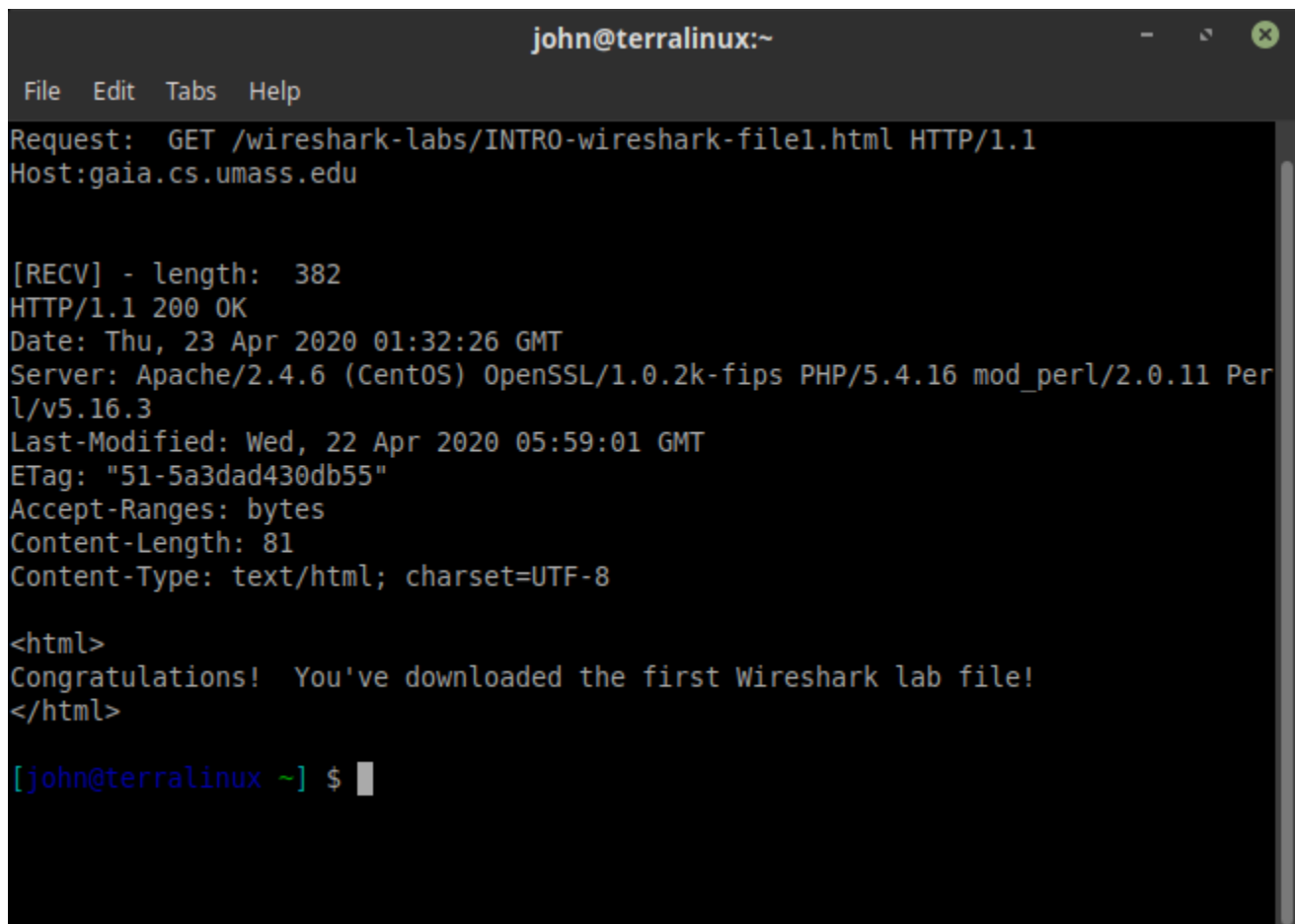


John Quilty  
CS372  
Project 1

All of my programs were written in python3 in Fedora 31 Linux. If you run on flip, which runs CentOS7, you will have to run with python3 rather than python, which is aliased to python3 on most newer Linux distros. I didn't test on flip, but rather on my own PC. It should work on MacOS and Windows as well if you have Python3, but that was not tested.

I have no comments or questions.

Screenshots:

