

## Progetto finale Modulo 2 (W8D4) - Alessandro Criscuoli

**Mission1:** Cambio directory tramite `cd` controllando tramite `ls` il contenuto delle directory fino ad arrivare a `Top_of_the_tower`, verificando il percorso corrente con `pwd` (print working directory).

```
[use 'gsh help' to get a list of available commands]
[mission 1] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower

[use 'gsh help' to get a list of available commands]
[mission 1] $ gsh check

Congratulations, mission 1 has been successfully completed!
```

**Mission2:** Cambio directory passando a quella precedente con `cd ..` fino a ritornare a `Castle`, per poi spostarmi su `Cellar` con `cd Cella`.

```
[use 'gsh help' to get a list of available commands]
[mission 2] $ cd ..

[use 'gsh help' to get a list of available commands]
[mission 2] $ pwd
/home/kali/gameshell/World/Castle

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd Cellar

[use 'gsh help' to get a list of available commands]
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Cellar

[use 'gsh help' to get a list of available commands]
[mission 2] $ gsh check

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

**Mission3:** Cambio directory passando a quella di partenza, poi uso `cd *path richiesto*` per spostarmi.

```
[mission 3] $ cd

[use 'gsh help' to get a list of available commands]
[mission 3] $ cd Castle/Main_building/Throne_room

[use 'gsh help' to get a list of available commands]
[mission 3] $ gsh check

Congratulations, mission 3 has been successfully completed!
```

**Mission4:** Creo 2 directory sotto `Forest`, il path finale diventerà `Forest/Hut/Chest`

```
~/Forest/Hut
[mission 4] $ mkdir Chest

~/Forest/Hut
[mission 4] $ gsh check

Congratulations, mission 4 has been successfully completed!
```

**Mission5:** Elimino definitivamente i file spider\_n sotto Castle/Cellar tramite *rm*

```
~/Castle/Cellar
[mission 5] $ rm spider_1 spider_2 spider_3

~/Castle/Cellar
[mission 5] $ gsh check

Congratulations, mission 5 has been successfully completed!
```

**Mission6:** Ho spostato 3 file in una directory specifica tramite *mv*

```
~/Garden
[mission 6] $ mv coin_1 coin_2 coin_3 ~/Forest/Hut/Chest

~/Forest/Hut/Chest
[mission 6] $ gsh check

Congratulations, mission 6 has been successfully completed!
```

**Missione7:** Ho spostato 3 file nascosti in una directory specifica, usando anche Tab per completare i nomi dei file

```
~/Garden
[mission 7] $ mv .15437_coin_1 .31617_coin_2 .7702_coin_3 ~/Forest/Hut/Chest

~/Garden
[mission 7] $ gsh check

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

**Mission8:** Ho eliminato tutti i file che nel nome avevano "spider" da Cellar, per includere ogni possibile variante di spider ho usato *rm \*spider\**

```
~/Castle/Cellar
[mission 8] $ rm *spider*

~/Castle/Cellar
[mission 8] $ ls
23281_bat_2  28287_bat_5  28811_bat_1  3827_bat_3  5300_bat_4  barrel_of_apples

~/Castle/Cellar
[mission 8] $ gsh check

Congratulations, mission 8 has been successfully completed!
```

**Mission9:** Stessa operazione precedente ma relativo ai file spider nascosti, visibili tramite *ls -a*

```
~/Castle/Cellar
[mission 9] $ rm .*spider*

~/Castle/Cellar
[mission 9] $ ls -a
.  .12757_bat_1  28287_bat_5  .3764_bat_4  5300_bat_4  .8902_bat_5  barrel_of_apples
.. 23281_bat_2  28811_bat_1  3827_bat_3  .6122_bat_2  .9454_bat_3

~/Castle/Cellar
[mission 9] $ gsh check

Congratulations, mission 9 has been successfully completed!
```

**Mission10:** Posizionandomi su Great\_hall ho copiato i 4 file standard nella mia Chest e usato *nano* per vederne il loro contenuto

```
~/Castle/Great_hall
[mission 10] $ cp standard_1 standard_2 standard_3 standard_4 ~/Forest/Hut/Chest/

~/Castle/Great_hall
[mission 10] $ ls ~/Forest/Hut/Chest/
coin_1 coin_2 coin_3 standard_1 standard_2 standard_3 standard_4

~/Castle/Great_hall
[mission 10] $ nano standard_1

~/Castle/Great_hall
[mission 10] $ gsh check

Congratulations, mission 10 has been successfully completed!
```

