

STEGHIDE

Create a Python script called **smutt.py** able to hide a file inside an image and send the output image as attachment using **mutt** service.

In order to hide a file inside an image we can use **steganography** technique. **Steghide** command can be used in order to complete the exercise.

The mutt command

mutt can be used to read and write emails. The synopsis of the command is the following:

```
mutt [-s subj] email_addresses -a file
```

-a → used to specify a list of attachments

-s → used to specify the email subject

email_addresses → a list of addresses that will receive our email

The steghide command

steghide is a a steganography program able to hide information inside other files. The synopsis of the command is the following:

```
steghide embed -cf cfilename -ef efilename -sf sfilename
```

-cf cfilename → is a graphic file for *embedding operation* (also called cover file)

-ef efilename → is the file to hide inside the cover file

-sf sfilename → is the name of the output file that will be created. If not specified, the cover file will be overwritten with the new file produced by **steghide**

embed → Embed secret data in a cover file thereby creating a stegofile

smutt.py script should be invoked as follows:

```
python3 smutt.py -ef efilename -cf cfilename -sf sfilename address
```

The script should:

1. embed efilename inside cfilename producing a new file sfilename using the steghide command
2. send sfilename as an attachment to the specified email addresses address using the mutt command