

Command Line Basics

1/2

Linux Essentials
Session-2

CLARUSWAY
WAY TO REINVENT YOURSELF

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What is SHELL?



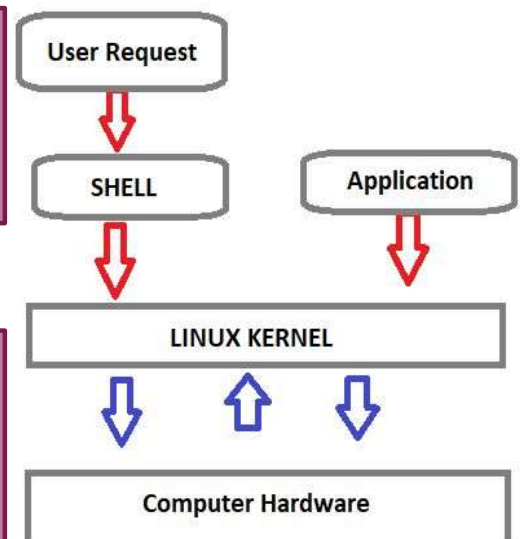
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What is SHELL?



Shell is a program that receives the user's commands and gives them to the operating system to process and displays the output.

Bash (**B**ourne **A**gain **S**hell) is an enhanced version of Steve Bourne's first Unix shell application, and serves as the shell program on most Linux systems.



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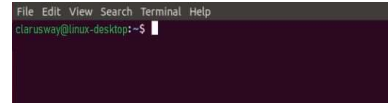


What is SHELL?

The standard Linux shell is both a command-line interpreter and a programming language.

>
_

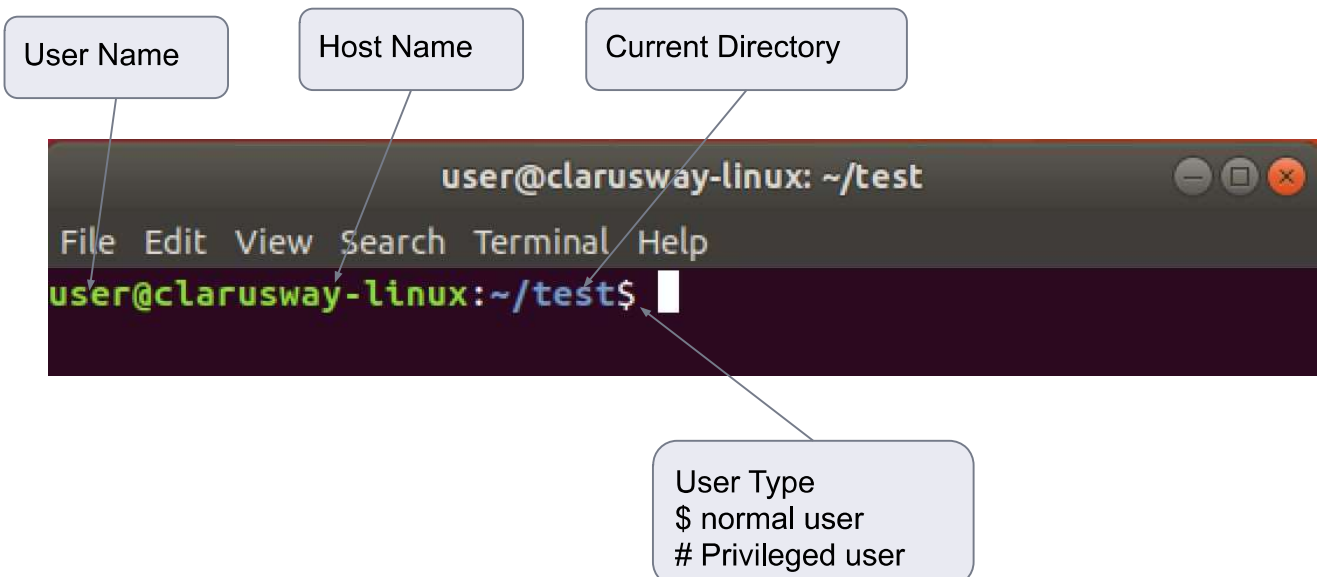
The command prompt for Linux generally shows the current **user**, the current **host**, and the appropriate **directory**.



