

# Technical test: Go developer

The following test is to be implemented in Go and while you can take as much time as you need, it's not expected that you spend more than 3 or 4 hours on it.

The test consists of implementing a "Web Crawler as a gRPC service". The application consists of a command line client and a local service which runs the actual web crawling. The communication between client and server should be defined as a gRPC service (\*). For each URL, the Web Crawler, creates a "site tree", which is a tree of links with the root of the tree being the root URL. The crawler should only follow links on the domain of the provided URL and not follow external links. Bonus points for making it as fast as possible.

The command line client should provide the following operations:

```
$ crawl -start www.example.com # signals the service to start crawling www.example.com
$ crawl -stop www.example.com  # signals the service to stop crawling www.example.com
$ crawl -list                   # shows the current "site tree" for all crawled URLs.
```

Notes:

- You can use external Go packages.
- If you are not familiar with gRPC, take a look at the "helloworld" example here: <https://github.com/grpc/grpc-go/tree/master/examples>