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Linux Command Line Basics (closed)

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Linux Command Line Basics (closed)

标签 (空格分隔) : Udacity

Lesson 1: Get Into the Shell

Lesson 2: Shell Commands

Lesson 3:The Linux Filesystem

[TOC]

Lesson 1: Get Into the Shell

1.1 Log In and Break Stuff

log in:

cd **Udacity/Shell/**文件夹下： (有一个Vagrantfile的文件，有这个文件才能用vagrant up配置所需要的环境

```
vagrant up
```

```
vagrant ssh
```

ok, it's done. 现在可以试一试，在command line里随便输入一些东西。

你会发现大部分的命令都是无效的，但是出现‘单引号的时候，shell会提示你继续输入，因为在没有见到第二个‘之前，它认为现在输入的命令还没有写完。

除此之外用 exit 可以log out.

```
vagrant@vagrant-ubuntu-trusty-64:~$ Alice's tea party  
> '  
Alices tea party  
: command not found  
vagrant@vagrant-ubuntu-trusty-64:~$ exit  
logout  
Connection to 127.0.0.1 closed.  
vm$ vagrant ssh
```

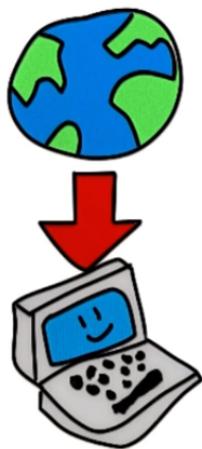
lc1.png-138.9kB

如果你输入 python 或其它什么奇怪的命令，进入了某个程序，可以用 quit 或 Ctrl+C 退出该程序，回到 shell。

1.2 Commands That Work

What do you think this command will do?

```
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
things.zip  
vagrant@vagrant-ubuntu-trusty-64:~$ curl http://udacity.github.io/ud595-shell/stuff.zip  
-o things.zip
```



- ✖ Send all your money to Karl so he can buy more silly T-shirts
- ✖ Curl your hair, put stuff in it, and snag it in a zipper
- ✓ Download a file from the web



lm2.png-456kB

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
vagrant@vagrant-ubuntu-trusty-64:~$ hello server
The program 'hello' can be found in the following packages:
 * hello
 * hello-debhelper
Ask your administrator to install one of them
vagrant@vagrant-ubuntu-trusty-64:~$ Alice's tea party
> what is this?
> '
Alices tea party
what is this?
: command not found
vagrant@vagrant-ubuntu-trusty-64:~$ ls
vagrant@vagrant-ubuntu-trusty-64:~$ curl http://udacity.github.io/ud595-shell/stuff.zip
-o things.zip
% Total    % Received % Xferd  Average Speed   Time   Time     Time  Current
          Dload  Upload Total   Spent   Left Speed
100  5130  100  5130    0      0   912       0  0:00:05  0:00:05 --:--:--  1250
vagrant@vagrant-ubuntu-trusty-64:~$ ls
things.zip
vagrant@vagrant-ubuntu-trusty-64:~$
```

Im3.png-461.4kB

运行后的结果，在Udacity/Shell/文件夹下多了一个things.zip的文件

1.3 What can you do in the terminal?

What can you do in the terminal?

Which of these activities do you expect
can be readily done using the terminal?

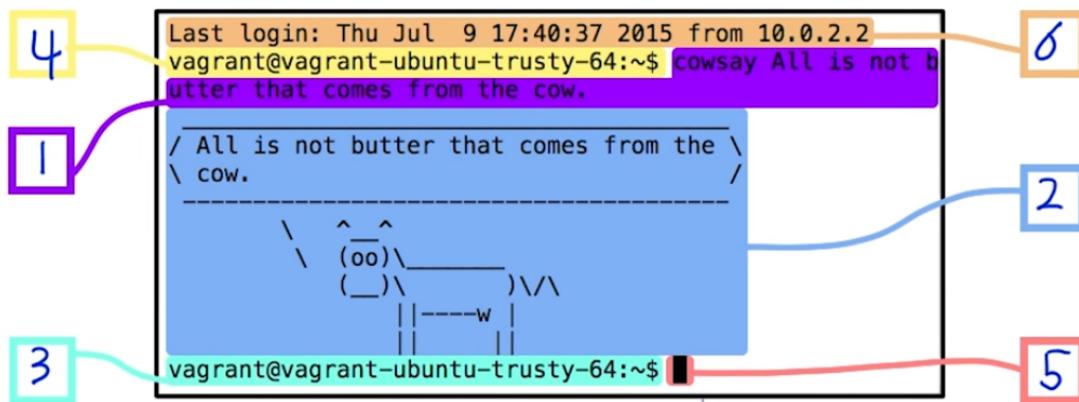
- Edit and run a program.
- Find files on your computer that have particular names.
- Download a file from the web, if you know its URL.
- Edit a major motion picture.
- Start a web server on your computer.
- Start a web server in the cloud.
- Break the entire Internet.

Im4.png-316.1kB

1.4 The Terminal Interface

Label the interface elements in this terminal:

- 1: shell command 3: current prompt 5: cursor
- 2: command output 4: previous prompt 6: login message



Enter the number of the corresponding interface element in each box

lm5.png-397.8kB

1.5 The Terminal vs The Shell

Terminal 只是一个终端而已，他负责接受input，但不会处理，所以把这些input传给shell来运行，shell把得到的结果返回给terminal，terminal再展示给我们。所以说terminal就是个窗口而已。

Different shells

Unix and Linux programmers over the years have written many different shell programs. You can read more about them on Wikipedia: the original Bourne shell or sh; the C shell or csh; the Korn shell or ksh; the Z shell or zsh; as well as the bash shell that this course uses.

Different systems may have different shells installed by default. Most Linux systems, and Mac OS X, default to bash for interactive shells. However, the most common default shell for scripting (shell programming) is classic sh. BSD Unix systems usually default to sh or ksh.

Almost everything in this course will work the same in any of these shell programs. The exception is one of the file matching (globbing) syntaxes at the end of Lesson 3.

1.6 Try More Commands

Try More Commands!

Try each of these commands, and describe what it does.

date

prints date and time

expr 2 + 2

add 2 and 2, print 4

echo You rock

prints "You rock"

uname

prints "Linux" (the OS name)

hostname

prints the Vagrant VM's name

host udacity.com

gives Udacity's IP address

bash --version

prints bash version & copyright

history

Im6.png-363.4kB

host udacity.com 给出了Udacity的IP地址，并告诉我们它的mail是Gmail负责的。

