**Comp 5610 Project Proposal**

**Title:** An Encrypted Messaging application for secure communication

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**Project Idea**:-Inspired by all the latest messaging applications our objective is to create a secure messaging application of our own. Just like a typical application following are the components which will be the core of the application

**Backend:**- The backend of the application will be a web server with a database. The web server will implement a RESTful API and authentication will be done using shared keys. Basically, a RESTful API is an application program interface ([API](http://searchexchange.techtarget.com/definition/application-program-interface)) that uses [HTTP](http://searchwindevelopment.techtarget.com/definition/HTTP) requests to GET, PUT, POST and DELETE data.

The database which we will be implementing is a relational database.

**Frontend:-**The proposed project will be a mobile application built in Ionic platform. It is ansss open source Development kit for app development. It will be very new technology for all of us to implement.

The proposed project meets the requirements because the fundamentals of encryption like the authentication, encryption and decryption will be met successfully. Authenticating the connection between two parties will be done using an SSL and key generation approach similar to the **Diffie-Hellman** key exchange algorithm.

Secondly the encryption and decryption will be done algorithm Advanced Encryption Standard.