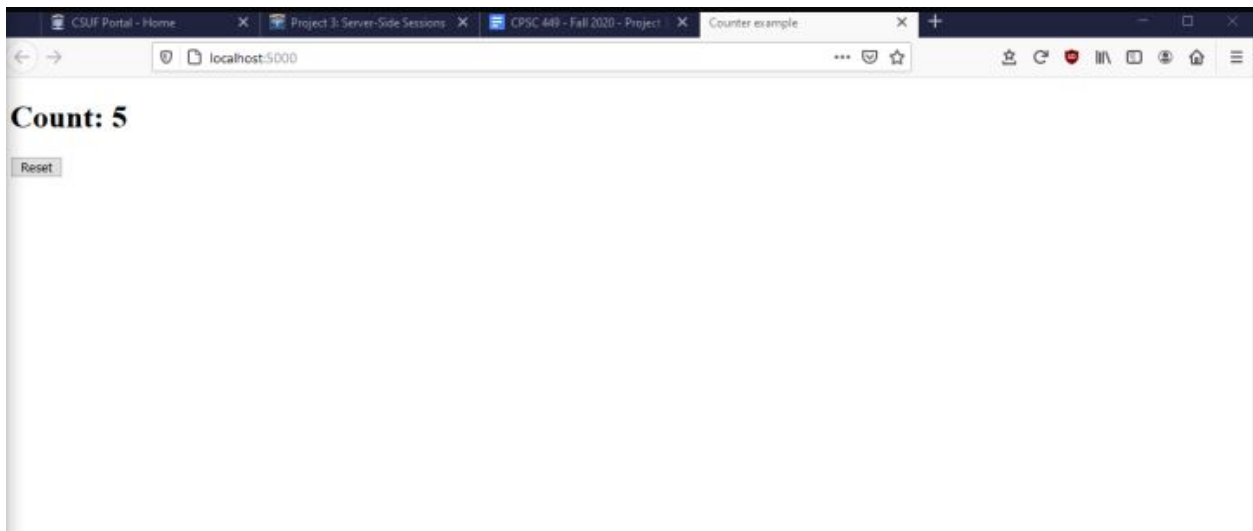


Team Members: Derrick Lee, Christopher Ly



The two following screenshots are taken from two different browsers. The first screenshot is taken on Google Chrome and the second screenshot is taken on Mozilla Firefox. As you can see, they both have different count values.

► GET http://localhost:5000/

Status	200 OK ?
Version	HTTP/1.0
Transferred	520 B (262 B size)
Referrer Policy	no-referrer-when-downgrade

▼ Response Headers (258 B) Raw ☐

- ? Content-Length: 262
- ? Content-Type: text/html; charset=utf-8
- ? Date: Thu, 15 Oct 2020 00:58:09 GMT
- ? Server: Werkzeug/1.0.1 Python/3.8.2
- ? Set-Cookie: session=eyJjb3VudCI6MX0.X4eeoQ.qf0Jiwg2ioVBEKa4uTzEdbebh7k; HttpOnly; Path=/
- ? Vary: Cookie

▼ Request Headers (368 B) Raw ☐

- ? Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
- ? Accept-Encoding: gzip, deflate
- ? Accept-Language: en-US,en;q=0.5
- ? Connection: keep-alive
- ? Host: localhost:5000
- ? Referer: http://localhost:5000/
- ? Upgrade-Insecure-Requests: 1

► GET http://localhost:5000/

Status	200 OK ?
Version	HTTP/1.0
Transferred	520 B (262 B size)
Referrer Policy	no-referrer-when-downgrade

▼ Response Headers (258 B) Raw ☐

- ? Content-Length: 262
- ? Content-Type: text/html; charset=utf-8
- ? Date: Thu, 15 Oct 2020 01:02:45 GMT
- ? Server: Werkzeug/1.0.1 Python/3.8.2
- ? Set-Cookie: session=eyJjb3VudCI6Mn0.X4eftQ.bS1eKutIbYUiyWPSYbXJztOaVol; HttpOnly; Path=/
- ? Vary: Cookie