```
● ● ● 1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
You rock
vagrant@vagrant-ubuntu-trusty-64:~$ echo You rock
You rock
vagrant@vagrant-ubuntu-trusty-64:~$ echo You rock
You rock
vagrant@vagrant-ubuntu-trusty-64:~$ uname
Linux
vagrant@vagrant-ubuntu-trusty-64:~$ uname -a
Linux vagrant-ubuntu-trusty-64 3.13.0-55-generic #92-Ubuntu SMP Sun Jun 14 18:32:20 UTC
2015 x86_64 x86_64 x86_64 GNU/Linux
vagrant@vagrant-ubuntu-trusty-64:~$ hostname
vagrant-ubuntu-trusty-64
vagrant@vagrant-ubuntu-trusty-64:~$ host udacity.com
udacity.com has address 50.116.54.191
udacity.com mail is handled by 20 ALT2.ASPMX.L.GOOGLE.com.
udacity.com mail is handled by 30 ASPMX2.GOOGLEMAIL.com.
udacity.com mail is handled by 30 ASPMX3.GOOGLEMAIL.com.
udacity.com mail is handled by 10 ASPMX.L.GOOGLE.com.
udacity.com mail is handled by 20 ALT1.ASPMX.L.GOOGLE.com.
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Im7.png-525.1kB

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
2015 x86_64 x86_64 x86_64 GNU/Linux
vagrant@vagrant-ubuntu-trusty-64:~$ hostname
vagrant-ubuntu-trusty-64
vagrant@vagrant-ubuntu-trusty-64:~$ host udacity.com
udacity.com has address 50.116.54.191
udacity.com mail is handled by 20 ALT2.ASPMX.L.GOOGLE.com.
udacity.com mail is handled by 30 ASPMX2.GOOGLEMAIL.com.
udacity.com mail is handled by 30 ASPMX3.GOOGLEMAIL.com.
udacity.com mail is handled by 10 ASPMX.L.GOOGLE.com.
udacity.com mail is handled by 20 ALT1.ASPMX.L.GOOGLE.com.
vagrant@vagrant-ubuntu-trusty-64:~$ bash --version
GNU bash, version 4.3.11(1)-release (x86_64-pc-linux-gnu)
Copyright (C) 2013 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
```

This is free software; you are free to change and redistribute it.

There is NO WARRANTY, to the extent permitted by law.

```
vagrant@vagrant-ubuntu-trusty-64:~$ python -V
```

Python 2.7.6

```
vagrant@vagrant-ubuntu-trusty-64:~$ █
```



Im8.png-621.3kB

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
```

```
vagrant@vagrant-ubuntu-trusty-64:~$ history
```

```
1 history
2 clear
3 date
4 expr 2+2
5 clear
6 date
7 clear
8 expr 2 + 2
9 echo You rock
10 uname
11 uname -a
12 hostname
13 host udacity.com
14 bash --version
15 python -V
16 history
17 clear
18 history █
```

```
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Im9.png-199.4kB

1.7 Reading the Output of a Command

```
vagrant@vagrant-ubuntu-trusty-64:~$ uptime  
18:17:22 up 1 day, 25 min, 1 user, load average: 0.00, 0.01, 0.05  
vagrant@vagrant-ubuntu-trusty-64:~$ host udacity.com  
udacity.com has address 50.116.54.191  
udacity.com mail is handled by 30 ASPMX2.GOOGLEMAIL.com.  
udacity.com mail is handled by 30 ASPMX3.GOOGLEMAIL.com.  
udacity.com mail is handled by 10 ASPMX.L.GOOGLE.com.  
udacity.com mail is handled by 20 ALT1.ASPMX.L.GOOGLE.com.  
udacity.com mail is handled by 20 ALT2.ASPMX.L.GOOGLE.com.  
vagrant@vagrant-ubuntu-trusty-64:~$ host lwn.net  
lwn.net has address 72.51.34.34  
lwn.net mail is handled by 10 tex.lwn.net.  
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
stuff.zip  
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

lm10.png-442.4kB

1.8 Identify User Input

Reading Shell Transcripts

The diagram shows a terminal transcript with annotations. On the left, there is a vertical column of 12 circles. The first four circles have green checkmarks inside them, while the others are empty. Above the first circle is the word "input" and above the second circle is the word "output". To the right of the transcript, there are two green arrows pointing from the handwritten note "Mark each line of the transcript as either containing user input or command output." to the first two lines of the transcript, which are user commands: "cd /tmp/testing/" and "ls".

```
user@host:~$ cd /tmp/testing/  
user@host:testing$ ls  
bears fish moose squirrels  
user@host:testing$ echo Good St. Moose's Day!  
> oh right, quotes  
>  
Good St. Mooses Day!  
oh right, quotes  
  
user@host:testing$ █
```

Mark each line of the transcript as either containing user input or command output.

lm11.png-406.1kB

Lesson 2: Shell Commands

2.1 Filenames and Contents

Filenames and Contents

What contents do you expect to find in each of these files?

Hello-Kitty.jpg	<input checked="" type="radio"/> photograph	<input type="radio"/> saved game	<input type="radio"/> Japanese text
LICENSE	<input type="radio"/> copyrighted software	<input checked="" type="radio"/> plain text	<input type="radio"/> crypto key
README.md	<input type="radio"/> monitoring device	<input checked="" type="radio"/> markdown document	<input type="radio"/> medical record
superuser.pem	<input checked="" type="radio"/> crypto key	<input type="radio"/> printer config	<input type="radio"/> recipe
install.sh	<input checked="" type="radio"/> shell script	<input type="radio"/> data shard	<input type="radio"/> shared file

Im12.png-366.7kB

2.2 Command History

有三种方法来找到之前输入过的命令。

1. 用↑这个方向键, up arrow key.
2. use the command `history`
3. Ctrl + R, 能用来搜索之前输入的命令, 适合久远的命令。

2.3 Some Common Commands

用 `unzip things.zip` 来解压之前 `curl` 来的文件 `things.zip`.

用 `cat file_name.txt`, 会return文档里的内容。

用**Tab**来自动补全。

用来分析文件的命令:

1. `wc bivalves.txt`, `wc` is a word count program. return the lines, words, bytes.
2. `diff gastropods.txt gastropods_draft.txt`, 返回两个文档不同的地方。这个在git教程里也讲到了。

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
pet" informally refers to any gastropod whose shell has no obvious coiling, like the coiling which can be seen in the shells of garden snails or winkles.
Nudibranch: A nudibranch is a member of the Nudibranchia, a group of soft-bodied, marine gastropod mollusks which shed their shells after their larval stage. They are noted for their often extraordinary colours and striking forms.
Sea Snail: Sea snail is a common name for snails that normally live in saltwater, in other words marine gastropods. The taxonomic class Gastropoda also includes snails that live in other habitats, such as land snails and freshwater snails. Many species of sea snails are edible and exploited as food sources by humans.

