



P2PNetwork
- peers: List<Peer>
+ discoverPeers()
+ relayMessage(mmessage)

EncryptionManager
- encryptionAlgorithm: String
- keyExchangeProtocol: String
+ generateKeys()
+ encryptMessage(mmessage)
+ decryptMessage(mmessage)

Peer
- id: String
- publicKey: String
- privateKey: String
- conversations: List<Conversation>
- password: String
+ register(id, password)
+ login(id, password)
+ connectToPeer(peerId)
+ sendMessage(peerId, message)
+ receiveMessage(mmessage)
+ endSession()
+ changePassword(newPassword)

Message
- content: String
- senderId: String
- receiverId: String
- timeStamp: DateTime
- messageHash: String
+ encrypt()
+ decrypt()
+ validateHash()

Conversation
- participants: List<peerId>
- messages: List<Message>
+ addMessage(mmessage)
+ getMessages()
+ getMessage(mmessage)??
+ removeMessage(message, forBothOfIt)??
+ clearConversation()??