

# Assignment stage 1

## 3815 ICT Software Frameworks

Student name: Sarah Puglisi Student number: s2954938

Workshop: monday 8am

### 1. Design

#### 1.1- functional requirements

FRID#	Functional requirements
1	Users can input text into a web browser
2	Users can login to a web browser page
3	User can enter text to a channel/group they are assigned to
4	Users can be assigned to groups
5	Users can be assigned to channels
6	Users can have account types
7	Users can have a profile image
8	Admin users can add users to channels and groups
9	Super admins can add users to channels and groups
10	Super admins, Admins, and Admin assis can create channels
11	Super admins can remove all users
12	Super admins can add users to super admin role
13	A group can have one or more rooms
14	A group has a list of users
15	A room has a list of users

16	A user can have a username, email, id, and role
17	A page called login should be the first page displayed
18	The login page should have fields for user login details which will be stored in local storage, and a logout button which clears local storage
19	A page called groups should be displayed to a user who has logged in
20	The groups page for a user should display the groups that user has been added to
21	When a user clicks a group it should display a chat page for that group
22	When a Admin user views the groups page it should include a form to add/remove a group/channel/ user
23	When an admin on the groups page selects a group or channel it should display the chat history of that group/channel
24	When a user logs in their details should be authenticated and if found invalid display an invalid message, and if found valid send the user to the groups page
25	The application should use a node.js backend with a mongo.db database
26	The mongo.db database should store all user and group information as well as channel history
27	Chat functionality should be enabled using sockets
28	When a user logs in or enters chat into a group/channel it should be visible to all other channel/group users
29	Channels/groups should enable a video chat feature

## 1.2 git organisation

- Describe the organization of your Git repository and how you used it during the development of your solution

My git repository is just a readme and my angular project

<https://github.com/sarahlikesoranges/OrangesMessagingService>

### 1.3 data structures

- Description of data structures used in both the client and server sides to represent the various entities, e.g.: users, groups, channels, etc.

Users

Groups

Channels

data

User			
un+pw	string		
name	string		
email	string	A-z, @, a-z, .com	
Acc type	number	(0-3)	1- user 2- admin 3-admin ass 4-super admin

groups			
groups[]	Array of groups	group	Grp0, grp1, grp2, grp3,

group			
channels[]	Array of channels	channel	ch0,ch1,ch2
members[]	Array of users	user	user0,user1,user2

channel			
members[]	Array of users	user	user0,user1,user2

history[]	Array of events	event	{user, event, time}
messages[]	Array of messages	Message: message	{user, message, time}

#### 1.4 angular architecture

• Angular architecture: components, services, models, routes. • Node server architecture: modules, functions, files, global variables.

Component	Function	connection	parameters
app	Display the app	login	
login	Let a user login	groups	Un + pw
groups	Show user info and groups and their channels	Channel, profile, login	Channel, username
profile	Update user info	Groups, login	Username, email, account type
channel	Allow user to chat	Groups, login	messages

#### 1.5 Server side

component		
Server datasource		
	verification	Username, password
	Serve data	User info, messages
	Save data	User info, events