

# Lab#05: Hash a File Using CMD

## Objective

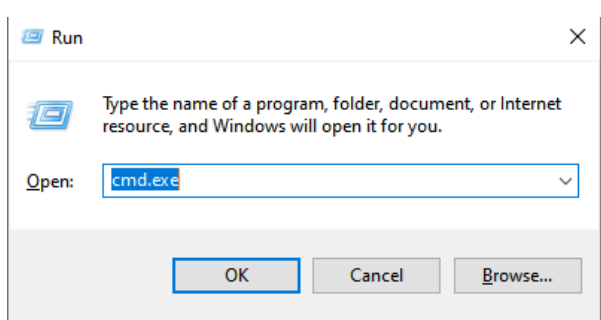
Using the certutil command from the Windows command line to hash a file and check its integrity.

## Step-by-Step Instructions / Summary

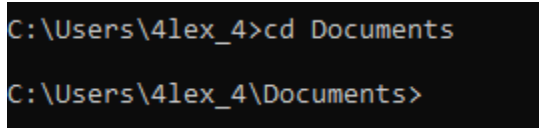
1. Open Command Prompt
2. Navigate to the file location
3. Run certutil to hash the file

Commands and steps used for this lab:

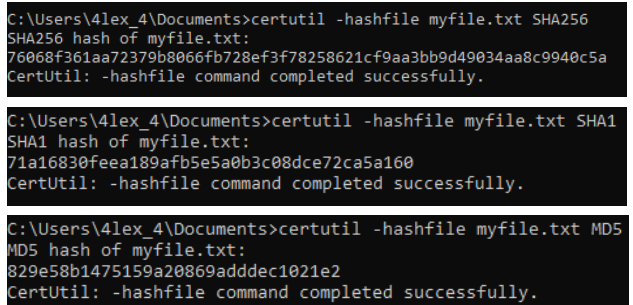
1. Open Command Prompt

<b>Win + R, type cmd.exe</b> <b>Press enter</b>	
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2. Navigate to the file location

<b>cd Documents</b>	
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3. Run certutil to hash the file(SHA256, SHA1, MD5)

<b>Original</b> <b>Hello there, this is a random text file!</b>  <b>certutil -hashfile myfile.txt SHA256</b> <b>certutil -hashfile myfile.txt SHA1</b> <b>certutil -hashfile myfile.txt MD5</b>  <b>Modified</b> <b><i>Hello there, this is a random text file!</i></b>  <b>certutil -hashfile myfile.txt SHA256</b>	
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<pre>certutil -hashfile myfile.txt SHA1 certutil -hashfile myfile.txt MD5</pre>	<p><b>Here's the change after one character:</b></p> <pre>C:\Users\4lex_4\Documents&gt;certutil -hashfile myfile.txt SHA256 SHA256 hash of myfile.txt: 00850dde2c53859df5071dac3a60341d443d134808421a818adc9cc3f037eaca CertUtil: -hashfile command completed successfully.</pre> <pre>C:\Users\4lex_4\Documents&gt;certutil -hashfile myfile.txt SHA1 SHA1 hash of myfile.txt: 97636b0ef45b17049dee474a21650478e13016fd CertUtil: -hashfile command completed successfully.</pre> <pre>C:\Users\4lex_4\Documents&gt;certutil -hashfile myfile.txt MD5 MD5 hash of myfile.txt: 71ea63fc549529b8489f07af9a51d4ac CertUtil: -hashfile command completed successfully.</pre>
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## Tools & Skills Used

- Windows Command Line, certutil, text file
- Skills: File hashing, file integrity checking
- Hash algorithms: SHA256, SHA1, MD5

## Reflection & Takeaways

In this lab I learned how to hash a file using certutil in this file. I made a few mistakes having the filename “myfile.txt” with an additional extension like “myfile.txt.txt.” I quickly changed that and I added a few extra screenshots for the third step. The extra screenshots show how one character can alter the entire hash. Using hashes can ensure the file’s integrity and is widely used in malware detection, digital forensics, and file validation.