Source: Wikipedia, The Free Encyclopedia
vagrant@vagrant-ubuntu-trusty-64:~$ wc bivalves.txt
 12 393 2483 bivalves.txt
vagrant@vagrant-ubuntu-trusty-64:~$ diff gastropods.txt gastropods_draft.txt
5d4
< Sea Angel: Sea angels (clade Gymnosomata) are a large group of small, swimming sea slugs classified into six different families. In this clade, the foot of the gastropod has developed into wing-like flapping appendages (parapodia) and their shells have been lost.
. Both adaptations suit their free-swimming oceanic lives.
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Im13.png-870.9kB

2.4 Manual Pages

用 man command 来查询文档

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
          ^ ^ 
         \ / (--) \_____
           \ \ ) \-----w |
             ||----+ | |
             ||----+ | |

vagrant@vagrant-ubuntu-trusty-64:~$ cowsay -f tux Tux is Linux's mascot!
< Tux is Linux's mascot! >
          \ 
          .--.
         |o_o |
         |:-/ |
         // \ \ )
        (( \ \ ))
       \ \_)=( \_/
vagrant@vagrant-ubuntu-trusty-64:~$ man cowsay█
```

Im14.png-211.2kB

在synopsis里，像 [-e eye_string] 这样的表示有可选项的命令。必须在 -e 后添加一个 eye_string 来改变 cowsay 的眼睛形状。

```
● ● ● 1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
cowsay(6) Games Manual cowsay(6)

NAME
    cowsay/cowthink – configurable speaking/thinking cow (and a bit more)

SYNOPSIS
    cowsay [-e eye_string] [-f cowfile] [-h] [-l] [-n] [-T tongue_string] [-W column] [-bdgpsy]

DESCRIPTION
    Cowsay generates an ASCII picture of a cow saying something provided by the user. If run with no arguments, it accepts standard input, word-wraps the message given at about 40 columns, and prints the cow saying the given message on standard output.

    To aid in the use of arbitrary messages with arbitrary whitespace, use the -n option. If it is specified, the given message will not be word-wrapped. This is possibly useful if you want to make the cow think or speak in figlet(6). If -n is specified, there must not be any command-line arguments left after
Manual page cowsay(6) line 1 (press h for help or q to quit)
```

Im15.png-603kB

2.5 Using the Manual for Serious Purpose

比如在 `unzip things.zip` 的时候，发现 `extracting .secret` 的字样，但是用 `ls` 看不到。所以用 `man ls` 来查看用什么命令能看到隐藏文件。

答案是 `ls -a` 或 `ls --all`。

2.6 Options to ls

Which of these pieces of information can you find with ls -l? Check all that apply.

- filename
- modification time
- file size
- is this file or directory?
- virus scanning status
- what program is used to open this file?

Im16.png-362.7kB

从右到左, filename, modification time, file size(byte),

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
vagrant@vagrant-ubuntu-trusty-64:~$ man ls
vagrant@vagrant-ubuntu-trusty-64:~$ ls -l
total 388
-rw-r--r-- 1 vagrant vagrant 2483 Jul 13 16:41 bivalves.txt
-rw-r--r-- 1 vagrant vagrant 1656 Jul 13 16:41 cephalopods.txt
-rw-r--r-- 1 vagrant vagrant 1264 Jul 13 16:54 gastropods_draft.txt
-rw-r--r-- 1 vagrant vagrant 1585 Jul 13 16:40 gastropods.txt
drwxr-xr-x 2 vagrant vagrant 4096 Jul 13 16:40 globbing
drwxr-xr-x 3 vagrant vagrant 4096 Jul 13 16:40 junk
-rw-r--r-- 1 vagrant vagrant 1450 Jul 13 16:41 mustelidae.txt
drwxr-xr-x 3 vagrant vagrant 4096 Jul 13 16:40 ocean
-rw-r----- 1 vagrant vagrant 351483 Jul 17 14:37 TheWindintheWillows.txt
-rw-rw-r-- 1 vagrant vagrant 9548 Jul 17 16:44 things.zip
Vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Im17.png-552.3kB

2.7 Researching Commands

运行不确定的command前先google, 别手贱.....

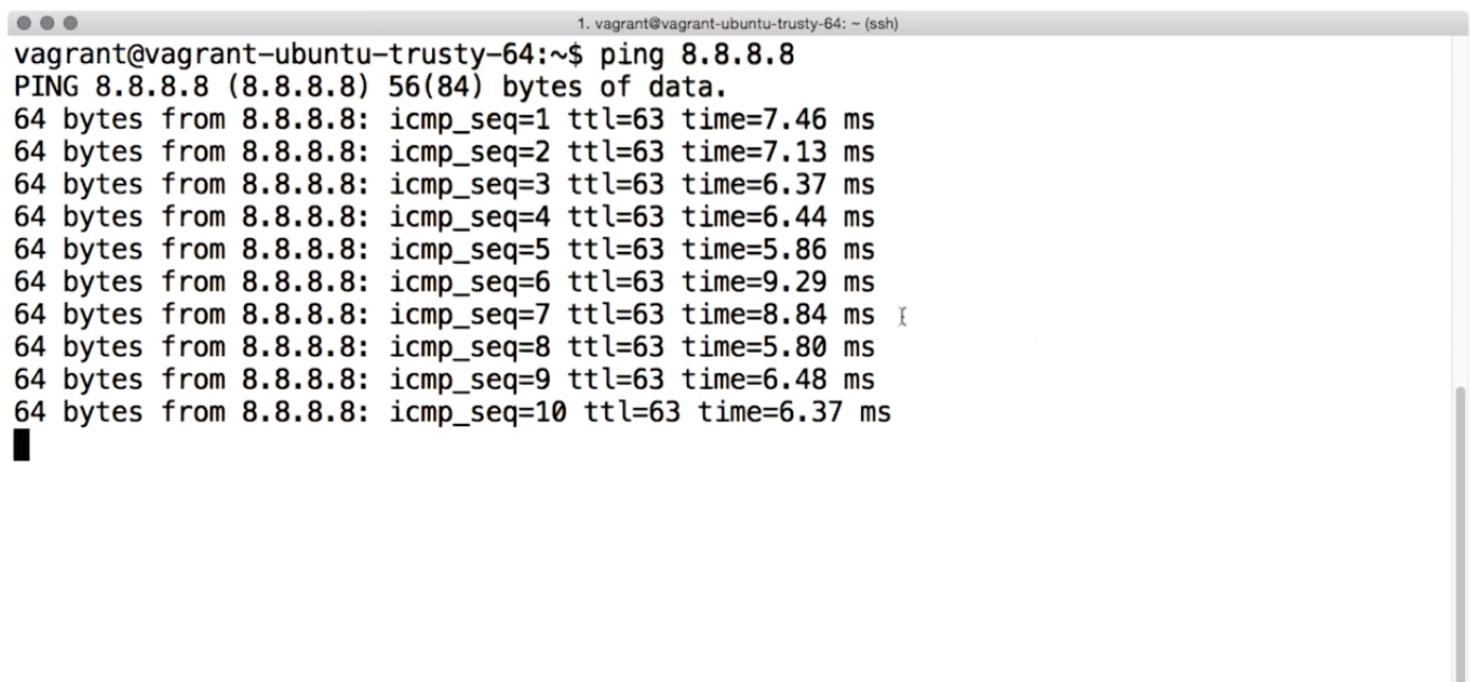
比如 rm -rf/ :

-r is for recursive, and -f is for force.

Just to be clear: This command is not good for your system. Don't run it. Keep watching ...

2.8 Line Based Programs

一些交互式的命令，一旦运行后就会占据terminal，一直运行。比如 ping ,检测某个域名是否alive. 这个命令会一直返回echo。除非你用Ctrl+C终止进程。

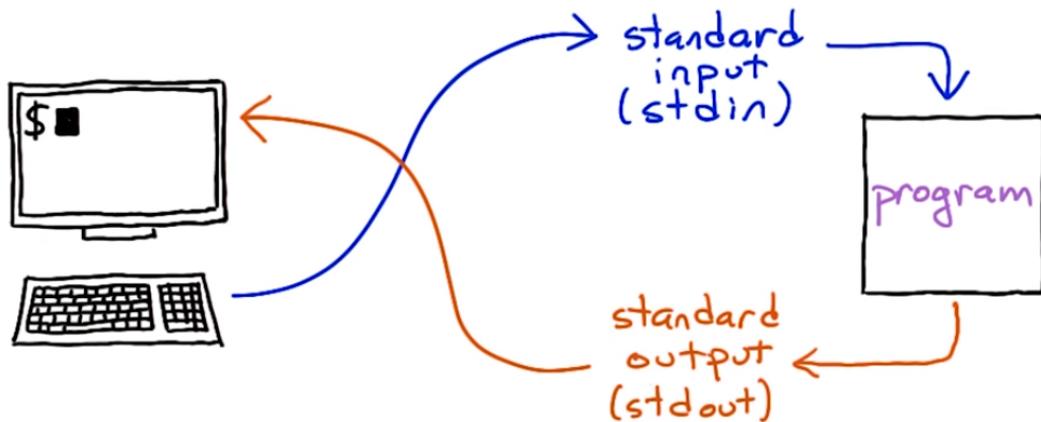


vagrant@vagrant-ubuntu-trusty-64:~\$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=63 time=7.46 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=63 time=7.13 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=63 time=6.37 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=63 time=6.44 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=63 time=5.86 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=63 time=9.29 ms
64 bytes from 8.8.8.8: icmp_seq=7 ttl=63 time=8.84 ms
64 bytes from 8.8.8.8: icmp_seq=8 ttl=63 time=5.80 ms
64 bytes from 8.8.8.8: icmp_seq=9 ttl=63 time=6.48 ms
64 bytes from 8.8.8.8: icmp_seq=10 ttl=63 time=6.37 ms

Im18.png-390.1kB

但另外一些programs有不同的behavior。

Line-Based Programs



Im19.png-163.8kB

比如输入 sort ,回车。这个命令会进入下一行，每输完一个单词回车后就会另起一行，无法停止。此时必须用**Ctrl+D**来告诉shell“输入完毕”，然后就会得到按字母排好序的单词。

