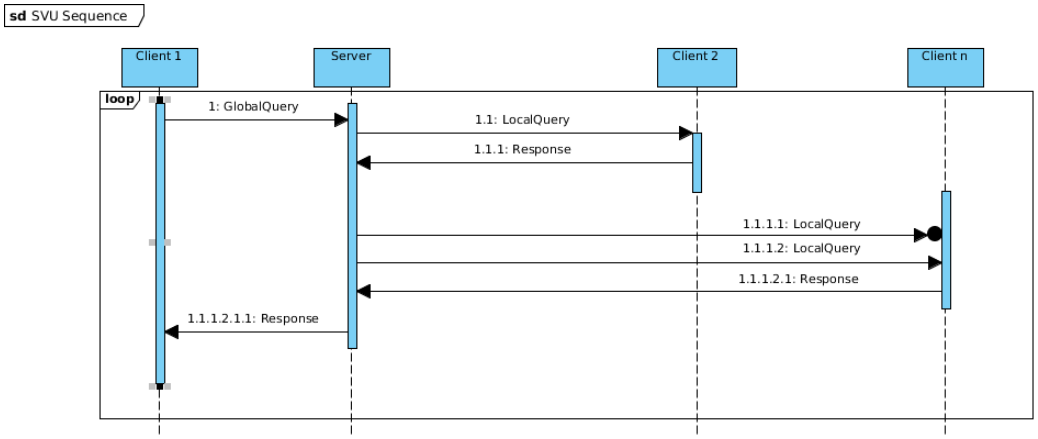
Softwareentwicklung in verteilten Umgebungen

Grass, Alexander 1331106 Szasvari, Zoltan 1330435
Wöls, Andreas 1331335

November 20, 2015, Graz

1 Design Protocol

In this document we want to explain our thoughts and give an overview on the desgin of Assignment 2. Selecting a database item and pressing the start-button triggers the global query on client gui.



A global query reaching the server ends in several distributed actions. What happens first is,as mentioned before, a function call in the gui. This function has 1 dbobject as Parameter and transmitts a query message to the corresponding websocket. The server receives this message and updates a map containing queries and clients. Since every client is able to start requests at any time, we need to be able to manage these requests.

Next step is that local queries to all other clients except the starting client will be sent. More detailed, the server needs to do a multicast containing an object x using the websocket to the recieving clients. Therefore we implement a component in the network.js backend, which delegates the search object to our workers.

Our Client network implementation has some kind of method that receives the db object, calls the existing compareEntity-function and returns the result

back to the server.

Its now the task of the server to evaluate the results of the clients and select the client with the most similar object. After that point, we request the clients db-object with the smallest euclidian distance and send it back to the searching client.

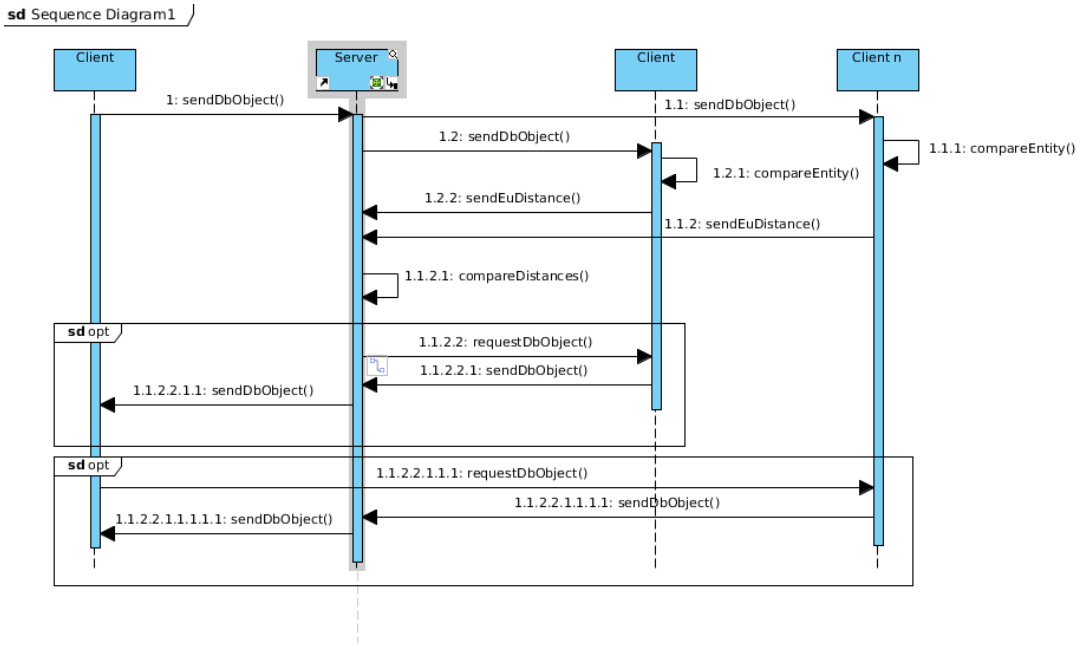


Figure 1: More detailed Sequence