

# 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