```
vagrant@vagrant-ubuntu-trusty-64:~$ sort
light
time
space
breath

breath
light
space
time
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Im20.png-20.6kB

2.9 Waiting for Input

输入 bc 可以进入一个basic calculator, 你可以输入数字, 回车, 但是怎样才能退出呢?

1. 输入 quit

2. Ctrl + D

```
vagrant@vagrant-ubuntu-trusty-64:~$ bc  
bc 1.06.95  
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006 Free Software Foundation, Inc.  
This is free software with ABSOLUTELY NO WARRANTY.  
For details type `warranty'.  
2 + 3 * 4  
14  
(2 + 3) * 4  
20  
^C  
(interrupt) use quit to exit.  
quit  
vagrant@vagrant-ubuntu-trusty-64:~$ bc  
bc 1.06.95  
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006 Free Software Foundation, Inc.  
This is free software with ABSOLUTELY NO WARRANTY.  
For details type `warranty'.  
■
```

Im21.png-315.6kB

Waiting for Input

Run bc in the shell. Which of these actions lets you exit bc without closing the terminal window?

- Press Control-C (^C)
- Type "quit".
- Press Control-D (^D)
- Type "exit".

There is more than one right answer here!

Im22.png-229.3kB

2.10 Full Screen Interactive Programs: less

其实在用 man command 的时候，就是用的less的语法。比如用Q退出，就是less的功能。

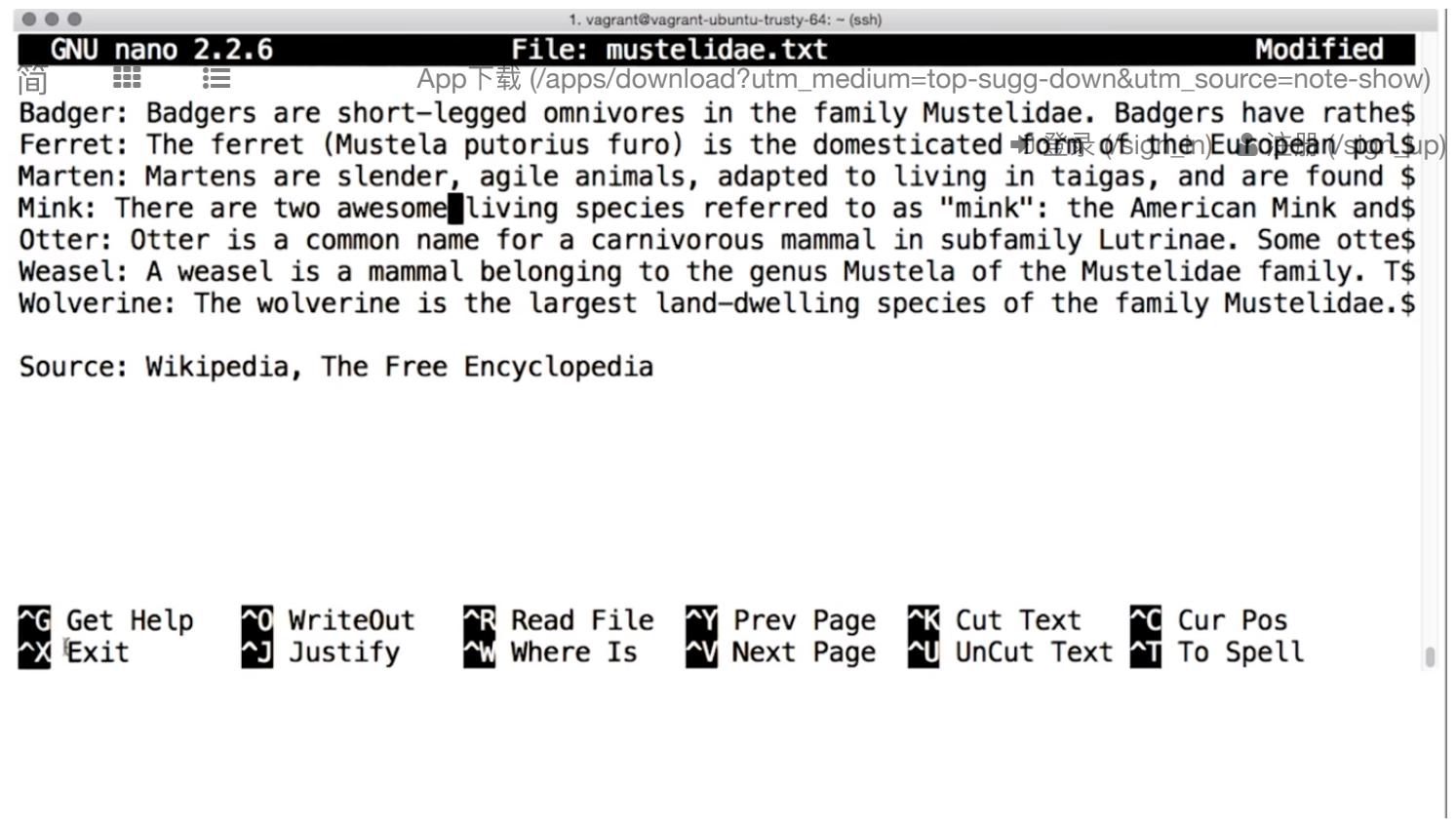
```
less thewind.txt
```

这个less就像是vim里的命令模式，只能看和编辑，不能输入。

Cheatsheet of less's Keyboard (<http://sheet.shiar.nl/less>)

Introduction to Regular Expressions (<http://codular.com/regex>)

2.11 Editing Files in nano



The screenshot shows a terminal window running the nano 2.2.6 editor. The title bar says "GNU nano 2.2.6" and "File: mustelidae.txt". The status bar at the top right shows "Modified". The main area contains text about various mustelid species: Badger, Ferret, Marten, Mink, Otter, Weasel, and Wolverine. The text is in English and discusses their characteristics and distribution. At the bottom of the screen, there is a menu of keyboard shortcuts.

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
GNU nano 2.2.6          File: mustelidae.txt          Modified
简   网   表      App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)