**Mission11:** Ho copiato nella mia Chest tutti i file sotto Great\_hall che nel nome avevano “tapestry”, usando il comando *cp \*tapestry\**

```
~/Castle/Great_hall
[mission 11] $ ls
14719_tapestry_03 29564_tapestry_05 37257_suit_of_armour 51042_tapestry_09 6356_tapestry_04 standard_3
1480_tapestry_01 32260_stag_head 41998_tapestry_08 55564_decorative_shield standard_1 standard_4
24569_tapestry_10 32464_tapestry_02 49547_tapestry_06 6186_tapestry_07 standard_2

~/Castle/Great_hall
[mission 11] $ cp *tapestry* ~/Forest/Hut/Chest/

~/Castle/Great_hall
[mission 11] $ ls ~/Forest/Hut/Chest/
14719_tapestry_03 29564_tapestry_05 49547_tapestry_06 6356_tapestry_04 coin_3 standard_3
1480_tapestry_01 32464_tapestry_02 51042_tapestry_09 coin_1 standard_1 standard_4
24569_tapestry_10 41998_tapestry_08 6186_tapestry_07 coin_2 standard_2

~/Castle/Great_hall
[mission 11] $ gsh check

Congratulations, mission 11 has been successfully completed!
```

**Mission12:** Ho copiato il più antico dei quadri presenti in First\_floor nella mia Chest, per vederne la data di creazione ho usato il comando *ls -l*

```
~/Castle/Main_tower/First_floor
[mission 12] $ ls -l
total 16
-rw-rw-r-- 1 kali kali 1055 Sep 12 2013 painting_GxCYEeJJ
-rw-rw-r-- 1 kali kali 1502 Oct 24 1988 painting_KUbwfAgG
-rw-rw-r-- 1 kali kali 1455 Jan 2 2000 painting_OFtZRMfYR
drwxrwxr-x 3 kali kali 4096 Nov 14 13:55 Second_floor/

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

~/Castle/Main_tower/First_floor
[mission 12] $ ls -l ~/Forest/Hut/Chest/
total 72
-rw-r--r-- 1 kali kali 573 Nov 16 10:41 14719_tapestry_03
-rw-r--r-- 1 kali kali 574 Nov 16 10:41 1480_tapestry_01
-rw-r--r-- 1 kali kali 3877 Nov 16 10:41 24569_tapestry_10
-rw-r--r-- 1 kali kali 574 Nov 16 10:41 29564_tapestry_05
-rw-r--r-- 1 kali kali 574 Nov 16 10:41 32464_tapestry_02
-rw-r--r-- 1 kali kali 3877 Nov 16 10:41 41998_tapestry_08
-rw-r--r-- 1 kali kali 786 Nov 16 10:41 49547_tapestry_06
-rw-r--r-- 1 kali kali 574 Nov 16 10:41 51042_tapestry_09
-rw-r--r-- 1 kali kali 1290 Nov 16 10:41 6186_tapestry_07
-rw-r--r-- 1 kali kali 1290 Nov 16 10:41 6356_tapestry_04
-rw-rw-r-- 1 kali kali 46 Nov 14 15:55 coin_1
-rw-rw-r-- 1 kali kali 47 Nov 14 15:55 coin_2
-rw-rw-r-- 1 kali kali 47 Nov 14 15:55 coin_3
-rw-rw-r-- 1 kali kali 1502 Nov 16 10:46 painting_KUbwfAgG
-rw-rw-r-- 1 kali kali 45 Nov 16 10:36 standard_1
-rw-rw-r-- 1 kali kali 47 Nov 16 10:36 standard_2
-rw-rw-r-- 1 kali kali 47 Nov 16 10:36 standard_3
-rw-rw-r-- 1 kali kali 44 Nov 16 10:36 standard_4

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

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

**Mission13:** Ho usato il comando `cal YEAR` per mostrare il calendario anno 2011 verificando il giorno della settimana del 13/01/2011

```
~/Castle/Main_tower/First_floor
[mission 13] $ gsh check
What was the day of the week for the 01-13-2011?
 1 : Monday
 2 : Tuesday
 3 : Wednesday
 4 : Thursday
 5 : Friday
 6 : Saturday
 7 : Sunday
Your answer: 4