▼ Request Headers (462 B) Raw ☐

- ? Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
- ? Accept-Encoding: gzip, deflate
- ? Accept-Language: en-US,en;q=0.5
- ? Cache-Control: max-age=0
- ? Connection: keep-alive
- ? Cookie: session=eyJjb3VudCI6MX0.X4eeoQ.qf0Jiwg2ioVBEKa4uTzEdbebh7k
- ? Host: localhost:5000

The two previous screenshots are examining the Set-Cookie: response header in mozilla firefox. We noticed that each time the page is refreshed, the session is changed.

NotImplementedError

NotImplementedError

Traceback (most recent call last)

```
File "/home/derrick/.local/lib/python3.8/site-packages/flask/app.py", line 2464, in __call__
    return self.wsgi_app(environ, start_response)

File "/home/derrick/.local/lib/python3.8/site-packages/flask/app.py", line 2450, in wsgi_app
    response = self.handle_exception(e)

File "/home/derrick/.local/lib/python3.8/site-packages/flask/app.py", line 1867, in handle_exception
    reraise(exc_type, exc_value, tb)

File "/home/derrick/.local/lib/python3.8/site-packages/flask/_compat.py", line 39, in reraise
    raise value

File "/home/derrick/.local/lib/python3.8/site-packages/flask/app.py", line 2446, in wsgi_app
    ctx.push()

File "/home/derrick/.local/lib/python3.8/site-packages/flask/ctx.py", line 390, in push
    self.session = session_interface.open_session(self.app, self.request)

File "/home/derrick/449/cpsc449/counter/sessions.py", line 80, in open_session
    data = self.session_store.get_key(sid)

File "/home/derrick/449/cpsc449/counter/sessions.py", line 23, in get_key
    raise NotImplementedError()
```

The previous screenshot happens when we modify `USE_SESSION_STORE` to `true` in `counter.cfg`. This happens because we haven't implemented the `set_key`, `get_key`, and `delete_key` functions.

