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**To compile the client:**

gcc –o Client Client.c

**To compile the server:** javac ServerUDP.java

**To run the server:** java ServerUDP [MyPort]

**To run the client:** ./Client [ServerName] [ServerPort] [MyPort]

**Sample Server Run:**

Javac ServerUDP 10023

**Sample Command line args:**

./Client tux055 10023 10077

Approaching the Project

Due to the swapped requirements, the server used the java UDP example from the slides as a base. From there, materials were appropriated from Lab2’s java client to add in some correct calls and formatting that had previously been used. From there, it was a simple matter of applying the logic from the lab requirements and preparing the first run of the server.

For the client, the client largely borrowed from Beej and previous work from Lab1 and 2, while changing it to be suitable as a client into client/server hybrid. First, we made it a working client for the server to start testing the server. The server needed to correctly check the magicnumber, which caused a quick problem. The real issue was twofold:

1. The server crashed after receiving one message because the inPacket was not in while loop (and therefore not recreated).
2. The server’s outPacket needed more arguments from the inPacket in order to properly function. This was just a simple problem after looking at the documentation and simply needed to server to actually run to find.

After that, the process of creating the talking client was relatively simple and self-testable (independent of the server). Once done, we began testing.

Testing Procedures:

The server was tested with the working client and created 4 incorrect clients. Length, Magic, Port, and Flark would test their respective names with Flark testing for everything going wrong. The values of the sent XY were sent were printed and correctly corresponded to the expected error (including 7 for Flark). This concluded testing on server.

The only remaining issue was making “Bye Bye Birdie” a terminator clause for the client, which took some debugging but was resolved.