

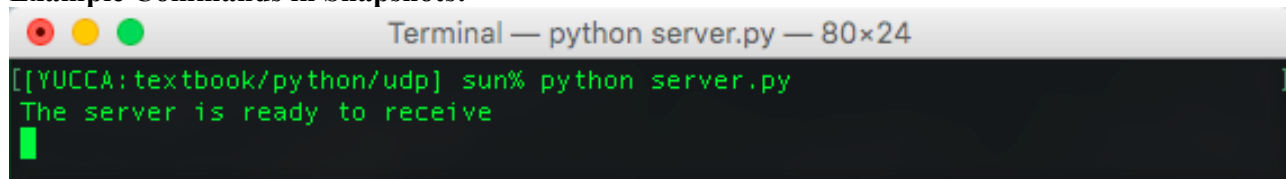
Socket Programming Assignment 1 – Lecture Example

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

Attention: Code plagiarism is absolutely **NOT** allowed! If needed, you may be asked for a **demonstration** of running your program in front of the instructor/grader and answer their questions.

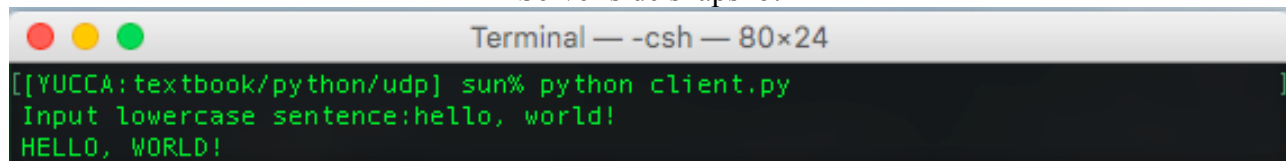
Instructions: Please repeat what's done in the lecture about implementing the **UDP** and **TCP** client/server interactions with Python. If you prefer C or Java implementation, that's OK. If you choose to do so, the caveat is that there is more help if you do it in Python.

Example Commands in Snapshots:

A terminal window titled "Terminal — python server.py — 80x24". The prompt is "[YUCCA:textbook/python/udp] sun%". The user has entered "python server.py", and the output is "The server is ready to receive". A green cursor is on the line below.

```
Terminal — python server.py — 80x24
[YUCCA:textbook/python/udp] sun% python server.py
The server is ready to receive
█
```

Server side snapshot

A terminal window titled "Terminal — -csh — 80x24". The prompt is "[YUCCA:textbook/python/udp] sun%". The user has entered "python client.py", and the output is "Input lowercase sentence:hello, world!" followed by "HELLO, WORLD!". A green cursor is on the line below.

```
Terminal — -csh — 80x24
[YUCCA:textbook/python/udp] sun% python client.py
Input lowercase sentence:hello, world!
HELLO, WORLD!
█
```

Client side snapshot

Deliverable: Please submit your electronic project report to my Canvas. The report is expected to include both your **source code** and some **screenshots** that can help you demonstrate your work (**commands, operations, results** and **analysis**). In this assignment, you may show your source code with screenshots. That is, you need to provide **at least 8 screenshots**: 4 to demonstrate the execution of your program (similar to the examples above), and 4 to demonstrate your source code.

Code plagiarism is absolutely **NOT** allowed! If needed, you may be asked 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.

Requirement: The report will all be evaluated based on the following grading criteria if demo is requested.

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