

Linux Commands Assignment

Name: Joel chinta

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1. Creating and Renaming Files/Directories

A.Command:

mkdir test_dir

Explanation:

This command creates a new folder named test_dir.

```
(yeled@yeled)~]$ mkdir test_dir
Automatic Zoom
(yeled@yeled)~]$ ls
12.txt 57.txt 88_joel      codes    Documents  fix-mwb  Music      practical  Templates  Videos
56.txt 79.txt  code_practice Desktop  Downloads  hello     Pictures  Public    test_dir
```

B. Command:

touch test_dir/example.txt

Explanation:

This command creates an empty file named example.txt inside test_dir.

```
(yeled@yeled)~]$ touch test_dir/example.txt
Command:
touch test_dir/exa
(yeled@yeled)~]$ cd test_dir
Explanation:
(yeled@yeled)~[/test_dir]$ ls
example.txt
Command:
This command cre
```

C.Command:

mv test_dir/example.txt test_dir/renamed_example.txt

Explanation:

This command renames the file example.txt to renamed_example.txt.

```
(yeled@yeled)~]$ mv test_dir/example.txt test_dir/renamed_example.txt
Command:
mv test_dir/exa
(yeled@yeled)~]$ ls test_dir
Explanation:
renamed_example.txt
Command:
This command r
```

2. A. Viewing File Contents

Command:

```
cat /etc/passwd
```

Explanation:

This command shows the full content of the passwd file

```
(yeled@yeled)-[~] $ cat /etc/passwd
root:x:0:0:root:/root:/usr/bin/zsh
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin
dhpcd:x:100:65534:DHCP Client Daemon,,,:/usr/lib/dhpcd:/bin/false
mysql:x:101:102:MariaDB Server,,,:/nonexistent:/bin/false
tss:x:102:103:TPM software stack,,,:/var/lib/tpm:/bin/false
systemd-timesync:x:992:992:systemd Time Synchronization:/:/usr/sbin/nologin
_gophish:x:103:105::/var/lib/gophish:/usr/sbin/nologin
iodine:x:104:65534::/run/iodine:/usr/sbin/nologin
```

2.B

Command:

```
head -n 5 /etc/passwd
```

Explanation:

This command shows only the first 5 lines of the file.

```
(yeled@yeled)-[~] $ head -n 5 /etc/passwd
root:x:0:0:root:/root:/usr/bin/zsh
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/sync
```

2.C

Command:

```
tail -n 5 /etc/passwd
```

Explanation:

This command shows only the last 5 lines of the file.

```
(yeled@yeled)~]$ tail -n 5 /etc/passwd
polkitd:x:986:986:User for polkitd:/usr/sbin/nologin
rtkit:x:125:128:RealtimeKit,,,:/proc/usr/sbin/nologin
colord:x:126:129:colord colour management daemon,,,:/var/li
Debian-gdm:x:127:131:Gnome Display Manager:/var/lib/gdm3:/b
yeled:x:1000:1000:yeled,,,:/home/yeled:/usr/bin/zsh
```

3.A Searching for Patterns

Command:

```
grep root /etc/passwd
```

Explanation:

This command searches and displays lines that contain the word root.

```
(yeled@yeled)~]$ grep root /etc/passwd
root:x:0:0:root:/root:/usr/bin/zsh
```

4.A Zipping and Unzipping

Command:

```
zip -r test_dir.zip test_dir
```

Explanation:

This command compresses the test_dir folder into a zip file.

```
(yeled@yeled)~]$ zip -r test_dir.zip test_dir
adding: test_dir/ (stored 0%)
adding: test_dir/renamed_example.txt (stored 0%)
4. Zipping and Unzipping
(yeled@yeled)~]$ ls
12.txt 57.txt 88_joel      codes  Documents  fix-mwb  Music    practical  Templates  test_dir.zip
56.txt 79.txt  code_practice Desktop Downloads  hello    Pictures  Public    test_dir  Videos
(yeled@yeled)~]$
```

4.B Command:

```
unzip test_dir.zip -d unzipped_dir
```

Explanation:

This command extracts the zip file into a new folder.

```

(yeled@yeled)-[~]
└─$ unzip test_dir.zip -d unzipped_dir
Archive: test_dir.zip
  creating: unzipped_dir/test_dir/
  extracting: unzipped_dir/test_dir/renamed_example.txt

(yeled@yeled)-[~]                                         This command extracts the zip file into a new folder.
└─$ ls
12.txt  57.txt  88_joel      codes  Documents  fix-mwb  Music      practical  Templates  test_dir.zip  Videos
56.txt  79.txt  code_practice Desktop  Downloads  hello    Pictures  Public     secure.txt  test_dir  unzipped_dir

```

5. Downloading Files

Command:

wget https://www.w3.org/WAI/ER/tests/xhtml/testfiles/resources/pdf/dummy.pdf

Explanation:

This command downloads a file from the given website.

```

(yeled@yeled)-[~]
└─$ wget https://www.w3.org/WAI/ER/tests/xhtml/testfiles/resources/pdf/dummy.pdf
--2026-02-02 22:22:38-- https://www.w3.org/WAI/ER/tests/xhtml/testfiles/resources/pdf/dummy.pdf
Resolving www.w3.org (www.w3.org)... 2606:4700:8ca1:741c:87d7:4bb:19e3:8f51, 104.18.22.19, 104.18.23.19
Connecting to www.w3.org (www.w3.org)|2606:4700:8ca1:741c:87d7:4bb:19e3:8f51|:443... connected.  diagram-2025-10-2
HTTP request sent, awaiting response... 200 OK
Length: 13264 (13K) [application/pdf]
Saving to: 'dummy.pdf'

dummy.pdf  100%[=====] 12.95K --.-KB/s   in 0s

2026-02-02 22:22:39 (80.4 MB/s) - 'dummy.pdf' saved [13264/13264]

(yeled@yeled)-[~]
└─$ ls
12.txt  57.txt  88_joel      codes  Documents  dummy.pdf  hello    Pictures  Public     Templates  test_dir.zip  Videos
56.txt  79.txt  code_practice Desktop  Downloads  fix-mwb  Music      practical  secure.txt  test_dir  unzipped_dir

```

6. Changing Permissions

Command:

touch secure.txt

Explanation:

This command creates a new empty file named secure.txt.

```

(yeled@yeled)-[~]
└─$ touch secure.txt

(yeled@yeled)-[~]
└─$ ls
12.txt  57.txt  88_joel      codes  Documents  fix-mwb  Music      practical  secure.txt  test_dir      unzipped_dir
56.txt  79.txt  code_practice Desktop  Downloads  hello    Pictures  Public     Templates  test_dir.zip  Videos

```

Command:

chmod 444 secure.txt

Explanation:

This command makes the file read-only for all users.

```
--(yeled@yeled)-[~]
$ chmod 444 secure.txt

--(yeled@yeled)-[~]
$ ls
2.txt 57.txt 88_joel      codes  Documents  fix-mwb  Music    practical  secure.txt  test_dir      unzipped_dir
6.txt 79.txt  code_practice Desktop Downloads  hello    Pictures  Public    Templates  test_dir.zip  Videos
```

7. Environment Variables

Command:

```
export MY_VAR="Hello, Linux!"
```

Explanation:

This command creates an environment variable.

```
--(yeled@yeled)-[~]
$ export MY_VAR="Hello linux"

--(yeled@yeled)-[~]
$ echo $MY_VAR
Hello linux
```

GitHub Repository Link:

<https://github.com/TheDarknight-w>