CYB101 Project 6

👤 Student Name: Weicong Xie
✉️ Student Email: Weicongx.wx@gmail.com

Reflection (Required)

🤔 **Reflection Question #1:** If I had to **explain "steganography" in 3 emojis,** they would be…
(Feel free to put other comments about your experience this unit here, too!)

🕵️‍♂️📄🔒

📸**Reflection Question #2:** What are the risks of taking images with lots of attached metadata? What are the benefits?

The risk would be malicious actors finding stuff you don't want to be found, like location. Benefits would be easier forensics for the good guys.

📣 **Shoutouts:** Share appreciation for anyone who helped you out with this project or made your day a little better!

Required Challenge Screenshots (Required)

NOTE: To complete this project, you will first need to follow the instructions to embed a hidden message (of your choice) in an image file!

Use the answer boxes below to paste in your screenshots from completing the project. Clarifying notes are optional. (If you only have one screenshot file, just put it in each of the boxes.)

Extracting a Hidden Message with Steghide

Screenshot #1: The output of the `steghide info` command's output, showing the hidden file

```
codepath@lab000000:~/unit6$ steghide info cat.jpg
"cat.jpg":
  format: jpeg
  capacity: 145.7 KB
Try to get information about embedded data ? (y/n) y
Enter passphrase:
  embedded file "message.txt":
    size: 227.0 Byte
    encrypted: rijndael-128, cbc
    compressed: yes
```

Notes (Optional):

Screenshot #2: The output of the `steghide extract` command

```
codepath@lab000000:~/unit6$ steghide extract -sf cat.jpg -xf embeddedmessage.txt
Enter passphrase:
wrote extracted data to "embeddedmessage.txt".
```

Notes (Optional):

Screenshot #3: The output of the `cat` command, showing the contents of the extracted file

```
codepath@lab000000:~/unit6$ cat embeddedmessage.txt
"The only secure computer is one that's unplugged,
locked in a safe, and buried 20 feet under the
ground in a secret location... and I'm not even
so sure about that one."
                        - Dennis Huges, FBIcodepath@lab000000:~/unit6$
```

Notes (Optional):

Stretch Challenge (Optional)

For this stretch challenge, you can include screenshots showing extracting data from a classmate's image file. You can do this 2 times for +2 points each.

Screenshot #1: Screenshot(s) showing extracting data from a classmate's image file

[Insert Screenshot Here]

Classmate who Created this File:

Notes (Optional):

Screenshot #2: Screenshot(s) showing extracting data from a classmate's image file

[Insert Screenshot Here]

Classmate who Created this File:

Notes (Optional)**:**

Submission Checklist

👉*Check off each of the features you have completed. **You will only be graded on the features you check off.***

Reflection
- ☑ ~~Reflection Question #1 answered above~~
- ☑ ~~Reflection Question #2 answered above~~
- ☐ Shoutouts Completed

Required Challenge Screenshots
- ☑ ~~Screenshot #1:~~
- ☑ ~~Screenshot #2~~
- ☑ ~~Screenshot #3~~

Stretch Challenge
- ☐ Screenshot #1
- ☐ Screenshot #2