# 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

For the purpose of ensuring the integrity and verification of a public key via checksums, I recommend using the SHA-256 algorithm cipher. SHA-256 is part of the SHA-2 (Secure Hash Algorithm 2) family, which is widely recognized and used for cryptographic security.

## Justification

SHA-256 churns out a 32-byte hash, drastically lowering the odds of two different inputs ending up with the same hash - a real headache when it comes to security. It's pretty much everywhere in the security scene, from securing web connections to being the backbone of Bitcoin's cryptography. It's got the green light from major standards bodies, making it a go-to for anyone needing top-notch encryption. Despite the cybersecurity arms race, SHA-256's track record is solid, standing tall against attempts to crack it. The real deal is its knack for preventing collisions - imagine two files looking identical to a system because they share a hash. That's a hacker's dream for slipping in something nasty unnoticed. So, rolling with SHA-256 for public key checksums that are ensuring your security isn't just a checkbox but a fortress, giving everyone peace of mind that what they're downloading is legit. This isn't just about keeping up with security trends; it's about setting the bar high.

## Generate Checksum

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

<https://d.docs.live.net/646f5717fa7ab078/Desktop/CS%20305%20Module%20Five%20Coding%20Assignment%20Checksum%20Verification%20Code%20Base/CS%20305%20Module%20Five%20Checksum%20Verification%20Assignment%20Code/module5_skel_student/src/main/java/com/snhu/sslserver/ServerApplication.java>

## Verification

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

