**ACG Assignment External Documentation**

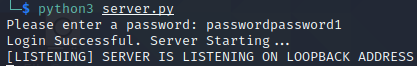
**Prerequisites:**

* Python Libraries:
  + bcrypt library – **pip install bcrypt**
  + socket library – Part of Python Standard Library
  + hashlib library – Part of Python Standard Library
  + PyCryptodome library – **pip install pycryptodomex**
  + hmac library – Part of Python Standard Library
  + pickle library – Part of Python Standard Library
  + PySide6 library – **pip install PySide6**

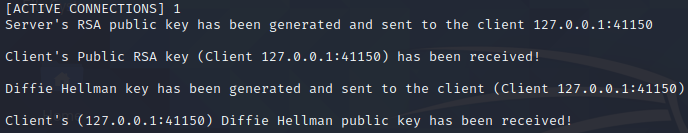
**Sample Runs:**

 🡨 Wireshark packets and proof of encryption

Starting the server with a password:



Server key exchanges with client:



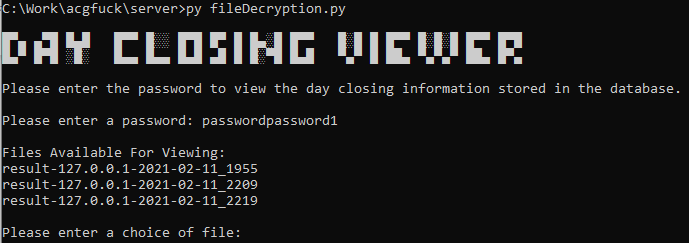
Server sending menu:

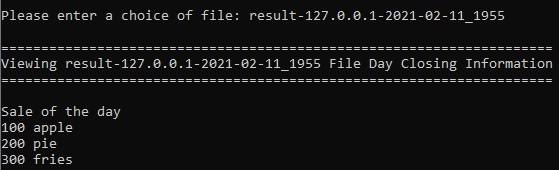


Server verification of **day\_end** payload:

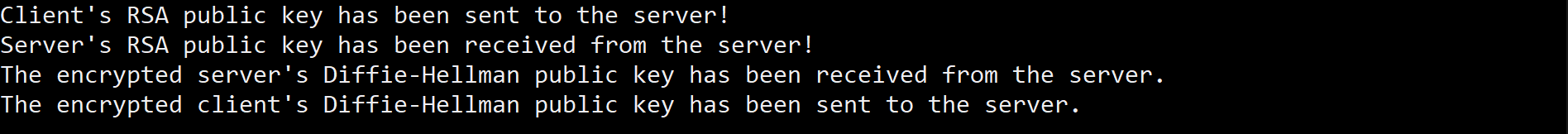


Server viewing of encrypted files:

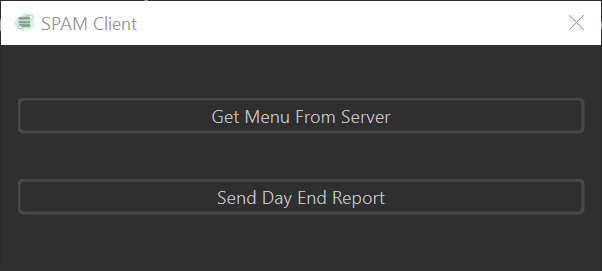




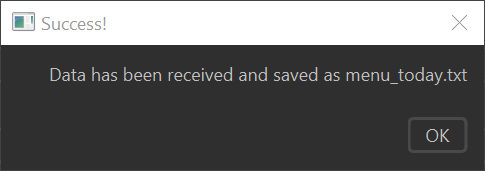
Client key exchanges with server:

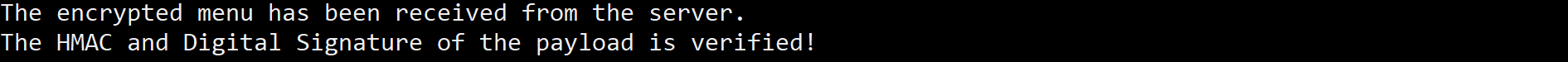


Client Graphical User Interface (GUI):

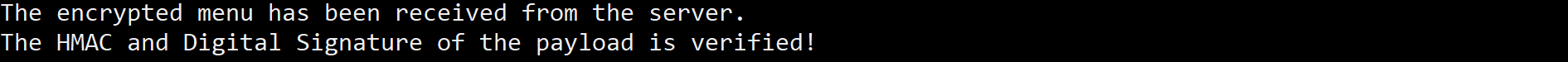


Client requesting menu from server:

