Linux exercise 5-Editors and utilities

1. Create the tar archive from dir2 directory created in previous exercise (Linux exercise 4 - Basic commands) and compress it using gzip.

```
jean@jean:~/h1$ sudo tar -cf dir_2.tar dir_2
[sudo] password for jean:
jean@jean:~/h1$ ls
dir_1  dir_2  dir_2.tar  dir_3
jean@jean:~/h1$ gzip dir_2.tar
gzip: dir_2.tar.gz: Permission denied
jean@jean:~/h1$ sudo gzip dir_2.tar
jean@jean:~/h1$ ls
dir_1  dir_2  dir_2.tar.gz  dir_3
jean@jean:~/h1$ _
```

2. Open one of the files you have created earlier with text editor of your choice. Add text to the file and save it with different name.

```
jean@jean:~$ nano jean.txt_
```

```
  GNU nano 4.8
This is my first nano file
adding a new text_
```

```
File Name to Write: jean_renamed.txt
^G Get Help          M-D DOS Format        M-A Append        M-B Backup File
^C Cancel            M-M Mac Format        M-P Prepend       ^T To Files
```

```
jean@jean:~$ ls
h1  jean.txt  jean_renamed.txt
jean@jean:~$ _
```

3. Open some file using less command. Find out how search feature works in less command.

```
jean@jean:~$ ls
extracted_apache  funetpage.html  h1  httpd-2.4.46.tar.gz  jean.txt  jean_renamed.txt
jean@jean:~$ less funetpage.html_
```

4. Download and extract the Apache web server package: Apache web server.(I couldn't

    see the provided link for apache download so I downloaded from another source.)

5. Use Vim editor in this task. Open CHANGES file from extracted Apache web server

    directory and add this line to the beginning of the file:

    1. ====== This file has been edited in *current_date* ======

    2. Save the file and print first 18 lines of the file to the command line.

```
jean@jean:~/extracted_apache$
jean@jean:~/extracted_apache$ ls
ABOUT_APACHE     CHANGES        LAYOUT        NWGNUmakefile    VERSIONING       buildconf       emacs-style   include       os
Apache-apr2.dsw  CHNAGES        LICENSE       README           acinclude.m4     config.layout   httpd.dep     libhttpd.dep  server
Apache.dsw       CMakeLists.txt Makefile.in   README.cmake     ap.d             configure       httpd.dsp     libhttpd.dsp  srclib
BuildAll.dsp     INSTALL        Makefile.win  README.platforms apache_probes.d  configure.in    httpd.mak     libhttpd.mak  support
BuildBin.dsp     InstallBin.dsp NOTICE        ROADMAP          build            docs            httpd.spec    modules       test
jean@jean:~/extracted_apache$ head -18 CHANGES

         -*- coding: utf-8 -*-
======This file has been edited in 18.06.2021======
Changes with Apache 2.4.46
  *) mod_proxy_fcgi: Fix build warnings for Windows platform
     [Eric Covener, Christophe Jaillet]

Changes with Apache 2.4.45

  *) mod_http2: remove support for abandoned http-wg draft
     <https://datatracker.ietf.org/doc/draft-kazuho-h2-cache-digest/>.
     [Stefan Eissing]

Changes with Apache 2.4.44

  *) mod_proxy_uwsgi: Error out on HTTP header larger than 16K (hard
     protocol limit).   [Yann Ylavic]

jean@jean:~/extracted_apache$ _
```

