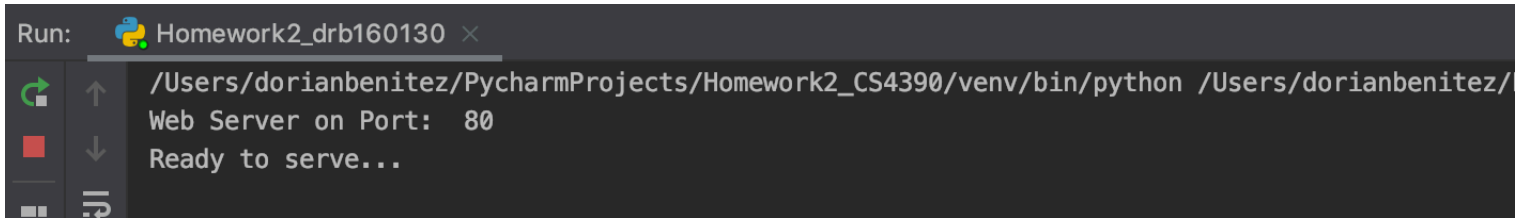


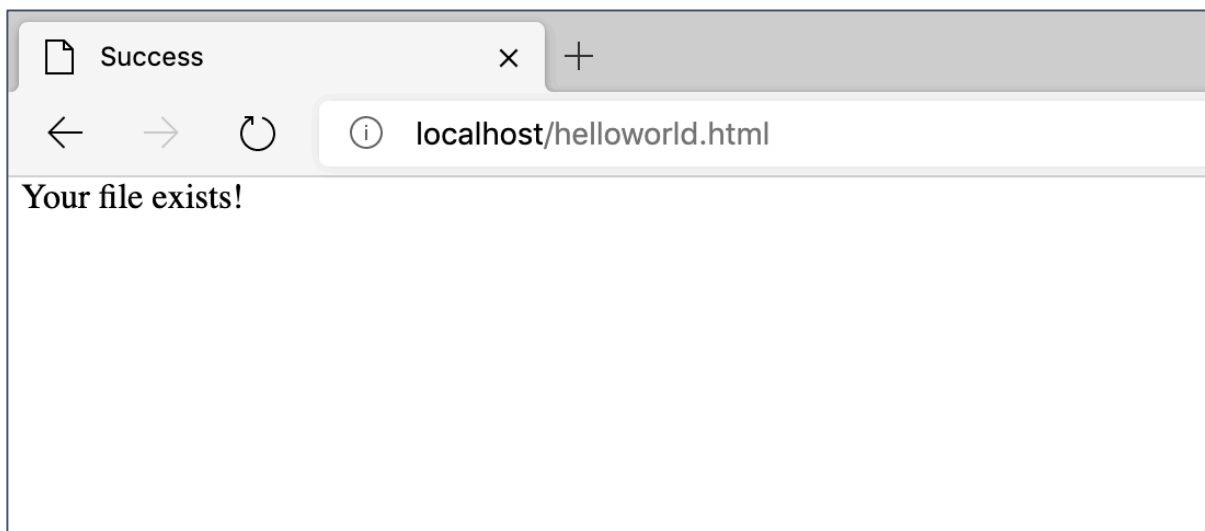
Socket Programming Assignment 1: Web Server

Output 1: This server was built and run utilizing the PyCharm IDE. The following screenshot is the output of the program in PyCharm after initially executing the code.

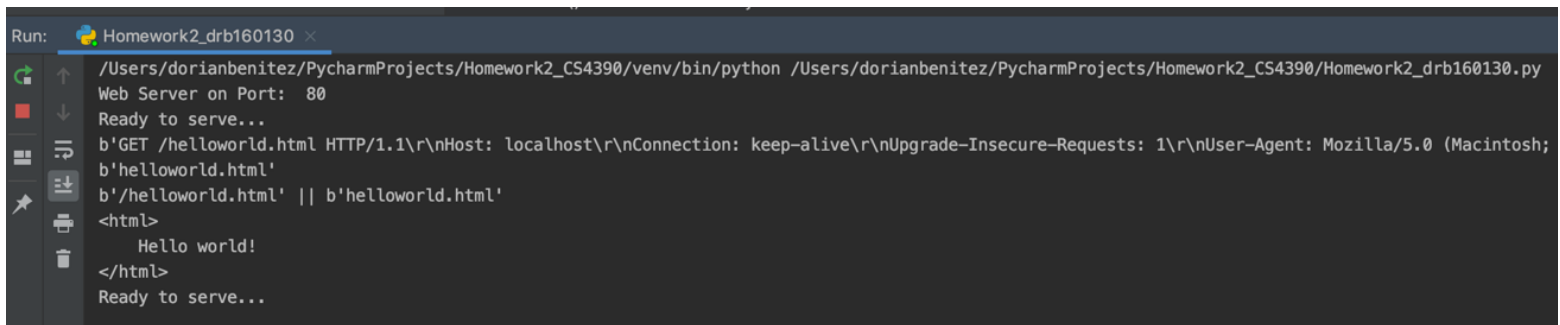
A screenshot of the PyCharm Run console. The title bar says 'Run: Homework2_drb160130'. The output shows the command path: '/Users/dorianbenitez/PycharmProjects/Homework2_CS4390/venv/bin/python /Users/dorianbenitez/'. Below that, it says 'Web Server on Port: 80' and 'Ready to serve...'.

```
Run: Homework2_drb160130 x
/Users/dorianbenitez/PycharmProjects/Homework2_CS4390/venv/bin/python /Users/dorianbenitez/
Web Server on Port: 80
Ready to serve...
```

Output 2: While the server was running, we proceeded to our web browser and entered the link <http://localhost/helloworld.html>. The output verifies that we actually do receive the contents of the HTML file from the server.

