

Steganography [Activity]

1. Embed the file 'secretmessage.txt' inside the cover file 'coverfile.jpg' and name the output stegofile 'hiddenmessage.jpg'. What is the full command you would use to do this?

`steghide embed -cf coverfile.jpg -ef secretmessage.txt -sf hiddenmessage.jpg`

```
nitin@fedora ~/D/STeg_Lab> steghide embed -cf coverfile.jpg -ef secretmessage.txt -sf hiddenmessage.jpg
Enter passphrase:
Re-Enter passphrase:
embedding "secretmessage.txt" in "coverfile.jpg"... done
writing stego file "hiddenmessage.jpg"... done
```

2. Flag 1 is hidden inside a text file in one of the steganography files. What is the value?

Try the hit and trail method to extract the hidden file inside a file using the `steghide extract -sf filename` command for all the files in the directory Stego Files. The flag value is kAN105KS.

```
nitin@fedora ~/D/STeg_Lab> cd Stego\ Files/
nitin@fedora ~/D/S/Stego Files> ls
209583__zott820__oven-mitt-impact.wav  330299__maycuddlepier__siren.mp3  car.jpeg  cityscape.jpg
nitin@fedora ~/D/S/Stego Files> steghide extract -sf 209583__zott820__oven-mitt-impact.wav
Enter passphrase:
steghide: could not extract any data with that passphrase!
nitin@fedora ~/D/S/Stego Files [1]> steghide extract -sf 330299__maycuddlepier__siren.mp3
Enter passphrase:
steghide: the file format of the file "330299__maycuddlepier__siren.mp3" is not supported.
nitin@fedora ~/D/S/Stego Files [1]> steghide extract -sf car.jpeg
Enter passphrase:
steghide: could not extract any data with that passphrase!
nitin@fedora ~/D/S/Stego Files [1]> steghide extract -sf cityscape.jpg
Enter passphrase:
steghide: could not extract any data with that passphrase!
nitin@fedora ~/D/S/Stego Files [1]> steghide extract -sf pizza.jpg
Enter passphrase:
wrote extracted data to "FLAG1.txt".
nitin@fedora ~/D/S/Stego Files> ls
209583__zott820__oven-mitt-impact.wav  330299__maycuddlepier__siren.mp3  car.jpeg  cityscape.jpg
nitin@fedora ~/D/S/Stego Files> cat FLAG1.txt
kAN105KS
```

3. Flag 2 is hidden inside a text file in one of the steganography files. What is the value?

Again try the same method, how to the 2nd question was done. Try the hit and trail method to extract the hidden file inside a file using the `steghide extract -sf filename` command for all the files in the directory Stego Files. The flag value is 001JDANL.

```
nitin@fedora ~/D/S/Stego Files [1]> steghide extract -sf verypretty.jpg
Enter passphrase:
wrote extracted data to "FLAG2.txt".
nitin@fedora ~/D/S/Stego Files> cat FLAG2.txt
001JDANL
nitin@fedora ~/D/S/Stego Files> 
```

4. Flag 3 is hidden inside a text file in one of the steganography files. What is the value?

Similar to the 2nd and 3rd questions. The flag value is 1LRBA9IU.

```
nitin@fedora ~/D/S/Stego Files [1]> steghide extract -sf car.jpeg
Enter passphrase:
wrote extracted data to "FLAG3.txt".
nitin@fedora ~/D/S/Stego Files> cat FLAG3.txt
1LRBA9IU
nitin@fedora ~/D/S/Stego Files> 
```