Count: 6

Reset

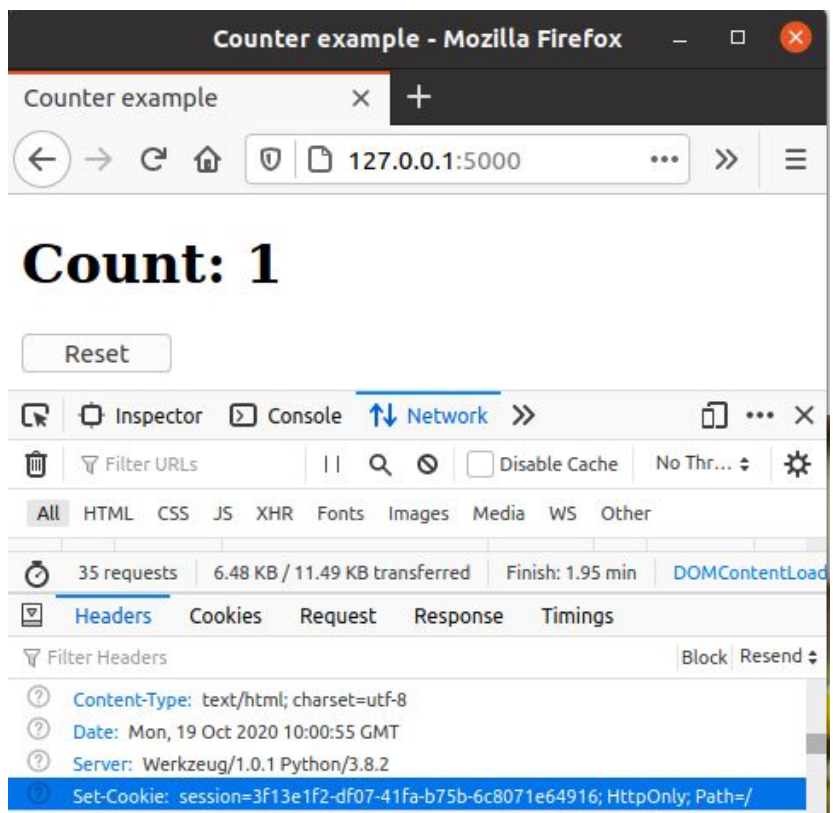
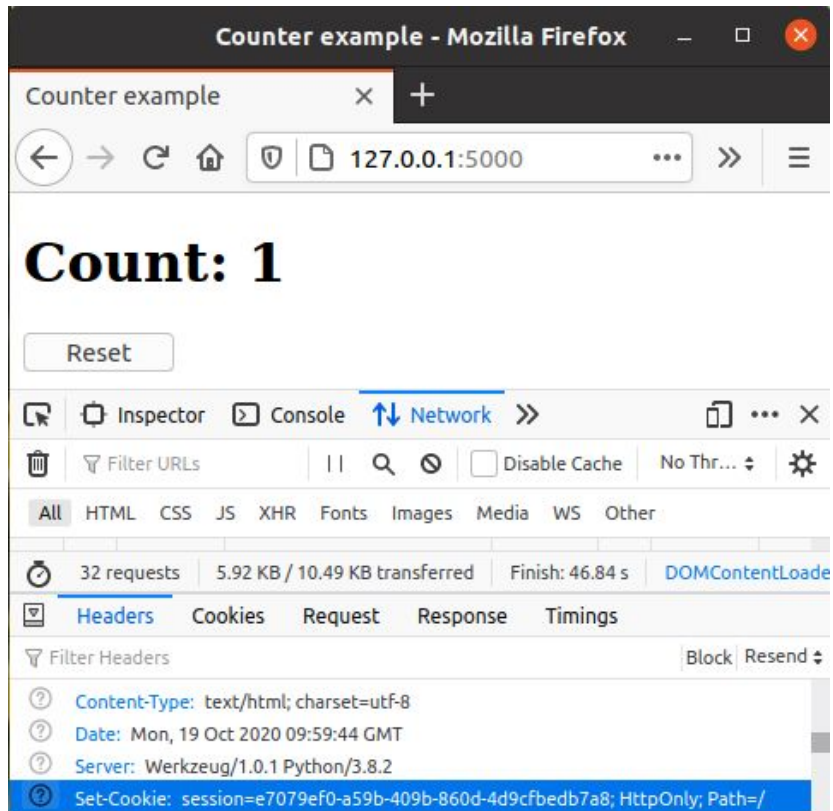
The screenshot shows the Firefox DevTools Network tab. The top bar includes icons for Inspector, Console, Debugger, Network (active), Style Editor, and a close button. Below the bar is a filter input and controls for disabling cache and throttling. The main area shows a list of requests: 4 requests, 626 B / 984 B transferred, Finish: 4.91 min, DOMContentLoaded: 49 ms, and load: 79 ms. The 'Headers' tab is selected, showing a 'Set-Cookie' header with the value 'session=5bafc42d-a3d2-4d5f-9b37-daf7cd0657e5; HttpOnly; Path=/' and a 'Request Headers' section with an 'Accept' header.