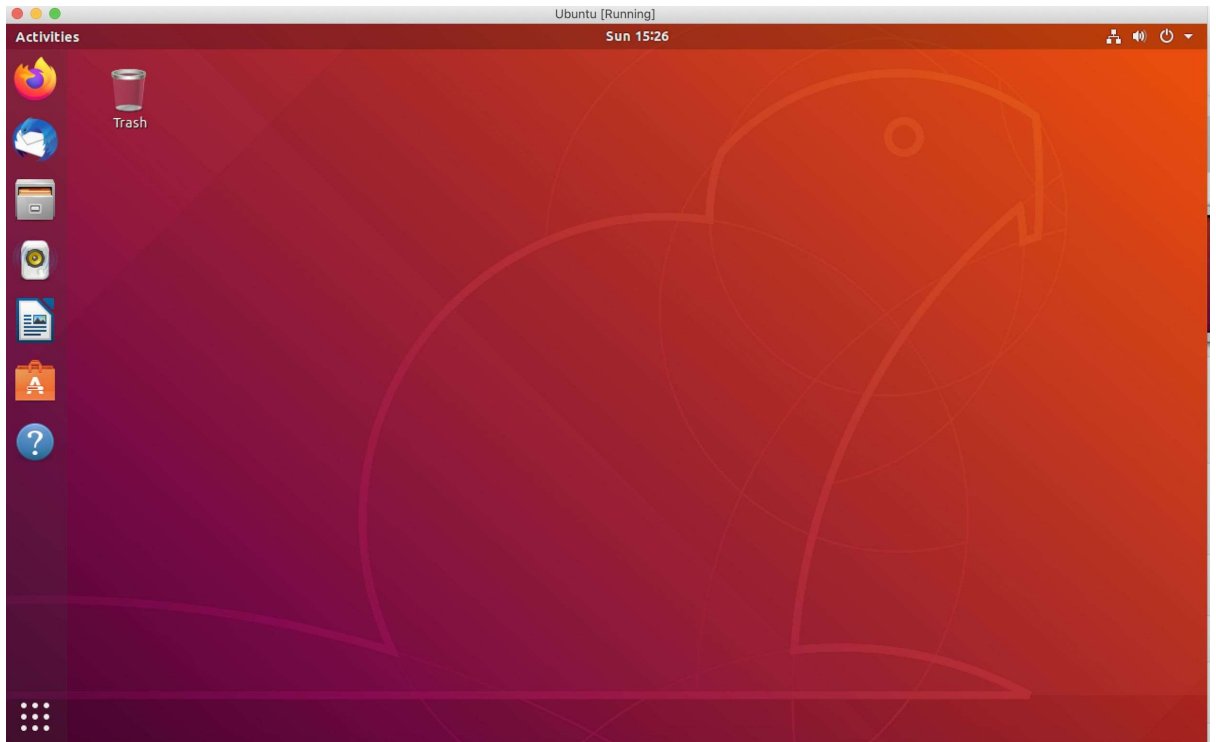
At the end of the prompt list, the \$(dollar sign) signifies the current user being unprivileged, and the device is ready to receive feedback.

The input is sent for parsing and execution to the interpreter.

Command Prompt



GUI



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Which one is not a user interface of Linux



Draw or type 2 things you already know about Linux:

1

2



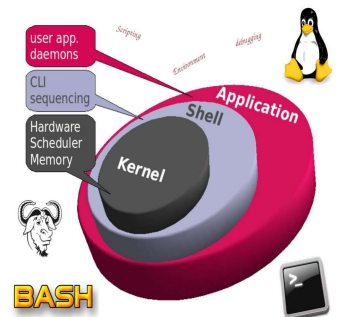
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Students, draw anywhere on this slide!

