Задание 1

1) curl -v -i [http://google.ru](http://google.ru/)

Trying 173.194.220.94...

\* TCP\_NODELAY set

\* Expire in 149945 ms for 3 (transfer 0x55eadee80f90)

\* Expire in 200 ms for 4 (transfer 0x55eadee80f90)

\* Connected to google.ru (173.194.220.94) port 80 (#0)

> GET / HTTP/1.1

> Host: google.ru

> User-Agent: curl/7.64.0

> Accept: \*/\*

HTTP/1.1 301 Moved Permanently

Location: http://www.google.ru/

Content-Type: text/html; charset=UTF-8

Date: Thu, 11 Feb 2021 16:48:36 GMT

Expires: Sat, 13 Mar 2021 16:48:36 GMT

Cache-Control: public, max-age=2592000

Server: gws

Content-Length: 218

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

2) curl -v -i [http://www.google.ru](http://www.google.ru/)

Trying 173.194.73.94:80...

\* TCP\_NODELAY set

\* Connected to www.google.ru (173.194.73.94) port 80 (#0)

> GET / HTTP/1.1

> Host: www.google.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

\* Mark bundle as not supporting multiuse

HTTP/1.1 200 OK

Date: Fri, 19 Feb 2021 08:39:15 GMT

Expires: -1

Cache-Control: private, max-age=0

Content-Type: text/html; charset=windows-1251

P3P: CP="This is not a P3P policy! See g.co/p3phelp for more info."

Server: gws

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

Set-Cookie: 1P\_JAR=2021-02-19-08; expires=Sun, 21-Mar-2021 08:39:15 GMT; path=/; domain=.google.ru; Secure

Set-Cookie: NID=209=WL4-OuftPh9bw4DqMqxVS5nwSuxDU20fed-D\_ThoufDe9zHnxKrOe1JQx5HbTcG2ny1FLw3FIE4qTiweM-xKsE5eRsrMmjhY7MI6sME1Q\_kq6kSJYW7r01HigHN65akfqKXPXmSmeaxQoBKv3cypxqgFtDCB8npIqg4BnWdx4ZE; expires=Sat, 21-Aug-2021 08:39:15 GMT; path=/; domain=.google.ru; HttpOnly

Accept-Ranges: none

Vary: Accept-Encoding

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Transfer-Encoding: chunked

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

Вывод: потребовалось обратиться по адресу http://www.google.ru

3) curl -v -i [http://ya.ru](http://ya.ru/)

Trying 87.250.250.242:80...

\* TCP\_NODELAY set

\* Connected to ya.ru (87.250.250.242) port 80 (#0)

> GET / HTTP/1.1

> Host: ya.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

\* Mark bundle as not supporting multiuse

HTTP/1.1 302 Found

Cache-Control: no-cache,no-store,max-age=0,must-revalidate

Content-Length: 0

Date: Wed, 17 Feb 2021 18:30:47 GMT

Expires: Wed, 17 Feb 2021 18:30:47 GMT

Last-Modified: Wed, 17 Feb 2021 18:30:47 GMT

Location: https://ya.ru/

P3P: policyref="/w3c/p3p.xml", CP="NON DSP ADM DEV PSD IVDo OUR IND STP PHY PRE NAV UNI"

Set-Cookie: yandexuid=3178553571613586647; Expires=Sat, 15-Feb-2031 18:30:47 GMT; Domain=.ya.ru; Path=/

Set-Cookie: is\_gdpr=0; Path=/; Domain=.ya.ru; Expires=Fri, 17 Feb 2023 18:30:47 GMT

Set-Cookie: is\_gdpr\_b=COuhXRCtHigC; Path=/; Domain=.ya.ru; Expires=Fri, 17 Feb 2023 18:30:47 GMT

X-Content-Type-Options: nosniff

4) curl -v -i [https://ya.ru](https://ya.ru/)

Trying 87.250.250.242:443...

\* TCP\_NODELAY set

\* Trying 2a02:6b8::2:242:443...