A screenshot of a terminal window titled 'john@terralinux:~'. The terminal shows an HTTP GET request to '/wireshark-labs/INTRO-wireshark-file1.html' from 'Host:gaia.cs.umass.edu'. The response is an HTTP 200 OK with various headers including Date, Server, Last-Modified, ETag, Accept-Ranges, Content-Length, and Content-Type. The body of the response is an HTML document with the text 'Congratulations! You've downloaded the first Wireshark lab file!'. The prompt '[john@terralinux ~] \$' is visible at the bottom.

```
john@terralinux:~  
File Edit Tabs Help  
Request: GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1  
Host:gaia.cs.umass.edu  
  
[RECV] - length: 382  
HTTP/1.1 200 OK  
Date: Thu, 23 Apr 2020 01:32:26 GMT  
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod_perl/2.0.11 Perl/v5.16.3  
Last-Modified: Wed, 22 Apr 2020 05:59:01 GMT  
ETag: "51-5a3dad430db55"  
Accept-Ranges: bytes  
Content-Length: 81  
Content-Type: text/html; charset=UTF-8  
  
<html>  
Congratulations! You've downloaded the first Wireshark lab file!  
</html>  
  
[john@terralinux ~] $
```

```
[john@terralinux ~] $ python connect_socket_large.py
Request: GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
Host:gaia.cs.umass.edu

[RECV] - length: 4805
HTTP/1.1 200 OK
Date: Thu, 23 Apr 2020 05:11:26 GMT
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod_perl/2.0.11 Perl/v5.16.3
Last-Modified: Thu, 23 Apr 2020 05:11:03 GMT
ETag: "1194-5a3ee467bd000"
Accept-Ranges: bytes
Content-Length: 4500
Content-Type: text/html; charset=UTF-8

<html><head>
<title>Historical Documents:THE BILL OF RIGHTS</title></head>

<body bgcolor="#ffffff" link="#330000" vlink="#666633">
<p><br>
</p>
<p></p><center><b>THE BILL OF RIGHTS</b><br>
  <em>Amendments 1-10 of the Constitution</em>
</center>

<p>The Conventions of a number of the States having, at the time of adopting
the Constitution, expressed a desire, in order to prevent misconstruction
or abuse of its powers, that further declaratory and restrictive clauses
should be added, and as extending the ground of public confidence in the
Government will best insure the beneficent ends of its institution; </p><p> Res
olved, by the Senate and House of Representatives of the United
States of America, in Congress assembled, two-thirds of both Houses concurring,
that the following articles be proposed to the Legislatures of the several
States, as amendments to the Constitution of the United States; all or any
of which articles, when ratified by three-fourths of the said Legislatures,
to be valid to all intents and purposes as part of the said Constitution,
namely: </p><p><a name="1"><strong><h3>Amendment I</h3></strong></a>

<p></p><p>Congress shall make no law respecting an establishment of
religion, or prohibiting the free exercise thereof; or
abridging the freedom of speech, or of the press; or the
right of the people peaceably to assemble, and to petition
the government for a redress of grievances.

</p><p><a name="2"><strong><h3>Amendment II</h3></strong></a>

<p></p><p>A well regulated militia, being necessary to the security
of a free state, the right of the people to keep and bear
arms, shall not be infringed.

</p><p><a name="3"><strong><h3>Amendment III</h3></strong></a>

<p></p><p>No soldier shall, in time of peace be quartered in any house,
without the consent of the owner, nor in time of war, but
in a manner to be prescribed by law.

</p><p><a name="4"><strong><h3>Amendment IV</h3></strong></a>

<p></p><p>The right of the people to be secure in their persons, houses,
papers, and effects, against unreasonable searches and seizures,
shall not be violated, and no warrants shall issue, but upon
probable cause, supported by oath or affirmation, and
particularly describing the place to be searched, and the
persons or things to be seized.

</p><p><a name="5"><strong><h3>Amendment V</h3></strong></a>

<p></p><p>No person shall be held to answer for a capital, or otherwise
infamous crime, unless on a presentment or indictment of a grand
jury, except in cases arising in the land or naval forces,
or in the militia, when in actual service in time of war
or public danger; nor shall any person be subject for the
same offense to be twice put in jeopardy of life or limb;
```

abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

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<p></p><p>The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

</p><p><a name="5"><strong><h3>Amendment V</h3></strong></a>

<p></p><p>No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia, when in actual service in time of war or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

</p><p><a name="6"><strong><h3>Amendment VI</h3></strong></a>

<p></p><p>In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

</p><p><a name="7"><strong><h3>Amendment VII</h3></strong></a>

<p></p><p>In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise reexamined in any court of the United States, than according to the rules of the common law.

</p><p><a name="8"><strong><h3>Amendment VIII</h3></strong></a>

<p></p><p>Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

</p><p><a name="9"><strong><h3>Amendment IX</h3></strong></a>

<p></p><p>The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

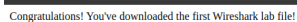
</p><p><a name="10"><strong><h3>Amendment X</h3></strong></a>

<p></p>

<p>The powers not delegated to the United States by the Constitution, nor prohibited

by it to the states, are reserved to the states respectively, or to the people  
</p>

</body></html>



```
joh@terralinux:~  
File Edit Tabs Help  
  
[joh@terralinux ~]$ python http_server.py  
Connected by ('127.0.0.1', 41808)  
  
Received: b'GET / HTTP/1.1\r\nHost: 127.0.0.1:41809\r\nConnection: keep-alive\r\nUpgrade-Insecure-Requests: 1\r\nUser-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/81.0.4044.125 Safari/537.36\r\nAccept: */*\r\nContent-Type: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9\r\nReferer: https://www.wireless-lab.fr/\r\nAccept-Encoding: gzip, deflate\r\nAccept-Language: en-US,en;q=0.9\r\n\r\n'  
  
Sending=====  
HTTP/1.1 200 OK  
Content-Type: text/html; charset=UTF-8  
  
<html>congratulations! You've downloaded the first Wireshark lab file!</html>  
  
=====
```