6. Open Kernel log file (/var/log/kern.log) using tail command so that new log lines are
   listed in real-time.

```
jean@jean:~$ tail /var/log/kern.log
Jun 18 18:01:48 jean kernel: [   23.057831] audit: type=1400 audit(1624039304.440:4): apparmor="STATUS" operation="profile_load" profile="unconfined" name="man_
groff" pid=534 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.074972] audit: type=1400 audit(1624039304.456:5): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr
/lib/NetworkManager/nm-dhcp-client.action" pid=535 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.074974] audit: type=1400 audit(1624039304.456:6): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr
/lib/NetworkManager/nm-dhcp-helper" pid=535 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.074975] audit: type=1400 audit(1624039304.456:7): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr
/lib/connman/scripts/dhclient-script" pid=535 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.074976] audit: type=1400 audit(1624039304.456:8): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/{,u
sr/}sbin/dhclient" pid=535 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.082441] audit: type=1400 audit(1624039304.464:9): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr
/lib/snapd/snap-confine" pid=536 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.082443] audit: type=1400 audit(1624039304.464:10): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/us
r/lib/snapd/snap-confine//mount-namespace-capture-helper" pid=536 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   23.091128] audit: type=1400 audit(1624039304.472:11): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/us
r/sbin/tcpdump" pid=537 comm="apparmor_parser"
Jun 18 18:01:48 jean kernel: [   25.046365] e1000: enp0s3 NIC Link is Up 1000 Mbps Full Duplex, Flow Control: RX
Jun 18 18:01:48 jean kernel: [   25.055792] IPv6: ADDRCONF(NETDEV_CHANGE): enp0s3: link becomes ready
jean@jean:~$ _
```

7. Examine curl program parameter through help feature. Download Funet network's wiki
   page https://fi.wikipedia.org/wiki/Funet and save the content of the page to the file (Write
   to file) called funetpage.html. Add screenshot presenting part of this file's content.

```
jean@jean:~$ ls
extracted_apache  h1  httpd-2.4.46.tar.gz  jean.txt  jean_renamed.txt
jean@jean:~$ curl https://fi.wikipedia.org/wiki/Funet > funetpage.html
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 36229  100 36229    0     0   152k      0 --:--:-- --:--:-- --:--:--  152k
jean@jean:~$ ls
extracted_apache  funetpage.html  h1  httpd-2.4.46.tar.gz  jean.txt  jean_renamed.txt
jean@jean:~$ cat funetpage.html
```

```
            <h3 id="p-lang-label" class="vector-menu-heading">
                    <span>Muilla kielillä</span>
            </h3>
            <div class="vector-menu-content">
                    <ul class="vector-menu-content-list"><li class="interlanguage-link interwiki-en"><a href="https://en.wikipedia.org/wiki/FUNET" title="FUNET – en
glanti" lang="en" hreflang="en" class="interlanguage-link-target">English</a></li><li class="interlanguage-link interwiki-uk"><a href="https://uk.wikipedia.org/
wiki/FUNET" title="FUNET – ukraina" lang="uk" hreflang="uk" class="interlanguage-link-target">Українська</a></li></ul>
                    <div class="after-portlet after-portlet-lang"><span class="wb-langlinks-edit wb-langlinks-link"><a href="https://www.wikidata.org/wiki/Special:E
ntityPage/Q4357084#sitelinks-wikipedia" title="Muokkaa kieltenvälisiä linkkejä" class="wbc-editpage">Muokkaa linkkejä</a></span></div>
            </div>
</nav>

</div>

</div>
<footer id="footer" class="mw-footer" role="contentinfo" >
        <ul id="footer-info" >
        <li id="footer-info-lastmod"> Sivua on viimeksi muutettu 1. huhtikuuta 2021 kello 17.34.</li>
        <li id="footer-info-copyright">Teksti on saatavilla <a href="//fi.wikipedia.org/wiki/Wikipedia:Creative_Commons_Attribution-Share_Alike_3.0_Unported_-li
senssiehdot">Creative Commons Attribution/Share-Alike</a> -lisenssillä; lisäehtoja voi sisältyä.
Katso <a href="//foundation.wikimedia.org/wiki/Terms_of_Use/fi">käyttöehdot</a>.<br />