Badger: Badgers are short-legged omnivores in the family Mustelidae. Badgers have rathe$ Ferret: The ferret (Mustela putorius furo) is the domesticated form of the European pole$ Marten: Martens are slender, agile animals, adapted to living in taigas, and are found $ Mink: There are two awesome living species referred to as "mink": the American Mink and$ Otter: Otter is a common name for a carnivorous mammal in subfamily Lutrinae. Some otte$ Weasel: A weasel is a mammal belonging to the genus Mustela of the Mustelidae family. T$ Wolverine: The wolverine is the largest land-dwelling species of the family Mustelidae.$

Source: Wikipedia, The Free Encyclopedia

^G Get Help    ^O WriteOut    ^R Read File    ^Y Prev Page    ^K Cut Text    ^C Cur Pos
^X Exit        ^J Justify     ^W Where Is     ^V Next Page    ^U UnCut Text  ^T To Spell
```

lm23.png-504.8kB

Lesson 3:The Linux Filesystem

3.1 The Filesystem Tree

The Filesystem Tree

The filesystem stores various kinds of objects.

The two most common are:

files — like text files, images, programs,
HTML files, zip files, etc.

directories — named containers that can
hold files, directories, other objects.

简 ■ ■■

App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)

登录 (/sign_in) 注册 (/sign_up)

Im24.png-213.4kB

The Filesystem Tree

Files and directories have names ("filenames").

Filenames can contain any character except the slash. /

When you write a filename that contains spaces or punctuation such as !\$#()[]%&; put the filename in 'quotes' or precede each special character with \.

Great Filename!

actual filename

'Great Filename!'

quoted

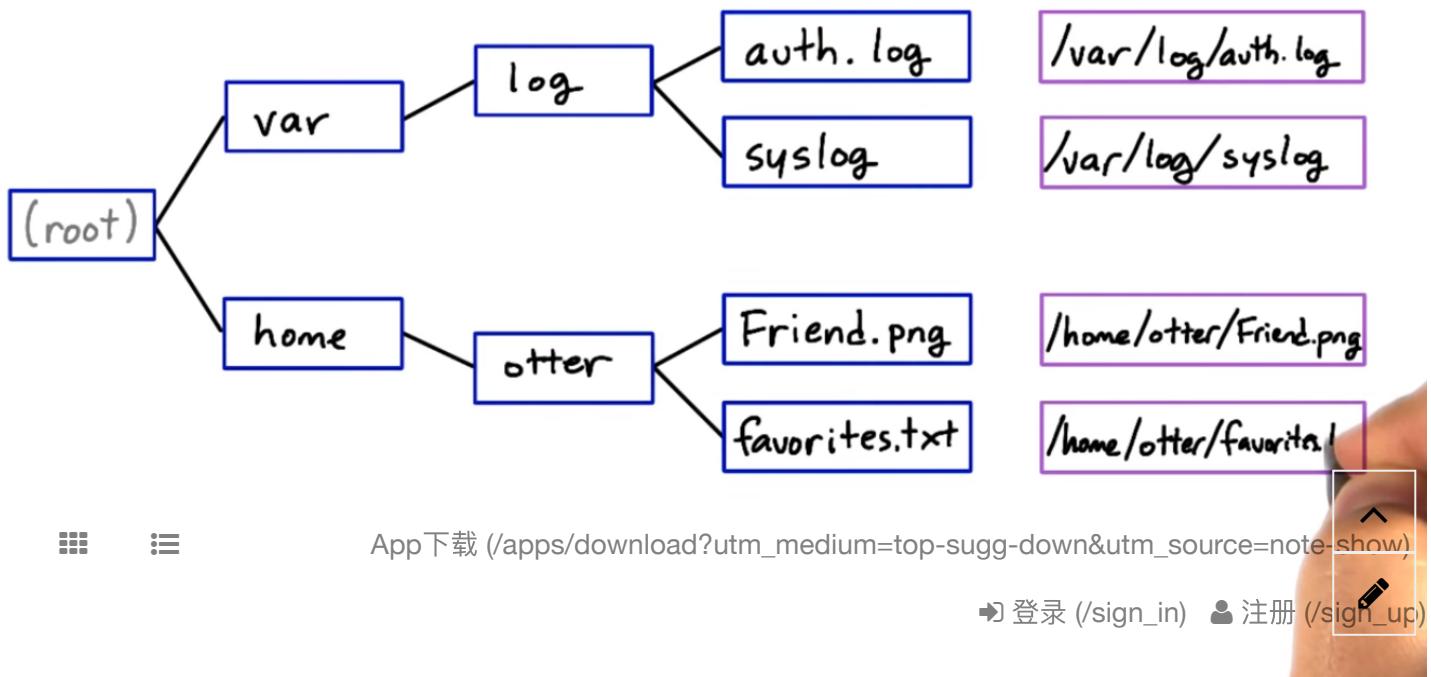
Great\ Filename\!

escaped

Im25.png-316.3kB

文件路径。Linux中用 / (slash) 来表示路径，和 https:// 一样，和 1/2 = 0.5 只有 windows 用 backslash.

The Filesystem Tree



简 ■ ■■ ■

App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)

登录 (/sign_in) 注册 (/sign_up)

3.2 The Working Directory

用 `pwd` 显示 Present Working Directory。

用 `cd` 来改变Directory：

1. `cd /var/log` 给出整个path
2. `cd three` 进入当前Directory中的某个名为three的Directory
3. `cd ..` 返回上一级

