**RSA Encryption Project – Python – Noah Tubbs**

**How It Works:**

1. The program generates two random prime numbers (each at least 16 bits).
2. It computes public and private keys using RSA principles.
3. It reads a plaintext message from 'plaintext.txt' and encrypts it character-by-character using the private key.
4. The encrypted output is saved as 'ciphertext.txt'.
5. It then decrypts the content using the public key and saves the result as 'decoded.txt'.

**How to Execute:**

1. Make sure all files are in the same directory:
   * rsa\_encryption.py
   * plaintext.txt (input file)
2. Run the program: **python3 rsa\_encryption.py**
3. After execution, the following output files will be generated:
   * ciphertext.txt (RSA-encrypted integers)
   * decoded.txt (original message restored)