

Quiz navigation

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Finish review

Started on	Wednesday, June 15, 2022, 2:56 AM
State	Finished
Completed on	Wednesday, June 15, 2022, 3:40 AM
Time taken	44 mins 2 secs
Marks	27.33/28.00
Grade	97.62 out of 100.00

Question 1

Correct

1.00 points out of 1.00

Flag question

1. Listing files and directories

ls (list)

When you first login, your current working directory is your home directory. Your home directory has the same name as your user-name, and it is where your personal files and subdirectories are saved.

To find out what is in your home directory, type `ls` at the command prompt, where `[iris]` `[[python:your_username]]->` is the command prompt, like this:

```
(iris) [python:/your_username]:>> ls
```

NOTE: It is often difficult to tell the difference between lowercase letter l, uppercase letter I, and the number 1 in this tutorial. It is a little easier when lowercase letter l, uppercase letter I, and number 1 are in this font. Be careful to make sure you type the correct one when reading my instructions.

The `ls` command is short for "list" and it lists the contents of your current working directory.

What did the system return after you typed the `ls` command?

Select one:

- ☐ a. No files or directories are listed
- ☐ b. ~
- ☐ c. groupwork/
- ☐ d. An error message
- ☐ e. /home
- ☐ f. ls: Command not found.
- ☐ g. None of these answers is correct
- ☒ h. Several files or directories are listed ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

1.00 points out of 1.00

Flag question

1s does not, in fact, cause all the files in your home directory to be listed, but only those ones whose name does not begin with a dot (.) Files beginning with a dot (.) are known as hidden files and usually contain important program configuration information. They are hidden because you should not change them unless you are very familiar with UNIX.

To list all files in your home directory including those whose names begin with a dot, type

```
(iris) [python:/your_username]:>> ls -la
```

1s is an example of a command which can take options: `-a` is an example of an option. The options change the behaviour of the command. There are online manual pages that tell you which options a particular command can take, and how each option modifies the behaviour of the command. (We will discuss this in a bit more detail later).

How many files or directories did you find when you typed `ls -a`?

Select one:

- ☒ a. 10 or more ✓
- ☐ b. 1
- ☐ c. 2
- ☐ d. about 5
- ☐ e. None

Check

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

1.00 points out of 1.00

Flag question

2. Making Directories

mkdir (make directory)

We will now make a subdirectory in your home directory to hold the files you will be creating and using in the course of this tutorial. To make a subdirectory called `groupwork` in your current working directory type

```
(iris) [python:/your_username]:>> mkdir groupwork
```

To see the directory you have just created, type

```
(iris) [python:/your_username]:>> ls
```

Is `groupwork` listed when you typed `ls`?

Select one:

- ☒ True ✓
- ☐ False

Check

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

1.00 points out of 1.00

Flag question

3. Changing to a different directory

cd (change directory)

The command `cd` directory means change the current working directory to 'directory'. The current working directory may be thought of as the directory you are in (i.e., your current position in the file-system tree). You might also think of this as your current "folder" when looking for files on a Windows system.

Note: typing `cd` with no argument always returns you to your home directory. This is very useful if you are lost in the file system.

To change to the directory you have just made, type

```
(iris) [python:/your_username]:>> cd groupwork
```

Type `ls` at the command prompt (note that the command prompt changed to show that you are in the **groupwork** directory):

```
(iris) [python:/your_username]:~/groupwork> ls
```

and it should show you the contents of the **groupwork** directory.

What did you find when you typed `ls`?

Select one:

- ☐ a. Several files are listed
- ☐ b. /home
- ☒ c. No files are listed ✓
- ☐ d. ~
- ☐ e. An error message
- ☐ f. groupwork/
- ☐ g. None of these answers is correct

Check

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

1.00 points out of 1.00

Flag question

Now that you are inside the **groupwork** directory, you need to make another directory inside the **groupwork** directory called **act1**

What do you type to make this directory?

Answer: `mkdir act1` ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct

1.00 points out of 1.00

Flag question

4. The directories . and ..

Still in the **groupwork** directory, type

```
(iris) [python:/your_username]:~/groupwork> ls -la
```

As you can see, in the **groupwork** directory (and in all other directories), there are two special directories called `(.)` and `(..)`.

In UNIX, `(.)` means the current directory, so typing

```
(iris) [python:/your_username]:~/groupwork> cd .
```

NOTE: there is a space between `cd` and the `dot`

means stay where you are (the **groupwork** directory).