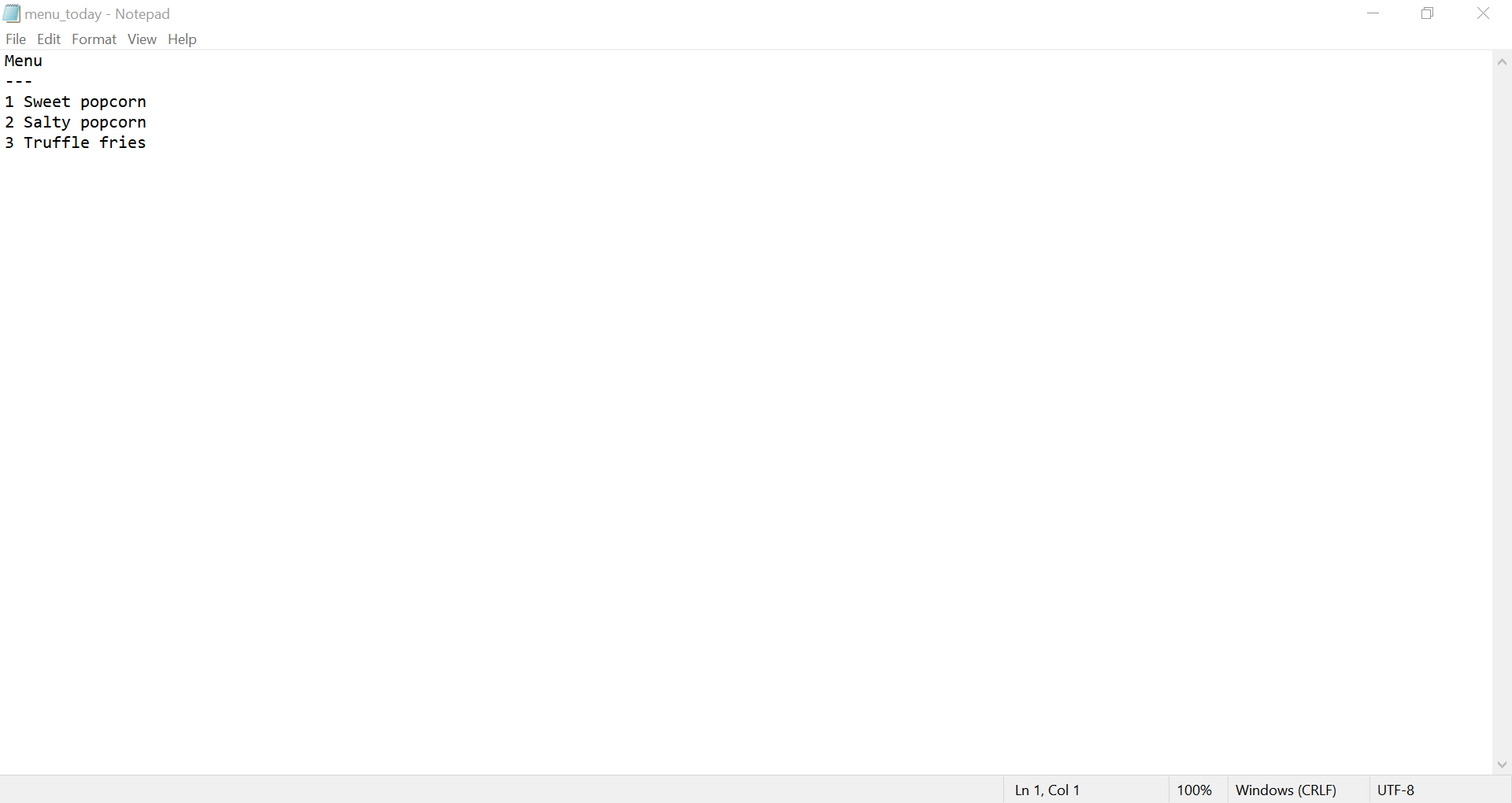




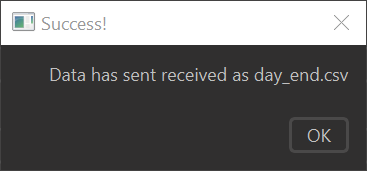
Client verification of menu payload:



Client viewing **menu\_today.txt**:



Client sending **day\_end** playload to server:



Client verification of **day\_end** payload:

