

GAME SHELL

Installato il gioco lo faccio partire con il comando "bash gameshell.sh". Il gioco consiste nell'eseguire comandi linux per completare le missioni e proseguire al livello successivo. Il primo livello è suggerito dalla traccia, quindi passo al secondo che mi permette di capire la differenza tra **cd ..** e **cd -**

Dall'immagine si nota come con **cd -**, partendo dalla cima della torre mi ha riportato alla cartella prima dell'ultima "mossa", dunque "second floor". Digitando poi **cd ..** che mi riporta alla cartella "padre" "first floor" e ridigitando **cd -** mi ritrovo sempre allo stesso punto, poiché la mossa prima era appunto il second floor. Proseguo fino a tornare al castello ed entrare nella "cellar".

```
Go the castle's cellar.

Secondary objective
-----

Understand the difference between ``cd -`` and ``cd ..``.

Useful commands
-----

cd -
Jump back to the location you were in prior to your last move.

cd ..
Move to the parent directory (one step back along the path to your current location).

pwd
See the path to your current location.

[mission 2] $ pwd
/home/riccbrun/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ cd -
/home/riccbrun/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd ..
[mission 2] $ cd -
/home/riccbrun/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd ..
[mission 2] $ ls
Second_floor
[mission 2] $ cd..
cd..: command not found
[mission 2] $ cd ..
[mission 2] $ ls
First_floor
[mission 2] $ cd ..
[mission 2] $ pwd
/home/riccbrun/gameshell/World/Castle
[mission 2] $ ls
Cellar Great_hall Main_building Main_tower Observatory
[mission 2] $ cd Cellar
[mission 2] $ gsh check

Congratulations, mission 2 has been successfully completed!
```

Svolgo diverse missioni passando per altri comandi `cd`, comandi **`mkdir`** per creare una capanna con un forziere nella foresta, **`rm`** per rimuovere ragni dalle celle lasciando i pipistrelli e raccogliere monete nella cartella garden per spostarle (**`mv`**) nel forziere nella capanna. Arrivo al livello 7 e mi chiede stavolta di raccogliere le monete “nascoste”. Vado ad utilizzare il comando **`ls -A`** per elencare tutti gli elementi in una cartella, compresi quelli non visibili solo con `ls`. Il gioco suggerisce di usare anche il tasto Tab per autocompletare il percorso della cartella se è l’unica esistente. Missione completa!

```
( )=(
Mission goal
Collect all the coins hidden in the garden in front of the castle, and put them in your chest (in your hut in the forest).

Secondary objective
Learn how to use the "Tab" key to go faster.

Useful commands
ls -A
List all the files of the current directory, including hidden files. (A file is "hidden" when its name starts with a dot.)
Tab
The tabulation key "completes" the name of a file or directory once you have typed the beginning of its name. This only works
if there is only one possible completion.
Tab-Tab
Pressing tabulation twice successively shows a list of possible completions.
)

( )=(

~/Garden
[mission 7] $ ls -A
.16383_coin_3 .3629_coin_2 .62480_coin_1 Flower_garden Maze Shed

~/Garden
[mission 7] $ mv .16383_coin_3 .3629_coin_2 .62480_coin_1 ~/Forest/Hut/Chest/

~/Garden
[mission 7] $ gsh check

Congratulations, mission 7 has been successfully completed!
```

Proseguo con le missioni, creo alias e torno nelle celle a cacciare i ragni, che diventano anche più furbi e si nascondono, rendendo vano il comando **`rm *`** e “?” che funzionano diciamo da filtro. La soluzione è inserire il “.” per scovarli. Arrivo alla missione 12 che mi chiede di andare al primo piano della torre e rubare il dipinto più vecchio. Con il comando **`ls -A`** ho modo di visualizzare tutti i “dipinti” all’interno del primo piano, nonché le relative informazioni compresa la creazione. Perdo un attimo ad ammirare tutti i capolavori con il comando **`cat *paintings*`** per aprirli tutti. Ne è valsa la pena. Rubo il più vecchio per portarlo nella mia capanna col solito comando **`cp`** e il tab fino al forziere.


```
~/Castle/Main_tower/First_floor
[mission 12] $ ls -l
total 16
-rw-r--r-- 1 riccbrun riccbrun 1503 Jul 10 1984 painting_EGDuMmJE
-rw-r--r-- 1 riccbrun riccbrun 1455 Jul 6 2004 painting_mccMRRZN
-rw-r--r-- 1 riccbrun riccbrun 1055 Jul 5 2010 painting_rTfUQrHS
drwxr-xr-x 3 riccbrun riccbrun 4096 May 19 11:21 Second_floor/

~/Castle/Main_tower/First_floor
[mission 12] $ cp painting_EGDuMmJE ~/Forest/Hut/Chest/

~/Castle/Main_tower/First_floor
[mission 12] $ gsh check

Congratulations, mission 12 has been successfully completed!
```

