

FTP (Storage) Covert Channel

Write a **Go language** program that can extract a covert message from the file permissions of an FTP server. This is a group programming assignment (i.e., **only one submission per team is needed**).

Notes and Requirements:

- Submit your source code module only. The module should be a zipped folder containing at least
 - your Go source code (e.g. `ftpprogram.go`)
 - your module file (i.e. `go.mod`)
- Your program should first connect to an FTP site, fetch the file listing (including permissions) from the FTP server, and immediately disconnect;
- The FTP site specifics (i.e., IP address/domain, port, and directory to initially browse to) should be specified as variables at the top of your program (i.e., so that they can easily be changed);
- Your program should isolate and decode the file permissions **after** disconnecting from the FTP server;
- Your program should support both (1) using only the 7 right-most “bits” of the file permissions, filtering out any file with any of the first three “bits” set; and (2) utilizing all ten “bits” (select between the two options through a variable called `METHOD` that is declared at the top of your program); and
- Your program should generate and output the covert message (and nothing else).

Please, no GUIs. Make this a command line application without frills that I can execute at the command line as illustrated below:

```
# 7-bit
prof@latech:~$./ftpprogram
There are 10 types of people: those who know binary, those who don't, and those
who weren't expecting it in base 3.
```

```
# 10-bit
prof@latech:~$./ftpprogram
Motivation is what gets you started. Habit is what keeps you going. -- Jim Rohn
```