

TWMailer Basic – Varga & Lintner

Client Server Architecture

- **Stateful** => Data (in this case messages) are stored locally in the mail-spool folder.
- **Connection-oriented** => An established end to end connection is required to send and receive data.
- **Iterative** => Only one client can connect at a time, if another client tries to connect, they can only use the server once the previous client has disconnected.

Used Technologies

- Libraries:
 - `<sys/socket.h>` => used for sockets
 - `<netinet/in.h>` => used for sockets (ex. `struct sockaddr_in`)
 - `<string.h>` => used for string handling, ex. `strcmp()`
 - `<signal.h>` => informs process of errors (`signal()`, `SIGINT`, `SIG_ERR`)
 - `<unistd.h>` => several usages (ex. `close()`)
 - `<fstream>` => used when saving messages (`std::ifstream`, `std::ofstream`)
 - `<dirent.h>` => directory traversal and directory related operations
 - `<filesystem>` => used to open and create directories, generally working with the filesystem

Development Strategies and needed Adaptations

- Base of the program is the client/server sample from the git
- Adapted to use C++17 in order to be able to use filesystem