CYBR 7400-FA20-Programming 4

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1. **What you did for the project, i.e., explain the project with your own word.**

The project aims to enhance a text converter program by incorporating RSA encryption and decryption functionality. My original text converter allowed users to convert a string into a list of characters, ASCII codes, binary representation, and vice versa. The updated code introduces RSA key generation, encryption, and decryption processes to secure the data.

1. **Explain your program/code.**

The user is prompted to enter a string. The RSA key generation process generates a key pair consisting of a public key and a private key. The input string is then converted to a list of characters, which is converted to ASCII codes. ASCII codes are encrypted using the public key, producing an encrypted list of ASCII codes. The encrypted list is decrypted using the private key, returning to the original ASCII codes. The decrypted ASCII codes are converted back to a list of characters and then to a string.

1. **Explain output, include screen shot.**

The output includes the public and private key values, the converted string from list to ASCII codes, the encrypted and decrypted ASCII codes, and the final conversion of characters back to a string.

Input after entering name:  
A screen shot of a computer program

Description automatically generated

Input after entering a sentence

A screenshot of a computer program

Description automatically generated