Pear Deck Interactive Slide
Do not remove this bar

2

Basic SHELL Commands





Basic Shell Commands

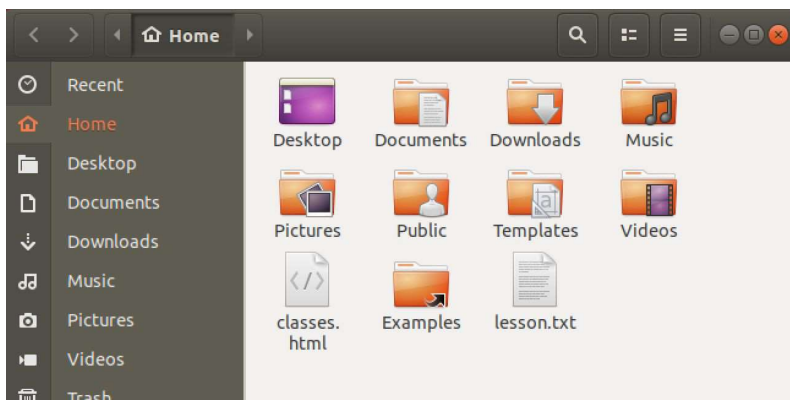
pwd show current path

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ pwd  
/home/user  
user@clarusway-linux:~$
```



Basic Shell Commands

ls lists directory contents
ls -l lists directory contents with details



```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ ls  
classes.html Downloads Music Templates  
Desktop examples.desktop Pictures Videos  
Documents lesson.txt Public  
user@clarusway-linux:~$
```

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ ls -l  
total 48  
-rw-r--r-- 1 user user 16 Mar 2 21:56 classes.html  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Desktop  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Documents  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Downloads  
-rw-r--r-- 1 user user 8980 Mar 2 21:53 examples.desktop  
-rw-r--r-- 1 user user 0 Mar 2 21:55 lesson.txt  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Music  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Pictures  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Public  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Templates  
drwxr-xr-x 2 user user 4096 Mar 2 21:54 Videos  
user@clarusway-linux:~$
```



Basic Shell Commands

- cd [dir]** change (current) directory
- cd ..** change current directory to one level up
- cd /** change current directory to the root directory
- cd ~** change current directory to the home directory

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ cd test  
user@clarusway-linux:~/test$ cd ..  
user@clarusway-linux:~$ cd /  
user@clarusway-linux:/$ cd ~  
user@clarusway-linux:~$
```



Basic Shell Commands

- mkdir [dir]** create a new directory

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ ls  
classes.html Downloads Music Templates  
Desktop examples.desktop Pictures test  
Documents lesson.txt Public Videos  
user@clarusway-linux:~$ mkdir clarusway  
user@clarusway-linux:~$ ls  
clarusway Downloads Pictures Videos  
classes.html examples.desktop Public  
Desktop lesson.txt Templates  
Documents Music test  
user@clarusway-linux:~$
```




Basic Shell Commands

rmdir [dir] delete an empty directory

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ ls  
clarusway Downloads Pictures Videos  
classes.html examples.desktop Public  
Desktop lesson.txt Templates  
Documents Music test  
user@clarusway-linux:~$ rmdir test  
user@clarusway-linux:~$ ls  
clarusway Documents lesson.txt Public  
classes.html Downloads Music Templates  
Desktop examples.desktop Pictures Videos  
user@clarusway-linux:~$  
user@clarusway-linux:~$ cd test  
user@clarusway-linux:~/test$ ls  
t.txt  
user@clarusway-linux:~/test$ cd ..  
user@clarusway-linux:~$ rmdir test  
rmdir: failed to remove 'test': Directory not empty  
user@clarusway-linux:~$ ls  
clarusway Downloads Pictures Videos  
classes.html examples.desktop Public  
Desktop lesson.txt Templates  
Documents Music test  
user@clarusway-linux:~$
```



Basic Shell Commands

touch create a file

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ ls  
clarusway Downloads Pictures Videos  
classes.html examples.desktop Public  
Desktop lesson.txt Templates  
Documents Music test  
user@clarusway-linux:~$ touch test-file.txt  
user@clarusway-linux:~$ ls  
clarusway Downloads Pictures test-file.txt  
classes.html examples.desktop Public Videos  
Desktop lesson.txt Templates  
Documents Music test  
user@clarusway-linux:~$
```




