

Linux Plus 6

Linux Plus 6

Training Clarusway

Pear Deck - April 12, 2020 at 10:10AM

Part 1 - Summary

Use this space to summarize your thoughts on the lesson

Part 2 - Responses

Slide 1



Linux Plus for AWS
and DevOps - 6



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Link(s) on this slide:

- <https://create.kahoot.it/details/combined-linux-plus-using-filters-control-operators/d30a8ff4-65d4-477c-96f0-52dbdce2e7ee>

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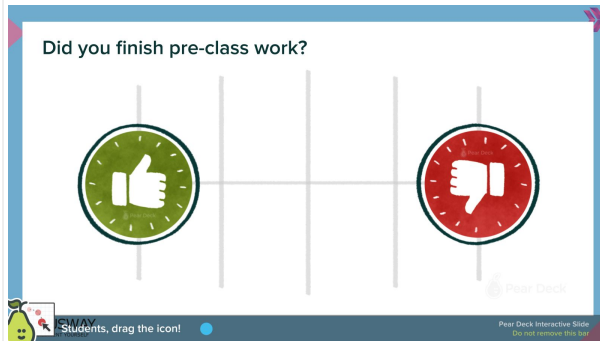


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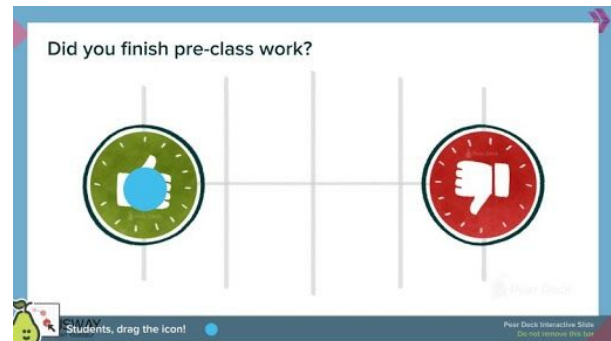


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Your Response



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Slide 5

Table of Contents

- ▶ Review
- ▶ Bash Prompt
- ▶ Shell Script

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Review

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► Shell



```
$ cat testfile
test line 1
test line 2
test line 3
test line 4
test line 5
$
$ testvar='cat testfile'
$
$ echo $testvar
test line 1 test line 2 test line 3 test line 4 test line 5
$
$ echo $testvar | grep "test line 2"
test line 1 test line 2 test line 3 test line 4 test line 5
$
```

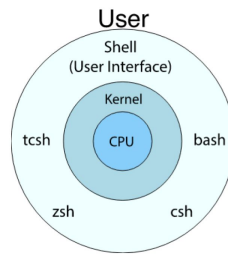
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► BASH



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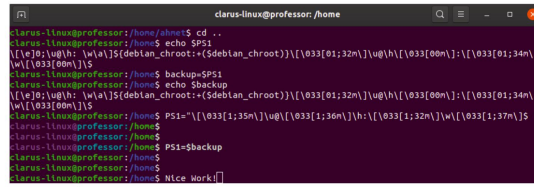
2 ► The Bash prompt

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► The Bash prompt



```
clarus-linux@professor:/home$ cd ..
clarus-linux@professor:/home$ echo $PS1
\[e]0;\u@h: \w\[$(debian_chroot)\]\[\033[01;32m\]\u\h\[\033[00m\]:\[\033[01;34m\]
\w\[\033[00m\])$
clarus-linux@professor:/home$ backup-$PS1
clarus-linux@professor:/home$ echo $backup
\[e]0;\u@h: \w\[$(debian_chroot)\]\[\033[01;32m\]\u\h\[\033[00m\]:\[\033[01;34m\]
\w\[\033[00m\])$
clarus-linux@professor:/home$ PS1="\[\033[1;35m\]\u\[\033[1;30m\]\h:\[\033[1;32m\]\w\[\033[1;37m\])$ "
clarus-linux@professor:/home$
clarus-linux@professor:/home$ PS1=$backup
clarus-linux@professor:/home$
clarus-linux@professor:/home$ PS1=$
clarus-linux@professor:/home$ Nice Work!
```

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► The Bash prompt

- \d the date in "Weekday Month Date" format (e.g., "Sun Apr 12")
- \h the hostname up to the first '.'
- \H the hostname
- \j the number of jobs currently managed by the shell
- \s the name of the shell, the basename of \$0 (the portion following the final slash)
- \t the current time in 24-hour HH:MM:SS format
- \T the current time in 12-hour HH:MM:SS format
- \@ the current time in 12-hour am/pm format
- \u the username of the current user
- \v the version of bash (e.g., 2.00)
- \V the release of bash, version + patch level (e.g., 2.00.0)
- \w the current working directory
- \W the basename of the current working directory
- ! the history number of this command
- \# the command number of this command
- \\$ if the effective UID is 0, a #, otherwise a \$