This may not seem very useful at first, but using `(.)` as the name of the current directory will save a lot of typing, as we shall see later in the tutorial.

In UNIX, `(..)` means the parent of the current directory, so typing

```
(iris) [python:/your_username]:~/groupwork> cd ..
```

will take you one directory up the hierarchy. Try it now.

Where did it take you?

Select one:

- ☒ a. Your home directory (where you started when you logged in) ✓
- ☐ b. None of these answers is correct
- ☐ c. The `act1` directory
- ☐ d. The `groupwork` directory
- ☐ e. The `/home` directory

Check

Correct

Marks for this submission: 1.00/1.00.

Question 7

Correct

1.00 points out of 1.00

Flag question

5. Pathnames

pwd (print working directory)

Pathnames enable you to work out where you are in relation to the whole file-system. For example, to find out the absolute pathname of your home-directory, type

```
cd
```

to get back to your home-directory and then type

```
(iris) [python:/your_username]:>> pwd
```

The full pathname will look something like this -

```
/home/jovyan
```

which means that `jovyan` (your home directory) is in the directory `home` (the directory for user files), which is located on the root (`/`) file-system. Note that your home directory is named `jovyan`, as opposed to the username of your account, because `jovyan` is the "universal username" for the cloud-based system you're using. However, typing in `echo $JUPYTERHUB_USER` will return your own username! Check out the bottom of this article <https://docs.jupyter.org/en/latest/community/content-community.html#what-is-a-jovyan> to learn more.

Use the commands `ls`, `pwd` and `cd` to explore the file system.

What is the simplest thing to type to return to your home directory as you move around the file system?

Answer: `cd` ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct

1.00 points out of 1.00

Flag question

6. More about home directories and pathnames

Understanding pathnames

First type `cd` to get back to your home directory, then type

```
(iris) [python:/your_username]:>> ls groupwork
```

to list the contents of your `groupwork` directory.

Now type

```
(iris) [python:/your_username]:>> ls act1
```

You will get a message like this -

```
ls: cannot access 'act1': No such file or directory
```

The reason is, **act1** is not in your current working directory. To use a command on a file (or directory) not in the current working directory (the directory you are currently in), you must either `cd` to the correct directory, or specify its full pathname. To list the contents of your `act1` directory, you must type

```
(iris) [python:/your_username]:>> ls groupwork/act1
```

What do you get when you type that?

Select one:

- ☐ a. An error message
- ☐ b. None of these answers is correct
- ☐ c. ~
- ☐ d. groupwork/
- ☒ e. No files are listed ✓
- ☐ f. Several files are listed
- ☐ g. /home

Check

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

1.00 points out of 1.00

Flag question

~ (your home directory)

Home directories can also be referred to by the tilde `~` character. It can be used to specify paths starting at your home directory. So typing

```
(iris) [python:/your_username]:>> ls ~/groupwork
```

will list the contents of your `groupwork` directory, no matter where you currently are in the file system.

What do you think

```
(iris) [python:/your_username]:>> ls ~
```

would list?

Select one:

- ☐ a. The contents of your `groupwork` directory
- ☐ b. Nothing
- ☐ c. The contents of the `/home` directory
- ☐ d. The contents of Mike's home directory
- ☐ e. `act1`
- ☒ f. The contents of your home directory ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 10

Correct

0.33 points out of 1.00

Flag question

What do you think

```
(iris) $ls -la /your_username/
```

Correct

Marks for this submission: 1.00/1.00.

Question 11

Correct

1.00 points out of 1.00

Flag question

7. Copying Files

cp (copy)

cp file1 file2 is the command which makes a copy of file1 in the current working directory and calls it file2

What we are going to do now, is to take a file stored in an open access area of the file system, and use the cp command to copy it to your groupwork directory.

First, cd to your groupwork directory.

```
(iris) $cd /groupwork
```

Then at the UNIX prompt, type,

```
(iris) $cp /home/jovyan/iris_data/SSWFFiles/science.txt .
```

(Note: Don't forget the dot (.) at the end. Remember, in UNIX, the dot means the current directory.)

The above command means copy the file science.txt to the current directory, keeping the name the same.

(Note: If you cannot access the file, you can grab a copy of the file here. Just make sure you copy it into your groupwork directory.)

After copying the science.txt file to your groupwork directory, you should create a backup of it by copying it to a file called science.bak. What would you need to type to make this backup file?

