

Kennan Lyle Seno  
D14123582  
Lab 4

**Question 1:** Type 'python lab4.py' in the terminal to run the python script

```
python lab4.py
-----Q1-----
Encrypted text: 43d3215c92a75a1478fcf9cb950d20dba36a052e7c3de51409c4fc55cbea7bd3
Decrypted text: AAAABBBBCCCCDDDDAA
```

The screenshot above shows the ciphertext and the plaintext after decryption using the AES in ECB mode.

**Question 2:** Type 'python lab4.py' in the terminal to run the python script

```
python lab4.py
-----Q2-----
Key: 1236241234123412
Encrypted text: 43d3215c92a75a1478fcf9cb950d20dba628062fe8b278c4c21d0ea8f7179f16
Decrypted text: ??j?5?d J???P??P?J?-T>
Key: 1231231251231123
Encrypted text: 43d3215c92a75a1478fcf9cb950d20dba628062fe8b278c4c21d0ea8f7179f16
Decrypted text: ???Uhx@,4????[o<???{?W????
Key: 1234567812345678
Encrypted text: 43d3215c92a75a1478fcf9cb950d20dba628062fe8b278c4c21d0ea8f7179f16
Decrypted text: AAAABBBBCCCCDDDDAA
```

The screenshot above shows different keys being used to brute force the AES ciphertext by reading a dictionary file. the 3rd try was successful using the key '1234567812345678'