Problem: Develop and implement a (reliable, fail-safe)Web-based system that can ensure private encrypted communication between two users in the form of basic text messages.

Expectation: The system needs to implement asymmetric encryption in a way which nullifies the possibility of any entity(other that the 2 communicating users) intercepting the communication between the users.
The following features/functionalities are expected from the system:

- The Web-based application should allow the site-visitor to create an account in the database and access it after **authentication** of required credentials.
- The application will store and access the credentials from the cloud-based storage.
- The application should allow the user to **alter** the credentials after thorough authentication.
- The application will access the cloud-storage and save any newly received messages in the local storage after decryption, every-time the user Logs-in.
- The web application allows the user to chose some of the existing users as his friends with their consent.
- The application will allow the user to communicate only with the users present in corresponding list of friends.
- The application will allow the user to view message history with a particular friend.
- The application will store and access the message history from the user's local storage.
- The application will allow the user to send messages to a friend, these messages will be stored in encrypted form in the cloud.
- The application will allow the user to receive messages from friends, the messages will be decrypted and stored in the local storage of the user.
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