Basic Shell Commands

rm delete a file

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ ls  
clarusway      Downloads      Pictures      test-file.txt  
classes.html   examples.desktop Public        Videos  
Desktop        lesson.txt     Templates  
Documents      Music          test  
user@clarusway-linux:~$ rm test-file.txt  
user@clarusway-linux:~$ ls  
clarusway      Downloads      Pictures      Videos  
classes.html   examples.desktop Public  
Desktop        lesson.txt     Templates  
Documents      Music          test  
user@clarusway-linux:~$
```



Basic Shell Commands

cp copy a file to another location

```
user@clarusway-linux: ~/test  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ cd test  
user@clarusway-linux:~/test$ ls  
user@clarusway-linux:~/test$ cd ..  
user@clarusway-linux:~$ cp test-file.txt test/  
user@clarusway-linux:~$ ls  
clarusway      Downloads      Pictures      test-file.txt  
classes.html   examples.desktop Public        Videos  
Desktop        lesson.txt     Templates  
Documents      Music          test  
user@clarusway-linux:~$ cd test  
user@clarusway-linux:~/test$ ls  
test-file.txt  
user@clarusway-linux:~/test$
```



Basic Shell Commands

mv move a file to another location

```
user@clarusway-linux: ~/test
File Edit View Search Terminal Help
user@clarusway-linux:~/test$ ls
user@clarusway-linux:~/test$ cd ..
user@clarusway-linux:~$ ls
clarusway  Downloads  Pictures  test-file.txt
classes.html examples.desktop Public  Videos
Desktop    lesson.txt  Templates
Documents  Music      test
user@clarusway-linux:~$ mv test-file.txt test/
user@clarusway-linux:~$ ls
clarusway  Downloads  Pictures  Videos
classes.html examples.desktop Public
Desktop    lesson.txt  Templates
Documents  Music      test
user@clarusway-linux:~$ cd test
user@clarusway-linux:~/test$ ls
test-file.txt
user@clarusway-linux:~/test$
```



Basic Shell Commands

cat show file contents

```
Open lesson.txt Save
Test lesson file

Text Tab Width: 8 Ln 1, Col 17 INS
```

```
user@clarusway-linux: ~
File Edit View Search Terminal Help
user@clarusway-linux:~$ cat lesson.txt
Test lesson file
user@clarusway-linux:~$
```

Basic Shell Commands

echo print message to screen

echo > [file] print message into a file

```
user@clarusway-linux: ~  
File Edit View Search Terminal Help  
user@clarusway-linux:~$ echo "test"  
test  
user@clarusway-linux:~$ cat test-file.txt  
user@clarusway-linux:~$ echo "test" > test-file.txt  
user@clarusway-linux:~$ cat test-file.txt  
test  
user@clarusway-linux:~$
```

Basic SHELL Commands

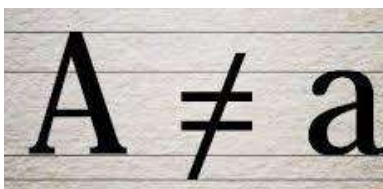


Kahoot!

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Case Sensitivity

Most of the common Linux file systems are case sensitive; this is something to keep in mind when creating files or directories and moving through directories.



Lower-case and upper-case letters have different ASCII representation.



```
touch newfile  
touch Newfile
```

Will create two different files.

Simple Globbing

Globbing is primarily used to match patterns in filenames or text by using a wildcard character to create a pattern.

Character	Name	Function
?	Question mark	Match any single character
*	Asterisk	Match any number of character(s)
[]	Brackets	Match character from a range
^	Caret	Used to match starting character
\$	Dollar sign	Used to match ending character
{ }	Curly brace	Used to match more than one pattern
 	Pipe	Used for applying more than one condition

Task

 **clarusway**

 **lessons**

 **linux.txt**

“I love linux”

 **html.txt**

“I can create a website”

 **materials**

 **lms.txt**

pre-class

 **try-it.txt**

post-class

Solution

```
136 ls
137 mkdir clarusway
138 cd clarusway
139 mkdir lessons
140 cd lessons
141 touch linux.txt
142 echo "I love linux" > linux.txt
143 touch html.txt
144 echo "I can create a web site" > html.txt
145 cd ..
146 mkdir materials
147 cd materials
148 mkdir pre-class
149 cd pre-class
150 touch lms.txt
151 cd ..
152 mkdir post-class
153 cd post-class
154 touch try-it.txt
```

THANKS !

Any questions?