

# SecTrans

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## Description

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SecTrans is an application made for a cybersecurity course. It is supposed to allow secure *transfer* of files.

The main constraint was using the provided `libserver.so` and `libclient.so`. These two dynamic libraries are simple wrapper around sockets, with some limitations. See [the preliminary report](#) for more details.

A [post-coding report](#) is also available.

**Do not use this code in production.** It is not secure at all. It is only a proof of concept, and I did not have the time to implement all the security features I wanted.

## Running

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The user is expected to use `Nix` in order to get the dependencies. The Determinate Systems installer is recommended:

```
curl --proto '=https' --tlsv1.2 -sSf -L  
https://install.determinate.systems/nix | sh -s -- install
```



Once Nix is installed, running `nix develop --impure` will put you in a working environment.

You can then build the project:

```
cmake --preset linux-gcc  
cmake --build build
```



Finally, run the server:

```
./build/src/server/cybersec_project_server
```



The client (on the same machine) will then connect automatically. Available commands are:

- `-up <file>` : upload a file
- `-down <file>` : download a file and write it locally, overwriting existing content
- `-list` : list available files

The client binary is available at `build/src/client/cybersec_project_client` .

The user is hardcoded and is `user1` . The password is `password1` .

**Ports 12345 and 12346 are expected to be available.**