```
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
bivalves.txt      gastropods.txt  junk          ocean  
cephalopods.txt   globbing       mustelidae.txt things.zip  
vagrant@vagrant-ubuntu-trusty-64:~$ pwd  
/home/vagrant  
vagrant@vagrant-ubuntu-trusty-64:~$ cd /var/log  
vagrant@vagrant-ubuntu-trusty-64:/var/log$ cd three  
-bash: cd: three: No such file or directory  
vagrant@vagrant-ubuntu-trusty-64:/var/log$ cd ..  
vagrant@vagrant-ubuntu-trusty-64:/var$ cd /home/vagrant/  
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
bivalves.txt      gastropods.txt  junk          ocean  
cephalopods.txt   globbing       mustelidae.txt things.zip  
vagrant@vagrant-ubuntu-trusty-64:~$ cd ocean
```

简



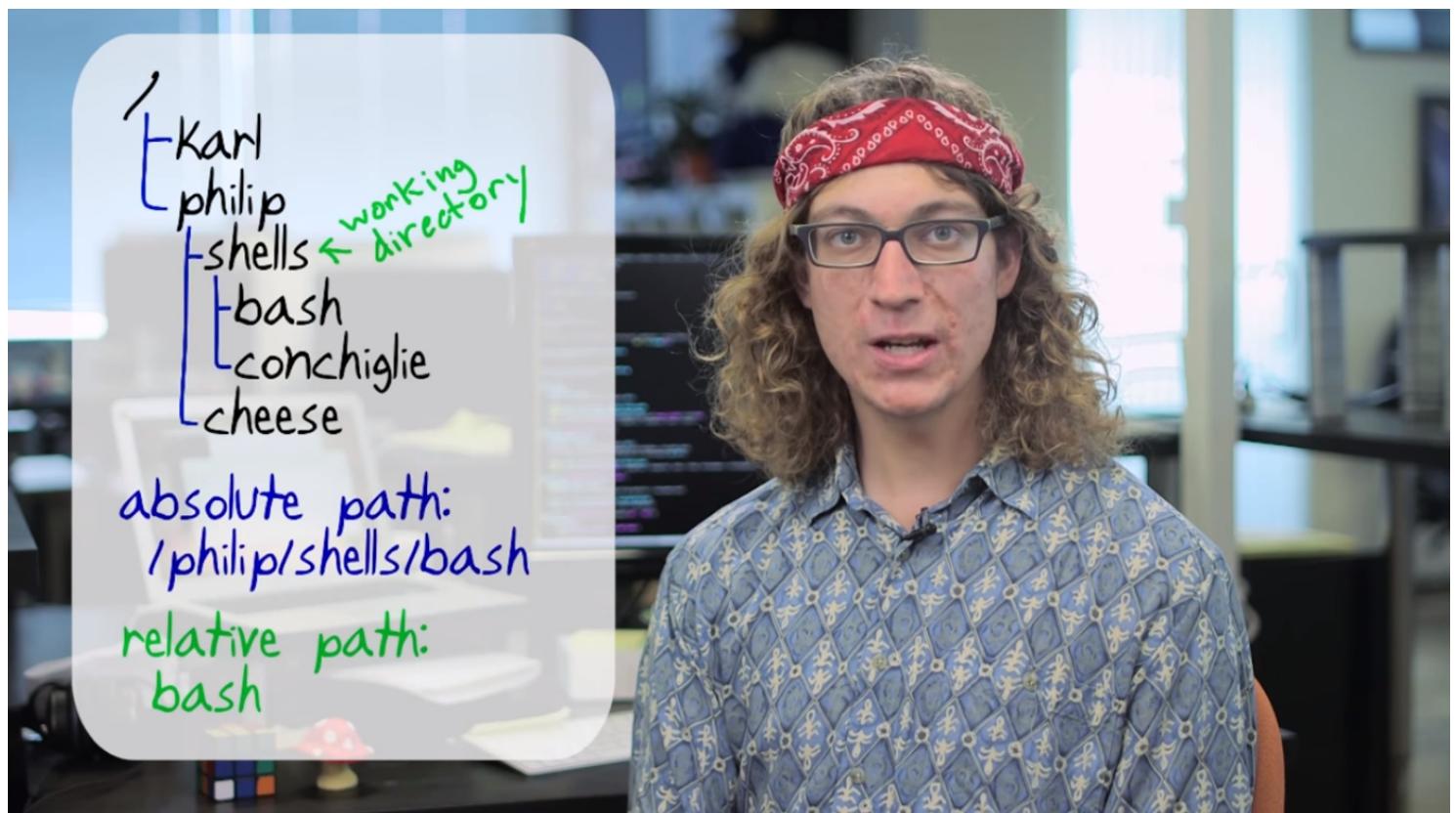
App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)

登录 (/sign_in) 注册 (/sign_up)

Im27.png-386.6kB

可以下载一个叫tree的program，能显示文件目录的树状结构。

3.3 Absolute and Relative Paths



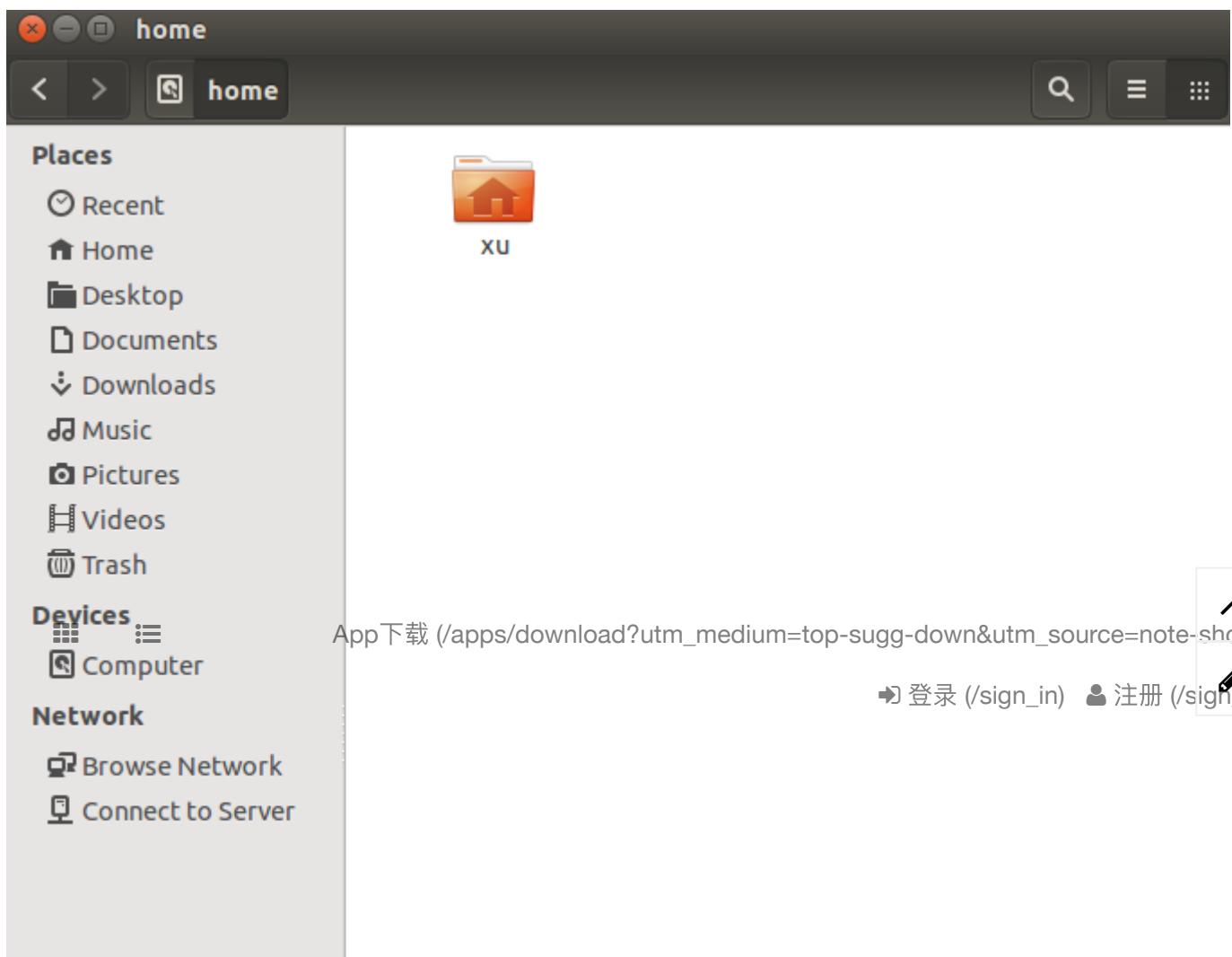
Im28.png-1024.8kB

.../mountain : 表示 cwd(当前目录)的parent directory 下的另一个directory mountain. 也就是说这个mountain和当前目录是同一层级的。

