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CYSE 301: Cybersecurity Technique and Operations

Assignment M6: Digital Steganography

(**Total 100 Points**)

For this assignment, PDF submission is allowed. Each student must submit the pdf file containing the answers to the following questions to get full credit.

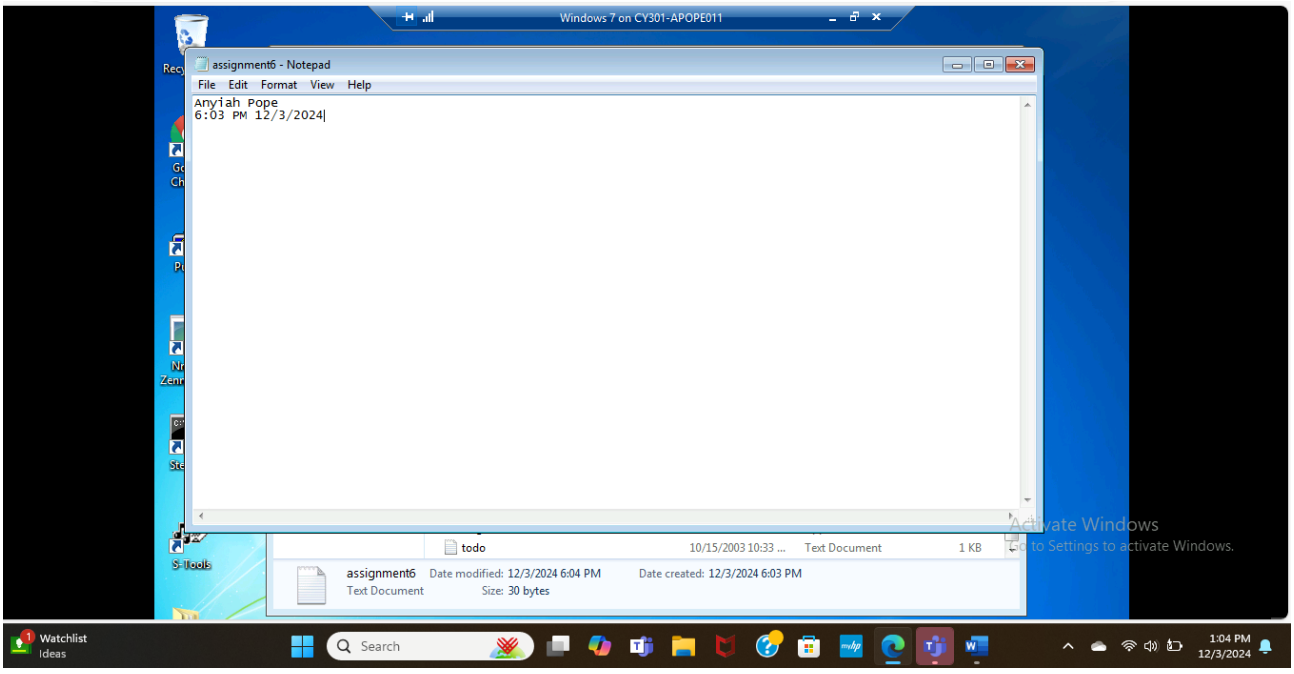
Lab Preparation:

- Access a Windows7 VM in CCIA .

