Assignment CBSE

# Group Members

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# Task 1. Component as a Service – Chat Server

For this task we chose to apply the following process:

*“CBSE with reuse*: developing the Chat server by reusing existing libraries/API”

The components we chose to use are from the following pages:

<http://www.androidhive.info/2014/10/android-building-group-chat-app-using-sockets-part-1/>

Here we found a good overall solution to create a Socket Server (step 3 in the guide). The reason we chose this component was because it is compatible with many different type of clients i.e. Android and web-based applications, for use over multiple platforms.

The socket server for this component will work in the following way:

1. The socket server will be accessed by an application (android or web), then a TCP connection will be created between the server and the client. This component also allows multiple connections so that many users can stay active at the same time.
2. The server will talk to the client and vice versa by creating JSON objects. These are used for conveying user messages, alert users when new users connect to conversations, check how many people are online, keep track of session ID’s etc.
3. The client side then receives the JSON object and parses it for appropriate use. (See examples above.)

# Task 2. Component Composition – Android Chat App

