#### **Annotation 1**

**Title:** E2EE Group Chat Proposed Technologies

**Description:** This artifact was authored by all 4 members of Electron Chat group (James Marshall, Philip Marshall, Timothy Trusive, and Zakhaddin Khalidov), it is a proposal of tools and technologies that could be used for the Encrypted Messaging Board group project in a Senior Capstone course. The document has a color code to define items: not needed in development environment, needed in development environment, and discussed but passed ideas. There are four discussion categories: Server, Additional Technologies, Backend, and Frontend. There is also a section for helpful links, this is the location where any research found useful for the group is shared.

**Reflection:** I was surprised at the effectiveness of group brain storming that was conducted during the creation of this artifact. I realized that talking though the technologies with others gave me a better understanding of how the technology would be implemented in the project. By talking about the technologies in a group I also gained a good understanding of everyones experiences and preferences on which aspect of the project they would like to work on. Using this knowledge will make organization in the team more effective.

# Purposed Technologies:

# Legend:

Not needed in development environment Needed in development environment Discussed but passed ideas

#### Server:

Apache server with node.js running

A2Hosting - hosting

- This is paid (cheap)

Sql database - database

- Are we storing any logs of some sort?
- Sql is fun.

mongoDb - database

## Additional Technologies (API / Libraries):

SocketIO - is library for socket communication (node.js)

- Will this work with a sql database?
- How anonymous can we make this?

Crypto-is - is based encryption library

#### Backends:

node.js - js backend

- SocketIO uses this so maybe also use this?
- Download | Node.is (nodeis.org)
- Getting Started with Node.js Backend Development DEV Community



Springboot - java backend

James used this before so there is some experience with it

Django - python backend

## Frontends:

Angular - is based frontend

- Some experience with this as well.
- How to Encrypt and Decrypt Data in Angular 8 (monkelite.com)

React - is based frontend

# Helpful links:

Very similar to what we are doing for website creation: <u>Angular - Node - MongoDB & Express</u> (MEAN) <u>Tutorial for Beginners - Getting Started - YouTube</u>