System Specification:

1. MetaMask Authentication:

- The system supports MetaMask authentication to ensure security when users access the application.

2. Account Management:

- Users can create accounts within the app using MetaMask or other Ethereum wallets.

- Accounts are stored on the blockchain to ensure decentralization and security.

3. Add Friends to Chat:

- Users can add friends using Ethereum addresses or other login information.

4. Send and Receive Messages:

- Provides the ability to send and receive messages through Solidity smart contracts on the Ethereum blockchain.

- Messages are stored on the blockchain to ensure security and immutability.

5. Solidity Smart Contracts:

- Integrates Solidity smart contracts to handle transactions and store message data on the blockchain.

6. User Interface/User Experience (UI/UX) Design:

- Creates a user-friendly and intuitive interface.

- Includes sections such as a contact list, message dialogues, and account management.

7. Connectivity with Blockchain:

- Uses Web3Modal and Web3.js or Ether.js to connect with the Ethereum blockchain.

- Ensures smooth and secure interaction with the blockchain.

Feature Description:

1. MetaMask Authentication:

- Users can log in using MetaMask to verify their identity.

2. Account Management:

- Feature for creating and managing user accounts within the application.

3. Add Friends to Chat:

- Search and add friends using Ethereum addresses or other login information.

4. Send and Receive Messages:

- Feature to send and receive messages based on users' Ethereum addresses.

5. Solidity Smart Contracts:

- Supports sending and receiving messages through Solidity smart contracts.

6. User-Friendly Interface:

- Beautiful user interface with key sections such as a contact list, message dialogues, and account management.

7. Secure Blockchain Connectivity:

- Uses Web3Modal and Web3.js or Ether.js to connect and interact with the Ethereum blockchain securely.