

CS5115 – PA6: Client–Server Communication in C

Build and Execution Instructions

1. Directory Setup

Ensure the following files are in the same directory:

- Makefile
- server.c
- client.c

Navigate to the directory in your terminal:

Command: `cd /path/to/PA6`

2. Build Programs

Run the following command to compile both server and client programs using the Makefile:

Command: `make`

This will generate two executables: **server** and **client**.

3. Start the Server

Run the server in the background using:

Command: `make run_server`

You should see output similar to:

Starting server...

Server started (PID: 3471)

4. Run the Client

In a new terminal window, start a client using:

Command: `make run_client`

Example session:

Enter operation: mul

Enter two integers (e.g., 6 9): 6 9

Result from server: 54

Enter operation: exit

Bye.

5. Stop and Clean Up

To stop the background server process:

Command: `make stop`

To remove executables and logs:

Command: `make clean`

To perform a full cleanup:

Command: `make distclean`

6. Verify Server Logs

View server activity logs using:

Command: `cat server_output.log`

Expected log output example:

```
[2025-11-08 18:42:03] Server started. Socket: /tmp/pa6_arith.sock  
[2025-11-08 18:42:18] PID 3520: mul(6,9) = 54  
[2025-11-08 18:42:22] Server shutting down.
```