Congratulations, mission 13 has been successfully completed!
```

```
~/Castle/Main_tower/First_floor
[mission 13] $ cal 2011

      2011
January February March
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
 1                   1   2   3   4   5   6   7   8   9  10  11  12   1   2   3   4   5
 2   3   4   5   6   7   8   6   7   8   9  10  11  12   6   7   8   9  10  11  12
 9  10  11  12  13  14  15  13  14  15  16  17  18  19  13  14  15  16  17  18  19
16  17  18  19  20  21  22  20  21  22  23  24  25  26  20  21  22  23  24  25  26
23  24  25  26  27  28  29  27  28                27  28  29  30  31
30  31

April May June
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
 1   2   3   4   5   6   7   1   2   3   4   5   6   7   1   2   3   4
 3   4   5   6   7   8   9   8   9  10  11  12  13  14   5   6   7   8   9  10  11
10  11  12  13  14  15  16  15  16  17  18  19  20  21  12  13  14  15  16  17  18
17  18  19  20  21  22  23  22  23  24  25  26  27  28  19  20  21  22  23  24  25
24  25  26  27  28  29  30  29  30  31                26  27  28  29  30

July August September
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
 1   2   3   4   5   6   1   2   3   4   5   6   1   2   3
 3   4   5   6   7   8   9   7   8   9  10  11  12  13   4   5   6   7   8   9  10
10  11  12  13  14  15  16  14  15  16  17  18  19  20  11  12  13  14  15  16  17
17  18  19  20  21  22  23  21  22  23  24  25  26  27  18  19  20  21  22  23  24
24  25  26  27  28  29  30  28  29  30  31                25  26  27  28  29  30
31

October November December
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
 1   2   3   4   5   6   1   2   3   4   5   1   2   3
 2   3   4   5   6   7   8   6   7   8   9  10  11  12   4   5   6   7   8   9  10
 9  10  11  12  13  14  15  13  14  15  16  17  18  19  11  12  13  14  15  16  17
16  17  18  19  20  21  22  20  21  22  23  24  25  26  18  19  20  21  22  23  24
23  24  25  26  27  28  29  27  28  29  30                25  26  27  28  29  30  31
30  31
```

**Mission14:** Ho creato un alias `'la'` per eseguire `ls -A` tramite il comando `alias la='ls -A'`

```
~/Castle/Main_tower/First_floor
[mission 14] $ alias la='ls -A'

~/Castle/Main_tower/First_floor
[mission 14] $ la
.nice_rock  painting_GxCYEeJJ  painting_KUbwfAgG  painting_OFTzRMYR  Second_floor/

~/Castle/Main_tower/First_floor
[mission 14] $ gsh check

Congratulations, mission 14 has been successfully completed!
```

**Mission15:** Ho creato nella mia Chest il file `journal.txt` e ci ho scritto del contenuto

```
GNU nano 8.6 journal.txt
Appunti di Alessandro Criscuoli:

ls -a → stampa tutti i file compresi quelli nascosti
ls -l → stampa tutti i file con permessi, momento della creazione
```

```
~/Forest/Hut/Chest
[mission 15] $ nano journal.txt

~/Forest/Hut/Chest
[mission 15] $ gsh check

Congratulations, mission 15 has been successfully completed!
```

**Mission16:** Ho creato un alias per rendere la modifica di `journal.txt` più veloce da qualsiasi path, tramite il comando `alias journal='nano ~/Forest/Hut/Chest/journal.txt'`

```
~/Forest/Hut/Chest
[mission 16] $ alias journal='nano ~/Forest/Hut/Chest/journal.txt'

~/Forest/Hut/Chest
[mission 16] $ journal

~/Forest/Hut/Chest
[mission 16] $ gsh check

Congratulations, mission 16 has been successfully completed!
```

**Mission17:** Sono entrato nella cartella nascosta della spider queen, ho mostrato tutti i file contenenti (comprese le info, anche se non serviva) e ho rimosso il file spider\_queen, utilizzando tab per completarne il nome velocemente, dato che c'era un tempo massimo di 20 secondi.