Avanti così, vado a visualizzare calendari con **cal** e vado a creare un diario nel forziere, da richiamare velocemente creando un alias per il comando “nano journal.txt”. Arrivo alla missione 17 che è una vera e propria prova di velocità! Bisogna scovare la tana del ragno regina nelle celle, identificarla, e cacciarla con **rm**. Il comando tab per completare il nome del file risulta essenziale. Dopo vari tentativi in 17 secondi riesco nell’impresa!

```

/b\  | Mission goal |  /b\
|    |             |  |    | |
|    | At the back of the cellar, there is a small opening going to the spider queen's lair. |  |    |
|    | Go there, and remove the spider queen (and nothing else). |  |    |
|    | |             |  |    |
|    | Note: you have a limited amount of time (20 seconds) to do that. You can use the command ``gsh reset`` to reset the timer. |  |    |
|    | Another thing: shell patterns have been deactivated. You cannot use the wildcards ``*`` or ``?``. |  |    |
|    | |             |  |    |
|    | Useful commands |  |    |
|    | |             |  |    |
|    | Tab |  |    |
|    | The "Tabulation" key completes the name of a file or directory once you have typed the beginning of its name. This only works |  |    |
|    | if there is only one possible completion. |  |    |
|    | |             |  |    |
|    | Tab-Tab |  |    |
|    | Pressing the "Tabulation" key twice successively shows a list of possible completions. |  |    |
|    | |             |  |    |
/b\  |             |  /b\
|    |             |  |    |
~/Castle/Cellar
[mission 17] $ ls -A
13343_bat_3 25487_bat_1 .27493_bat_1 .28356_bat_2 .2982_bat_3 .30590_bat_4 .4001_bat_5 701_bat_5 9777_bat_2 9942_bat_4 barrel_of_apples .Lair_of_the_spider_queen IhXOMrbbjWZH2cKz xBSUPDgpxQQsuprg/

~/Castle/Cellar
[mission 17] $ cd .Lair_of_the_spider_queen\ IhXOMrbbjWZH2cKz xBSUPDgpxQQsuprg/

~/Castle/Cellar/.Lair_of_the_spider_queen IhXOMrbbjWZH2cKz xBSUPDgpxQQsuprg
[mission 17] $ gsh reset
You are back in the cellar.

~/Castle/Cellar
[mission 17] $ ls -A
13343_bat_3 25487_bat_1 .27493_bat_1 .28356_bat_2 .2982_bat_3 .30590_bat_4 .4001_bat_5 701_bat_5 9777_bat_2 9942_bat_4 barrel_of_apples .Lair_of_the_spider_queen LURAQcSwQczhoDFq uZxmvFhyaB0dmTSG/

~/Castle/Cellar
[mission 17] $ cd .Lair_of_the_spider_queen\ LURAQcSwQczhoDFq uZxmvFhyaB0dmTSG/

~/Castle/Cellar/.Lair_of_the_spider_queen LURAQcSwQczhoDFq uZxmvFhyaB0dmTSG
[mission 17] $ ls
rhZGeQRj3pVlPwpB_baby_bat_XYCyBPgUGIYieawY TBbxwLAKVbCxaUr_spider_queen_kfoZpNDF0ZCmrcmv

~/Castle/Cellar/.Lair_of_the_spider_queen LURAQcSwQczhoDFq uZxmvFhyaB0dmTSG
[mission 17] $ rm TBbxwLAKVbCxaUr_spider_queen_kfoZpNDF0ZCmrcmv

~/Castle/Cellar/.Lair_of_the_spider_queen LURAQcSwQczhoDFq uZxmvFhyaB0dmTSG
[mission 17] $ gsh check
Perfect, it took you only 17 seconds to complete this mission!

Congratulations, mission 17 has been successfully completed!

