1 A Private Chat Web Service

This assignment’s target is to design and implement a private chat web service, based on WebRTC. Like in the previous assignment, the browser’s interface can be as minimalistic as you wish.

The private chat web service will work as follows:

- a web service serving as a signaling server (rendezvous point) will be started on a given server and port
- the web service will establish a WebRTC connection between the first two browsers that point at it
- the two browsers start chatting by sending each other direct messages over WebRTC
- the web service keeps running, to establish a WebRTC connection between the next two browsers, and so on so forth

2 Implementation

Both browser and web server code should be in JavaScript, using Node.js for the server. The entry point to your Node.js web application should be index.js, and it should accept exactly one argument: the port where it listens to. For chatting, browsers will be sending direct messages to each other over WebRTC.

Note that in this assignment we will not make use of user names, registrations, rooms, etc. The model is very simple. Every two browsers connecting to the signaling server are matched with each other, and start chatting in private, using direct messages. The goal is to learn how to set up and use a WebRTC communication channel.

As long as you implement strictly the functionality laid out above, you are totally free to design your project in any way you prefer. However, you have to hand it documentation (besides your implementation of course), which explains clearly what challenges you came across, what design decisions you had to take, and how you implemented your solution.
3 Submission

Please make a tar file of your submission named hw4.tar, and email it to spyros-intprog@cs.vu.nl. The subject should follow the usual format, e.g., abc123_def456_4. You will receive instant confirmation of the submission, but your code will be manually tested after the end of the deadline. As usually, you may submit any number of times, and only your latest submission will count as official.