```
~/Castle/Cellar
[mission 17] $ cd .Lair_of_the_spider_queen\ JSdKzfCfOTBzvWqb PfEvmyADImAEOZBe/

~/Castle/Cellar/.Lair_of_the_spider_queen JSdKzfCfOTBzvWqb PfEvmyADImAEOZBe
[mission 17] $ ls -l
total 8
-rw-rw-r-- 1 kali kali 384 Nov 16 11:28 IPGTumEaRwt00ydi_spider_queen_LuUHusPAGMscVAYt
-rw-rw-r-- 1 kali kali 130 Nov 16 11:28 VDcOHZNSQTcRbuUY_baby_bat_muRYiwomNCJlIWKH

~/Castle/Cellar/.Lair_of_the_spider_queen JSdKzfCfOTBzvWqb PfEvmyADImAEOZBe
[mission 17] $ rm IPGTumEaRwt00ydi_spider_queen_LuUHusPAGMscVAYt

~/Castle/Cellar/.Lair_of_the_spider_queen JSdKzfCfOTBzvWqb PfEvmyADImAEOZBe
[mission 17] $ gsh check
Perfect, it took you only 20 seconds to complete this mission!

Congratulations, mission 17 has been successfully completed!
```

**Mission18:** Ho eseguito il comando xeyes, anche in background, aggiungendo '&'

```
~
[mission 18] $ xeyes &
[1] 77390

~
[mission 18] $ ^C

~
[mission 18] $ gsh check

Congratulations, mission 18 has been successfully completed!
```

**Mission19:** Ho eseguito più comandi in background

```
Great, that looked good!
[2] Done flarigo
[3] Done flarigo
[4]- Done flarigo
[5]+ Done flarigo

Congratulations, mission 19 has been successfully completed!
```

**Mission20:** Ho eseguito un comando (non standard) seguito da 4 caratteri randomici

```
[mission 20] $ gsh check
What's a valid 4 letters sequence? code

Congratulations, mission 20 has been successfully completed!
```

**Mission21:** Ho spostato, tramite comando *mv* , il copper coin che si trovava nel labirinto, sotto la mia Chest, per trovarlo ho utilizzato il comando *tree*

```
~/Garden/Maze
[mission 21] $ tree
.
├── 9d0cc4ed
│   ├── c10858ff9ae0f
│   │   ├── 23e7c736615ef9ba4e55c1b08
│   │   └── d28f249d5091d
│   └── fb9eba3faf9ec508deb414d74b6b
│       ├── 1822192e4
│       └── e7541de4f0e83a71e0b7663b0
│           └── 00000_copper_coin_00000
└── fc6ff4d28658facb737baa5a
    ├── 74b449474
    │   ├── 93ac0bbc929b525eda2ab74a50
    │   ├── ac5c6d326e5f2d7ff64dc9b275
    │   └── d10a761bc2ceee6623cd20ce967c7a
    │       ├── 16af3e01fe19946a853f141854b
    │       └── b50e544dc1076779e9cbaa602d
    └── 15 directories, 1 file

~/Garden/Maze
[mission 21] $ mv 9d0cc4ed/fb9eba3faf9ec508deb414d74b6b/e7541de4f0e83a71e0b7663b0/00000_copper_coin_00000 ~/Forest/Hut/Chest/

~/Garden/Maze
[mission 21] $ gsh check

Congratulations, mission 21 has been successfully completed!
```

**Mission22:** Stessa operazione del livello precedente ma per trovare il silver coin, ho ancora usato *tree*

```
~/Garden/Maze
[mission 22] $ mv fa0d007fc/9bd5aa83e60c155922cf16/63170d0a2fb7cb4a56/00000_silver_coin_00000 ~/Forest/Hut/Chest/

~/Garden/Maze
[mission 22] $ gsh check

Congratulations, mission 22 has been successfully completed!
```

**Mission23:** Ho cercato tramite *find* i Gold coin nel labirinto, poi gli ho spostati nella mia chest

```
~/Garden/Maze
[mission 23] $ find -iname "*gold*"
./e3588909333e788cd75d4a29ac41/75b1c5d3b9afa01b5442c9426d/1467cc47/gold_coin_1
./cf1bd23d33fef926efa5e58f/d2375c36e114894395aaa/4879c5ea946cedca94dd9971a2c7a1/Gold_Coin_2

~/Garden/Maze
[mission 23] $ mv e3588909333e788cd75d4a29ac41/75b1c5d3b9afa01b5442c9426d/1467cc47/gold_coin_1 cf1bd23d33fef926efa5e58f/d2375c36e114894395aaa/4879c5ea946cedca94dd9971a2c7a1/Gold_Coin_2 ~/Forest/Hut/Chest/

~/Garden/Maze
[mission 23] $ gsh check

Congratulations, mission 23 has been successfully completed!
```

**Mission24:** Sono entrato nella directory Cave, dove è situato servillus assieme al suo Book (directory), ho poi mostrato il contenuto di Book\_of\_potions/page\_07 (dove è scritta la ricetta per Herbal tea) usando il comando *head -n X* per mostrare le prime tot righe che mi interessavano.

```
~/Mountain/Cave
[mission 24] $ head -n 6 Book_of_potions/page_07
vvvvvvvvvv
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 24] $ gsh check

Congratulations, mission 24 has been successfully completed!
```



**Mission25:** Nella stessa directory ho mostrato il contenuto di Book\_of\_potions/page\_12, mostrando le ultime tot righe che mi interessavano, tramite il comando *tail -n X*

```
~/Mountain/Cave
[mission 25] $ tail -n 9 Book_of_potions/page_12
1) Boil water in a cauldron.
2) Add in a few death caps (Amanita phalloides).
3) Also add a few fly agarics (Amanita muscaria).
4) And some destroying angels (Amanita virosa).
5) Mix in a few deadly webcaps (Cortinarius rubellus).
6) Feel free to add in any colourful fungi you have on hand.
7) Let half of the water evaporate.
8) Season with a pinch of salt and a few herbs.
9) Serve hot in a bowl.

~/Mountain/Cave
[mission 25] $ gsh check

Congratulations, mission 25 has been successfully completed!
```

**Mission26:** Ho mostrato il contenuto di due file che insieme componevano la ricetta che mi interessava, tramite il comando *cat*

```
~/Mountain/Cave
[mission 26] $ cat Book_of_potions/page_01 Book_of_potions/page_02
vvvvvvvvvvvvvvvvvvvvvvvvvvvvvv
Transformation potion
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
1) Boil water in a cauldron.
2) Add 3 measures of fluxweed to the cauldron.
3) Add 2 bundles of knotgrass to the cauldron.
4) Stir 4 times, clockwise.
5) Wave your wand then let potion brew for 80 minutes.
6) Add 4 leeches to the cauldron.
7) Crush 2 scoops of lacewing flies to a fine paste.
8) Add 2 measures of the crushed lacewings to the cauldron.
9) Heat for 30 seconds on a low heat.
10) Add 3 measures of boomslang skin to the cauldron.
11) Crush a bicorn horn into a fine powder.
12) Add 1 measure of the crushed horn to the cauldron.
13) Heat for 20 seconds at a high temperature.
14) Wave your wand then let potion brew for 24 hours.
15) Add 1 additional scoop of lacewings to the cauldron.
16) Stir 3 times, counter-clockwise.
17) Split potion into multiple doses, if desired.
18) Add a pieces of the person you wish to become.
19) Wave your wand to complete the potion.

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

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

**Mission27:** Ho mostrato il contenuto dei file `page_03` e `page_04`, servendomi del pipe ho mostrato le ultime 16 linee dell'output di `cat`, il tutto rimanendo nella directory dove è presente `servillus`

```
~/Mountain/Cave
[mission 27] $ cat Book_of_potions/page_03 Book_of_potions/page_04 | tail -n 16
1) Fill a cauldron with used bath water.
2) Put a moderately large frog in the water.
3) Let the preparation rest overnight.
4) The next morning thank and free your little green friend.
5) Boil the water and add in a few sticks of oak tree.
6) Crush 5 river stones to a fine powder.
7) Mix in a third of the powder and stir vigorously.
8) Let the preparation rest for a day.
9) Add hairs from the tail of a squirrel (willingly given).
10) Add the remaining stone powder.
11) Stir the potion very vigorously, in all directions.
12) Take some time to rest after such an effort.
13) Rest a little bit more.
14) Even take a nap if you want.
15) Add a few larch tree needles for seasoning.
16) Drink the potion from the cauldron.

~/Mountain/Cave
[mission 27] $ gsh check

Congratulations, mission 27 has been successfully completed!
```

**Mission28:** Utilizzando nuovamente il pipe ho fatto in modo che stampasse solo la ricetta di `page_13`, escludendo tramite `head` e `tail` alcuni pezzi del file.

```
~/Mountain/Cave
[mission 28] $ cat Book_of_potions/page_13 | head -n 6 | 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 28] $ gsh check

Congratulations, mission 28 has been successfully completed!
```

**Mission29:** Ho elencato i processi in esecuzione con `ps`, terminandone uno non necessario con `kill`

```
~
[mission 29] $ kill 182118
      *#@*
      &_**/~
      !$-#

182118
[1]+  Terminated                  "$GSH_TMP/${gettext "spell"}"

~
[mission 29] $ gsh check

Congratulations, mission 29 has been successfully completed!
```



