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# Practices for Secure Software Report

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## Document Revision History

| **Version** | **Date** | **Author** | **Comments** |
| --- | --- | --- | --- |
| **1.0** | **[Date]** | **[Your Name]** |  |

## Client



## Instructions

Submit this completed practices for secure software report. Replace the bracketed text with the relevant information. You must document your process for writing secure communications and refactoring code that complies with software security testing protocols.

* Respond to the steps outlined below and include your findings.
* Respond using your own words. You may also choose to include images or supporting materials. If you include them, make certain to insert them in all the relevant locations in the document.
* Refer to the Project Two Guidelines and Rubric for more detailed instructions about each section of the template.

## Developer

Corey Rallings

## Algorithm Cipher

The encryption algorithm cypher I choose to incorporate is a message digest algorithm. This would allow information to be received and turned into bytes. The one algorithm I chose to use is the SHA-256, this specific algorithm uses a checksum as the verification step the client would like to have. This algorithm is faster than others and converts any length text into unique alphanumeric strings. It is also 50% faster than most other message Digest algorithms. When looking at asymmetric key encryption this would use a single key for encrypting and decrypting info. In the past encryptions were used to send messages and hide information when being sent to another person. some encryptions included shifting characters or using a template to decipher messages. In current times we use the same encryptions and decryption bit incorporate them in a different kind of way. We now use numbers to encode important information.

## Certificate Generation

Insert a screenshot below of the CER file.

A screenshot of a computer

Description automatically generated

## Deploy Cipher

Insert a screenshot below of the checksum verification.

A computer screen shot of a program

Description automatically generated

## Secure Communications

Insert a screenshot below of the web browser that shows a secure webpage.

A screen shot of a computer

Description automatically generated

## Secondary Testing

Insert screenshots below of the refactored code executed without errors and the dependency-check report.

A screenshot of a computer screen

Description automatically generated

A computer screen shot of a program

Description automatically generated

## Functional Testing

Insert a screenshot below of the refactored code executed without errors.

A screenshot of a computer program

Description automatically generated

## Summary

Some of the areas I addressed when looking at the assessment process flow diagram is the code quality. There were plenty of areas where I could’ve have been clearer, and the code could have been done better. Another area I looked at when creating the code was code error. Code error was a big one for me because there were a few mistakes I’ve had to fix. Ther bugs that had to be found and misspellings and imports that were complicated to do as well. Lastly, I would say that the cryptography was something I looked over as well. I had to make sure that the algorithm I chose was best beneficial for what the client wanted and needed in the program.

## Industry Standard Best Practices

I believe implementing the industry standard helps a lot when coding. This has helped me organize the programs I’ve written. It has also made my code more readable for others, this is good when refactoring or looking back on something you’ve done. This could also help when getting assistance from others. The industry best standard is useful for many reasons and should be implemented whenever possible. It helps you and others in the long wrong and it helps to make sure that the quality of work is at its best.