\* TCP\_NODELAY set

\* Immediate connect fail for 2a02:6b8::2:242: Сеть недоступна

\* Connected to ya.ru (87.250.250.242) port 443 (#0)

\* ALPN, offering h2

\* ALPN, offering http/1.1

\* successfully set certificate verify locations:

\* CAfile: /etc/ssl/certs/ca-certificates.crt

CApath: /etc/ssl/certs

\* TLSv1.3 (OUT), TLS handshake, Client hello (1):

\* TLSv1.3 (IN), TLS handshake, Server hello (2):

\* TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):

\* TLSv1.3 (IN), TLS handshake, Certificate (11):

\* TLSv1.3 (IN), TLS handshake, CERT verify (15):

\* TLSv1.3 (IN), TLS handshake, Finished (20):

\* TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1):

\* TLSv1.3 (OUT), TLS handshake, Finished (20):

\* SSL connection using TLSv1.3 / TLS\_AES\_256\_GCM\_SHA384

\* ALPN, server accepted to use http/1.1

\* Server certificate:

\* subject: C=RU; L=Moscow; OU=ITO; O=Yandex LLC; CN=\*.xn--d1acpjx3f.xn--p1ai

\* start date: Oct 1 06:10:46 2020 GMT

\* expire date: Apr 1 06:10:46 2021 GMT

\* subjectAltName: host "ya.ru" matched cert's "ya.ru"

\* issuer: C=RU; O=Yandex LLC; OU=Yandex Certification Authority; CN=Yandex CA

\* SSL certificate verify ok.

> GET / HTTP/1.1

> Host: ya.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

\* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

\* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

\* old SSL session ID is stale, removing

\* Mark bundle as not supporting multiuse

HTTP/1.1 200 Ok

Accept-CH: Viewport-Width, DPR, Device-Memory, RTT, Downlink, ECT

Accept-CH-Lifetime: 31536000

Cache-Control: no-cache,no-store,max-age=0,must-revalidate

Content-Length: 58441

Content-Security-Policy: connect-src https://mc.admetrica.ru https://mc.yandex.ru https://yandex.ru;default-src 'none';frame-src 'self' https://mc.yandex.md https://mc.yandex.ru;img-src 'self' data: https://\*.verify.yandex.ru https://avatars.mds.yandex.net https://favicon.yandex.net https://mc.admetrica.ru https://mc.yandex.com https://mc.yandex.ru https://yandex.ru https://yastatic.net;report-uri https://csp.yandex.net/csp?project=morda&from=morda.yaru.ru&showid=1613724045.72338.102919.511503&h=stable-morda-yaru-man-yp-13&csp=new&date=20210219&yandexuid=5300014211613724045;script-src 'unsafe-inline' https://mc.yandex.ru https://yandex.ru https://yastatic.net;style-src 'unsafe-inline'

Content-Type: text/html; charset=UTF-8

Date: Fri, 19 Feb 2021 08:40:45 GMT

Expires: Fri, 19 Feb 2021 08:40:46 GMT

Last-Modified: Fri, 19 Feb 2021 08:40:46 GMT

P3P: policyref="/w3c/p3p.xml", CP="NON DSP ADM DEV PSD IVDo OUR IND STP PHY PRE NAV UNI"

Set-Cookie: yp=1616316046.ygu.1; Expires=Mon, 17-Feb-2031 08:40:45 GMT; Domain=.ya.ru; Path=/

Set-Cookie: mda=0; Expires=Sat, 19-Jun-2021 08:40:45 GMT; Domain=.ya.ru; Path=/

Set-Cookie: yandex\_gid=50; Expires=Sun, 21-Mar-2021 08:40:45 GMT; Domain=.ya.ru; Path=/

Set-Cookie: yandexuid=5300014211613724045; Expires=Mon, 17-Feb-2031 08:40:45 GMT; Domain=.ya.ru; Path=/

Set-Cookie: is\_gdpr=0; Path=/; Domain=.ya.ru; Expires=Sun, 19 Feb 2023 08:40:45 GMT

Set-Cookie: is\_gdpr\_b=COuhXRDTHigC; Path=/; Domain=.ya.ru; Expires=Sun, 19 Feb 2023 08:40:45 GMT