Wikipedia&reg; on <a href="//wikimediafoundation.org/">Wikimedia Foundationin</a> rekisteröimä tavaramerkki.<br />
<a href="//fi.wikipedia.org/wiki/Wikipedia:Artikkelien_ongelmat">Ongelma artikkelissa?</a></li>
</ul>

        <ul id="footer-places" >
        <li id="footer-places-privacy"><a href="https://foundation.wikimedia.org/wiki/Privacy_policy" class="extiw" title="wmf:Privacy policy">Tietosuojakäytänt
ö</a></li>
        <li id="footer-places-about"><a href="/wiki/Wikipedia:Tietoja" title="Wikipedia:Tietoja">Tietoja Wikipediasta</a></li>
        <li id="footer-places-disclaimer"><a href="/wiki/Wikipedia:Vastuuvapaus" title="Wikipedia:Vastuuvapaus">Vastuuvapaus</a></li>
        <li id="footer-places-mobileview"><a href="//fi.m.wikipedia.org/w/index.php?title=Funet&amp;mobileaction=toggle_view_mobile" class="noprint stopMobileRe
directToggle">Mobiilinäkymä</a></li>
        <li id="footer-places-developers"><a href="https://www.mediawiki.org/wiki/Special:MyLanguage/How_to_contribute">Kehittäjät</a></li>
        <li id="footer-places-statslink"><a href="https://stats.wikimedia.org/#/fi.wikipedia.org">Tilastot</a></li>
        <li id="footer-places-cookiestatement"><a href="https://foundation.wikimedia.org/wiki/Cookie_statement">Evästekäytäntö</a></li>
</ul>

        <ul id="footer-icons" class="noprint">
        <li id="footer-copyrightico"><a href="https://wikimediafoundation.org/"><img src="/static/images/footer/wikimedia-button.png" srcset="/static/images/foo
ter/wikimedia-button-1.5x.png 1.5x, /static/images/footer/wikimedia-button-2x.png 2x" width="88" height="31" alt="Wikimedia Foundation" loading="lazy" /></a></l
i>
        <li id="footer-poweredbyico"><a href="https://www.mediawiki.org/"><img src="/static/images/footer/poweredby_mediawiki_88x31.png" alt="Powered by MediaWi
ki" srcset="/static/images/footer/poweredby_mediawiki_132x47.png 1.5x, /static/images/footer/poweredby_mediawiki_176x62.png 2x" width="88" height="31" loading="
lazy"/></a></li>
</ul>

</footer>

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limit":40},"expensivefunctioncount":{"value":0,"limit":500},"unstrip-depth":{"value":0,"limit":20},"unstrip-size":{"value":3367,"limit":5000000},"entityaccessco
unt":{"value":0,"limit":400},"timingprofile":["100.00%  157.142      1 -total"," 86.18%  135.430      1 Malline:Viitteet"," 71.93%  113.034      5 Malline:Verkk
oviite"," 27.36%   43.000      9 Malline:Kotoista_päiväys"," 24.22%   38.065      9 Malline:Onko_päiväys_ISO_8601_-muodossa?"," 16.96%   26.657      5 Malline:I
ETF-kielisymboli","  6.56%   10.314      1 Malline:Lehtiviite","  4.87%    7.658      1 Malline:Tynkä/Tietotekniikka","  4.64%    7.295      1 Malline:K-en","
2.81%    4.415      1 Malline:Tynkämalline"]},"scribunto":{"limitreport-timeusage":{"value":"0.046","limit":"10.000"},"limitreport-memusage":{"value":2650831,"l
imit":52428800]},"cachereport":{"origin":"mw1268","timestamp":"20210615133105","ttl":1814400,"transientcontent":false}}});});</script>
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"http:\/\/www.wikidata.org\/entity\/Q4357084","mainEntity":"http:\/\/www.wikidata.org\/entity\/Q4357084","author":{"@type":"Organization","name":"Contributors t
```

8. In this task curl command will be used to connect to remote servers:

   a) README file is located in the server http://ftp.funet.fi. How do you open this file using curl command so that you can view it page by page (hint: utilize other commands with curl)?

   b) How do you list the content of remote server's folder ftp://speedtest.tele2.net/? What files are included in listing?

```
jean@jean:~$ curl http://ftp.funet.fi. | more
```

```
<a href="/pub/unix/OpenBSD/">OpenBSD</a>,
<a href="/pub/unix/NetBSD/">NetBSD</a>
</p>
</center>


100  6990  100  6990    0     0  48881        0 --:--:-- --:--:-- --:--:-- 48881
<center><h3>Programming</h3></center>
--More--
```

```
jean@jean:~$ curl -ls ftp://speedtest.tele2.net/
1000GB.zip
100GB.zip
100KB.zip
100MB.zip
10GB.zip
10MB.zip
1GB.zip
1KB.zip
1MB.zip
200MB.zip
20MB.zip
2MB.zip
3MB.zip
500MB.zip
50GB.zip
50MB.zip
512KB.zip
5MB.zip
upload
jean@jean:~$
```