

# cURL

cURL?????????????curl?libcurl?????????????????URL??????  
cURL????????????????????????????????

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# Tips

## Cheat Sheet



| hide progress                         | verbose  | extra info  | output                              | timeout                   |
|---------------------------------------|--|---|-------------------------------------|---------------------------|
| <b>-s</b>                             | <b>-v</b><br><b>--trace-ascii &lt;file&gt;</b> | <b>-w "format"</b>                                | <b>-O</b><br><b>-o &lt;file&gt;</b> | <b>-m &lt;seconds&gt;</b> |
| POST                                  | POST encoded                                   | multipart formpost                                | PUT                                 | HEAD (ers too)            |
| <b>-d "string"</b><br><b>-d @file</b> | <b>--data-urlencode</b><br><b>"[name]=val"</b> | <b>-F name=value</b><br><b>-F name=@file</b>      | <b>-T &lt;file&gt;</b>              | <b>-I</b><br><b>-i</b>    |
| custom method                         | read cookiejar                                 | write cookiejar                                   | send cookies                        | user-agent                |
| <b>-X "METHOD"</b>                    | <b>-b &lt;file&gt;</b>                         | <b>-c &lt;file&gt;</b>                            | <b>-b "c=1; d=2"</b>                | <b>-A "string"</b>        |
| proxy                                 | add/remove headers                             | custom address                                    | smaller data                        | insecure HTTPS            |
| <b>-x &lt;host:port&gt;</b>           | <b>-H "name: value"</b><br><b>-H "name:"</b>   | <b>--resolve</b><br><b>&lt;host:port:addr&gt;</b> | <b>--compressed</b>                 | <b>-k</b>                 |
| Basic auth                            | follow redirects                               | parallel  | generate code                       | list options              |
| <b>-u user:passwd</b>                 | <b>-L</b>                                      | <b>-Z</b>   | <b>--libcurl &lt;file&gt;</b>       | <b>--help</b>             |

## Options in the integration with Shell

```
CURL_CMD="curl"  
CURL_OPT="-qSfs -m 60"  
CURL_OPT_POST="-qSfs -m 60 -X POST"
```

## POST Request

### Send an Empty POST Request

```
curl -X POST https://catonmat.net
```

### Send a POST Request with Form Data

```
curl -d 'login=emma&password=123' -X POST https://google.com/login
```

## GET Request

## Send a GET Request and Print the Response to Screen

```
curl https://catonmat.net/api?a=1&b=2
```

## Send a GET Request and Save the Response to a File

```
curl -o response.txt https://catonmat.net/api?a=1&b=2
```

## Self-Signed Certificate

“ Error: curl: (60) SSL certificate problem: unable to get local issuer certificate

```
? curl ?? HTTPS ?????? self-signed certificate ?????????????????????? curl
????????????????????????????? curl ????
```

????????

1. ? Firefox ? Chrome ?????????? CA ?? \*.pem
2. curl ?? \*.pem CA ??????

```
curl -vvv --cacert CA.pem https://www.google.com
```

# 

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

```
curl --cacert your-server-ca.pem https://your-server-name
```

# 

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

```
# curl -CApath, CA file
```

```
curl --cacert XXX https://your-server-name
```

```
curl: (77) error setting certificate verify locations:
```

CAfile: xxx

CAPATH: /etc/ssl/certs <===

```
# CApath /usr/local/share/ca-certificates.crt , /usr/local/share/certs
```

[illegible]

```
# curl CA file
```

```
cat your-server-ca.pem >> /etc/ssl/certs/ca-certificates.crt
```

```
curl https://your-server-name
```

## HTTP Status Codes

"HTTP Status Code" --> A 3 Digit "Server Response" sent by a web server to a client, indicating the request was completed successfully or not.