Set-Cookie: i=NI00mh1szoZ4fN24FXfA6KvlvGaENC2fAnXj6vK1nbbPizf6sBY7y8wFjcR1OJ8CHtDmkF2d08U1Nh8yCmb2V6ZhlF8=; Expires=Sun, 19-Feb-2023 08:40:45 GMT; Domain=.ya.ru; Path=/; Secure; HttpOnly

X-Content-Type-Options: nosniff

X-Frame-Options: DENY

Вывод: потребовалось обратиться по адресу [https://ya.ru](https://ya.ru/)

Задание 2

1) curl -v -i http://google.ru -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36"

Trying 108.177.14.94:80...

\* TCP\_NODELAY set

\* Connected to google.ru (108.177.14.94) port 80 (#0)

> GET / HTTP/1.1

> Host: google.ru

> Accept: \*/\*

> User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36

\* Mark bundle as not supporting multiuse

HTTP/1.1 301 Moved Permanently

Location: http://www.google.ru/

Content-Type: text/html; charset=UTF-8

Date: Wed, 17 Feb 2021 18:26:38 GMT

Expires: Fri, 19 Mar 2021 18:26:38 GMT

Cache-Control: public, max-age=2592000

Server: gws

Content-Length: 218

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

2) curl -v -i http://www.google.ru -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36"

Trying 173.194.222.94:80...

\* TCP\_NODELAY set

\* Connected to www.google.ru (173.194.222.94) port 80 (#0)

> GET / HTTP/1.1

> Host: www.google.ru

> Accept: \*/\*

> User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36

\* Mark bundle as not supporting multiuse

HTTP/1.1 302 Found

Location: https://www.google.ru/?gws\_rd=ssl

Cache-Control: private

Content-Type: text/html; charset=UTF-8

Date: Wed, 17 Feb 2021 18:29:17 GMT

Server: gws

Content-Length: 230

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

Set-Cookie: 1P\_JAR=2021-02-17-18; expires=Fri, 19-Mar-2021 18:29:17 GMT; path=/; domain=.google.ru; Secure; SameSite=none

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

3) curl -v -i https://www.google.ru/?gws\_rd=ssl -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36"

Trying 173.194.222.94:443...

\* TCP\_NODELAY set

\* Connected to www.google.ru (173.194.222.94) port 443 (#0)

\* ALPN, offering h2

\* ALPN, offering http/1.1

\* successfully set certificate verify locations:

\* CAfile: /etc/ssl/certs/ca-certificates.crt

CApath: /etc/ssl/certs

\* TLSv1.3 (OUT), TLS handshake, Client hello (1):

\* TLSv1.3 (IN), TLS handshake, Server hello (2):

\* TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):

\* TLSv1.3 (IN), TLS handshake, Certificate (11):

\* TLSv1.3 (IN), TLS handshake, CERT verify (15):

\* TLSv1.3 (IN), TLS handshake, Finished (20):

\* TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1):

\* TLSv1.3 (OUT), TLS handshake, Finished (20):

\* SSL connection using TLSv1.3 / TLS\_AES\_256\_GCM\_SHA384

\* ALPN, server accepted to use h2

\* Server certificate:

\* subject: C=US; ST=California; L=Mountain View; O=Google LLC; CN=\*.google.com.ru

\* start date: Jan 26 09:09:54 2021 GMT

\* expire date: Apr 20 09:09:53 2021 GMT

\* subjectAltName: host "www.google.ru" matched cert's "\*.google.ru"

\* issuer: C=US; O=Google Trust Services; CN=GTS CA 1O1

\* SSL certificate verify ok.

\* Using HTTP2, server supports multi-use

\* Connection state changed (HTTP/2 confirmed)

\* Copying HTTP/2 data in stream buffer to connection buffer after upgrade: len=0

\* Using Stream ID: 1 (easy handle 0x564a7f84ce10)

> GET /?gws\_rd=ssl HTTP/2

> Host: www.google.ru

> accept: \*/\*

> user-agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36

\* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

\* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

\* old SSL session ID is stale, removing

\* Connection state changed (MAX\_CONCURRENT\_STREAMS == 100)!

