UNIVERSITY OF SCIENCE AND TECHNOLOGY OF HANOI

Information and Communication Technology Department

Lab Work Day 2

Digital Forensic

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Ha Noi, 06 November 2024

Lab 3:

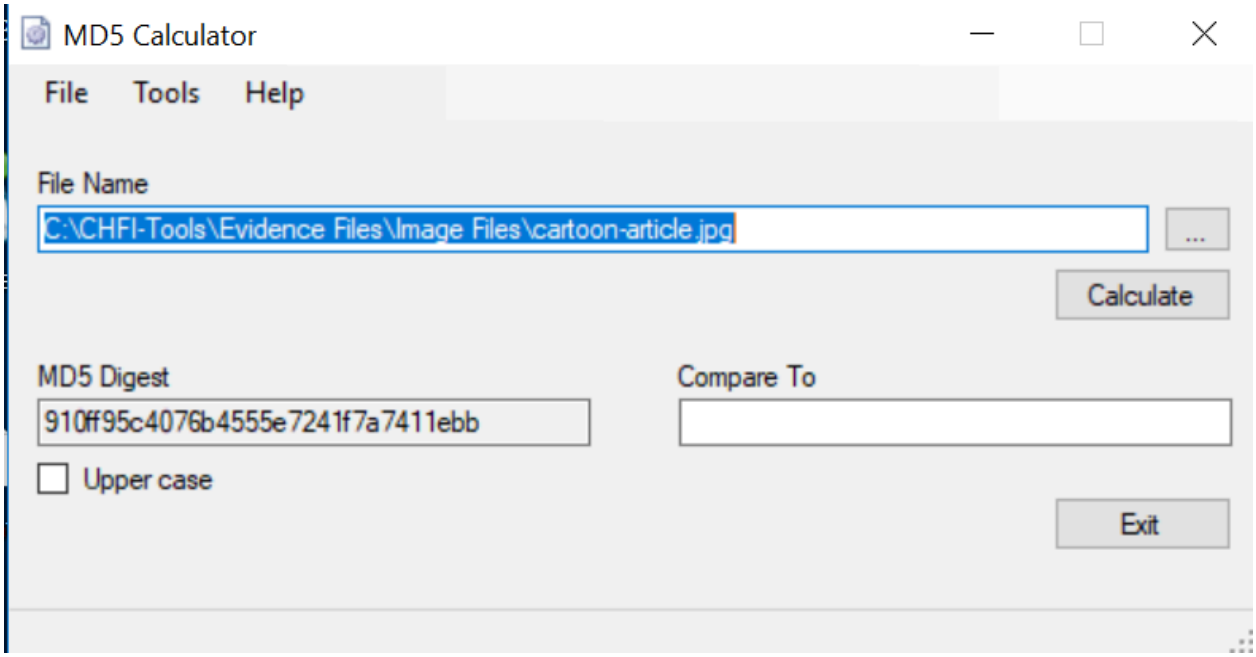
Objective:

This lab focuses on generating and comparing MD5 hash values to verify the integrity of files, a crucial task in computer forensics to ensure that files have not been tampered with.

Lab Environment:

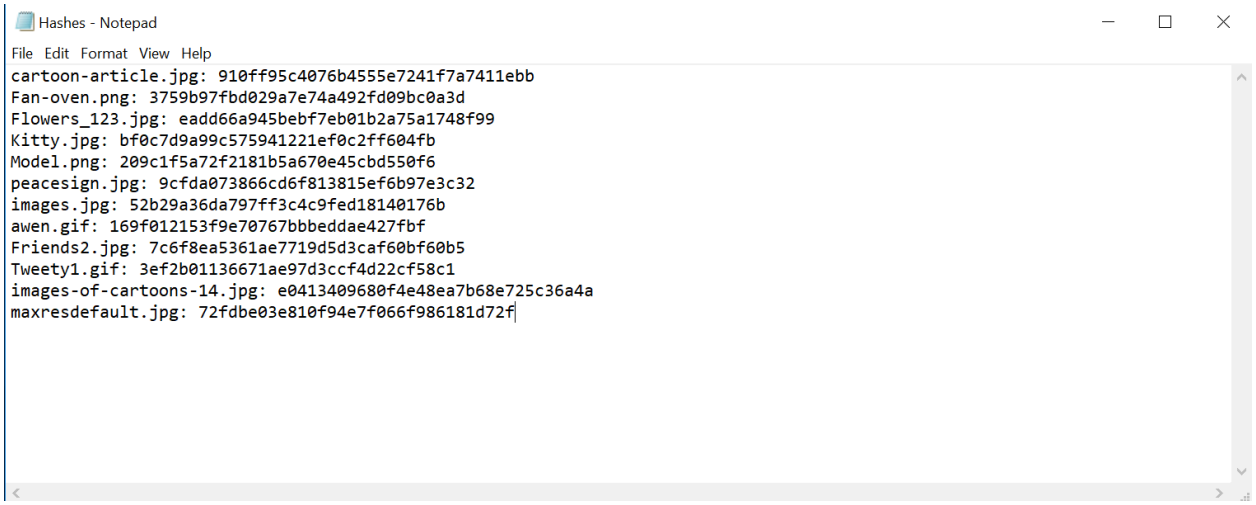
- **Platform:** Windows Server 2016
- **Requirements:** Administrative privileges, pre-installed MD5 Calculator, internet access.

