Initial Connection

- Open socket
- Server "AB" where A = O or 1 depending on if handle is required
  B = O to 1 depending of if password is required
- Client sends "A, B, CD" where A is len(C)
  B is len(D)
  C is handle or "" if not required
  D is password or "" if not required
- Server send either "invalid_password"
  — OR —
  "A;BBBBBB,C" where
  A is the server name
  BBBBBB is the theme color in Hex format
  C is the w/ of the custom background
  NULL in N/A.

Different Actions:	Types of Messages	FROM
O — NEW_MESSAGE	— Text) (O)	CLIENT
1 — EDIT_MESSAGE	— Image) (1)	
2 — DELETE_MESSAGE		
3 — CLOSE_CONNECTION	#, id, type, handle, data	
4 — LEAVE_SERVER		

type   message
            id
        (used for
        edit & delete)

FROM SERVER

id, type, sender-handle, time, data

of the   0 or 1   time since
message   Unix Epoch
                                    (System. currentTimeMillis();)

Servers

Notification Manager

Message
~

Server

name
theme
.
.
connection
ip
port
SendMessage[]
unread
messages []

△ binds to the GUI

▷ Observable

Connection

input
output

port
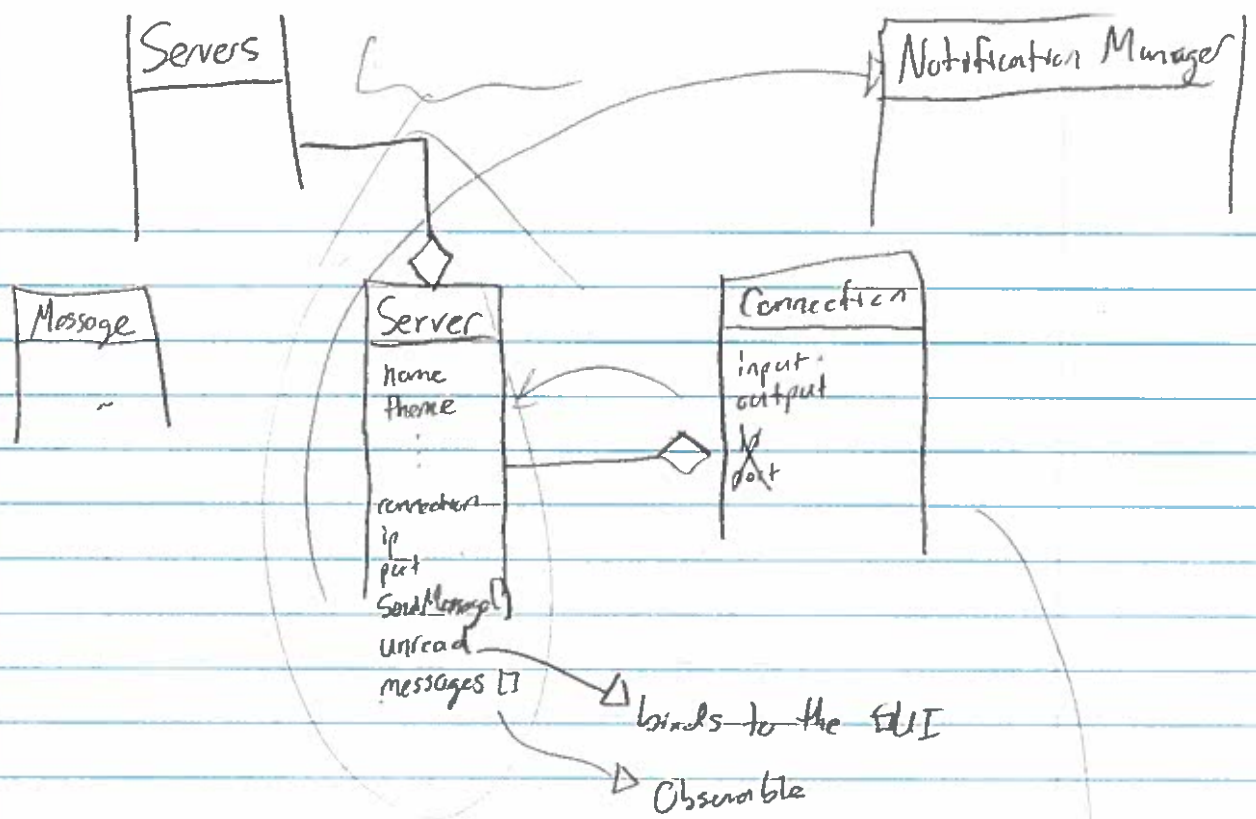
Observable List ⟨ Message ⟩ messages = FXCollections.observableArrayList();

Messages
_____

Socket

Input Stream

Output Stream
_____

write Bytes ()
_____

Thread:
listens to the input stream
and gives data to server
object.

.addListener((observable, oldValue, newValue)
{
    ~~~
});