HTTP/2 200

date: Fri, 19 Feb 2021 08:34:16 GMT

expires: -1

cache-control: private, max-age=0

content-type: text/html; charset=UTF-8

strict-transport-security: max-age=31536000

p3p: CP="This is not a P3P policy! See g.co/p3phelp for more info."

server: gws

x-xss-protection: 0

x-frame-options: SAMEORIGIN

set-cookie: 1P\_JAR=2021-02-19-08; expires=Sun, 21-Mar-2021 08:34:16 GMT; path=/; domain=.google.ru; Secure; SameSite=none

set-cookie: NID=209=upJZk2DqDZN6OoLAqU2C8UGrPZP-RJaCu2-Abqgk9hA6mC-7PuS9TaGLkgGoNUucKwOg\_I3tVSaaZzECUWebMyBJTpqvpnGup\_Ci3xw7Czwm6xS47CsEbzuOy4F4TEQ\_ZCUY11QGakpcDkTfW8eyedbUETZD\_VuP8PKtkQYYWl0; expires=Sat, 21-Aug-2021 08:34:16 GMT; path=/; domain=.google.ru; Secure; HttpOnly; SameSite=none

alt-svc: h3-29=":443"; ma=2592000,h3-T051=":443"; ma=2592000,h3-Q050=":443"; ma=2592000,h3-Q046=":443"; ma=2592000,h3-Q043=":443"; ma=2592000,quic=":443"; ma=2592000; v="46,43"

accept-ranges: none

vary: Accept-Encoding

Вывод: потребовалось обратиться по адресу <https://www.google.ru/?gws_rd=ssl>. Гугл перешел на версию HTTP/2. На первой итерации в ответе отсутствовали заголовки X-\*, Content-Length, Server, Via, Connection.

4) curl -v -i http://ya.ru -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36"

[Trying 87.250.250.242:80...](https://ya.ru/)

\* TCP\_NODELAY set

\* Connected to ya.ru (87.250.250.242) port 80 (#0)

> GET / HTTP/1.1

> Host: ya.ru

> Accept: \*/\*

> User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36

\* Mark bundle as not supporting multiuse

HTTP/1.1 302 Found

Cache-Control: no-cache,no-store,max-age=0,must-revalidate

Content-Length: 0

Date: Wed, 17 Feb 2021 18:31:55 GMT

Expires: Wed, 17 Feb 2021 18:31:56 GMT

Last-Modified: Wed, 17 Feb 2021 18:31:56 GMT

Location: https://ya.ru/

P3P: policyref="/w3c/p3p.xml", CP="NON DSP ADM DEV PSD IVDo OUR IND STP PHY PRE NAV UNI"

Set-Cookie: yandexuid=1325560521613586715; Expires=Sat, 15-Feb-2031 18:31:55 GMT; Domain=.ya.ru; Path=/; Secure; SameSite=None

Set-Cookie: yuidss=1325560521613586715; Expires=Sat, 15-Feb-2031 18:31:55 GMT; Domain=.ya.ru; Path=/; Secure; SameSite=None

Set-Cookie: is\_gdpr=0; Path=/; Domain=.ya.ru; Expires=Fri, 17 Feb 2023 18:31:55 GMT; SameSite=None; Secure

Set-Cookie: is\_gdpr\_b=COuhXRCtHigC; Path=/; Domain=.ya.ru; Expires=Fri, 17 Feb 2023 18:31:55 GMT; SameSite=None; Secure

X-Content-Type-Options: nosniff

5) curl -v -i https://ya.ru -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36"

Trying 87.250.250.242:443...

