Security Lab 13 - Metadata

Fundamentals of Information Security: Cybersecurity (88252)

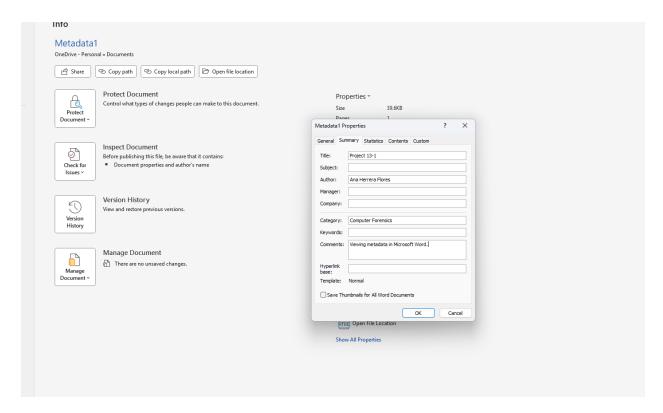
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Exercise 1 – Entering and Viewing Metadata

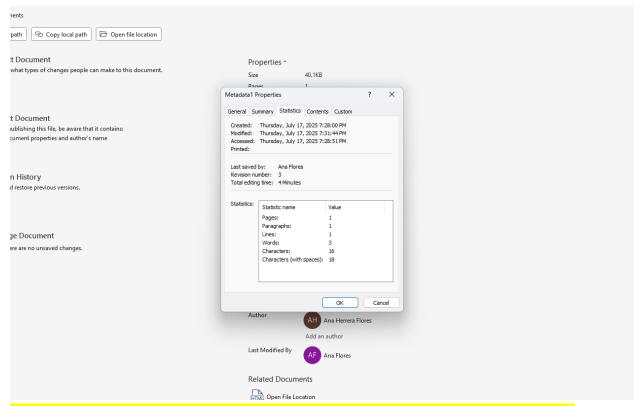
For this lab, Explain the key aspects of using Metadata in digital forensics like Data recovery. Although most file metadata is not accessible to users, they can enter and change some types of metadata. In this project, students will view and enter metadata in a Microsoft Word document.

Provide snippets and answer the questions below inline with each question..

- 1. Use Microsoft Word to create a document containing your name. Save the document as Metadata1.docx.
- 2. Click the File tab on the Ribbon, and then click Info.
- 3. Click the Properties arrow and then click Advanced Properties.
- 4. Enter the following information in the Advanced Properties dialog box:
- Title—Project 13-1
- Author—Your name
- Category—Computer Forensics
- Comments—Viewing metadata in Microsoft Word

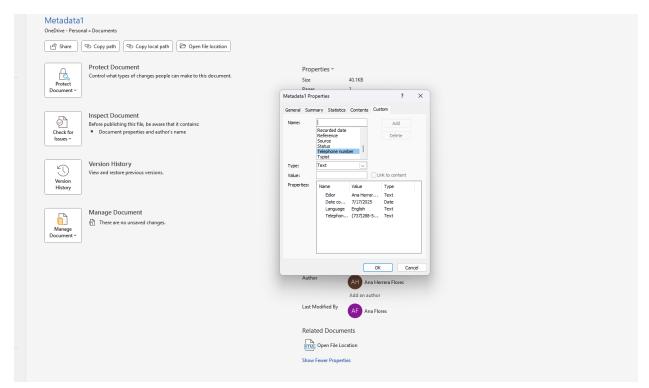


- 5. Click OK.
- 6. Save Metadata1.docx.
- 7. Click the File tab on the Ribbon, and then click Info.
- 8. Click the Properties arrow and then click Advanced Properties.
- 9. Click the Statistics tab in the Properties dialog box and view the information it contains. How could a computer forensics specialist use this metadata when examining this file?

