

Problem 1

Request to a HTML page

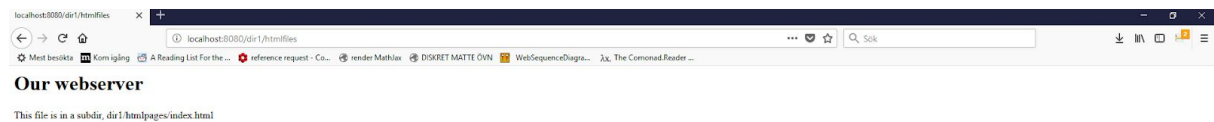


A screenshot of the browser's developer tools, specifically the Network tab. It shows a single request to 'localhost:8080/' with a status of 200 and a method of GET. The response size is 68 B.

Status	Method	File	Domain	Orsak	Typ	Överfört	Storlek	0 ms	80 ms	160 ms	240 ms	320 ms
200	GET	/	localhost:8080	document	html	68 B	24 B	1 ms				

Above is a image of when a GET request is sent to the root directory of the server and as expected the server returns a 200OK response together with the index.html page.

Request to a subdirectory



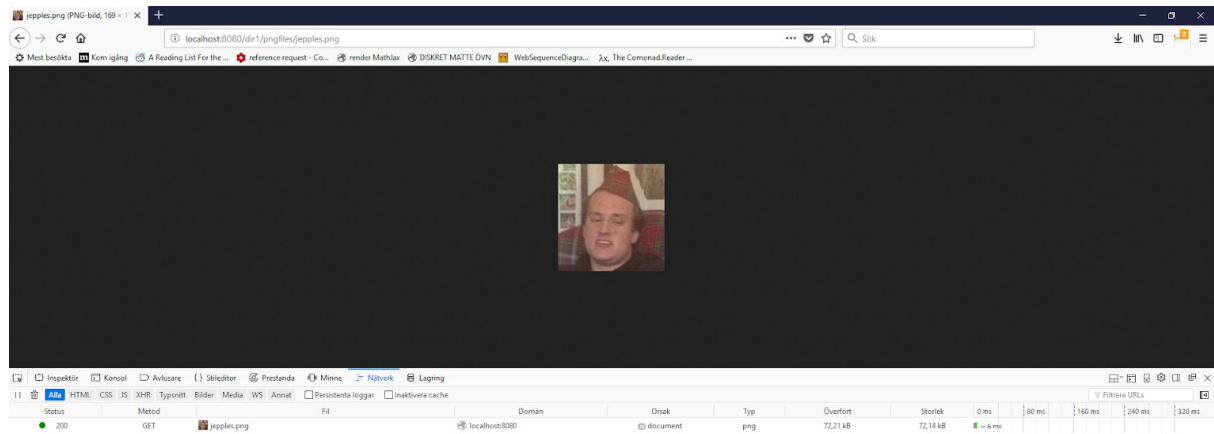
A screenshot of the browser's developer tools, specifically the Network tab. It shows a single request to 'localhost:8080/dir1/htmlfiles' with a status of 200 and a method of GET. The response size is 148 B.

Status	Method	File	Domain	Orsak	Typ	Överfört	Storlek	0 ms	80 ms	160 ms	240 ms	320 ms
200	GET	/htmlfiles	localhost:8080	document	html	148 B	84 B	1 ms				

Above is an image of when a GET request is sent to a subdirectory containing a .html file which also returns a 200OK response together with the index.html page of that directory.

Oskar Mendel, Jesper Bergström
Student id: om222dq, jb223qe
Student mail: om222dq@student.lnu.se, jb223qe@student.lnu.se

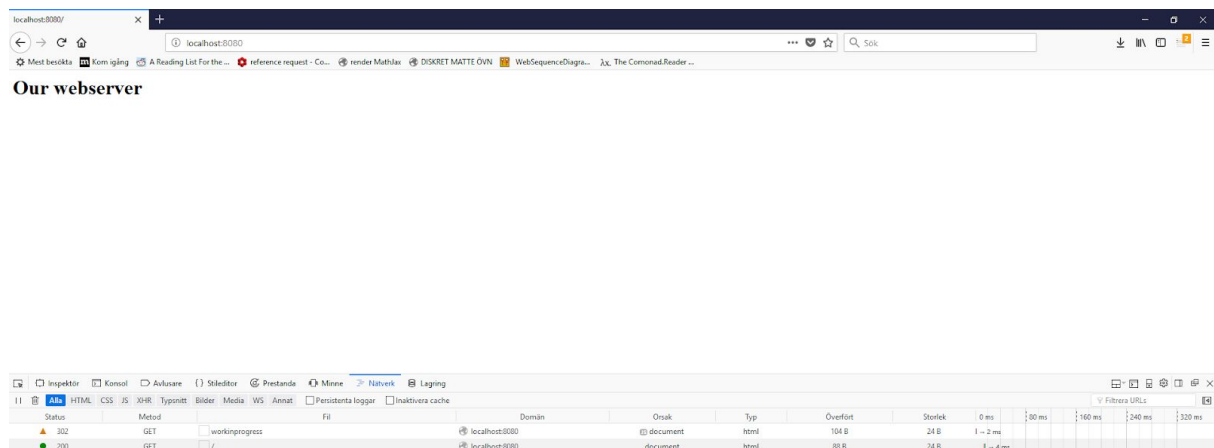
Request to a png file



Above is the result of when a GET request is sent together with a path to a .png image and the result is the image being sent back to the client and displayed in the browser.

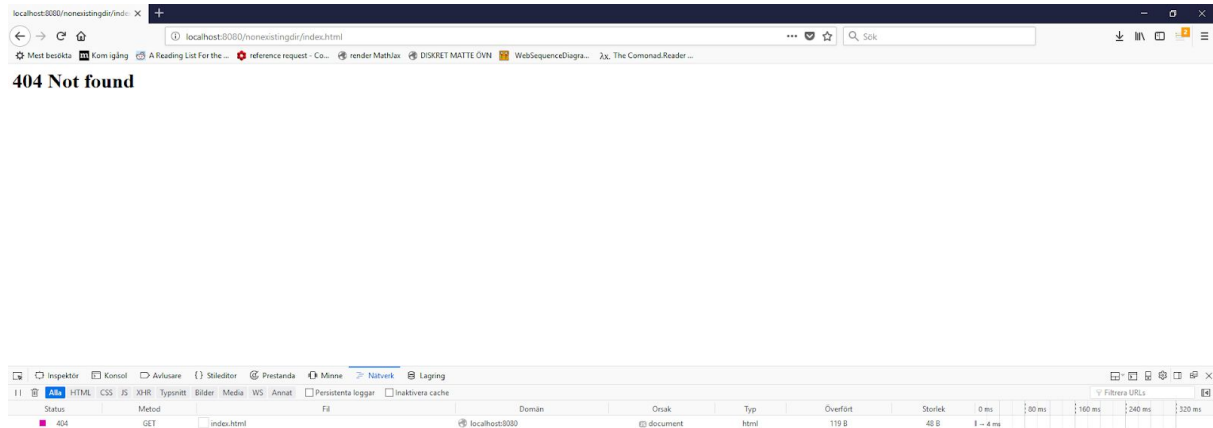
Problem 2

302 Response

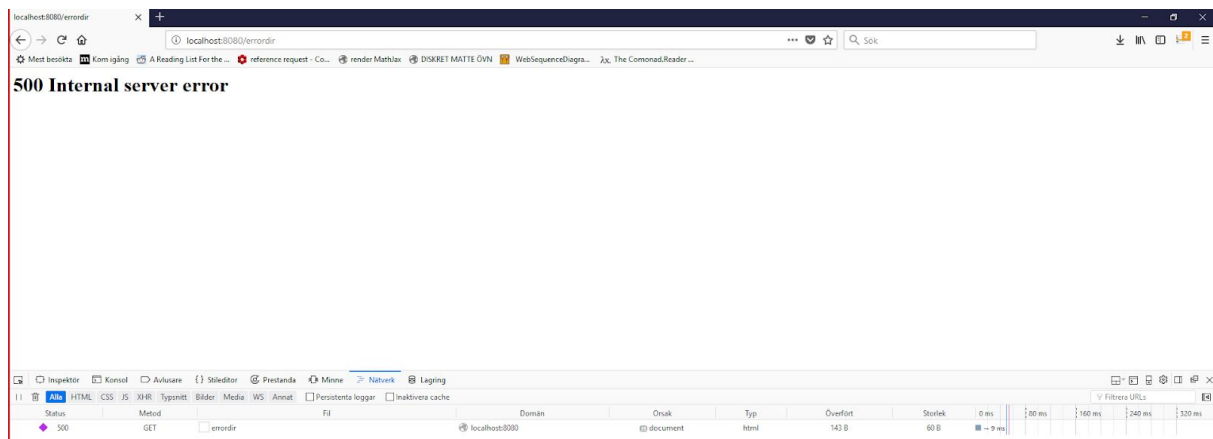


Oskar Mendel, Jesper Bergström
Student id: om222dq, jb223qe
Student mail: om222dq@student.lnu.se, jb223qe@student.lnu.se

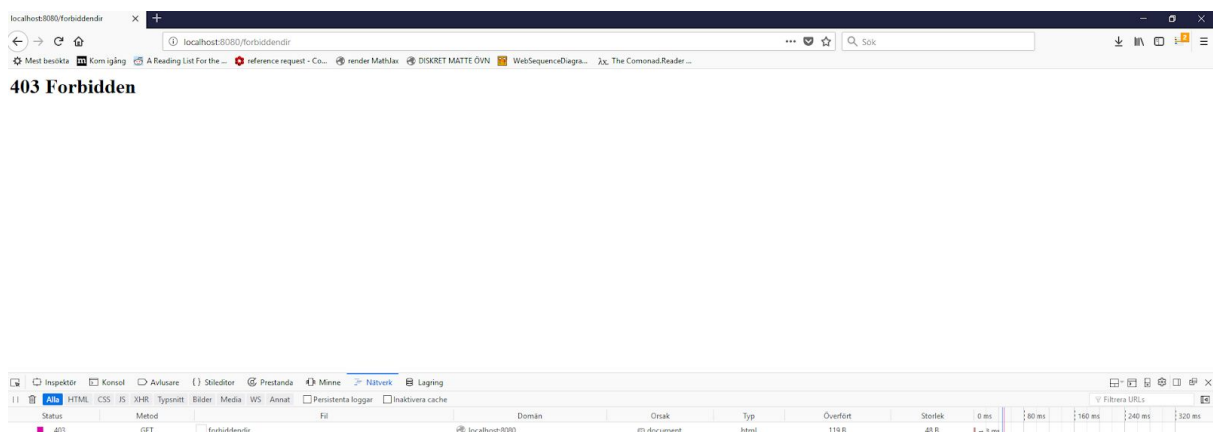
404 Response



500 Response

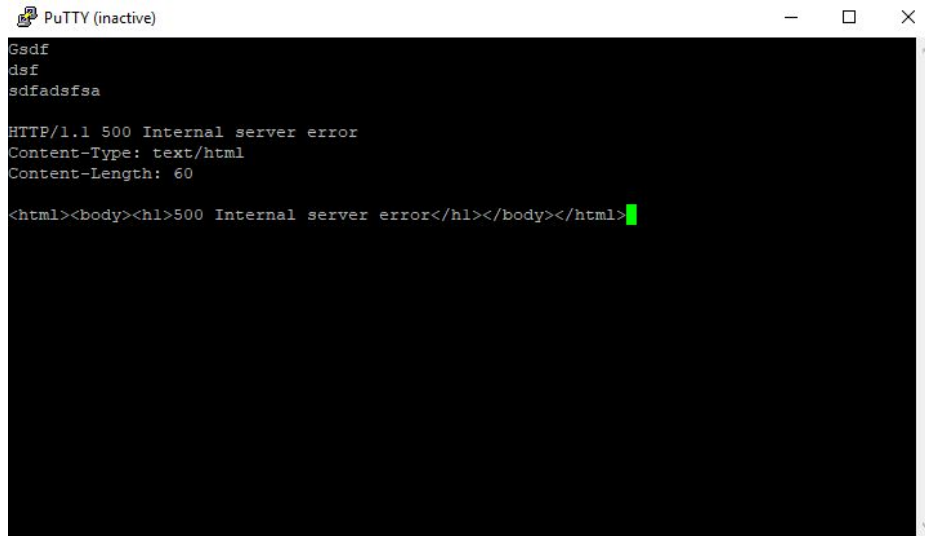


403 Response



Problem 3

Putty 500 Response



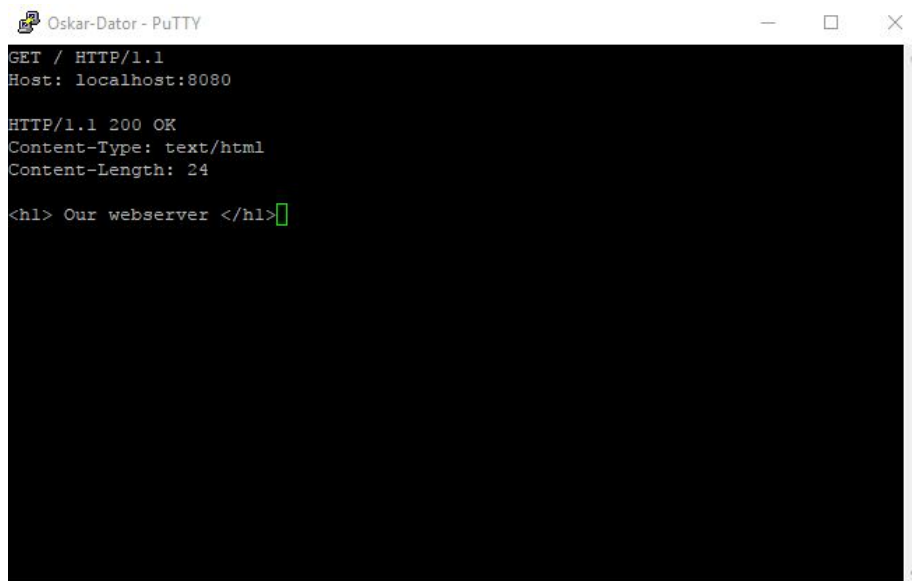
```
PuTTY (inactive)
Gsdif
dsf
sdfadsfsa

HTTP/1.1 500 Internal server error
Content-Type: text/html
Content-Length: 60

<html><body><h1>500 Internal server error</h1></body></html>
```

A request full of jargon is sent to the server which the server cannot process and a HTTP response of code 500 is returned to the client.

Putty 200 Response



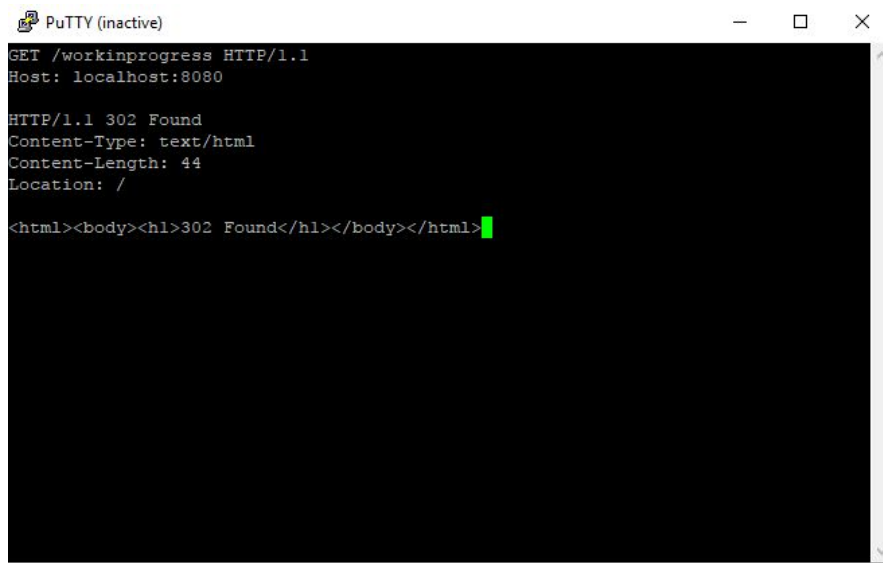
```
Oskar-Dator - PuTTY
GET / HTTP/1.1
Host: localhost:8080

HTTP/1.1 200 OK
Content-Type: text/html
Content-Length: 24

<h1> Our webserver </h1>
```

A valid GET request is sent to the root directory of the server and the contents of the index.html page is returned to the client as a response together with the response code 200 OK.