\* TCP\_NODELAY set

\* Connected to ya.ru (87.250.250.242) port 443 (#0)

\* ALPN, offering h2

\* ALPN, offering http/1.1

\* successfully set certificate verify locations:

\* CAfile: /etc/ssl/certs/ca-certificates.crt

CApath: /etc/ssl/certs

\* TLSv1.3 (OUT), TLS handshake, Client hello (1):

\* TLSv1.3 (IN), TLS handshake, Server hello (2):

\* TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):

\* TLSv1.3 (IN), TLS handshake, Certificate (11):

\* TLSv1.3 (IN), TLS handshake, CERT verify (15):

\* TLSv1.3 (IN), TLS handshake, Finished (20):

\* TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1):

\* TLSv1.3 (OUT), TLS handshake, Finished (20):

\* SSL connection using TLSv1.3 / TLS\_AES\_256\_GCM\_SHA384

\* ALPN, server accepted to use http/1.1

\* Server certificate:

\* subject: C=RU; L=Moscow; OU=ITO; O=Yandex LLC; CN=\*.xn--d1acpjx3f.xn--p1ai

\* start date: Oct 1 06:10:46 2020 GMT

\* expire date: Apr 1 06:10:46 2021 GMT

\* subjectAltName: host "ya.ru" matched cert's "ya.ru"

\* issuer: C=RU; O=Yandex LLC; OU=Yandex Certification Authority; CN=Yandex CA

\* SSL certificate verify ok.

> GET / HTTP/1.1

> Host: ya.ru

> Accept: \*/\*

> User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36

\* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

\* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

\* old SSL session ID is stale, removing

\* Mark bundle as not supporting multiuse

HTTP/1.1 200 Ok

Accept-CH: Viewport-Width, DPR, Device-Memory, RTT, Downlink, ECT

Accept-CH-Lifetime: 31536000

Cache-Control: no-cache,no-store,max-age=0,must-revalidate

Content-Length: 59169

Content-Security-Policy: child-src 'self' blob: mc.yandex.md mc.yandex.ru;connect-src mc.admetrica.ru mc.yandex.ru wss://webasr.voicetech.yandex.net yandex.ru;default-src 'none';img-src 'self' \*.verify.yandex.ru avatars.mds.yandex.net data: favicon.yandex.net mc.admetrica.ru mc.yandex.com mc.yandex.ru yandex.ru yastatic.net;report-uri https://csp.yandex.net/csp?project=morda&from=morda.yaru.ru&showid=1613723791.2383.102892.513920&h=stable-morda-yaru-man-yp-12&csp=new&date=20210219&yandexuid=7403119361613723791;script-src 'nonce-K1aCTgrLMbzgdzBV6pD7UA==' mc.yandex.ru yandex.ru yastatic.net;style-src 'unsafe-inline'

Content-Type: text/html; charset=UTF-8

Date: Fri, 19 Feb 2021 08:36:31 GMT

Expires: Fri, 19 Feb 2021 08:36:31 GMT

Last-Modified: Fri, 19 Feb 2021 08:36:31 GMT

P3P: policyref="/w3c/p3p.xml", CP="NON DSP ADM DEV PSD IVDo OUR IND STP PHY PRE NAV UNI"

Set-Cookie: yp=1616315791.ygu.1; Expires=Mon, 17-Feb-2031 08:36:31 GMT; Domain=.ya.ru; Path=/; Secure; SameSite=None

Set-Cookie: mda=0; Expires=Sat, 19-Jun-2021 08:36:31 GMT; Domain=.ya.ru; Path=/

Set-Cookie: yandex\_gid=50; Expires=Sun, 21-Mar-2021 08:36:31 GMT; Domain=.ya.ru; Path=/; Secure; SameSite=None

Set-Cookie: yandexuid=7403119361613723791; Expires=Mon, 17-Feb-2031 08:36:31 GMT; Domain=.ya.ru; Path=/; Secure; SameSite=None

Set-Cookie: yuidss=7403119361613723791; Expires=Mon, 17-Feb-2031 08:36:31 GMT; Domain=.ya.ru; Path=/; Secure; SameSite=None

Set-Cookie: is\_gdpr=0; Path=/; Domain=.ya.ru; Expires=Sun, 19 Feb 2023 08:36:31 GMT; SameSite=None; Secure

Set-Cookie: is\_gdpr\_b=COuhXRDTHigC; Path=/; Domain=.ya.ru; Expires=Sun, 19 Feb 2023 08:36:31 GMT; SameSite=None; Secure

Set-Cookie: i=taONTgZx4xdgzCSCN/J/Y/krNVXEeu0A5bBMtKJLvR5JBfOugVtUG+i7PM9kZqq/MsgIpizBfhGyAYP05iqLLvT7H6s=; Expires=Sun, 19-Feb-2023 08:36:31 GMT; Domain=.ya.ru; Path=/; Secure; HttpOnly; SameSite=None

X-Content-Type-Options: nosniff

X-Frame-Options: DENY

Вывод: потребовалось обратиться по адресу [https://ya.ru](https://ya.ru/), ответ полностью идентичен ответу на запрос без подстановки браузера.

