CSUS
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
Department of Computer Science

CSc/CpE 138 Computer Networks and Internets
Spring 2017
Ghansah

Programming Assignment #2 (Socket Programming)

THE FOLLOWING PROBLEM WILL REQUIRE DEMONSTRATION VIA SCREEN SHOTS.

THE GRADER WILL CHECK FOR ACCURACY. APPROPRIATE SCREEN SHOTS WILL BE USED FOR DEMONSTRATION.

Given the size of the class and the requirement for demonstration you should work in groups of no more than two students. You must submit a joint report indicating names of students on the first page as well as who was responsible for what.

NOTE: Although the examples discussed in the text are in Python your submission can be in C or Java if you choose do so with the caveat that there is more help (see below) if you do it in Python.

Socket Programming Assignment 2: Web Server

Note: This is the second of a series of programming assignments in the text book that will be assigned in the course of the semester. Students can find full details of these assignments, as well as important snippets of the Python code, at the Web site for the text book. http://www.awl.com/kurose-ross.

Assignment 2: Web Server
In this assignment, you will develop a simple Web server in Python that is capable of processing only one request. Specifically, your Web server will (i) create a connection socket when contacted by a client (browser); (ii) receive the HTTP request from this connection; (iii) parse the request to determine the specific file being requested; (iv) get the requested file from the server's file system; (v) create an HTTP response message consisting of the requested file preceded by header lines; and (vi) send the response over the TCP connection to the requesting browser. If a browser requests a file

that is not present in your server, your server should return a "404 Not Found" error message.

In the companion Web site, they provide the skeleton code for your server. Your job is to complete the code, run your server, and then test your server by sending requests from browsers running on different hosts. If you run your server on a host that already has a Web server running on it, then you should use a different port than port 80 for your Web server.

DELIVERABLE REPORT: Objective, Design, Documented code and actual output of a typical communication between client and web server and proof that it works.
DEMONSTRATION: This assignment might be demonstrated where we will test among other things, whether you understand what is going on. Your grade on this will be based on preparation, understanding, and answers to questions, including source code.
SUBMISSION: Electronic Submission Only (**IN SacCT will file name according to the format given in the course syllabus**)!