

### **1. What are the most challenging aspect of the coursework task?**

= There were few challenging aspects that I faced while implementing the Caesar Cipher task. The Caesar Cipher is a cryptographic algorithm that only encrypts and decrypts alphabetic characters, so special characters and spaces must be handled correctly. Because the Caesar Cipher's encryption and decryption processes are typically case-sensitive, it was necessary to process both upper- and lower-case input and convert it to a specific case. I found it difficult to handle keys in Caesar Cipher because they are an important aspect that must be handled correctly. The key must be an integer between 1 and 25. Making the program robust was difficult. To be robust, your code should correctly handle invalid input, display a clear error message, and prompt the user for valid input until the input is valid. Overall, Caesar encryption tasks need a thorough understanding of the encryption and decryption processes, as well as the ability to handle edge cases and incorrect inputs.

### **2. How did you go about completing the task?**

= Coding is still a daunting task for someone who has never tried the fundamentals, but after completing the course, learning about this module, and working through the coding questions in earlier assignments, I have a clear understanding and my skills have improved. I was concerned when I was assigned this coding assignment because I had no idea about Caesar Cipher, but after watching the instructional video and slides posted by my teachers, I got few ideas on it. Then after, I went through few of the YouTube videos about the Caesar Cipher and searched for few websites or help on the internet related to it. I also sought advice from friends and seniors who had taken the same course. These sources helped me understand the Caesar Cipher algorithm and I understood about the Caesar Cipher encryption and decryption process, which motivated me to complete the work.

### **3. What have you learned over the course of completing this coursework task?**

= Completing the Caesar Cipher task was a valuable learning experience for me because it taught me some important programming and cryptography concepts and skills. As I studied and performed Caesar's cryptographic tasks, I gained a solid understanding of the fundamental concepts of encryption and decryption, as well as the mathematical operations involved. I discovered that completing this task needs a solid understanding of fundamental programming concepts such as loops, functions, and data types. I also learned how to create algorithms for encrypting and decrypting messages. I realized the significance of good algorithm design and how to approach problems in a systematic manner. I discovered the advantages of dealing with, testing, and debugging edge cases during the software development process. In conclusion, I gained a better understanding of encryption and decryption concepts as well as valuable experience in programming, problem solving, and testing.