

Socket Programming Assignment 2 – Mail Client

Goal: Practice makes perfect! Socket programming assignments are to help you review and apply your conceptual knowledge from this class.

Attention: Although the examples discussed in class are in Python/C, your submission can be in Python/C/Java. If you choose to do so, the caveat is that there is more help (see below) if you do it in Python. Code plagiarism is absolutely **NOT** allowed! Please prepare for a **demonstration** of running your program in front of the instructor/grader and answer their questions.

Instructions: (Textbook Page 180) 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://wps.pearsoned.com/ecs_kurose_compnetw_6/. You can connect to Sac State VPN and then run the python code on the remote machine (ecs-pa-coding1.ecs.csus.edu), following my instructions in class and/or demo.

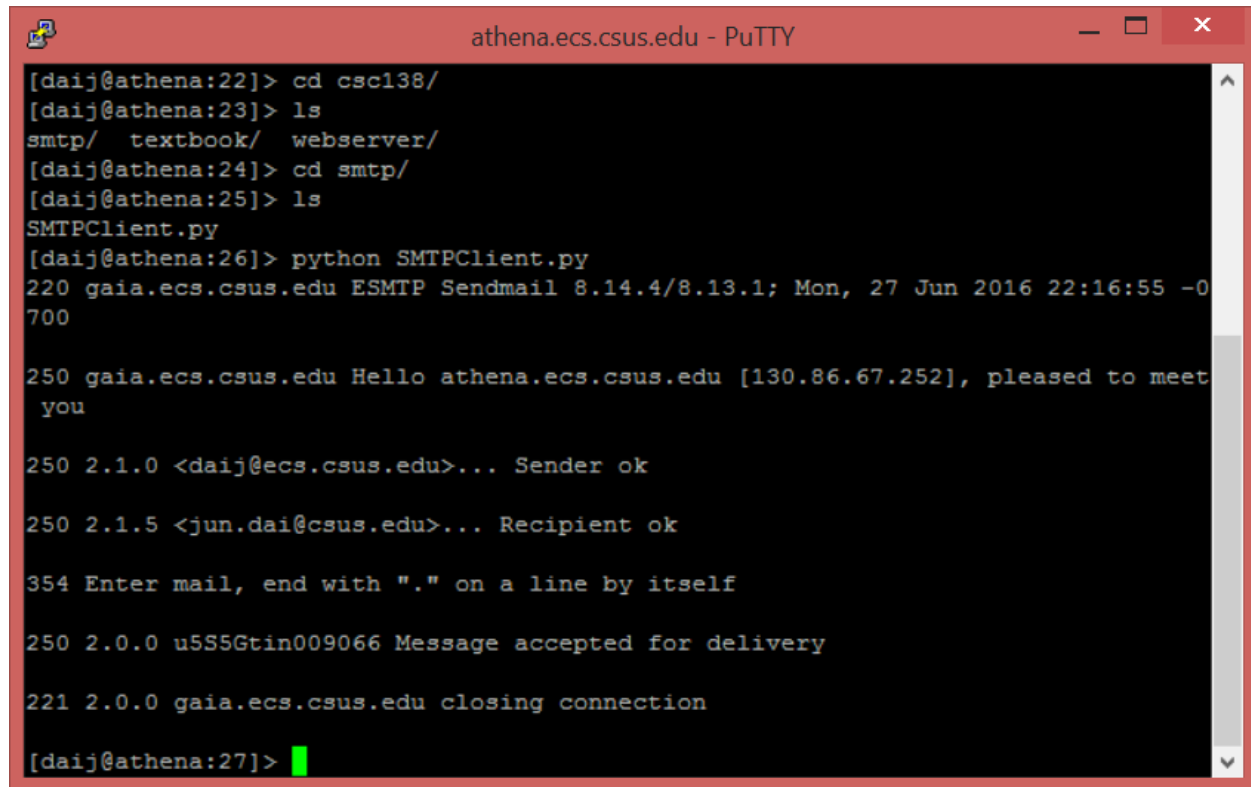
The goal of this programming assignment is to create a simple mail client that sends email to any recipient. Your client will need to establish a TCP connection with a mail server (e.g., CSUS mail server: smtp.csus.edu or ECS mail server: gaia.ecs.csus.edu, both with port number 25), dialogue with the mail server using the SMTP protocol, send an email message to a recipient (e.g., your friend) via the mail server, and finally close the TCP connection with the mail server.

For this assignment, the **textbook's companion Web site** provides the skeleton code for your client. Your job is to complete the code and test your client by sending email to different user accounts. You may also try sending through different servers (for example, through ECS mail server: gaia.ecs.csus.edu).

Deliverable: A lab report, with an **electronic submission** to Canvas, is expected to include both your **source code** and **screenshots** that can help you demonstrate your work. Otherwise, penalty will be given in grading. Code plagiarism is absolutely **NOT** allowed! Please also prepare for a **demonstration** of running your program in front of the instructor/grader and answer their **questions** (which are about your code). Your grade will be based on both the report and your performance during demonstration (**only upon request**).

Requirement: The report will all be evaluated based on the following grading criteria.

Report Correctness, Completeness, Clarity	20%+15%+15%
Demonstration Correctness, Completeness, Question	20%+15%+15%



```
[daij@athena:22]> cd csc138/
[daij@athena:23]> ls
smtp/  textbook/  webserver/
[daij@athena:24]> cd smtp/
[daij@athena:25]> ls
SMTPClient.py
[daij@athena:26]> python SMTPClient.py
220 gaia.ecs.csus.edu ESMTP Sendmail 8.14.4/8.13.1; Mon, 27 Jun 2016 22:16:55 -0700

250 gaia.ecs.csus.edu Hello athena.ecs.csus.edu [130.86.67.252], pleased to meet you

250 2.1.0 <daij@ecs.csus.edu>... Sender ok

250 2.1.5 <jun.dai@csus.edu>... Recipient ok

354 Enter mail, end with "." on a line by itself

250 2.0.0 u5S5Gtin009066 Message accepted for delivery

221 2.0.0 gaia.ecs.csus.edu closing connection

[daij@athena:27]>
```

Screenshot of SMTPClient