Задание 3

GET-запросом:

curl -v -i www.google.ru

Trying 173.194.73.94:80...

\* TCP\_NODELAY set

\* Connected to www.google.ru (173.194.73.94) port 80 (#0)

> GET / HTTP/1.1

> Host: www.google.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

\* Mark bundle as not supporting multiuse

HTTP/1.1 200 OK

Date: Fri, 19 Feb 2021 08:46:57 GMT

Expires: -1

Cache-Control: private, max-age=0

Content-Type: text/html; charset=windows-1251

P3P: CP="This is not a P3P policy! See g.co/p3phelp for more info."

Server: gws

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

Set-Cookie: 1P\_JAR=2021-02-19-08; expires=Sun, 21-Mar-2021 08:46:57 GMT; path=/; domain=.google.ru; Secure

Set-Cookie: NID=209=Ybt5YlVN59XsDomrFxKF0HWcRbll35aONsm3Ryc0VUliS0N8HoYO8P7F20h2ZXIVAFJjGkXhB2a\_RojUs5goiRW3T-DrwzYK9vorXEZXX-5seISv6VzyB3WKP2xf09WL03aUorKBoRxl5gM-XOzvT0sFX1sJkCB12kSyHlEYTk8; expires=Sat, 21-Aug-2021 08:46:57 GMT; path=/; domain=.google.ru; HttpOnly

Accept-Ranges: none

Vary: Accept-Encoding

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Transfer-Encoding: chunked

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

HEAD-запросом:

curl -v -i -I www.google.ru

Trying 173.194.73.94:80...

\* TCP\_NODELAY set

\* Connected to www.google.ru (173.194.73.94) port 80 (#0)

> HEAD / HTTP/1.1

> Host: www.google.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

\* Mark bundle as not supporting multiuse

HTTP/1.1 200 OK

Content-Type: text/html; charset=windows-1251

P3P: CP="This is not a P3P policy! See g.co/p3phelp for more info."

Date: Fri, 19 Feb 2021 08:48:32 GMT

Server: gws

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

Expires: Fri, 19 Feb 2021 08:48:32 GMT

Cache-Control: private

Set-Cookie: 1P\_JAR=2021-02-19-08; expires=Sun, 21-Mar-2021 08:48:32 GMT; path=/; domain=.google.ru; Secure

Set-Cookie: NID=209=iirhQVfgAZiJ2MYrZvYLYbBoh8s-8gwXvjaAytoCKhg\_Cuc5WTC5HnWmY\_UvWVDar3CnPFh1Gpi4jc48UNODD\_DM3xSNFhVhPAyHZKNK6BZ9Bbc3eUzE9PigPDJoe88LltEe-UgQYMNqwbSESGo6x6v5\_ZIChMQgGIAcj9xnO4Y; expires=Sat, 21-Aug-2021 08:48:32 GMT; path=/; domain=.google.ru; HttpOnly

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

Отличающиеся заголовки: Expires, Cache-Control, Accept-Ranges, Vary, Transfer-Encoding. HEAD-запрос не предполагает получение контента, он предназначен для получения состояния возможности соединения.

