SHA-1 Hashing Class Diagram:

Client
+ input_text: String + digest: String + answer: String
+ hashlib.sha1().hexdigest(): String + socket(): socket obj + connect() + send() + recv()

Server
+ digest: String + accepted[ ]: String
+ socket(): socket obj + hashlib.sha1().hexdigest(): String + bind() + listen() + accept() + send() + recv()

SHA-1 Hashing Use Case Diagram:

Message Interity Verfication using SHA1

Establish connection

Enter message

Calculate Hash on client side using SHA1

Send message and hash to server

Calculate hash on server side using SHA1

Compare accepted and calculated hash

Send message integrity results

Terminate connection

Client

Server
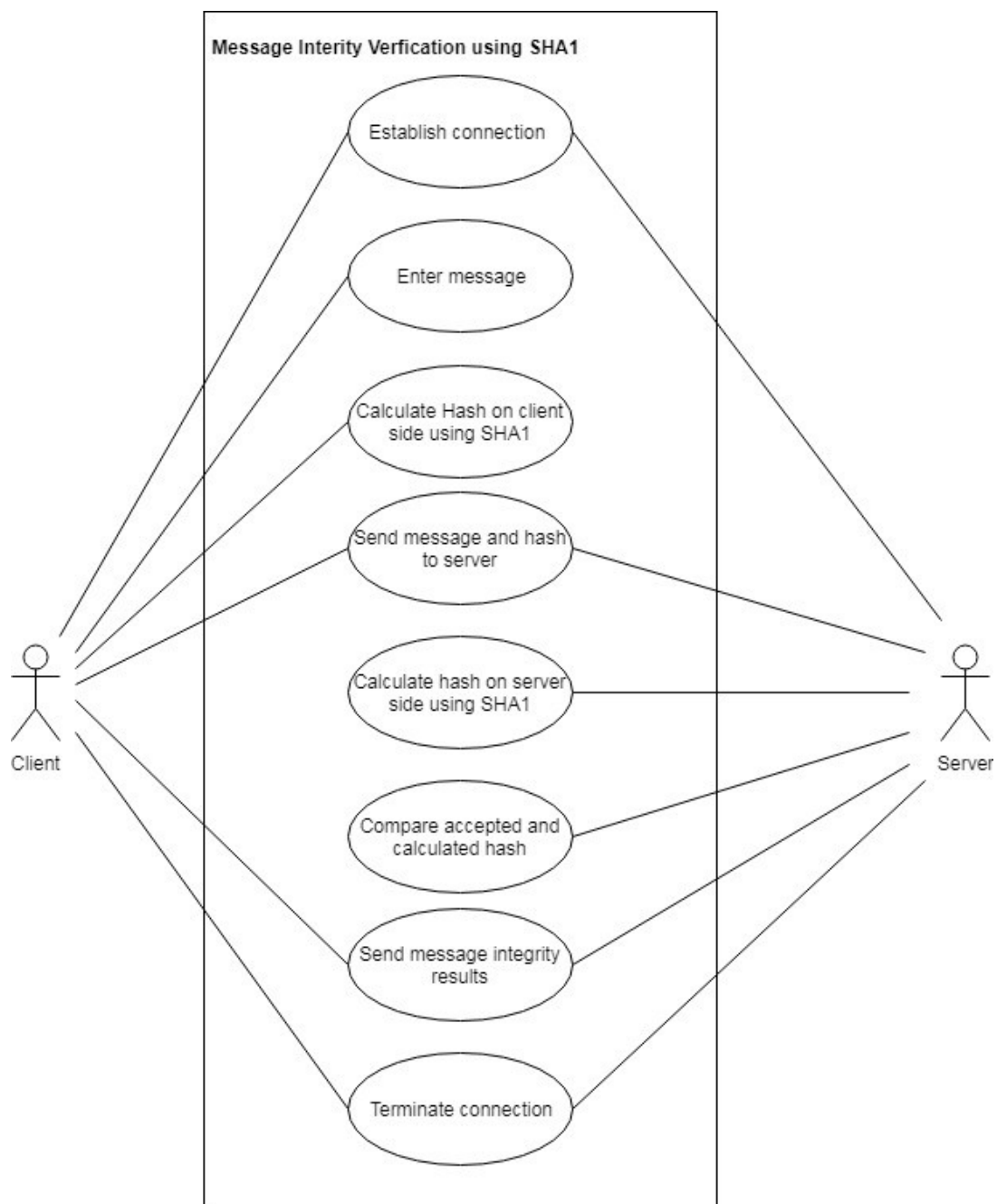
SHA-1 Hashing Activity (Swimlane) Diagram: