

What can you do in the terminal?

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Graphical Interface

```
user@host:~$ ls  
thing  stuff  program  
user@host:~$ ./program  
Hello, world!  
user@host:~$
```

Terminal

**interfaces are the most common
interfaces for desktop programs.**



0:16 / 0:56



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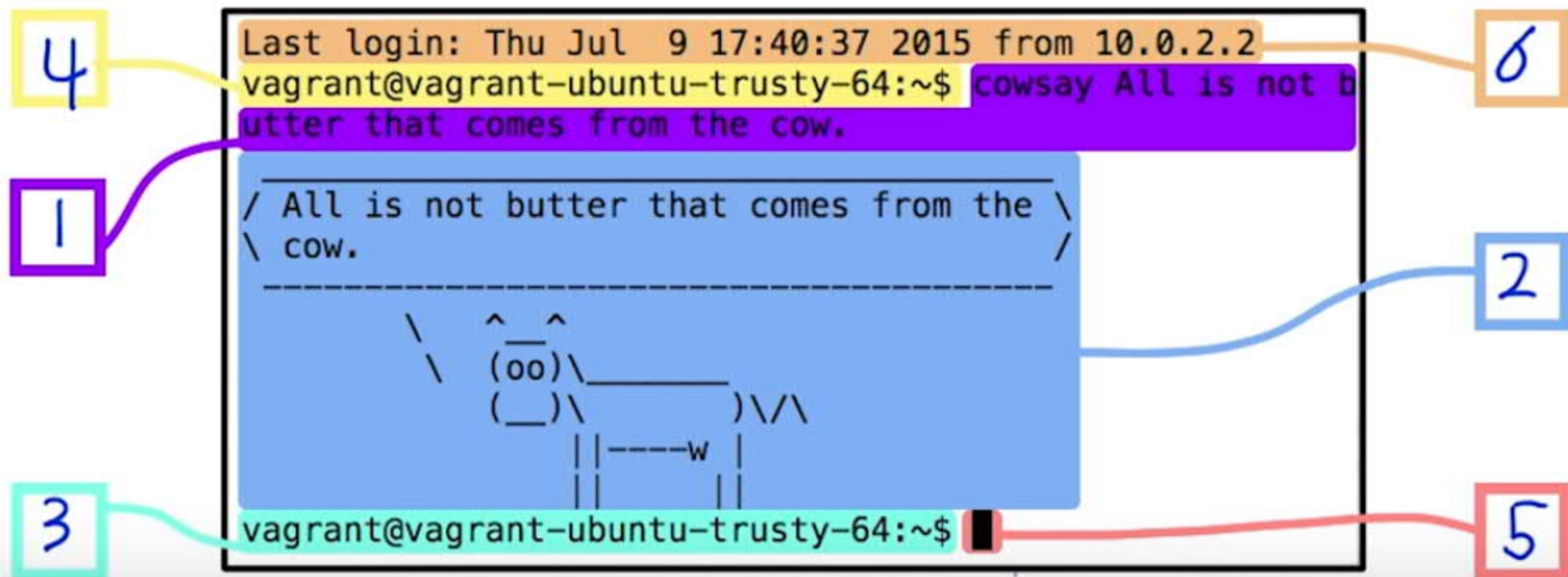
What can you do in the terminal?

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.

Label the interface elements in this terminal:

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



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



Try More Commands

```
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:~$ 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:~$
```

often with an option like `--version` or
dash capital V.



1:28 / 1:41



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Reading Shell Transcripts



input output

<input checked="" type="checkbox"/>	<input type="checkbox"/>	user@host:~\$ cd /tmp/testing/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	user@host:testing\$ ls
<input type="checkbox"/>	<input checked="" type="checkbox"/>	bears fish moose squirrels
<input checked="" type="checkbox"/>	<input type="checkbox"/>	user@host:testing\$ echo Good St. Moose's Day!
<input checked="" type="checkbox"/>	<input type="checkbox"/>	> oh right, quotes
<input checked="" type="checkbox"/>	<input type="checkbox"/>	> '
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Good St. Mooses Day!
<input type="checkbox"/>	<input checked="" type="checkbox"/>	oh right, quotes
		user@host:testing\$ █

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



0:47 / 0:59



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Reading Shell Transcripts



input output

<input checked="" type="checkbox"/>	<input type="checkbox"/>	user@host:~\$ cd /tmp/testing/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	user@host:testing\$ ls
<input type="checkbox"/>	<input checked="" type="checkbox"/>	bears fish moose squirrels
<input checked="" type="checkbox"/>	<input type="checkbox"/>	user@host:testing\$ echo Good St. Moose's Day!
<input checked="" type="checkbox"/>	<input type="checkbox"/>	> oh right, quotes
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	Good St. Mooses Day!
<input type="checkbox"/>	<input checked="" type="checkbox"/>	oh right, quotes

user@hos **You'd also need to put a backslash
before the exclamation mark as well.**

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




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Try again!

Remember when you "broke" the shell prompt earlier? The  prompt indicates the shell is waiting for more input to complete a multi-line command.