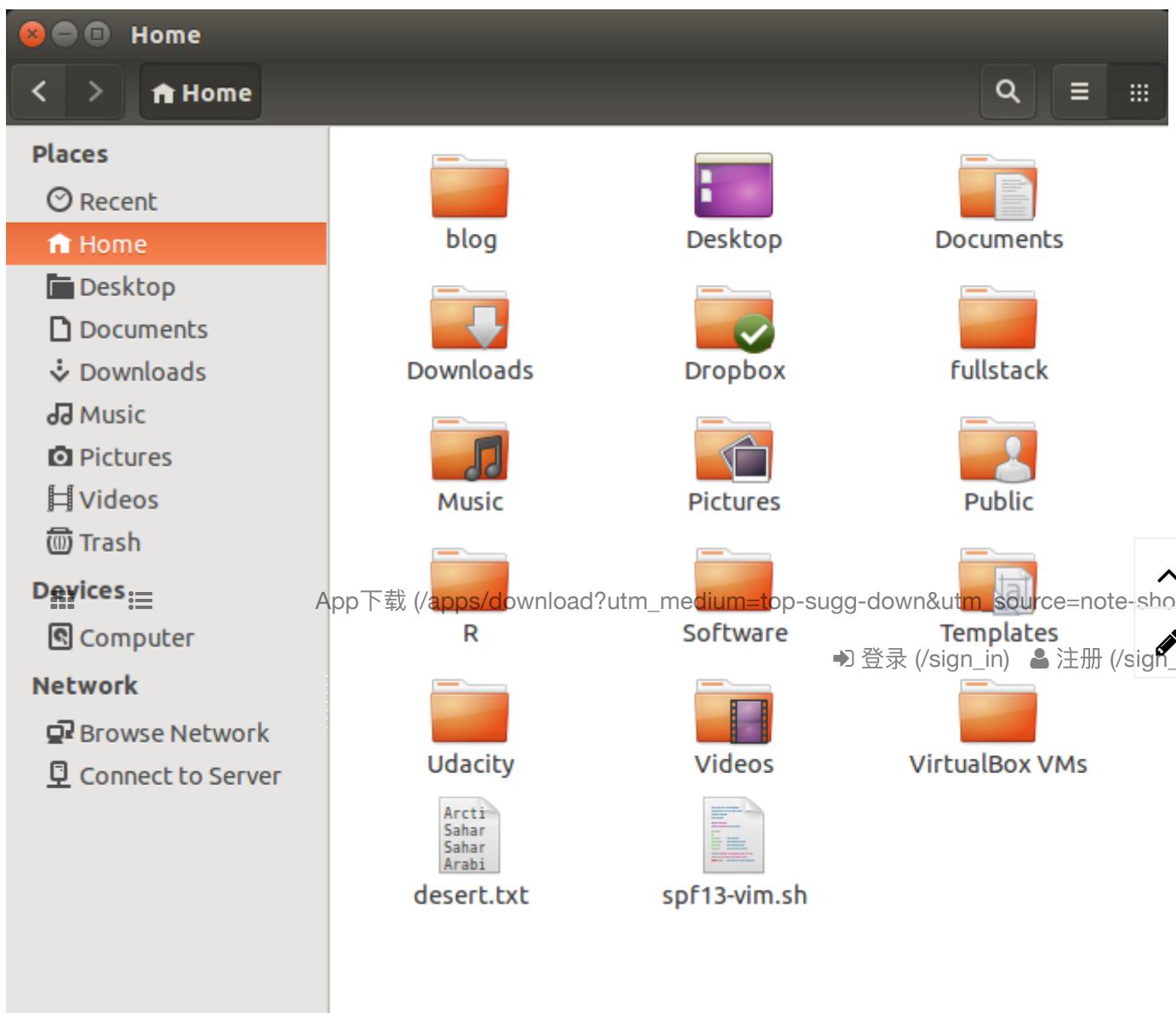
. : 一个dot表示 cwd.

cd ~ : 回到home directory. 其中 ~ 代表home, 我的home directory就是xu.





Im30.png-34.5kB



lm31.png-72.4kB

`cd without arguments is a shortcut to take you home.

As long as your home directory exists, you can always go home.

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)
vagrant@vagrant-ubuntu-trusty-64:/var/log$ cd ..
vagrant@vagrant-ubuntu-trusty-64:/var$ cd /
vagrant@vagrant-ubuntu-trusty-64:$ ls
bin etc initrd.img.old lost+found opt run sys vagrant vmlinuz.old
boot home lib media proc sbin tmp var
dev initrd.img lib64 mnt root srv usr vmlinuz
vagrant@vagrant-ubuntu-trusty-64:$ cd var
vagrant@vagrant-ubuntu-trusty-64:/var$ ls
backups cache chef crash lib local lock log mail opt run spool tmp
vagrant@vagrant-ubuntu-trusty-64:/var$ cd log
vagrant@vagrant-ubuntu-trusty-64:/var/log$ pwd
/var/log
vagrant@vagrant-ubuntu-trusty-64:/var/log$ cd
vagrant@vagrant-ubuntu-trusty-64:~$ pwd
/home/vagrant
vagrant@vagrant-ubuntu-trusty-64:~$
```

