

MP4 Report

Cache Miss

```
yyy@localhost: ~/Desktop/ecen602/...
yyy@localhost:~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost:~/Desktop/ecen602/MP/mp4_7/original_work$ gcc -Wall -g -pthread -o client client.c
yyy@localhost:~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
Response from proxy server:
HTTP/1.0 200 OK
Age: 291980
Cache-Control: max-age=604800
Content-Type: text/html; charset=UTF-8
Date: Mon, 11 Nov 2024 03:51:01 GMT
Etag: "3147526947+gzip+ident"
Expires: Mon, 18 Nov 2024 03:51:01 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECACC (dad/SFB4)
Vary: Accept-Encoding
X-Cache: HIT
Content-Length: 1256
Connection: close

<doctype html>
<html>
<head>
```

Cache Hit

```
yyy@localhost: ~/Desktop/ecen602/...
yyy@localhost:~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost:~/Desktop/ecen602/MP/mp4_7/original_work$ gcc -Wall -g -pthread -o client client.c
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yyy@localhost:~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
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X-Cache: HIT
Content-Length: 1256
Connection: close

<doctype html>
```

Notice that the date field of the two responses are identical, indicating the second response is from the cache of the proxy.

Cache Replacement (LRU)

```
yyy@localhost: ~/Desktop/ecen602/...
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Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
Response from proxy server:
HTTP/1.0 200 OK
Age: 291980
Cache-Control: max-age=604800
Content-Type: text/html; charset=UTF-8
Date: Mon, 11 Nov 2024 03:51:01 GMT
Etag: "3147526947+gzip+ident"
Expires: Mon, 18 Nov 2024 03:51:01 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
```

1st cache, dated 03:51:01 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/1
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:05:46 GMT
Server: ECLF (dad/5FB8)
```

2nd cache, dated 04:05:46 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/2
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:07:45 GMT
Server: ECLF (dad/5FBA)
```

3rd cache, dated 04:07:45 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/3
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:08:37 GMT
Server: ECLF (dad/5FC5)
```

4th cache, dated 04:08:37 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/4
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:09:20 GMT
Server: ECLF (dad/5F8E)
```

5th cache, dated 04:09:28 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/5
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:10:03 GMT
Server: ECLF (dad/5F82)
```

6th cache, dated 04:10:03 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/6
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:10:40 GMT
Server: ECLF (dad/5FD3)
```

7th cache, dated 04:18:40 GMT

```
yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/7
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:11:14 GMT
Server: ECLF (dad/5FC3)
```

8th cache, dated 04:11:14 GMT

```

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080
[]

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/8
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:11:46 GMT
Server: ECLF (dad/5F8C)

```

9th cache, dated 04:11:46 GMT

```

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080
[]

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/9
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:12:18 GMT
Server: ECLF (dad/5FE0)

```

10th cache, dated 04:12:18 GMT

```

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080
[]

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com/10
Response from proxy server:
HTTP/1.0 400 Bad Request
Content-Type: text/html
Content-Length: 349
Connection: close
Date: Mon, 11 Nov 2024 04:12:57 GMT
Server: ECLF (dad/5FA2)

```

11th cache, dated 04:12:57 GMT, this replaces the 1st cache

```

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080
[]

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
Response from proxy server:
HTTP/1.0 200 OK
Age: 292465
Cache-Control: max-age=604800
Content-Type: text/html; charset=UTF-8
Date: Mon, 11 Nov 2024 04:13:42 GMT
Etag: "3147526947+gzip+ident"
Expires: Mon, 18 Nov 2024 04:13:42 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECLF (dad/5F9C)
Vary: Accept-Encoding
X-Cache: HIT
Content-Length: 1256
Connection: close

```

Revisit 1st URL, the date field is updated to 04:13:42 GMT

Multiple Client Connections

```

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./proxy 127.0.0.1 8080
Proxy server listening on IP 127.0.0.1 and port 8080
[]

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
Response from proxy server:
HTTP/1.0 200 OK
Age: 291980
Cache-Control: max-age=604800
Content-Type: text/html; charset=UTF-8
Date: Mon, 11 Nov 2024 03:51:01 GMT
Etag: "3147526947+gzip+ident"
Expires: Mon, 18 Nov 2024 03:51:01 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECLF (dad/5FB4)
Vary: Accept-Encoding
X-Cache: HIT
Content-Length: 1256
Connection: close
<doctype html>
<html>

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
Response from proxy server:
HTTP/1.0 200 OK
Age: 291980
Cache-Control: max-age=604800
Content-Type: text/html; charset=UTF-8
Date: Mon, 11 Nov 2024 03:51:01 GMT
Etag: "3147526947+gzip+ident"
Expires: Mon, 18 Nov 2024 03:51:01 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECLF (dad/5FB4)
Vary: Accept-Encoding
X-Cache: HIT
Content-Length: 1256
Connection: close
<doctype html>
<html>

yyy@localhost: ~/Desktop/ecen602/MP/mp4_7/original_work$ ./client 127.0.0.1 8080 http://example.com
Response from proxy server:
HTTP/1.0 200 OK
Age: 291980
Cache-Control: max-age=604800
Content-Type: text/html; charset=UTF-8
Date: Mon, 11 Nov 2024 03:51:01 GMT
Etag: "3147526947+gzip+ident"
Expires: Mon, 18 Nov 2024 03:51:01 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECLF (dad/5FB4)
Vary: Accept-Encoding
X-Cache: HIT
Content-Length: 1256
Connection: close
<doctype html>
<html>

```

Each client is served by an individual thread.