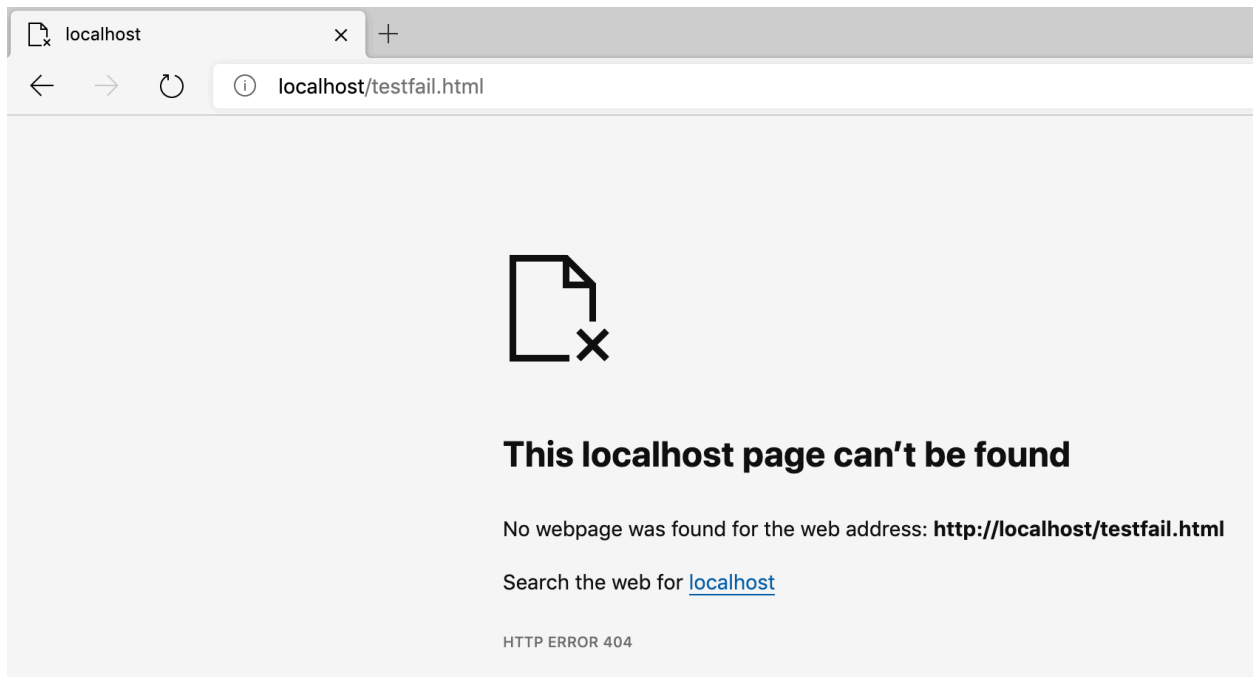


Output 3: The following screenshot is the PyCharm IDE after our link was entered in our browser. This also serves as further verification that we are receiving the contents of the file from the server.

A screenshot of the PyCharm Run console. The title bar says 'Run: Homework2_drb160130'. The output shows the command path: '/Users/dorianbenitez/PycharmProjects/Homework2_CS4390/venv/bin/python /Users/dorianbenitez/PycharmProjects/Homework2_CS4390/Homework2_drb160130.py'. Below that, it says 'Web Server on Port: 80' and 'Ready to serve...'. Then, it shows an HTTP GET request: 'b'GET /helloworld.html HTTP/1.1\r\nHost: localhost\r\nConnection: keep-alive\r\nUpgrade-Insecure-Requests: 1\r\nUser-Agent: Mozilla/5.0 (Macintosh; b'helloworld.html' | b'helloworld.html''. Below that, it shows the HTML response: '<html>\n\nHello world!\n\n</html>'. Finally, it says 'Ready to serve...'.

```
Run: Homework2_drb160130 x
/Users/dorianbenitez/PycharmProjects/Homework2_CS4390/venv/bin/python /Users/dorianbenitez/PycharmProjects/Homework2_CS4390/Homework2_drb160130.py
Web Server on Port: 80
Ready to serve...
b'GET /helloworld.html HTTP/1.1\r\nHost: localhost\r\nConnection: keep-alive\r\nUpgrade-Insecure-Requests: 1\r\nUser-Agent: Mozilla/5.0 (Macintosh;
b'helloworld.html' | b'helloworld.html'
<html>
Hello world!
</html>
Ready to serve...
```

Output 4: Now we stop the program and re-run it, but this time we will be testing the system behavior when we attempt to visit a page that *does not exist* on our server. So, while the server is running, we open our browser and enter a link to a non-existent file. The following is our output.



Output 5: After visiting the non-existent page and being met with a 404 error, the following output is shown in PyCharm. We are notified that we could not receive the contents of the file as it does not exist on the server.