Putty 302 Response



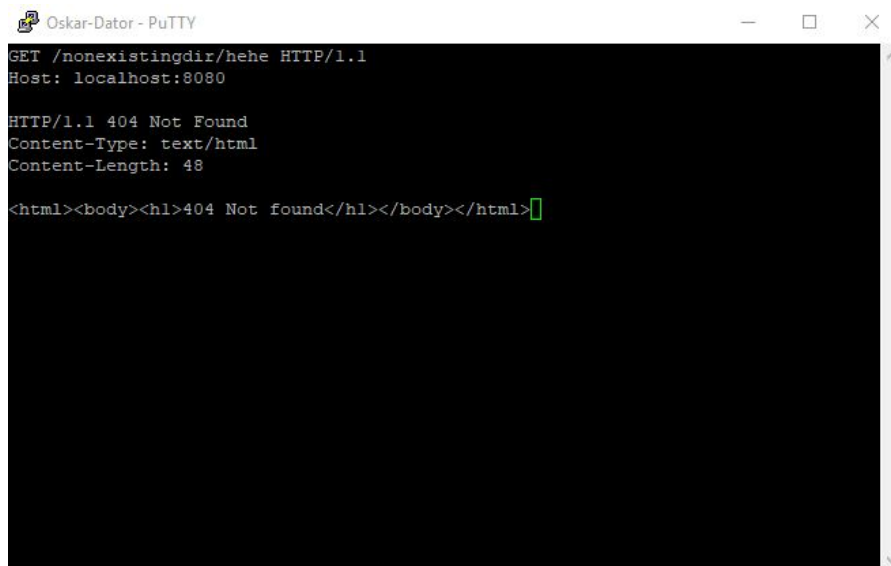
```
PuTTY (inactive)
GET /workingprogress HTTP/1.1
Host: localhost:8080

HTTP/1.1 302 Found
Content-Type: text/html
Content-Length: 44
Location: /

<html><body><h1>302 Found</h1></body></html>
```

A GET request is sent to a URL marked to be under construction or maintenance and the response is returned with HTTP code 302 Found and the client is redirected like displayed in the browser images above.

Putty 404 Response



```
Oskar-Dator - PuTTY
GET /nonexistingdir/hehe HTTP/1.1
Host: localhost:8080

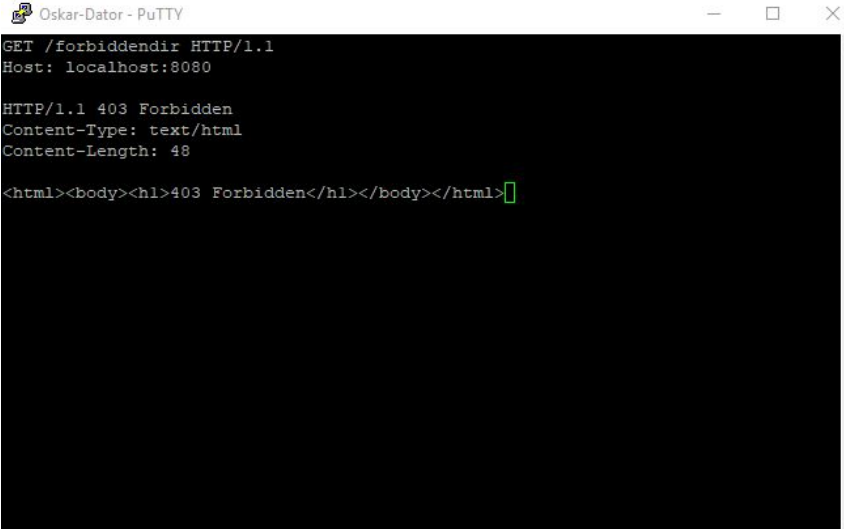
HTTP/1.1 404 Not Found
Content-Type: text/html
Content-Length: 48

<html><body><h1>404 Not found</h1></body></html>
```

A GET request is sent to an invalid or non-existing URL and the response is HTTP code 404.

