

CS 360 Spring 2012
April 16, 2012
DUE: May 7, 2012, 2:15pm

PUIM Server

Assignment Four

50 points

For this project, you need to produce a multi-threaded Java server to handle your, and your classmates', PUIM Clients.

The PUIM (Pacific University Instant Message) has not changed! You need to implement version 3 in your server. The final protocol is given in the appendix. Pay particular attention to the error messages each client or server can produce.

Your server must be able to accept multiple connections until the system runs out of resources (there should be no arbitrary limits).

Your server must check that each line of data is an appropriate length. Your server will need to be able to store an icon per client, and allow clients to update their icon. Your server must, periodically, send icons between clients unprompted. You may choose to send every icon to every client or use some algorithm to select a subset of icons to be sent to a particular user.

You *may choose* to start one thread per client connection OR attempt to use a thread pool in conjunction with Java's New IO. The former is easier, the latter is *better* but **substantially more difficult**.

Eclipse Project

Name your Eclipse project CS360_PUIM_Server_PUNetID. Your server should take two command line options, the first is the port to listen on, the second is the argument to sleep (in milliseconds) [if you don't use the New IO method above].