简 ■ ■ ■

App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)

登录 (/sign_in) 注册 (/sign_up)

Im32.png-431.8kB

3.4 Tab Completion

在输入目录path的时候用**Tab**补全。

3.5 Moving and Copying Files

Moving and copying
mv source destination
mv item1 item2 ... directory

my for move
or rename...
cp for copy!

These syntaxes work for cp too!
Read man mv and man cp for the details!

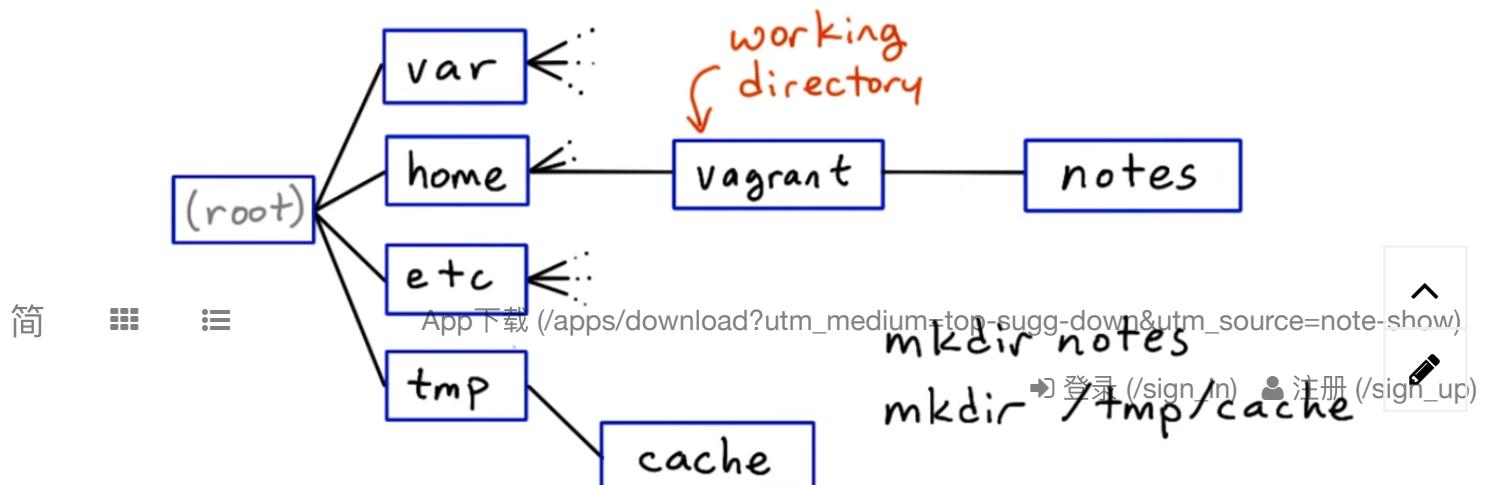
Im33.png-194.6kB

3.6 Making and Removing Directories

`mkdir notes` : 在当前directory创建一个新的叫notes的directory

`mkdir /tmp/cache` : 给出absolute path, 创建叫cache的directory, 和 cwd无关。

Making and removing directories



Im34.png-176.2kB

`rmdir notes` : 只能移除空文件夹

`rm -rf junk` : 递归并强制删除

You might remember looking up `rm -rf` before. Well, it can be used for good as well as evil. Here, you don't need the `-f` option; just `rm -r junk` will do what you need.

3.7 mv and directories

How would you make a new directory called Photos and move beach.jpg into it?

```
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
beach.jpg          junk  
bivalves.txt       mustelidae.txt  
cephalopods.txt   ocean  
gastropods_draft.txt TheWindintheWillows.txt  
gastropods.txt    things.zip  
globbing  
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Enter the commands here:

简



App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)
↑ 登录 (/sign_in) 注册 (/sign_up)

Im35.png-293kB

```
1. vagrant@vagrant-ubuntu-trusty-64: ~ (ssh)  
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
beach.jpg      gastropods_draft.txt  junk           TheWindintheWillows.txt  
bivalves.txt   gastropods.txt       mustelidae.txt  things.zip  
cephalopods.txt globbing           ocean            
vagrant@vagrant-ubuntu-trusty-64:~$ mkdir Photos  
vagrant@vagrant-ubuntu-trusty-64:~$ ls  
beach.jpg      gastropods_draft.txt  junk           Photos  
bivalves.txt   gastropods.txt       mustelidae.txt TheWindintheWillows.txt  
cephalopods.txt globbing           ocean          things.zip  
vagrant@vagrant-ubuntu-trusty-64:~$ mv beach.jpg Photos  
vagrant@vagrant-ubuntu-trusty-64:~$ ls Photos  
beach.jpg  
vagrant@vagrant-ubuntu-trusty-64:~$ █
```

Im36.png-374.8kB

3.8 Globbing (通配符)

```
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls
app.css app.js bear.png bees.png favicon.png JADE.jpg rose.JPG
app.html bean.png beer.png DAVE.JPG index.html john.jpg
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls *html
app.html index.html
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls app*
app.css app.html app.js
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls *
app.css app.js
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls *pp*
app.css app.html app.js
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls b*png
bean.png bear.png beer.png bees.png
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls app.{css,html}
app.css app.html
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls be?.png
bean.png bear.png
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls be???.png
bean.png bear.png beer.png bees.png
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls be[aeiou]r.png
```

简

App 下载 (/apps/download?utm_medium=top-sugg-down&utm_source=note-show)

[登录 \(/sign_in\)](#) [注册 \(/sign_up\)](#)*Im37.png-558.8kB*

*:代表多个character

{css,html} : css或html

? : 代表一个character

[aeiou] : 只要这五个字符中的一个出现即可

要注意，这些是大小写敏感的

```
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls b*png
bean.png bear.png beer.png bees.png
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls app.{css,html}
app.css app.html
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls be?.png
bean.png bear.png
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls be???.png
bean.png bear.png beer.png bees.png
vagrant@vagrant-ubuntu-trusty-64:~/globbing$ ls be[aeiou]r.png
bear.png beer.png
```

Im38.png-264.9kB