| 1XX : HTTP Information Code   | 3XX : HTTP Redirection Codes           | 4XX : HTTP Client Error Codes               |
|---|--|---|
| -100 : Continue   | -300 : Multiple Choices                | -400 : Bad Request                          |
| -101 : Switching Protocols  | -301 : Moved Permanently               | -401 : Unauthorized                         |
| -102 : Processing   | -302 : Found                           | -402 : Payment Required                     |
| -103 : Checkpoint   | -303 : See Other                       | -403 : Forbidden                            |
| -122 : Request-URI too Long   | -304 : Not Modified                    | -404 : Not Found                            |
|   | -305 : Use Proxy                       | -405 : Method Not Allowed                   |
| 2XX : HTTP Successful Codes   | 3XX : HTTP Redirection Codes           | 4XX : HTTP Client Error Codes               |
| -200 : OK   | -306 : Switch Proxy                    | -406 : Not Acceptable                       |
| -201 : Created  | -307 : Temporary Redirect              | -407 : Proxy Authentication Required        |
| -202 : Accepted   | -308 : Permanent Redirect              | -408 : Request Timeout                      |
| -203 : Non-Authoritative Information                                      |  | -409 : Conflict                             |
| -204 : No Content   | 5XX: HTTP Server Error Codes           | -410 : Gone                                 |
| -205 : Reset Content  | -500 : Internal Server Error           | -411 : Length Required                      |
| -206 : Partial Content  | -501 : Not Implemented                 | -412 : Precondition Failed                  |
| -207 : Multi-Status   | -502 : Bad Gateway                     | -413 : Request Entity Too Large             |
| -208 : Already Reported   | -503 : Service Unavailable             | -414 : Request URI too long                 |
| -226 : IM Used  | -504 : Gateway Timeout                 | -415 : Unsupported Media Type               |
|   | -505 : HTTP Version Not Supported      | -416 : Requested Range not Satisfiable      |
| Request Methods :   | -506 : Variant Also Negotiates         | -417 : Expectation Failed                   |
| -GET : Requests a representation of the specified resource                | -507 : Insufficient Storage            | -418 : I am a teapot                        |
| -POST : Requests the server to accept the entity enclosed in the request  | -508 : Loop Detected                   | -422 : Unprocessable Entity                 |
| -HEAD : Request similar to GET but without the response body              | -509 : Bandwidth Limit Exceeded        | -423 : Locked                               |
| -PUT : Requests to store the enclosed entity to supplied URI              | -510 : Not Extended                    | -424 : Failed Dependency                    |
| -DELETE : Deletes the specified resource                                  | -511 : Network Authentication Required | -425 : Unordered Collection                 |
| -OPTIONS : Returns the HTTP Methods supported by server for URL Specified | -512 : Network Read Timeout Error      | -426 : Upgrade Required                     |
| -CONNECT : starts a two-way communication with requested resource         | -513 : Network Connect Timeout Error   | -428 : Precondition Required                |
|   |  | -429 : Too Many Requests                    |
|   |  | -431 : Request Header Fields too large      |
|   |  | -444 : No Response                          |
|   |  | -449 : Retry With                           |
|   |  | -450 : Blocked by Windows Parental Controls |
|   |  | -451 : Unavailable for Legal Reasons        |
|   |  | -499 : Client Closed Request                |

## Use a Proxy

```
curl -x username:Password@myproxy.com:8080 https://catonmat.net
```

## Download

```
curl --request GET \
  --url 'https://www.tenable.com/downloads/api/v2/pages/nessus/files/Nessus-10.5.1-es9.x86_64.rpm' \
  --output 'Nessus-10.5.1-es9.x86_64.rpm'
```



# Online Tools

More online tools

- [Online CSV Tools](#)
- [Online Time Tools](#)

## Public IP

Web Online

- <https://ipinfo.io/what-is-my-ip>

↪ curl ifconfig.me

219.68.222.111↵

↪ curl ifconfig.me/ip

219.68.222.111↵

↪ curl ip.im

↪ curl ipv4.im

↪ curl ip.im/info

↪ curl ip.im/8.8.8.8

curl ifconfig.co

curl checkip.amazonaws.com

curl icanhazip.com

curl ipecho.net/plain

curl -Ls myip.check.place

## CryptoCurrency

[rate.sx](#)

[curl-rate.sx.png](#) unknown

curl rate.sx

curl rate.sx/btc

```
curl rate.sx/btc@3d # for last 3 days
curl rate.sx/1btc # convert 1 BTC to ?? USD
curl rate.sx/:help
```

## Weather

[wttr.in](http://wttr.in)

[curl-wttr.in.png](#) unknown

```
curl wttr.in
curl wttr.in/TaoYuan
curl wttr.in/:help
```

## QRcode

[qrenco.de](http://qrenco.de)

[curl-qrenco.de.png](#) unknown

```
curl qrenco.de
curl qrenco.de/www.youtube.com
curl qrenco.de/:help
printf "$@" | curl -F=@<- qrenco.de
```

## Shorten URL

[0x0.st](https://0x0.st)

[curl-0x0.st.png](#) unknown

```
curl -F 'shorten=https://www.osslab.tw' https://0x0.st
```

## Tinyurl.com: short URL from the terminal

```
echo https://URL | xargs -r -l {} curl -s -d url={} -G https://tinyurl{.}com/create.php | \
awk '/indent/ {print substr($2,19,39)}' | sed '2!d' | sed 's/<.*//'
```





# Learning cURL

- [Basics of HTTP Requests with cURL: An In-Depth Tutorial](#)
- [Curl Cookbook](#)
- [Httpie](#) - Alternative to Curl