Count: 7

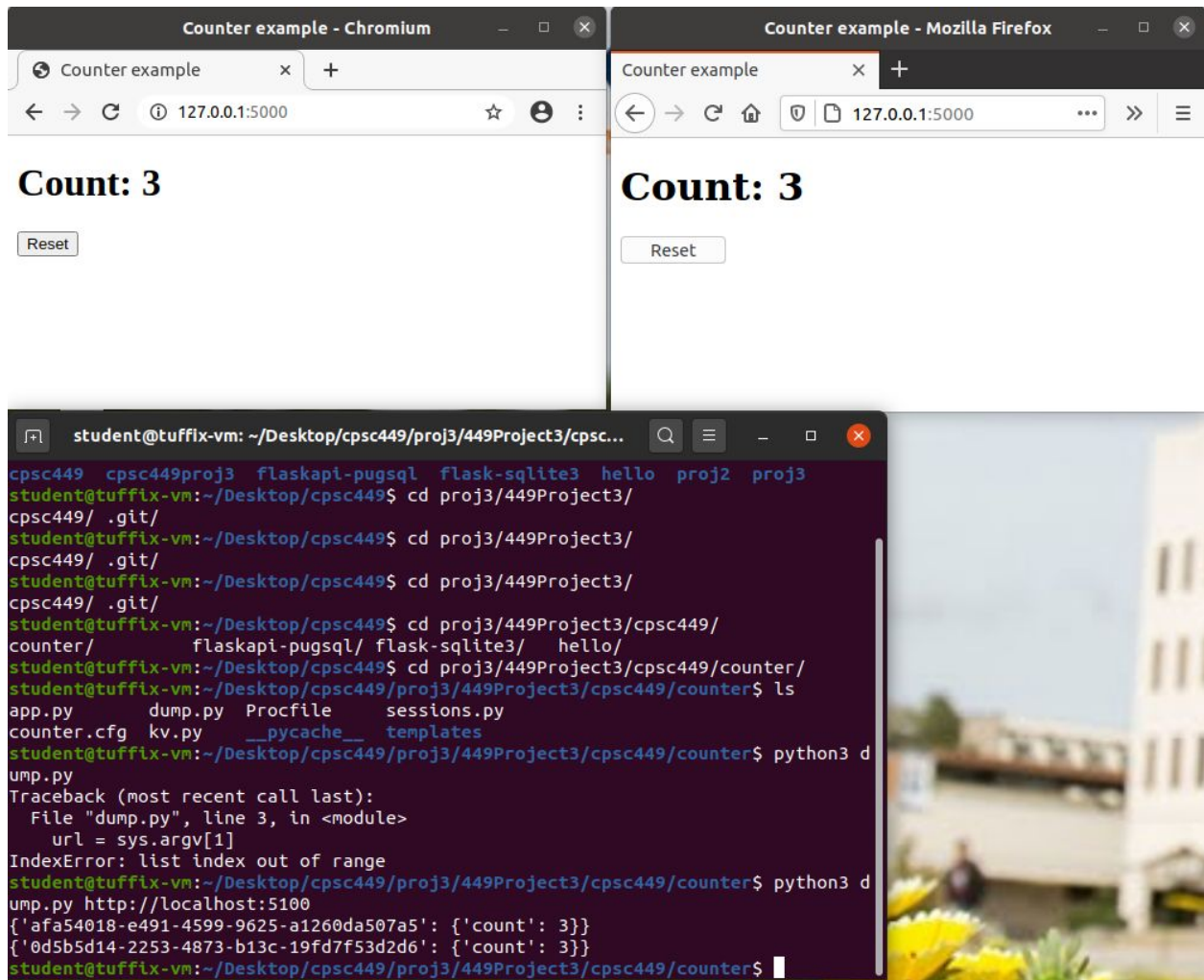
Reset

The screenshot shows the Firefox DevTools Network tab. The top bar includes icons for Inspector, Console, Debugger, Network (active), Style Editor, and a close button. Below the bar is a filter input and controls for disabling cache and throttling. The main area shows a list of requests: 6 requests, 939 B / 1.44 KB transferred, Finish: 6.19 min, DOMContentLoaded: 38 ms, and load: 63 ms. The 'Headers' tab is selected, showing a 'Set-Cookie' header with the value 'session=5bafc42d-a3d2-4d5f-9b37-daf7cd0657e5; HttpOnly; Path=/' and a 'Request Headers' section with an 'Accept' header.

The two previous screenshots are taken from the same browser, Mozilla Firefox. They both have different count values while retaining the same session key.



The two previous screenshots are proof that when the reset button is clicked, the POST request clears the session cookie and the GET request generates a new session ID.



The previous screenshot shows that there are two active sessions for different browsers. We used Chromium and Mozilla Firefox for this example and on the terminal you can see that we used `dump.py` to list the active sessions in the key-value store.