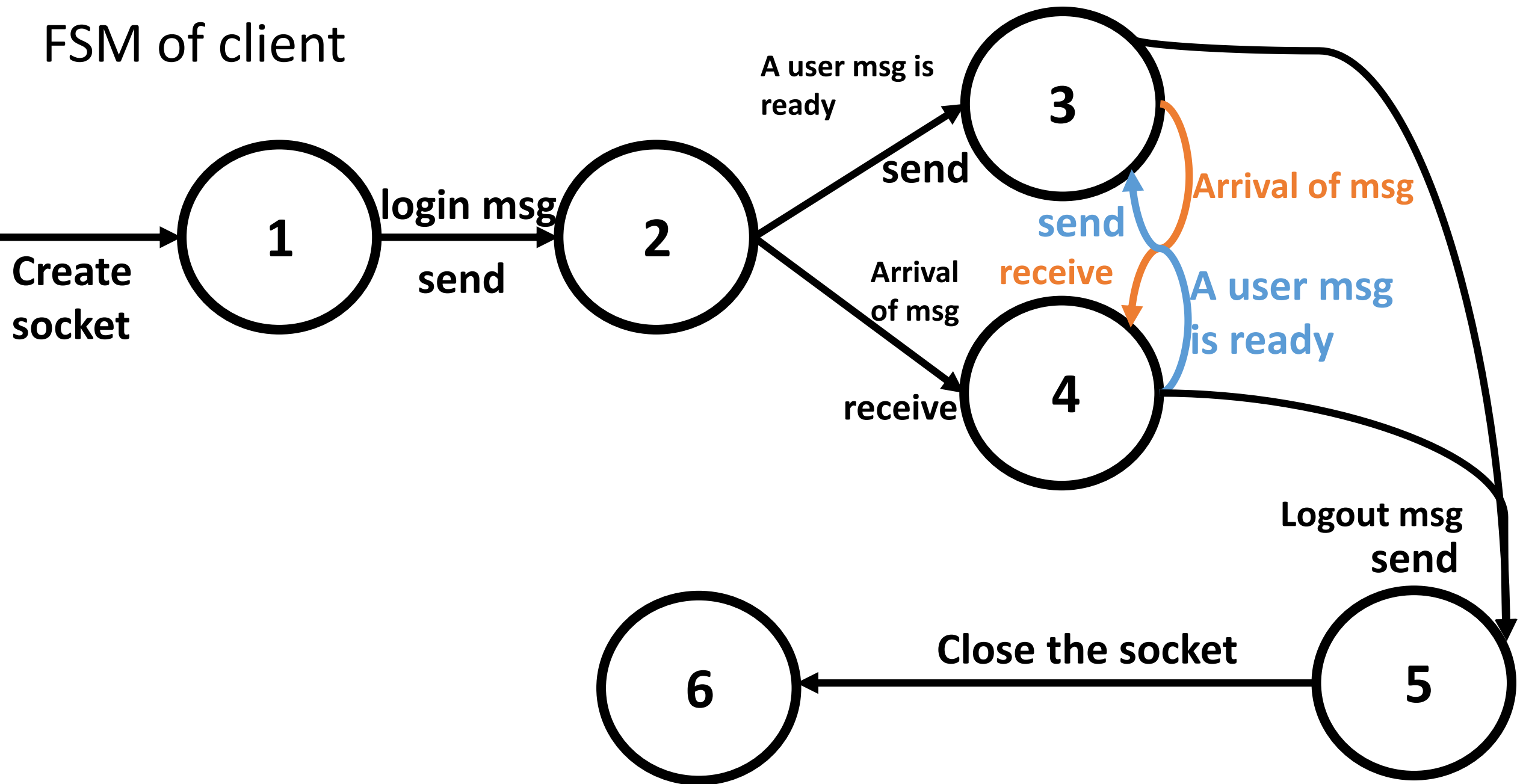# FSM of client

Pseudocode of client

1.-Create a socket object
//now client is in state 1
2.-Socket send a login message
//server adds the Client ID to an IP address
//client is in state2
3.-Socket send message from the server
//client is in state 3
// state 4 could come before state 3
//client could stay in a loop between state 4 and state 3 before logging out
4.-Socket receives a message from the server
//client is in state 4
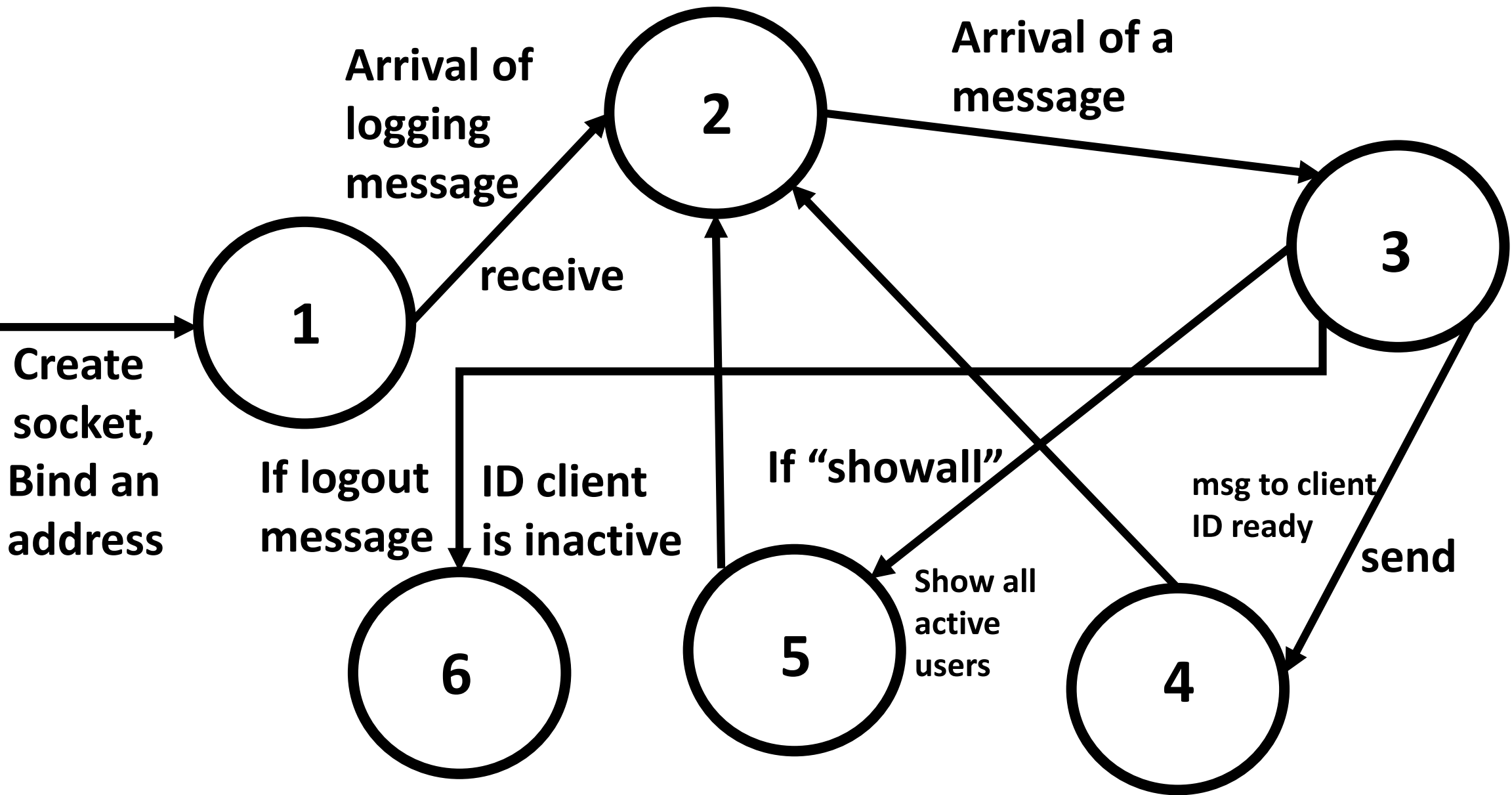//client knows the client ID of who send the message
5.-Socket send logout message
//now client is in state 5
// client will not receive any more messages
6.-Close Socket

FSM of Server

Pseudocode of server

1.-Create a socket object

2.-Server socket binds an address

//server is in state 1

3.-Socket receives a logging message

//server is in state 2

// logging message contains client ID

//Server maps client ID and its IP adress

4.-Socket receives message

//now server is in state 3

//servers reads the message

// if it includes a client ID, goes to state 4

// if it includes 'showall', then goes to state 5

// if it includes logout, goes to state 6

5.-Socket server receives the message client

//now server is in state 4

// server sends the message to the IP address of the client ID indicated by the user

6.- Socket server receives a 'showall' message

//now the server is in state 5

// calls a function to show all the active clients

7.- Socket server receives logout from a client

//now the server is in state 6

//the client is now inactive