Oskar Mendel, Jesper Bergström
Student id: om222dq, jb223qe
Student mail: om222dq@student.lnu.se, jb223qe@student.lnu.se

Putty 403 Response

A screenshot of a PuTTY terminal window titled "Oskar-Dator - PuTTY". The terminal displays the output of an HTTP GET request to "/forbiddendir" on localhost:8080. The response is an HTTP 403 Forbidden status. The headers shown are "HTTP/1.1 403 Forbidden", "Content-Type: text/html", and "Content-Length: 48". The body of the response is an HTML document with a single line: "<html><body><h1>403 Forbidden</h1></body></html>". The terminal has a black background with white text. The window title bar shows standard Windows controls (minimize, maximize, close) and the PuTTY logo.

```
Oskar-Dator - PuTTY
GET /forbiddendir HTTP/1.1
Host: localhost:8080

HTTP/1.1 403 Forbidden
Content-Type: text/html
Content-Length: 48

<html><body><h1>403 Forbidden</h1></body></html>
```

A GET request is sent to a forbidden directory or URL and the server responds with the HTTP code 403.

Putty PNG Response

A screenshot of a PuTTY window titled "PuTTY (inactive)". The terminal shows an HTTP GET request from localhost:8080 to /dir1/pngfiles/jepplles.png. The server responds with status 200 OK, Content-Type: image/png, and Content-Length: 73871. Below the headers, it displays "PNG" followed by the start of a PNG file header (IHDR) and some garbled data. At the bottom, there's more garbled text starting with "R@v YG # s l c -".

```
PuTTY (inactive)  
  
GET /dir1/pngfiles/jepplles.png HTTP/1.1  
Host: localhost:8080  
  
HTTP/1.1 200 OK  
Content-Type: image/png  
Content-Length: 73871  
  
PNG  
  
IHDR Ao sRGB gAMA  
GWeee% b \w9333333 ffeUu/Y ~ F 5 ? csUm _? a U l u i  
6Pe = ?_i} 62 cc 9 e MQd)} n 6?_g [= w+ U ?mf~ b? n+ ;"ZV}  
  
{gT^}} h m & V { -w . { c _> { o Z r z } ] . : ^ 7 L e _ ? h M ; V  
g +%n /oX 7 k L ll [ /c f d + \ (?e O A ! Y ~o - h p88  
N c o4a Fxl ~  
wl i > , & ; Z ; l J [, Tk V j 0 j * g Y {} r U 5 I / 93 z  
{7 X2 (e v c  
-w iK  
`k p k  
k Wf 6Pg ~ ?Z M : ' fm r :: ? z  
lp & g + li  
  
R @v YG # s l c -  
) ` a H x f # @ H ? W [ i ; ; z ; K ; = sY v f s f [#5 7 ^ j} z_b - ' %x r` ==
```

