

COP 701: Toy Chat Application

Instructions:

1. Upload your solution in a zip folder following the mentioned naming scheme, i.e. <EntryNumber_Name_assignment-5>.zip.
2. In this assignment, you can use Node JS, HTML / CSS, Angular JS, MongoDB, Cassandra, React JS, Ajax.
3. If you are copying the code from Github or peers, the consequences can range from getting an F grade in the course to the Disciplinary Committee.

Problem Statement:

The IIT Delhi M-Tech students are fed up with the downtime of the Facebook and Whatsapp applications. They want to design their real-time chat application. You have to build a real-time chat application that the students can use to communicate and share reels and memes among their friends ;-). Below is the design requirement of the chat application:

1. To verify the identity of the student, they should log in using the Kerberos credentials.
2. The students can chat among themselves.
3. The students can create a chat room to have a group chat.
4. They must not lose their data after logout from the application or a system shutdown or application crash.
5. The students may share any media file or meme, or reels among their friends.

In this assignment, you are expected to submit the following:

1. Implement a real-time chat application using Node JS. To design the front end, you can use HTML/CSS and Angular JS or React JS or Ajax calls to manage API calls to the server from the front end. You can either use Cassandra or MongoDB to store information.
2. Plot a graph to show how the time to process a request varies with an increase in the number of requests to the application.
3. The API details and their implementation details should be documented in the report.

References:

1. <https://angular.io/docs>
2. <https://nodejs.org/en/docs/>
3. <https://reactjs.org/docs/getting-started.html>
4. <https://docs.mongodb.com/>
5. <http://cassandra.apache.org/doc/latest/>