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CS405

**Activity 5-2: Encryption**

**Encryption Coding Summary:**

To start this assignment, I downloaded the zip folder from the rubric and created a new project in Visual Studio. As I usually do, I ran the code as is just to see the functionality. We were tasked with taking the provided text file (inputdatafile.txt) and making changes to the provided code to implement XOR encryption. The goal of the changes we were trying to accomplish was to read the file (inputdatafile.txt) and write an encrypted text file (encrypteddatafile.txt) and a decrypted text file (decrypteddatafile.txt). The reading of the file happens in the ‘read\_file’ function. We were also tasked with having these encrypted and decrypted output files in a certain format which was student name, date, key, and data. When coding the date portion of this assignment I made sure to use localtime\_s for thread safety over the use of localtime. After the program was complete, I made sure to run it multiple times to ensure functionality. It was also important throughout the changes to the code that were made that everything was properly commented. Please see screenshot provided below for program functionality.

**Screenshots:**

**A computer screen with white text

AI-generated content may be incorrect.**

**Inputdatafile.txt Screenshot:**

**A screenshot of a computer

AI-generated content may be incorrect.**

**Encrypted Data File:**

**A screenshot of a computer

AI-generated content may be incorrect.**

**Decrypted Data File:**

**A screenshot of a computer

AI-generated content may be incorrect.**