```

Vado avanti. Mi aspettano degli occhi che seguono il mouse, attivati dall’esecutivo xeyes, eseguito anche in background. Un kill risolverà la situazione. Bisognerà poi trovare monete d’oro e d’argento all’interno di un labirinto di directory tramite i comandi tree e find. Mi trovo infine sulle montagne nella caverna di servillus. Non ricorda la formula di una pozione, trovo il libro e l’argomento corrispondente su di esso per mostrargli

solo quello stampando le righe necessarie con il comando **head -n**, non prima di essere tornato nella directory caverna con lui. Missione superata.

```
()=(  
Mission goal  
-----  
A forgetful old hermit called Servillus has set up camp in a cave with his old, leather-bound potion book.  
Go to the cave and help him remember the recipe of his famous herbal tea.  
  
In order to validate the mission, you need to be in the cave with Servillus **and** your last command prior to ``gsh check`` must show the recipe (including its title), but nothing else.  
Note: you shouldn't alter the content of the book of potions.  
  
Useful commands  
-----  
cat FILE  
Display the contents of the file.  
  
head FILE  
Print the first 10 lines of the file.  
  
head -n K FILE  
Print the first K lines of the file.  
  
Remark  
-----  
A "FILE" may contain directories if the file in question is not in the current directory.  
)=()  
  
[mission 22] $ ls  
Castle/ Forest/ Garden/ Mountain/ Stall/  
  
[mission 22] $ cd Mountain  
~/Mountain  
[mission 22] $ ls  
Cave/  
  
~/Mountain  
[mission 22] $ cd Cave  
~/Mountain/Cave  
[mission 22] $ ls  
Book_of_potions/ servillus
```

```
~/Mountain/Cave  
[mission 22] $ cd Book_of_potions/  
  
~/Mountain/Cave/Book_of_potions  
[mission 22] $ cat table_of_contents  
1. Transformation potion _____ pages 1-2  
2. Elixir of youth _____ pages 3-4  
3. Philter of love _____ page 5  
4. Bottled death (powerful poison) _____ page 6  
5. Herbal tea _____ page 7  
6. Draft of invisibility _____ pages 7-8  
7. Homeopathic healing potion (part 1) _____ pages 8-9  
8. Homeopathic healing potion (part 2) _____ page 10  
9. Homeopathic healing potion (part 3) _____ page 11  
10. Toadstool stew _____ page 12  
11. Distilled water _____ page 13  
12. King's ale _____ Page 13  
  
~/Mountain/Cave/Book_of_potions  
[mission 22] $ cd -  
/home/riccbrun/gameshell/World/Mountain/Cave  
  
~/Mountain/Cave  
[mission 22] $ head -6 ./Book_of_potions/page_07  
Herbal tea  
-----  
  
1) Boil water.  
2) Add herbs from the forest.  
3) Let it sit for five minutes and drink while hot.  
  
~/Mountain/Cave  
[mission 22] $ gsh check  
  
Congratulations, mission 22 has been successfully completed!
```

Proseguo. Servillus ha ancora bisogno di me, sfoglio il libro delle pozioni per passargliene diverse, compresa quella per l'acqua distillata combinando i comandi **head** e **tail**. Sono stato diverso tempo a cercare di capire come concatenare i comandi, perché stampavo prima le 10 righe iniziali e poi le ultime 10 dello stesso file ma non riuscivo a realizzare come stampare nel mezzo. Dopo svariate combinazioni, ho scoperto che era più semplice del previsto.

```

Mission goal
-----
The old hermit is thirsty and he would like you lookup the recipe for distilled water.
In order to validate the mission, you need to be in the cave with Servillus **and** your last command prior to ``gsh check`` must show the steps for the recipe and nothing else.
Note: you shouldn't alter the content of the book of potions.

Useful commands
-----
head [-n K] [FILE]
Print the first lines (10 by default, K if ``-n K`` is used) of the given file, or standard input if no file is given.
tail [-n K] [FILE]
Print the last lines (10 by default, K if ``-n K`` is used) of the given file, or standard input if no file is given.
COMMAND1 | COMMAND2
Run the two commands, feeding the "standard output" of the former into the "standard input" of the latter.
Remark: by analogy with plumbing "|" is called "pipe".

Remark
-----
Parts in [square brackets] in command descriptions are stand for optional parts. The brackets are not part of the command.

~/Mountain/Cave
[mission 26] $ head -n | tail -n 4 ./Book_of_potions/page_13

1) Go to the castle's cellar and grab a bottle.
2) Serve cold, in a pint.
head: option requires an argument -- 'n'
Try 'head --help' for more information.

~/Mountain/Cave
[mission 26] $ head -n ./Book_of_potions/page_13 | tail -n 4 ./Book_of_potions/page_13
```