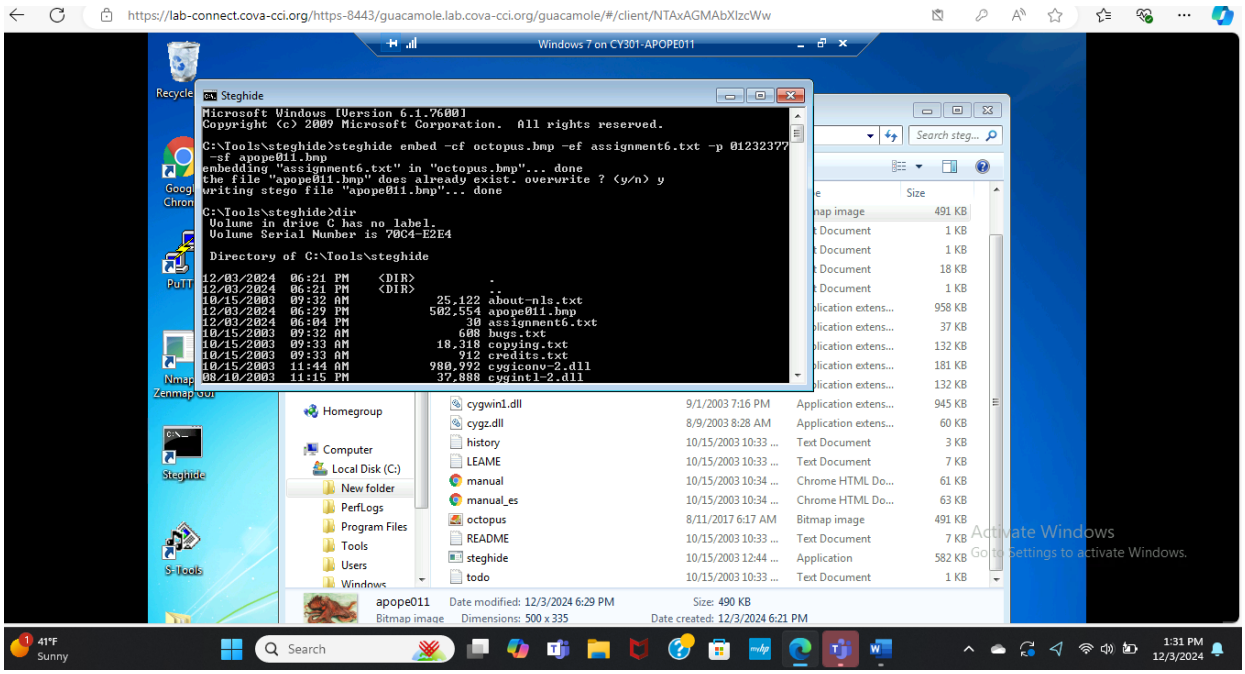
Assignment details:

You need to use **steghide**, not ~~s-tool~~ to complete this assignment. Your local path may be different depending on the folder where you extract the executable file. Make sure you are working on the right directory.

1. **[10 Points]** Create a text file containing the answers to the following questions:
    - What are your name and current date and timestamp?
    - What is your expected grade in this course?



2. **[50 Points]** Use steghide to hide this text file in the cover image, " octopus.bmp."

