# CS 305 Module Five Coding Assignment Checksum Verification Template

## Instructions

Using the instructions from theModule Five Coding Assignment Checksum Verification Guidelines and Rubric, replace the bracketed text with the relevant information in your own words.

## Algorithm Cipher

I recommend using the SHA-256 algorithm, as it provides strong security and a very low chance of collisions, this makes it a solid choice for encryption needs.

## Justification

SHA-256 was developed by the National Security Agency (NSA) in 2001 as the successor to SHA-1. It is viewed as one of the most secure hashing functions available, with only an extremely small chance of collisions. A collision occurs when two pieces of data generate the same hash value. As SHA-256 produces outputs consisting of lowercase letters and numerals 0–9, which can result in 3,664 possible combinations. Because of this vast number of outcomes, the chances of two different inputs producing the same hash is low.

## Generate Checksum

You’ll submit your refactored code to your instructor. Your instructor will review it and this document.

## Verification

Insert a screenshot below of the web browser with your unique information.

