Computer Networks and Programming (ECE 5650)

Project 2

Winter 2017

Deadline: Tuesday, February 28 by 11:59 PM. No late submissions will be accepted.

Instructions:

- **Team Work**: you may work individually or with one other student. If you work with another student, you must submit only one copy with both your names.
- If you have questions, please contact the **GTA** during his office hours. You may also contact him by e-mail if you cannot make it to his office hours. His contact information is included in the online syllabus.
- **You must submit all the following files**:
    - Python program(s) with .py extension
    - **Report in pdf format, including a copy of the source code, testing procedure used to verify the correctness of the program, and the screenshots and their explanations. Make sure that you include your name(s) on the report. The report must include the URLs that you tested your program with.**
- **File Naming:** the filenames must contain your last name(s): yourlastname. properExtension (if you work alone) or yourlastname1-yourlastname2.properExtension (if you work with another student).
- **Required details in the beginning of the program(s):** The beginning of the python program must include the team names and must indicate whether your program is interpreted correctly and whether it produces the correct results. If it does not produce the correct results, you must provide the necessary details.
- **Comments and Documentation:** the program must be well documented and commented.
- Do NOT put "#" in the file name(s).
- Upload your file(s) using to this Assignment page. Make sure that you attach the files and hit the "Submit" button.
- **To verify your submission**, go to grading center and make sure that there is "!" in the entry for this assignment.
- **Assessed Penalties:**

Situation	Penalty
Late submission	No accepted
Plagiarism or disallowed collaboration	At minimum negative grade
Not using socket programming for all networking	Not accepted
Not using Python 2.7.x	Not accepted
Failure to include the full report with **thoughtful screenshots** verifying the programs work(s) correctly	Up to 10%
Failure to include all required information at the beginning of the program(s)	Up to 10%
Failure to have a well commented and documented program(s)	Up to 10%
Failure to include the URLs that you tested the program(s) with	Up to 10%

Policy on Cheating, Fabrication, and Plagiarism:

Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct will result in at least failing the course. Therefore, avoid all appearance of improper behavior! Students who witness cheating should report the incident to the instructor as soon as possible.

Assignment:

In this project, you will develop a *webpage downloader* program in Python. The program receives a URL pointing to a base HTML file as a command line argument, and then downloads this base file as well as all image objects referenced by that file. There is no need to download videos. You only need to support nonpersistent connections.

You can use the *HTMLParser* library to parse the HTML file and identify all images there. More information about this library can be found at https://docs.python.org/2/library/htmlparser.html.

Recall that in all class projects, you must use basic socket programming for networking and not higher-level libraries.

What to Submit

You must submit the python program and the report in pdf format. The report must include a copy of the source code, testing procedure used to verify the correctness of the program, and the screenshots and their explanations. Make sure that you include your name(s) on the report. The report must include the URLs that you tested your program with. You must provide *thoughtful* screenshots in the report to prove that your code works as expected. The testing procedure must include different possible cases and object types. Hint: after the files are downloaded, you should be able to view each file correctly.

Good Luck!