Answer: cp science.txt science.bak

Correct

Marks for this submission: 1.00/1.00.

Question 12

Correct

1.00 points out of 1.00

Flag question

8. Moving files

mv (move)

mv file1 file2 moves (or renames) file1 to file2

To move a file from one place to another, use the mv command. This has the effect of moving rather than copying the file, so you end up with only one file rather than two.

It can also be used to rename a file, by moving the file to the same directory, but giving it a different name.

We are now going to move the file science.txt to your act1 directory.

First, we need to make sure you are in your groupwork directory. What command do we use to identify where you are in the file system?

Select one:

a. cd

b. ls

c. pwd

d. cp

e. mkdir

Correct

Marks for this submission: 1.00/1.00.

Question 13

Correct

1.00 points out of 1.00

Flag question

Then, inside the groupwork directory, type

```
(iris) $mv science.txt act1/
```

If the mv command has worked correctly, which of the following commands would show the science.txt file?

Select one:

a. ls

b. ls act1

c. ls groupwork/science.txt

d. ls science.txt

e. ls groupwork

Correct

Marks for this submission: 1.00/1.00.

Question 14

Correct

1.00 points out of 1.00

Flag question

Since we should try to keep our files together for this first group activity, go ahead and move the science.bak file into your act1 directory too. What command would you type to make that happen?

Select one:

a. mv science.bak act1/

b. cp science.txt groupwork/act1/

c. cp science.bak act1/

d. cp science.bak groupwork/act1/

e. mv science.bak groupwork/act1/

f. mv science.txt act1/

Correct

Marks for this submission: 1.00/1.00.

Question 15

Correct

1.00 points out of 1.00

Flag question

9. Removing files and directories

rm (remove)

To delete (remove) a file, use the rm command. As an example, we are going to create a copy of the science.txt file then delete it.

Inside your groupwork directory, type

```
(iris) $cp act1/science.txt tempfile.txt
```

Then to check if this created the file, type

```
(iris) $ls
```

Then to delete the file, type

```
(iris) $rm tempfile.txt
```

Then to check if this has deleted the file, type

```
(iris) $ls
```

Note: We have to be careful when using the remove command because there is no Recycle Bin in UNIX. When you remove a file, it is gone for good. Always think twice before removing something.

What command would you type to remove the science.bak file inside the act1 directory?

Select one:

a. rm groupwork/act1/science.bak

b. rm act1/science.bak tempfile.txt

c. cp science.bak tempfile.txt

d. rm science.bak

e. rm act1/science.bak

f. cp act1/science.bak tempfile.txt

Correct

Marks for this submission: 1.00/1.00.

Question 16

Correct

1.00 points out of 1.00

Flag question

rmdir (remove directory)

You can use the rmdir command to remove a directory, but UNIX will not let you remove a non-empty directory. Try the following command to remove the act1 directory

```
(iris) $rmdir act1
```

What happened when you entered that command?

Select one:

a. An error message "rmdir: failed to remove 'act1': Directory not empty"

b. The act1 directory was successfully deleted

c. An error message "rmdir: failed to remove 'act1': No such file or directory"

d. The act1 directory and all of its contents were successfully deleted

Correct

Marks for this submission: 1.00/1.00.

Question 17

Correct

1.00 points out of 1.00

Flag question

Next, try creating a directory called tempstuff and then deleting it. Which pair of commands would successfully do this?

Select one or more:

a. rmdir tempstuff

b. cd tempstuff

c. mkdir tempstuff

d. del tempstuff

e. rm tempstuff

f. cp tempstuff

Correct

Marks for this submission: 1.00/1.00.

Question 18

Correct

1.00 points out of 1.00

Flag question

10. Displaying the contents of a file on the screen

clear (clear screen)

Before you start the next section, you may like to clear the terminal window of the previous commands so the output of the following commands can be clearly understood.

At the prompt, type

```
(iris) $clear
```

This will clear all text and leave you with the (iris) ~/groupwork> command prompt at the top of the window.

cat (concatenate)

The command cat can be used to display the contents of a file on the screen. Next move inside your act1 directory, by typing

```
(iris) $cd act1
```

Then type

```
(iris) $cat science.txt
```

As you can see, the file is longer than the size of the window, so it scrolls past making it unreadable.

more

The command more writes the contents of a file onto the screen a page at a time. Type

```
(iris) $more science.txt
```

Press the [space-bar] if you want to see another page, type the letter [q] if you want to quit reading. As you can see, more is used in preference to cat for long files.

