# CMSC 621

# Advanced Operating Systems

# Ajinkya Wakhale

# Project 3

# ReadMe File

There are total three programs  front_server.c, client.c, and server1.c.

You can run your front_server at any port, port number is taken from command line arguments. And, for the same port client will connect.

As, I have hardcoded ports for backend servers, you need to run three backend servers at fixed ports only, which are 7868,7869, and 7870.

**To compile** programs

**gcc -pthread -o front_server front_server.c**

**gcc -o client client.c**

**gcc -pthread -o server1 server1.c**

**To run the executable-**

**First, you need to run all the background servers. To run them,**

**./server1 7868**

**./server1 7869**

**./server1 7870**

This will start all the backend servers.

Now, I will start the front-end server.

**./front_server localhost <PORT NUMBER>**

Example- **/front_server localhost 7867**

Once all the servers are connected, we need to run client.

**./client <PORT NUMBER> localhost**

As per above example for front server-

**./client 7867 localhost**

This 7867 is the port which you gave when you started the front server.

Make file name is **makefile** It will compile all the above programs.

Then, you need to only run five executables which are backend servers with ports specified above.

And then front server on any port other than ports used by backend server and then client with the same port as front server port.

So, once everything runs smoothly, client program will ask you to write query on terminal and it will give you the updated result. First message would be **OK** which indicates that you are connected to all the servers.

You need to start all the backend servers first and then once a client connects to it, then you can crash any server. As it makes connection in starting with all the servers, if one of the servers are not running initially only, it will give connecting error.