I vari tentativi:

```

~/Mountain/Cave
[mission 26] $ head -n 6 ./Book_of_potions/page_13 | tail -4 ./Book_of_potions/page_13

1) Go to the castle's cellar and grab a bottle.
2) Serve cold, in a pint.

~/Mountain/Cave
[mission 26] $ head -6 ./Book_of_potions/page_13 | tail -4 ./Book_of_potions/page_13 | head -5 ./Book_of_potions/page_13
Distilled water

1) Boil water in a big pot.
2) Condense the vapor in a fresh container.

~/Mountain/Cave
[mission 26] $ head -n 10 | tail -n 4 ./Book_of_potions/page_13

1) Go to the castle's cellar and grab a bottle.
2) Serve cold, in a pint.
^Z
[2]+  Stopped                  head -n 10 | tail -n 4 ./Book_of_potions/page_13

~/Mountain/Cave
[mission 26] $ head -n 6 | tail -n 4 ./Book_of_potions/page_13

1) Go to the castle's cellar and grab a bottle.
2) Serve cold, in a pint.
^Z
[3]+  Stopped                  head -n 6 | tail -n 4 ./Book_of_potions/page_13

~/Mountain/Cave
[mission 26] $ head -n 6 | tail -n ./Book_of_potions/page_13
tail: invalid number of lines: './Book_of_potions/page_13'
^Z
[4]+  Stopped                  head -n 6 | tail -n ./Book_of_potions/page_13

~/Mountain/Cave
[mission 26] $ head -n 6 | tail -n 2 ./Book_of_potions/page_13
1) Go to the castle's cellar and grab a bottle.
2) Serve cold, in a pint.
^Z
[5]+  Stopped                  head -n 6 | tail -n 2 ./Book_of_potions/page_13
```

La soluzione:

```
~/Mountain/Cave
[mission 26] $ head -n 6 ./Book_of_potions/page_13 | tail -n 3
1) Boil water in a big pot.
2) Condense the vapor in a fresh container.
3) Add minerals for a better taste (optional).

~/Mountain/Cave
[mission 26] $ gsh check

Congratulations, mission 26 has been successfully completed!
```

L'errore era concatenare **head** e **tail** rieseguendo il file. **Tail** in questo modo non riceva come input l'output di head. Stampando invece le prime righe del file con head e in seguito ordinando solo il **tail** concatenato sullo stesso file, in modo da visualizzare le prime 6 righe per escludere la bottiglia di birra e successivamente da queste 6 righe tagliare le ultime 3 per escludere il titolo, ottengo finalmente il risultato! Che fatica.

Dei piccoli demoni lanciano delle magie e bisogna terminare il processo col comando **kill**, la situazione quasi sfugge di mano quando diventano più magie non terminabili con il semplice **kill**. Ricorro al **sigkill -9** per risolvere la situazione. Mi blocco infine al livello 31 incontrando mago merlino. Mi chiede di risolvere delle moltiplicazioni in 10 secondi, operazione impossibile. Aggiro inizialmente il problema seguendo il consiglio di andare a sbirciare nel libro nascosto in biblioteca, ma anche elencando le risposte del libro con **head**, non arrivo mai entro i 10 secondi.

```
Mission goal
-----
To get better in the magical art, one needs to know mental math.
Get ready, because Merlin is about to test you speed with products.
Run the command ``gsh check`` to start.

Remark
-----
There now is a time constraint.

Hint
-----
The library is rumored to contain some mathematics books and hidden volumes.

Useful commands
-----
COMMAND < FILE
Replace the command's standard input by a file.
Instead of reading lines from the keyboard device, the command will read lines from the file.

[mission 31] $ cd Castle
~/Castle
[mission 31] $ cd Main_building/
~/Castle/Main_building
[mission 31] $ cd Library/
~/Castle/Main_building/Library
[mission 31] $ ls
Greek_Latin_and_other_modern_languages  Mathematics_101  Merlin_s_office/
~/Castle/Main_building/Library
[mission 31] $ ls -A
Greek_Latin_and_other_modern_languages  .How_to_cheat_for_exams  Mathematics_101  Merlin_s_office/
~/Castle/Main_building/Library
[mission 31] $ cat .How_to_cheat_for_exams
The book 'Mathematics_101' contains all the answers.
```

```

~/Castle/Main_building/Library
[mission 31] $ head Mathematics_101
6440
759
540
4824
20
7954
276
1357
33
1512

~/Castle/Main_building/Library
[mission 31] $ gsh check
92 * 70 = ?? 6440
11 * 69 = ?? 759
60 * 9 = ?? 540
72 * 67 = ?? 4824
4 * 5 = ?? 20
82 * 97 = ?? 7954
4 * 69 = ?? 276
59 * 23 = ?? 1357
1 * 33 = ?? 33
Too slow! You need to give the answers in less than 10 seconds ...

Sorry, mission 31 hasn't been completed.

1
|
--+-----+--
| Use the command
| $ gsh help
| to get the list of "gsh" commands.
--+-----+--
|
|

~/Castle/Main_building/Library
[mission 31] $ 1

```

La mia avventura finisce qua.