Arbeitsblatt – **HTTP**   Klasse: Name:

Arbeitsauftrag:

1. Erläutern Sie den Unterschied zwischen der GET und der HEAD Methode.

2. Markieren Sie weitere "Befehle", die der Client an den Server schicken kann.

3. Betrachten Sie die folgende client-to-server HTTP GET Nachricht:

(a) Nennen Sie den Namen der Datei, die durch die GET Nachricht angefordert wird.
(b) Nennen Sie die HTTP-Version, die der Client benutzt.
(c) Wahr oder falsch: Der Client akzeptiert html-Dateien.
(d) Wahr oder falsch: Der Client akzeptiert jpeg-Grafiken.
(e) Wahr oder falsch: Der Client akzeptiert die Sprache Deutsch.
(f) Erklären Sie die Bedeutung der folgenden Felder.
    ○ Host
    ○ IF-Modified-Since
    ○ User Agent

```
GET /kurose_ross_sandbox/interactive/quotation1.htm HTTP/1.1
Host: gaia.cs.umass.edu
Accept: text/plain, text/html, text/xml, image/png, image/gif, audio/vnf.wave,
audio/basic, video/mp4, video/wmv,
Accept-Language: en-us, en-gb;q=0.2, en;q=0.5, fr, fr-ch, zh, da, ar
If-Modified-Since: Tue, 13 Oct 2020 10:45:58 -0700
User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/535.19 (KHTML, like
Gecko) Chrome/18.0.1025.162 Safari/535.19
```

Quelle: http://gaia.cs.umass.edu/kurose_ross/interactive/http-get.php

Auszug aus **RFC 2616: "Hypertext Transfer Protocol -- HTTP/1.1"**, 1999, 176 Pages

3 Protocol Parameters

3.1 HTTP Version

[…]

```
The version of an HTTP message is indicated by an HTTP-Version field
in the first line of the message.

     HTTP-Version   = "HTTP" "/" 1*DIGIT "." 1*DIGIT
```
[…]

5.1.1 Method

```
   The Method  token indicates the method to be performed on the
   resource identified by the Request-URI. The method is case-sensitive.

       Method              = "OPTIONS"                ; Section 9.2
                           | "GET"                    ; Section 9.3
                           | "HEAD"                   ; Section 9.4
                           | "POST"                   ; Section 9.5
                           | "PUT"                    ; Section 9.6
                           | "DELETE"                 ; Section 9.7
                           | "TRACE"                  ; Section 9.8
                           | "CONNECT"                ; Section 9.9
                           | extension-method
     extension-method = token
```
[…]

5.3 Request Header Fields

```
   The request-header fields allow the client to pass additional
```

information about the request, and about the client itself, to the
server. These fields act as request modifiers, with semantics
equivalent to the parameters on a programming language method
invocation.

```
request-header = Accept                    ; Section 14.1
               | Accept-Charset            ; Section 14.2
               | Accept-Encoding           ; Section 14.3
               | Accept-Language           ; Section 14.4
               | Authorization             ; Section 14.8
               | Expect                    ; Section 14.20
               | From                      ; Section 14.22
               | Host                      ; Section 14.23
               | If-Match                  ; Section 14.24
               | If-Modified-Since         ; Section 14.25
               | If-None-Match             ; Section 14.26
               | If-Range                  ; Section 14.27
               | If-Unmodified-Since       ; Section 14.28
               | Max-Forwards              ; Section 14.31
               | Proxy-Authorization       ; Section 14.34
               | Range                     ; Section 14.35
               | Referer                   ; Section 14.36
               | TE                        ; Section 14.39
               | User-Agent                ; Section 14.43
```

[…]

9.3 GET

The GET method means retrieve whatever information (in the form of an
entity) is identified by the Request-URI. […]

9.4 HEAD

The HEAD method is identical to GET except that the server MUST NOT
return a message-body in the response. […]

14.23 Host

The Host request-header field specifies the Internet host and port
number of the resource being requested, […]

```
Host = "Host" ":" host [ ":" port ] ; Section 3.2.2
```

A "host" without any trailing port information implies the default
port for the service requested (e.g., "80" for an HTTP URL). […]

14.25 If-Modified-Since

The If-Modified-Since request-header field is used with a method to
make it conditional: if the requested variant has not been modified
since the time specified in this field, an entity will not be
returned from the server; instead, a 304 (not modified) response will
be returned without any message-body. […]

14.43 User-Agent

The User-Agent request-header field contains information about the
user agent originating the request. This is for statistical purposes,
the tracing of protocol violations, and automated recognition of user
agents for the sake of tailoring responses to avoid particular user
agent limitations. […]