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Course: DSCI 551

Assignment: Lab 1

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Question 1:

- a. `ls -l`: this command lists specific files and directories. It usually shows in a detailed format including the user permission, file type, number of total size, user group, modification date, file name.

```
ubuntu@ip-172-31-8-201:~$ ls -l
total 4
-rw-rw-r-- 1 ubuntu ubuntu 48 Jan 16 00:48 hello.txt
```

- b. `ls -a`: this command lists all the files and directories including the hidden files in the directory.

```
ubuntu@ip-172-31-8-201:~$ ls -a
.  ..  .bash_history  .bash_logout  .bashrc  .cache  .lessht  .local  .profile  .ssh  hello.txt
```

Question 2:

In this question, I have created a txt file called hello.txt and the following command will be shown with specific example in order to avoid error code “missing operand”

- a. `mkdir`

```
ubuntu@ip-172-31-8-201:~$ mkdir newfolder
ubuntu@ip-172-31-8-201:~$ ls
hello.txt  newfolder
```

- b. `cat`

```
ubuntu@ip-172-31-8-201:~$ cat hello.txt
hello world
hello this world
hello hello world
```

- c. `rm`

```
ubuntu@ip-172-31-8-201:~$ rm hello.txt
ubuntu@ip-172-31-8-201:~$ ls
newfolder
```

d. rmdir

```
ubuntu@ip-172-31-8-201:~$ rmdir newfolder
ubuntu@ip-172-31-8-201:~$ ls
ubuntu@ip-172-31-8-201:~$
```

Question 3:

- a. (1) export PATH=\$PATH:~/spark-3.5.4-bin-hadoop3/bin.: :
update PATH environment variable to have the Spark-related commands to be executed and used later
(2) export PATH=\$PATH:~/hadoop-3.4.1/bin:~/hadoop-3.4.1/sbin :
update PATH environment variable to have the Hadoop-related commands to be executed and used later.
- b. source ~/.bashrc makes immediate reload and update including changes of environment variable and written script to the .bashrc file in the terminal.

Showcase of modification:

```
GNU nano 7.2                                .bashrc *                                M
alias grep='grep --color=auto'
alias fgrep='fgrep --color=auto'
alias egrep='egrep --color=auto'
fi
# colored GCC warnings and errors
#export GCC_COLORS='error=01;31:warning=01;35:note=01;36:caret=01;32:locus=01:quote=01'
# some more ls aliases
alias ll='ls -alF'
alias la='ls -A'
alias l='ls -CF'
# Add an "alert" alias for long running commands.  Use like so:
# sleep 10; alert
alias alert='notify-send --urgency=low -i "${[ $? = 0 ]} && echo terminal || echo error)" "${history|ta
# Alias definitions.
# You may want to put all your additions into a separate file like
# ~/.bash_aliases, instead of adding them here directly.
# See /usr/share/doc/bash-doc/examples in the bash-doc package.
if [ -f ~/.bash_aliases ]; then
    . ~/.bash_aliases
fi
# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
    if [ -f /usr/share/bash-completion/bash_completion ]; then
        . /usr/share/bash-completion/bash_completion
    elif [ -f /etc/bash_completion ]; then
        . /etc/bash_completion
    fi
fi
# Lab 1: added new command lines
export PATH=$PATH:~/spark-3.5.4-bin-hadoop3/bin:
export PATH=$PATH:~/hadoop-3.4.1/bin:~/hadoop-3.4.1/sbin
```

```
ubuntu@ip-172-31-8-201:~$ nano .bashrc
ubuntu@ip-172-31-8-201:~$ nano .bashrc
ubuntu@ip-172-31-8-201:~$ source ~/.bashrc
ubuntu@ip-172-31-8-201:~$
```