

## Exercise 1: HTTP

*Upload a txt or pdf file named USPnumber.txt, with the answers to the questions.* 

These exercises are about understanding how to make different kinds of HTTP. To keep it simple, we're going to make a lot of our requests to the same website: <a href="https://httpbin.org">httpbin.org</a>. httpbin is a service that accepts HTTP requests and then tells you what request you made. You may use <a href="postman">postman</a>, <a href="mailto:insomnia">insomnia</a>, <a href="mailto:cURL">cURL</a>, or other tools to make the requests. Using a text editor, include the request and response headers and the body of the answers to each question (if the body is big, put only its beginning). If using postman, use the *console view* to get the text. Remember that some answers need more than the headers and body.

- 1. Request <a href="https://httpbin.org">https://httpbin.org</a>
- 2. Request <a href="https://httpbin.org/anything">httpbin.org/anything</a> will look at your request, parse it, and echo back to you what you requested.
- 3. Make a POST request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a>
- 4. Make a GET request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a>, but this time, add some query parameters (set value=panda).
- 5. Request Google's robots.txt file (<a href="www.google.com/robots.txt">www.google.com/robots.txt</a>)
- 6. Make a GET request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a> and set the header User-Agent: elephant.
- 7. Make a DELETE request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a>
- 8. Make a POST request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a> with the JSON body {"value": "panda"}. The Content-Type header must differ from application/json. Some tools will fill this header automatically.
- 9. Make the same POST request as the previous exercise, but set the Content-Type header to application/json (because POST requests need a content type that matches their body). Look at the json field in the response to see the difference from the previous one.
- 10. Make a GET request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a> and set the header Accept-Encoding: gzip (What happens? Why?)
- 11. Put a bunch of JSON in a file and then make a POST request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a> with the JSON in that file as the body.
- 12. Make a PUT request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a>
- 13. Request <a href="https://www.twitter.com">https://www.twitter.com</a>. Show the response headers using your tool (postman, cURL, etc). Is the HTML returned the same way you get it in a browser? Why?
- 14. Make any request to <a href="https://httpbin.org/anything">https://httpbin.org/anything</a> and just set some nonsense headers (like panda: elephant). What happens?
- 15. Request https://httpbin.org/status/404 and https://httpbin.org/status/200.
- 16. Request <a href="https://httpbin.org/anything">https://httpbin.org/anything</a> and set a username and password. Many tools will make it automatic: if the site you are using needs authentication, it can send this information to you. Find out how to do it in the tool you are using.

Exercises based on Julia Evans Curl exercises.