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► The Bash prompt



```
clarus-linux@professor:/home/$
clarus-linux@professor:/home$ PS1="\033[1;44m]$USER ts tn \w[\033[0m] "
clarus-linux ts tn /home/
clarus-linux ts tn /home/
clarus-linux ts tn /home/ PS1="\033[7;34m]]\w\h \w [\033[0m] "
clarus-linux@professor /home ]]
clarus-linux@professor /home ]]
clarus-linux@professor /home ]] PS1="[[t \]] "
14:10:39 0]
14:10:40 0]
14:10:40 0]
14:10:41 0] PS1="{} "
bash: {}: event not found
14:10:50 0] export PS1="\033[1;35m]]\w\h\[\033[0m] "
clarus-linux@professor[
clarus-linux@professor[
clarus-linux@professor[
clarus-linux@professor[
clarus-linux@professor[
clarus-linux@professor[ ...
```

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3 ► Shell Scripts

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▶ Shell Scripts

```
clarus-linux@professor: ~  
clarus-linux@professor:~$ vi class.sh  
clarus-linux@professor:~$ chmod +x class.sh  
clarus-linux@professor:~$ ./class.sh  
Hello World!  
clarus-linux@professor:~$  
  
clarus-linux@professor: ~  
#!/bin/bash  
echo "Hello World!"  
  
"class.sh" 5L, 35C 5,0-1
```

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▶ Shell Scripts

```
clarus-linux@professor: ~  
#!/bin/bash  
echo "Hello World"  
date  
echo "Woah i learnt one more thing!"  
  
clarus-linux@professor: ~  
clarus-linux@professor:~$ vi test.sh  
clarus-linux@professor:~$  
clarus-linux@professor:~$  
clarus-linux@professor:~$  
clarus-linux@professor:~$ chmod +x test.sh  
clarus-linux@professor:~$
```

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Your Response

Answer 1:
echo "This is my first script" >
my-first-script.sh chmod +x
my-first-script.sh ./my-first-script.sh

▶ Exercise 1

1. Create a script named **my-first-script.sh**
It should print **"This is my first script."**
2. Make the script executable.
3. Execute the script



SWAY
Presentations, write your response!

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▶ Variables

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```
/bin/bash
var="I am learning Variables"
NUM1=5
num2=4
num3=$((NUM1+num2))
num4=$((NUM1+num2))
num5=$((NUM1-num2))
num6=$((NUM1*num2))

echo "5 + 4 = $num3"
echo "5 - 4 = $num4"
echo "5 * 4 = $num5"
echo "5 / 4 = $num6"

echo ${{**}}
echo ${{%4}}

# You can use += -= *= /= (as options)
```

Use this space to take notes:

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► Console input" »

```
read [variable-name] #!/bin/bash
```

```
echo "Enter your name: "  
read name  
echo Hello $name
```

```
[ec2-user@ip-172-31-36-108 ~]$ ./run.sh  
Enter your name:  
Raymond  
Hello Raymond  
[ec2-user@ip-172-31-36-108 ~]$
```

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► "num++" "++num" "num--" "--num" »

```
#!/bin/bash  
rand=5  
let rand+=1  
echo $rand  
  
echo "rand++ = ${(( rand++ ))}"  
echo "++rand = ${(( ++rand ))}"  
echo "rand-- = ${(( rand-- ))}"  
echo "--rand = ${(( --rand ))}"  
  
clarus-linux@professor:~$ vi variables2.sh  
clarus-linux@professor:~$ chmod +x variables2.sh  
clarus-linux@professor:~$ ./variables2.sh  
9  
rand++ = 9  
++rand = 11  
rand-- = 11  
--rand = 9  
clarus-linux@professor:~$
```

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19

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Your Response

Answer 1:
vi calculate.sh #!/bin/bash

► Exercise 2

1. Create a script named **calculate.sh**
Create a variable named **base-value** with default value of **5**
Request another number from user and assign it to **user-input** variable
Add user-value to the base-value and assign it to **total** variable
Print **total** to the screen with the message "**Total value is**"
2. Make the script executable.
3. Execute the script



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Master Yourself, write your response!

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► Here Document/Script

```
#!/bin/bash  
  
cat<< END  
This text  
prints on  
many lines  
END
```

```
clarus-linux@professor:~$ vim here.sh  
clarus-linux@professor:~$ chmod +x here.sh  
clarus-linux@professor:~$ ./here.sh  
This text  
prints on  
many lines
```

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21

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Python Commands

Single Command:

```
#!/bin/bash
#For single command:
num1=2.2
num2=1.1
snake=$(python3 -c "print ($num1+$num2)")
```

Multiple Commands:

```
8 #For Multiple commands:
9 END_VALUE=10
10
11 PYTHON_CODE=$(cat <<END
12 #Python code starts here
13
14 import math
15
16 for i in range(END_VALUE):
17     print(i,math.sqrt(i))
18
19 #python code ends here
20 END
21 )
22
23 #use the
24 res=$(python3 -c "$PYTHON_CODE")
25
26 #Now you can continue with bash code
27 echo $res
```

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THANKS!

Any questions?

You can find me at:

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- ▶ xxxx@clarusway.com

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