

Hayden Dennis

Professor Boyang Wang

Network Security

18 February 2026

# 1<sup>st</sup> and 2<sup>nd</sup> round AES encryption

## Running

I ran the program on Ubuntu Linux via WSL2. However, I don't use any platform specific dependencies so the project will run on any python (3.12 or newer). I am using [uv](#) to manage my version & environment; however, the project only requires pip to be installed.

```
git clone https://github.com/HDTREES/aes\_m14912123.git
```

```
cd aes_m14912123
```

```
pip install .
```

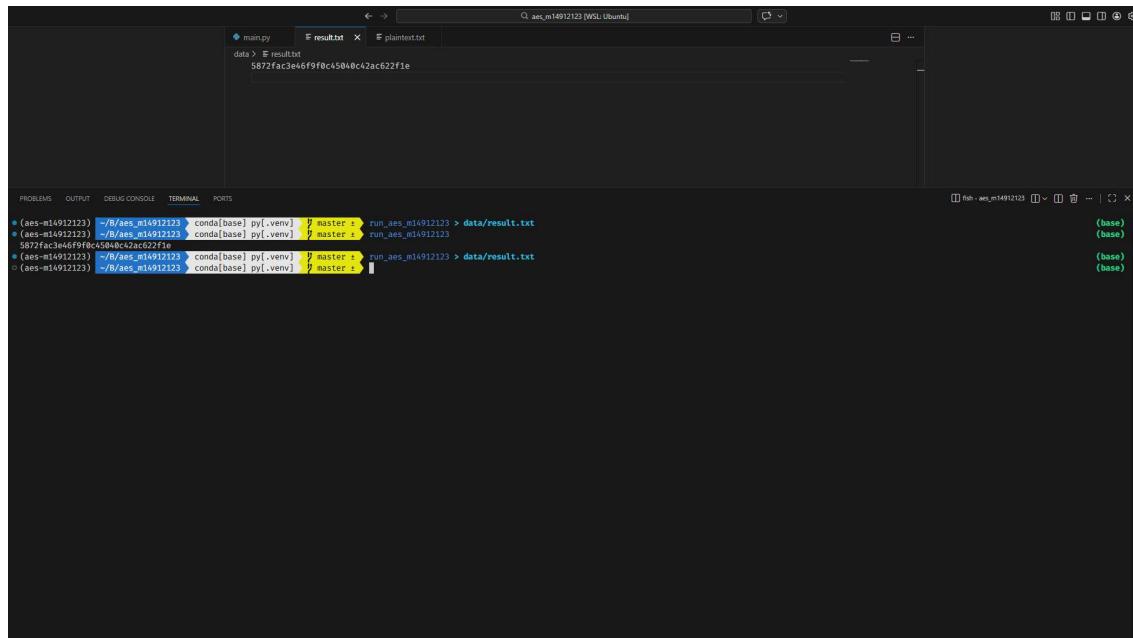
If you have uv, [uv sync](#) can be used to generate a virtual environment with the project installed rather than installing globally. The only external module I used was [numpy](#).

## Result

The result file was generated by the following command:

```
run_aes_m14912123 > data/result.txt
```

*Note this will not work for ALL shells, but will work for most including: sh, bash, ps2.*



A screenshot of a terminal window titled "aes\_m14912123 (WSL: Ubuntu)". The window shows a file browser with files "main.py", "result.txt", and "plaintext.txt". Below the file browser is a terminal window with the following content:

```
(aes-m14912123) ~ /> cd aes_m14912123 > conda base py[venv] > run_aes_m14912123 > data/result.txt
5872fac3e46f9f0c450e0c42ac622f1e
(aes-m14912123) ~ /> cd aes_m14912123 > conda base py[venv] > run_aes_m14912123 > data/result.txt
5872fac3e46f9f0c450e0c42ac622f1e
(aes-m14912123) ~ /> cd aes_m14912123 > conda base py[venv] > run_aes_m14912123 > data/result.txt
5872fac3e46f9f0c450e0c42ac622f1e
```