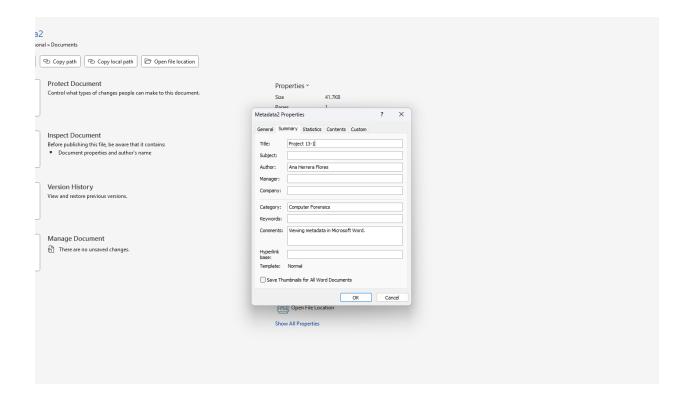


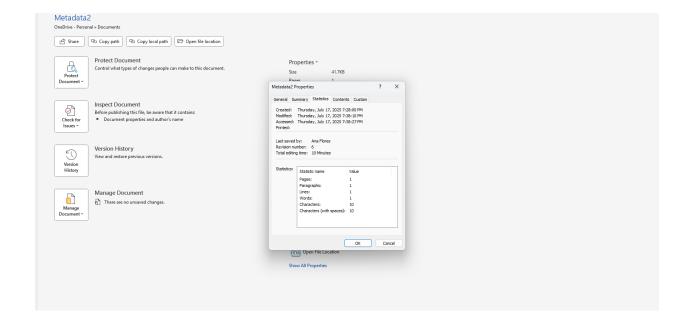
A computer forensics can examinate the metadata and determine the document's authenticity by reviewing information such as author, creation date, modification date, when was access for last time the document, if it was printed and when, who last modify the document, how many times it was opened, how many words, characters and paragraphs has, and others. This metadata can be really helpful in investigations.

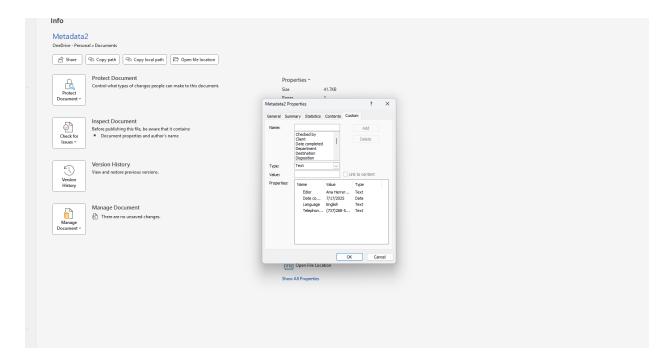
- 10. Click the Custom tab. Notice that it includes several predefined fields that can contain metadata.
- 11. In the Name box, enter Editor.
- 12. Be sure the Type is set to Text.
- 13. Enter your name in the Value field, and then press Enter.
- 14. Select three predefined fields and enter values for each field. Click OK. Save your document when you are finished.



- 15. Click the Back button to return to Metadata1.docx.
- 16. Delete your name from Metadata1.docx so you have a blank document. However, this file still has metadata. Enter today's date and save this as Metadata2.docx.
- 17. Close Metadata2.docx.
- 18. Reopen Metadata2.docx.
- 19. Click the File tab on the Ribbon, and then click Info.
- 20. Click to Properties arrow and then click Advanced Properties.







21. What properties carried over to Metadata2.docx from Metadata1.docx, even though the content of the file was erased? Why did this happen? Could a computer forensics specialist use this technique to examine metadata, even if the contents of the document were deleted?

In the summary section we can see all the information remains the same. In the statistics section, we can see that almost all fields have changed their information, except for the creation date. In the custom section, all the information remains the same.

This happened because we changed the content of the document.

Yes, a computer forensics can examine the metadata even if the content is deleted or modified, because we can still see the creation date, the author, modifications and when these ones occurred, the custom information.

22. Close all windows.