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ENCS313**

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Section: 2

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This Linux Project talks about generation a system manual for Linux/Unix commands using shell scripting.

PART #1

The first part needed to generate the manual in a file specified to each command in this file there should be a small Description for the command , the version "History" , an example on the command and Related commands to the commands "Just like in the picture below"
All the command file should satisfy the CISCO template

```
faten@faten-VirtualBox:~/Desktop/finalProj1$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 1
Generating the commands..
Here are the commands you can look at:
grep
ls
cat
head
tail
rm
mv
awk
sudo
find
sed
touch
diff
pgp
lp
ps
chown
chmod
mkfs
lprm
faten@faten-VirtualBox:~/Desktop/finalProj1$ cat grep_command_info.txt
-----
Description  grep searches for PATTERNS in each FILE. PATTERNS is one or mo
re patterns separated by newline characters, and grep prints each l
ine that matches a pattern. Typically PATTERNS should be quoted wh
en grep is used in a shell command.
-----
History  grep (GNU grep) 3.7 Copyright (C) 2021 Free Software Foundation, Inc. L
icense GPLv3+: GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>.
-----
EXAMPLE  Search for a specific word in a file. : grep -n (test) file1.txt
2:test
4:test
-----
RELATED COMMANDS  Regular Manual Pages awk(1), cmp(1), diff(1), find(1), perl(1)
, sed(1), sort(1), xargs(1), read(2), pcre(3), pcreyntax(3).
```

```
RELATED COMMANDS Regular Manual Pages awk(1), cmp(1), diff(1), find(1), perl(1),
                  sed(1), sort(1), xargs(1), read(2), pcre(3), pcresyntax(3),
                  pcrepattern(3), termInfo(5), glob(7), regex(7)

-----
faten@faten-VirtualBox: ~/Desktop/finalProj1$ cat PS_command_Info.txt
-----
Description  ps displays information about a selection of the active processes.
              If you want a repetitive update of the selection and the displayed
              information, use top instead. This version of ps accepts several
              kinds of options:

-----
History      The ps command has its roots in early versions of Unix. It has been a part of Unix with its first appearances dating back to the 1970s in early versions.

-----
EXAMPLE Display currently running processes.
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1   0.0  0.2 166688 11624 ?        Ss   Jan02   0:01 /sbin/init splash
root         2   0.0  0.0      0   0 ?        S    Jan02   0:00 [kthreadd]
root         3   0.0  0.0      0   0 ?        I<   Jan02   0:00 [rcu_gp]
root         4   0.0  0.0      0   0 ?        I<   Jan02   0:00 [rcu_par_gp]
root         5   0.0  0.0      0   0 ?        I<   Jan02   0:00 [slub_flushq]
root         6   0.0  0.0      0   0 ?        I<   Jan02   0:00 [netns]
root         8   0.0  0.0      0   0 ?        I<   Jan02   0:00 [kworker/0:0H-events_highpri]
root        10   0.0  0.0      0   0 ?        I<   Jan02   0:00 [nvme nvme0n1]
root        11   0.0  0.0      0   0 ?        I    Jan02   0:00 [rcu_tasks_kthread]

-----
RELATED COMMANDS pgrep(1), pstree(1), top(1), proc(5).
```

PART#2

The second part in this project is to check if the data in the file is a correct data by checking the data in the file with the original source that we have get the data from.

So we check the four requirements in each command file and print if they are the same or not

```
faten@faten-VirtualBox: ~/Desktop/finalProj1$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 2
Enter the command name:
ls

The Description Comparison is the same
The Version History Comaparison is the same
The Related Commands are not the same!!!!
The Examples for both commands are not equal.
faten@faten-VirtualBox: ~/Desktop/finalProj1$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 2
Enter the command name:
sed

The Description Comparison is the same
The Version History Comaparison is the same
The Related Commands are the same
The Examples for both commands are equal.
faten@faten-VirtualBox: ~/Desktop/finalProj1$
```

PART#3.1

For this section of the project, it is divided to two parts

The first part talks about researching on the commands files

The user will enter a word / commands / letters and the system will print the commands that have these characters – word – command and printing them

```
faten@faten-VirtualBox:~/Desktop/finalProj1$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 2
Enter the command name:
sed

The Description Comparison is the same
The Version History Comparison is the same
The Related Commands are the same
The Examples for both commands are equal.
faten@faten-VirtualBox:~/Desktop/finalProj1$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 3
Which script would you like to run?
1) Research
2) Recommend commands
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 1
Please Enter The Word You Are Looking For:
file

the recommended commands are the following:
awk
cat
chmod
chown
diff
find
gpg
grep
head
lp
mkfs
mv
rm
sed
sudo
tail
touch
```

PART#3.2

For the last part in this project the needed here is to ask the user if they wanted to know the commands' file that are related to the command that they have entered or not

If the answer is yes the system will print them

If the answer is no the system will not printing them.

```
faten@faten-VirtualBox: ~/Desktop/finalProj$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3): 3
Which script would you like to run?
1) Research
2) Recommend commands
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 2
Enter a Command
head
Do you want to print the related commands to the entered command ?
yes
This command related to text processing and editing --> the related commands are : cat_command_info.txt, head_command_info.txt, sort_command_info.txt, diff_command_info.txt
tail_command_info.txt , awk_command_info.txt , sed_command_info.txt

faten@faten-VirtualBox: ~/Desktop/finalProj$ ./main.sh
Which script would you like to run?
1) Generate the all commands info
2) Verification
3) Search && Recommendation
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3): 3
Which script would you like to run?
1) Research
2) Recommend commands
PLEASE CHOOSE ONE OF THE RECOMMENDED (1/2/3/4): 2
Enter a Command
cat
Do you want to print the related commands to the entered command ?
no
```