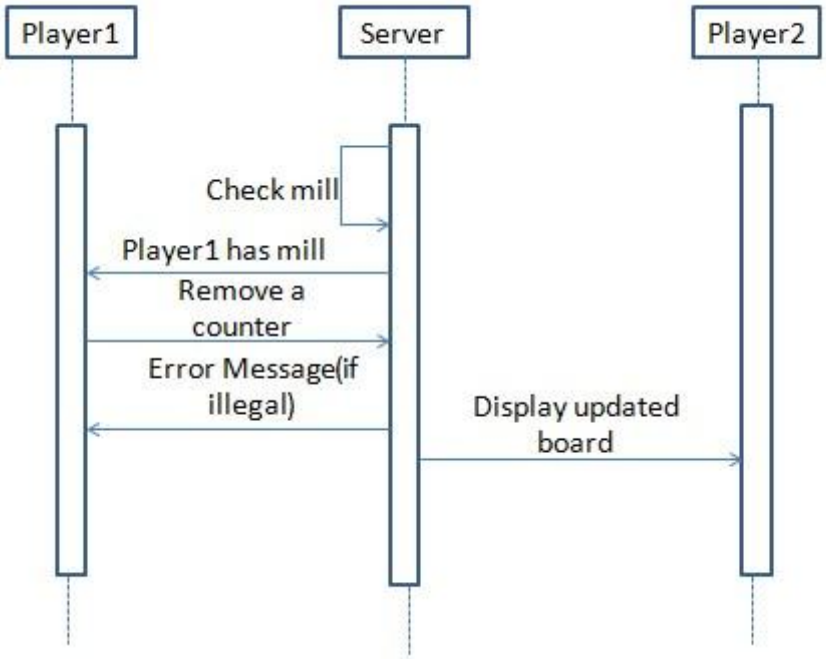





Player
GUI
System
AI
Check mill
Player has a mill
Remove one counter
A counter is removed
Can not display(if illegal)
Error message(if illegal)
Looks for strategy (if legal)
Make a placement or movement
Return strategy


Player
GUI
System
AI
Check mill
Computer has a mill
Return strategy to remove counter
Remove counter
Display board


Player1
Server
Player2
connect
connect
Display board
Display board
Place/move counter
Error message (if illegal)
Display updated board (if legal)
Place/move counter
Error message (if illegal)
Display updated board(if legal)


Player1
Server
Player2
Check mill
Player1 has mill
Remove a counter
Error Message(if illegal)
Display updated board