# CS 305 Module Five Checksum Verification Assignment

**Instructions:** Replace the bracketed text with your answers in your own words.

## Algorithm Cipher

Recommend an appropriate encryption algorithm cipher that avoids collisions.

For this project, I chose the SHA-256 algorithm.

## Justification

Justify your reasoning for the recommended algorithm cipher by providing a brief, high-level overview of the encryption algorithm cipher.

I chose SHA-256 because it is commonly used with very, very low chance of collisions. I could have opted for an even higher bit length such as SHA-512 but found that to be overkill for this use case.

## Generate Checksum

Refactor the code to encrypt a text string and generate a checksum verification. You will submit your refactored code for your instructor to review in addition to this document.

## Verification

Demonstrate that a hash value has been created for the unique text string (your first and last name) by executing the Java code. Then use your web browser to connect to the RESTful API server. This should show your first and last name as the unique data string in the browser, the name of the algorithm cipher you used, and the checksum hash value. Capture a screenshot of the web browser with your unique information and insert it below.