Procedure:

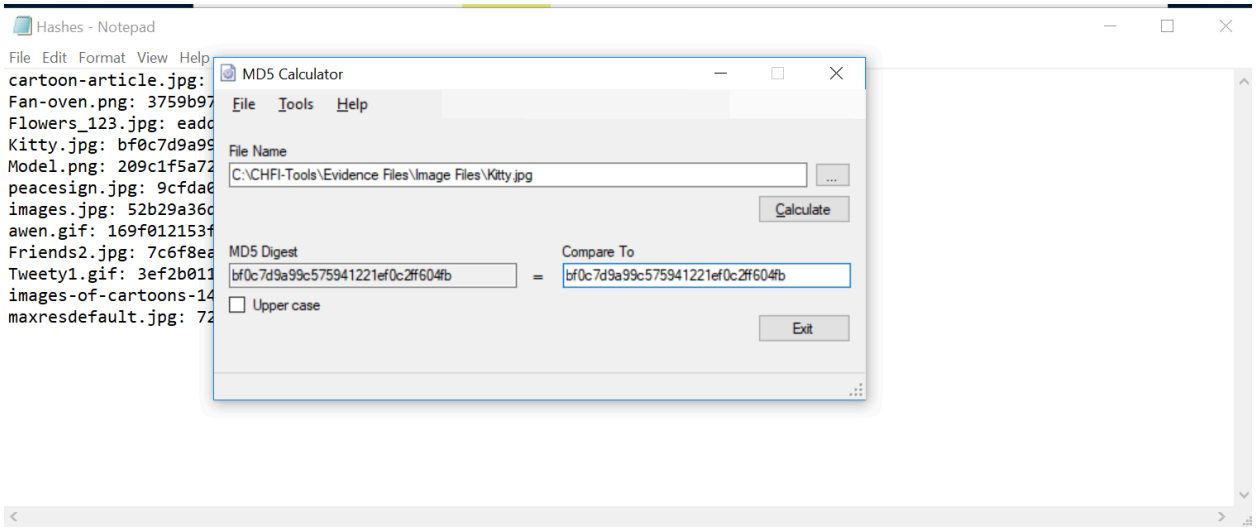
1. **Locate the Files for Analysis:**
    - Navigate to `C:\CHFI-Tools\Evidence Files\Image Files` where the files for hash calculation are stored.
2. **Calculate Hash Values:**
    - Right-click on a target file (e.g., `cartoon-article.jpg`) and select MD5 Calculator from the context menu to calculate its hash value.
3. 

4.
    - View the generated hash value in the MD5 Calculator window.
5. [*Insert Image: Displayed Hash Value in MD5 Calculator*]

6. **Access Pre-existing Hash Values:**
    - Open the `Hashes.txt` file located at `C:\CHFI-Tools\Evidence Files\Image Files` to view the pre-existing hash values.
7.

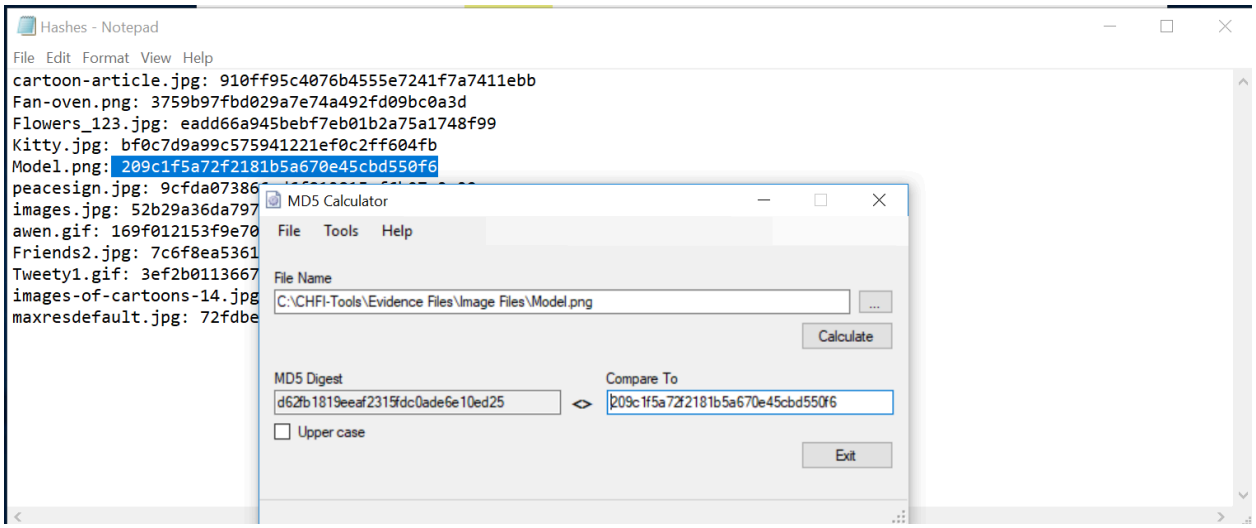


8. **Compare Hash Values:**
    - For each file, such as `Kitty.jpg`, copy the hash value from `Hashes.txt` and paste it into the Compare To section of the MD5 Calculator after calculating the file's current hash.
9.



    - Check if the hash values match. A matching hash confirms the file's integrity, while a mismatch suggests potential tampering.

10.



- Repeat the comparison for other files, such as `Model.png`, to ensure all files are verified.