Here is a list of three common things a geophysicist often wants to do while working in UNIX and you should match them with the command would help most.

clear

cat

more

Correct

Marks for this submission: 1.00/1.00.

Question 19

Correct

1.00 points out of 1.00

Flag question

head

The head command writes the first ten lines of a file to the screen.

First clear the screen then type

```
(iris) $head science.txt
```

Then type

```
(iris) $head -5 science.txt
```

What difference did the -5 do to the head command?

Select one:

a. It only shows the first 5 lines

b. It only shows the first 5 files

c. It only shows the first 5 characters

d. It only shows the first 5 words

Correct

Marks for this submission: 1.00/1.00.

Question 20

Correct

1.00 points out of 1.00

Flag question

The `tail` command writes the last ten lines of a file to the screen.

Clear the screen and type

```
(iris) jupyterc:/your_username/~/groupwork/act1> tail science.txt
```

What should you type to show the last 15 lines of this file?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 21

Correct

1.00 points out of 1.00

Flag question

11. Searching the contents of a file

Simple searching using more

Using `more`, you can search though a text file for a keyword (pattern). For example, to search through `science.txt` for the word 'science', type

```
(iris) jupyterc:/your_username/~/groupwork/act1> more science.txt
```

then, still in `more`, type a forward slash [/] followed by the word to search

```
/science
```

It may be a little difficult to see, but `more` searches down and finds the keyword (usually listed on the second line of the screen).

Which letter would you need to type to exit from `more`?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 22

Correct

1.00 points out of 1.00

Flag question

grep (I have no idea why it is called grep)

`grep` is one of most useful standard UNIX utilities. It searches files for specified words or patterns. First clear the screen, then type

```
(iris) jupyterc:/your_username/~/groupwork/act1> grep science science.txt
```

As you can see, `grep` has printed out each line containing the word science.

How many lines did it print?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 23

Correct

1.00 points out of 1.00

Flag question

Now let's see if The `grep` command is case sensitive and can distinguish between Science and science. Try typing

```
(iris) jupyterc:/your_username/~/groupwork/act1> grep Science science.txt
```

How many lines did it print?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 24

Correct

1.00 points out of 1.00

Flag question

To ignore upper/lower case distinctions, use the `-i` option. Now try typing

```
(iris) jupyterc:/your_username/~/groupwork/act1> grep -i science science.txt
```

How many lines did it print?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 25

Correct

1.00 points out of 1.00

Flag question

To search for a phrase or pattern with `grep`, you must enclose it in single quotes (the apostrophe symbol). For example to search for spinning top, type

```
(iris) jupyterc:/your_username/~/groupwork/act1> grep -i 'spinning top' science.txt
```

Some of the other options of `grep` are:

- `-v` display those lines that do NOT match
- `-n` precede each matching line with the line number
- `-c` print only the total count of matched lines

Try some of them and see the different results. Don't forget, you can use more than one option at a time, for example, the number of lines without the words science or Science is

```
(iris) jupyterc:/your_username/~/groupwork/act1> grep -vce science science.txt
```

How many lines without the word science did this command report finding?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 26

Correct

1.00 points out of 1.00

Flag question

wc (word count)

A handy little utility is the `wc` command, short for word count. To do a word count on `science.txt`, type

```
(iris) jupyterc:/your_username/~/groupwork/act1> wc -w science.txt
```

How many words are in `science.txt`?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 27

Correct

1.00 points out of 1.00

Flag question

To find out how many lines the file `science.txt` has, type

```
(iris) jupyterc:/your_username/~/groupwork/act1> wc -l science.txt
```

How many lines are in `science.txt`?

Answer: ✓

Check

Correct

Marks for this submission: 1.00/1.00.

Question 28

Correct

1.00 points out of 1.00

Flag question

Now that we've reached the end of this module, let's go over the procedure to shut down the OSL desktop. What do you do first to close out of the desktop?

Select one:

☐ a. Close out the window containing the desktop

☐ b. Click "Go to JupyterLab" in the upper-right of the desktop

☐ c. Click "Go to JupyterLab" in the upper-right, followed by "Shutdown and Logout Page" in the upper-right

☒ d. Click "Go to Shutdown and Logout Page" ✓ Correct - You would click that, followed by "Stop My Server" to close your connection to the OSL system. Doing so frees up computational resources for other participants in the workshop!

Check

Your answer is correct.

Correct

Marks for this submission: 1.00/1.00.

[Finish review](#)