When a request is sent to a PNG image through putty the response is the contents of the file in raw format. Bellow is an image of when the file is opened through a text editor and you can notice some similarities between keywords that the putty client was able to read.

```
1 %PNG
2 SUB
3 NULNULNUL
4 IHDRNULNULNUL©NULNULNUL*BSACKNULNULNULÖAoNULNULNULSOHsRGBNUL©íFSéNULNULNULEOTgAN
5 èl0è-GWeee%U¼DLEDC4bACK—iSTXw9333333œEMASOHEtBöffeUu×/Yyli~âFYñö±5iUS?Çicsl'm'Ü'²üaÖbðÇUüýçl
6 6-Pe£âENQO?i)ýEM625ccâ9ÖÜDC2eMDC1ÖÜ•dj}éÖÜ'n££A6? gÜ[-œä~ýpw+@pøüUü+?mØY~»b?¼±Å%SUB+ìð-Öðü
7 ¾gÜT^È)+BSjh·ñlm'&IV(EmüçÑb-wÜÜA{çÜci_+ÜüÖ>{-ÖoUSÖBELjyZßér½YÇz]½j±*.;^è7ÖäL«GSjµÜDC1µ?Üh±Öí¶;Vg+=
8 éSOHÖi(7¥ENQXVTE¶DLEw»-+iKSI²oCE`èÉFF±b¼4He+²iÜpeÉ ¶BSkî
9 ³-→kiEF¶i-kiSOjµÖWÖ-GSff¥ñ6PDC2gç~ýÇ×ð»?PizETXÖMüÖü:XiBEL"USfmr@b:üó~»?ßzBELV¶p'É&g+li¥Ž²SOHÖ
10 >™-µÜ'R'¶iETXiEOT@vöøYGBE¶²#NAK'sla¼4b²4EM-US%4_pð±ßç¶¶y—MüÄSiköel'-CEW¶iÖ+Kzhü O-i©äEyyNØETXiE
11 }üaSI-€*Hxf#@üSUBH+ølp`ðf ÖNAK äð;ACKéSOHK½j[-ENQsYENQ'iv Ðf±s-ðf±DC3A»GS-[#5¶7¶ij} Äzb-ðø%X_r'
12 c-?Ö.€²·ÖSOH·çmäv{~.uóbi@Ü-NAKjyDC1Ö_FSkçbEOTSTXðÇ? fÄü=²üáÇ%0RSéb z£SÖVB'b-iÖÖ—kYETX9Ö7"KC#
13
14 ±ÜÜœhDC3äNAKv"²ð¼USbOÜü?NEßiÜ»fQ,US«¶ðœ@É~EOT»>—USëm...1bV(DLEðð
15 #¼-0œ
16 }dNAKñ@Š2~ð"ÜpxÄOJüSOHHßé¶@EAENQ²è-Ð
17 ÖSIESCÜ —ÉoÜ»×YoACKhßSTXiäl«SRÄzÄð.üRÖÄjBVf,e¼¼éDC4T@
18 P@|-°-Ç¥±STXU:Ujvîr^U'V~ü'üFS'DÄRøQcQžèš6QnYNUlðj@üš-qüÖö.yagÜ~Ü™°ßç²RSHßm
19 9P?STXjy'è'ð·Cö=ßä=ESCÜ»ENULo¶™ACKð±z:SOHÖ'Ñ:RSQµYb2¶jÉáy¥ZW~,USTXU1[ESCb)¶l'ès }ñÄSOÖÈ8©.€8
20 zEOTroSYN)iXKµý%ACK[i.fEt:ðÖÜÄi~n1S¶CANENQOÜ»ÖÖæ¥¶jéNUL-èŽä<»näÄ~9Dj"YZSYN-²zß²FSç[VDC3üi&²Öi
21 üÜDC3ðUSü3ðNULyDC1Py€GSøÖÜyüiN¶}ØGS±{föžuü'pÜiwQU)éçJDC3ESC(CANj=ÝÇSQÖZ,RS¥áETXé¶l...4dÜ
22 KðBSüð,ÖyÉJøCEEäOxœ×$<$â?wÉ+·eEOTðZ¶y¼ÖšÜNULSÜFFL5)¶ñi
23 µFZ~5âjDC2-™ÄÖžGSäZjVIESC @ÖmÜ(CANmY'i+IE&BSRÜBEL¶f"~f'+?ÜzX²äYüðä²²b?þÉšýñç_oÜçYñßý×lBtÇŽßiÜð"ç
24 dZ[{ç54XumEOTjsËy4[ESCUS]²7cöy+sðñÖCEýoÄ,jzVIT²»c¶¶SI@3CUVÉÉiŽáG¶¶SOHw, #,VUSZj]²%FaSOH"ZX9¶¶e²-→VØix"
25 Pjü«²Éð²)äqSORO-P[EMÉ-Hiyc
26 üyY7i¶?ç£;Öy²oülpCüðçGSð±+6çÖafÄNAK64Zi#äU6CESUBj,ÖÜøtNAK(RSU>5ETBESCj-VUETBèMml66YJS²·Öf5hèJS
```

Image of the same PNG file opened in Putty but in a text editor.