File Integrity Checker

# Python Source Code:

import hashlib

#function to calculate the SHA-256 hash of a file

def hash\_file(path):

sha256 = hashlib.sha256()

with open(path, 'rb') as f:

while chunk := f.read(4096): # Read file in chunks

sha256.update(chunk) # Update hash

return sha256.hexdigest() # Return hexadecimal hash

#function to compare current file hash with known hash

def check\_integrity(file\_path, known\_hash):

current\_hash = hash\_file(file\_path)

if current\_hash == known\_hash:

print("File is intact.") # Hash matches

else:

print(" File has been modified!") # Hash mismatch

#example usage with known hash

file\_path = 'important\_config.txt'

known\_hash = '3c62fdd2488cfbfefcc8b7c59cb110a0e8f03e024d29ea9c86dc0aaedb06d33e'

check\_integrity(file\_path, known\_hash)

# Screenshot of Output:

A screen shot of a computer program

AI-generated content may be incorrect.