Задание 4

GET-запросом:

curl -X GET -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36" -i [www.google.ru](http://www.google.ru/)

HTTP/1.1 302 Found

Location: https://www.google.ru/?gws\_rd=ssl

Cache-Control: private

Content-Type: text/html; charset=UTF-8

Date: Mon, 08 Feb 2021 14:42:35 GMT

Server: gws

Content-Length: 230

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

Set-Cookie: 1P\_JAR=2021-02-08-14; expires=Wed, 10-Mar-2021 14:42:35 GMT; path=/; domain=.google.ru; Secure; SameSite=none

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

HEAD-запросом:

curl -X HEAD -H "User-Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 11\_0\_1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.96 Safari/537.36" -i [www.google.ru](http://www.google.ru/)

HTTP/1.1 200 OK

Content-Type: text/html; charset=UTF-8

Date: Mon, 08 Feb 2021 14:44:30 GMT

Server: gws

X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

Expires: Mon, 08 Feb 2021 14:44:30 GMT

Cache-Control: private

Set-Cookie: 1P\_JAR=2021-02-08-14; expires=Wed, 10-Mar-2021 14:44:30 GMT; path=/; domain=.google.ru; Secure; SameSite=none

X-Cache: MISS from proxy-10

X-Cache-Lookup: MISS from proxy-10:3128

Via: 1.1 proxy-10 (squid/4.6)

Connection: keep-alive

Отличающиеся заголовки: Content-Length, Location. Ответ на GET-запрос содержит перенаправление и html-контент с сылкой для старых браузеров.

Задание 5

[http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2#loc](http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2" \l "loc)

здесь

URI: [http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2#loc](http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2" \l "loc)

URL: [http://i-ts.sirius-systems.ru/req.shtml](http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2" \l "loc)

URN: [i-ts.sirius-systems.ru/req.shtml](http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2" \l "loc)

Query string: ?[param1=val1&param2=val2](http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2" \l "loc)

Fragment: #[loc](http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2" \l "loc)

Задание 6

1) curl -i -v -X GET "http://i-ts.sirius-systems.ru/req.shtml?param1=val1&param2=val2"

Trying 194.12.56.4:80...

\* TCP\_NODELAY set

\* Connected to i-ts.sirius-systems.ru (194.12.56.4) port 80 (#0)

> GET /req.shtml?param1=val1&param2=val2 HTTP/1.1

> Host: i-ts.sirius-systems.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

- GET-запрос с параметрами к хосту i-ts.sirius-systems.ru

\* Mark bundle as not supporting multiuse

HTTP/1.1 200 OK

Server: nginx

Date: Wed, 17 Feb 2021 18:18:10 GMT

Content-Type: text/html; charset=utf-8

Transfer-Encoding: chunked

Connection: keep-alive

- 200 – соединение успешно, сервер на nginx, MIME-тип содержимого text/html в кодировке UTF-8, описание размера тела ответа не требуется, HTTP-соединение постоянное.

2) curl -i -v -X POST -d "aram1=val1&param2=val2" "http://i-ts.sirius-systems.ru/req.shtml"

Trying 194.12.56.4:80...

\* TCP\_NODELAY set

\* Connected to i-ts.sirius-systems.ru (194.12.56.4) port 80 (#0)

> POST /req.shtml?param1=val1&param2=val2 HTTP/1.1

> Host: i-ts.sirius-systems.ru

> User-Agent: curl/7.68.0

> Accept: \*/\*

> Content-Length: 22

> Content-Type: application/x-www-form-urlencoded

- POST-запрос с параметрами к хосту i-ts.sirius-systems.ru, длина содержимого запроса 22, MIME-тип содержимого application/x-www-form-urlencoded

\* Mark bundle as not supporting multiuse

HTTP/1.1 405 Not Allowed

Server: nginx

Date: Wed, 17 Feb 2021 18:18:47 GMT

Content-Type: text/html; charset=utf-8

Transfer-Encoding: chunked

Connection: keep-alive

- 405 – запрос запрещен, сервер на nginx, MIME-тип содержимого text/html в кодировке UTF-8, описание размера тела ответа не требуется, HTTP-соединение постоянное.

Задание 8

Браузер выполнил 3 запроса:

1) получение содержимого страницы;

2) загрузка картинки по ссылке в html-документе, она встречается несколько раз, но загружается лишь один.

3) загрузка иконки страницы — error 404

Задание 9

3 картинки из 11 загрузились.

Для запросов на 8 картинок был отправлен ответ с 429 ошибкой, которая говорит о слишком большом количестве запросос в один момент, что может говорить о ddos-атаке.