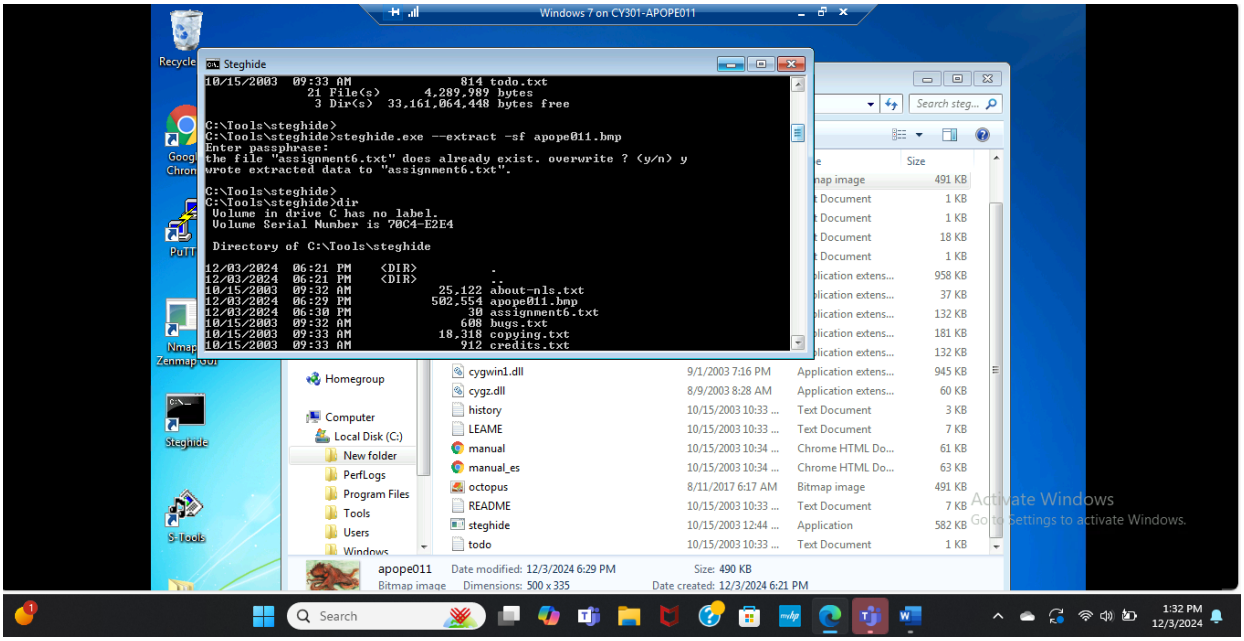


- Use your own **UIN** (for example, 01000123) as the password for encryption (you can choose any encryption algorithm from the given options).
- Use your **Midas ID** (all lowercase) for example "**svatsa.bmp**" as the name of the STEGO file.

3. **[20 Points]** Extract the secret message by executing steghide command with - - extract option as follows:

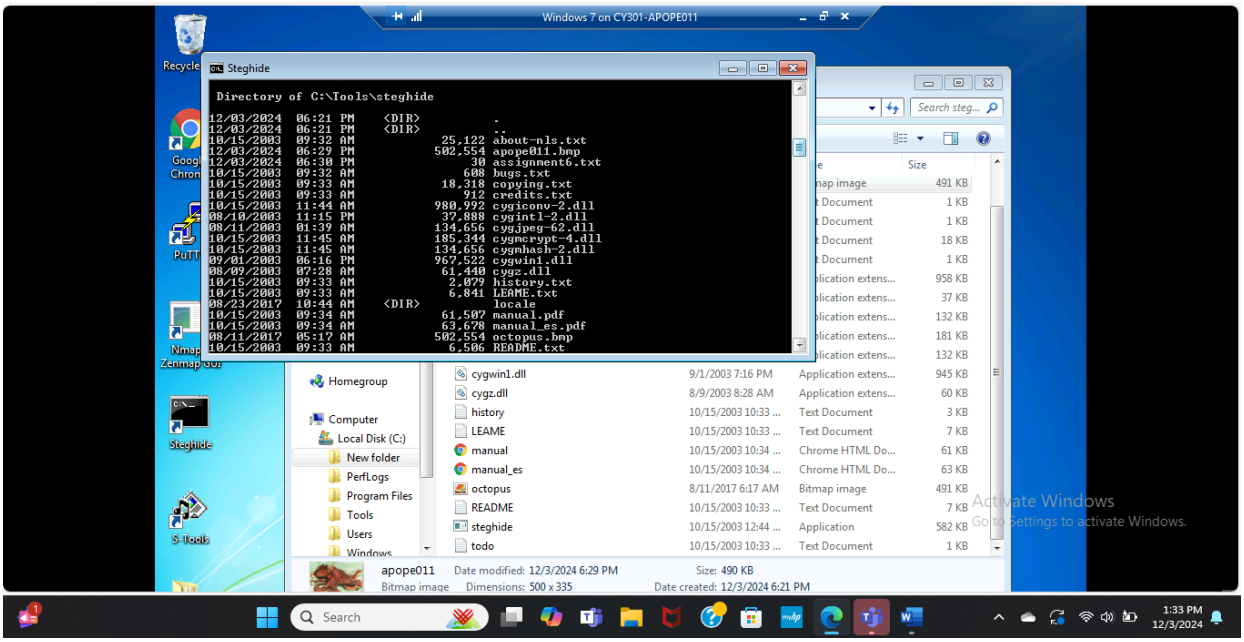
```
C:\Tools\steghide>steghide.exe --extract -sf svatsa.bmp
Enter passphrase:
```

My screenshot:



4. **[10 Points]** Execute the command to list the contents to verify whether the textfile with secret message has been extracted or not.

   You should see textfile there because it was hidden in the jpeg image file and appeared after extracting the image file in the previous step.



5. **[10 Points]** Execute the command to dispaly the contents of the file you revealed.