**Mission30:** Il processo della missione precedente persiste, necessario un kill forzato con il comando *kill -9 PID* dove il 9 è il numero del segnale per il kill forzato. Ho visto tutti i segnali con *kill -l*

```
~
[mission 30] $ kill -9 211668

~
[mission 30] $ ps
  PID TTY          TIME CMD
 17274 pts/0    00:00:00 zsh
  77390 pts/0    00:00:07 xeyes
209657 pts/0    00:00:00 bash
209707 pts/0    00:00:00 bash
212557 pts/0    00:00:00 ps

~
[mission 30] $ gsh check

Congratulations, mission 30 has been successfully completed!
```

**Mission31:** Ora il processo problematico è *mischievous\_imp* che genera a sua volta altri processi da eliminare, ho usato *ps* per individuare il suo PID, con *pstree PID -p* (dove PID è quello di *mischievous\_imp*) ho visto i processi figli di questo, che saranno da eliminare, una volta killati i processi non necessari ho eliminato da *~/Castle/Cellar* i file che questi processi hanno generato, con il comando *rm \*nome\**, ho inserito l'unica parte del nome che conoscevo il resto identificabile tramite asterisco che significa qualsiasi carattere.

```
~/Castle/Cellar
[mission 31] $ ps
  PID TTY          TIME CMD
 17274 pts/0    00:00:00 zsh
  77390 pts/0    00:00:10 xeyes
310154 pts/0    00:00:00 bash
310210 pts/0    00:00:00 bash
310672 pts/0    00:00:00 nice_fairy
310674 pts/0    00:00:00 mischievous_imp
310679 pts/0    00:00:00 spell
310680 pts/0    00:00:00 spell
310681 pts/0    00:00:00 spell
310682 pts/0    00:00:00 tail
310695 pts/0    00:00:00 spell
310696 pts/0    00:00:00 spell
310697 pts/0    00:00:00 spell
310699 pts/0    00:00:00 tail
332525 pts/0    00:00:00 sleep
332526 pts/0    00:00:00 sleep
332597 pts/0    00:00:00 sleep
332606 pts/0    00:00:00 sleep
332677 pts/0    00:00:00 sleep
332686 pts/0    00:00:00 sleep
332687 pts/0    00:00:00 ps

~/Castle/Cellar
[mission 31] $ pstree 310674 -p
mischievous_imp(310674)─spell(310695)─sleep(333678)
                        └─spell(310696)─sleep(333517)
                        └─spell(310697)─sleep(333594)
                        └─tail(310699)

~/Castle/Cellar
[mission 31] $ kill 310695 310696 310697

~/Castle/Cellar
[mission 31] $ rm *coal*

~/Castle/Cellar
[mission 31] $ gsh check

Congratulations, mission 31 has been successfully completed!
```

**Mission32:** Questo livello si commenta da solo

```
~/Castle/Cellar
[mission 32] $ gsh check
74 + 1 = ?? 75
85 + 74 = ?? 159
99 + 54 = ?? 153
19 + 85 = ?? 104
9 + 31 = ?? 40
Congratulations, mission 32 has been successfully completed!
```

**Mission33:** Ho risolto le operazioni passando come input il contenuto del file Mathematics\_101, utilizzando < per l'input da file.

```
~/Castle/Main_building/Library
[mission 33] $ gsh check < Mathematics_101
55 * 9 = ?? 25 * 2 = ?? 55 * 13 = ?? 26 * 75 = ?? 41 * 51 = ?? 100 * 33 = ?? 47 * 96 = ?? 38 * 52 = ?? 96 * 44 = ??
5 * 89 = ?? 84 * 22 = ?? 21 * 83 = ?? 80 * 96 = ?? 62 * 15 = ?? 93 * 56 = ?? 8 * 1 = ?? 29 * 31 = ?? 48 * 52 = ??
59 * 100 = ?? 52 * 6 = ?? 18 * 30 = ?? 63 * 54 = ?? 18 * 100 = ?? 84 * 19 = ?? 57 * 4 = ?? 17 * 69 = ?? 14 * 59 = ?
? 41 * 97 = ?? 92 * 8 = ?? 74 * 78 = ?? 95 * 82 = ?? 71 * 6 = ?? 10 * 38 = ?? 16 * 65 = ?? 60 * 96 = ?? 80 * 28 = ?
? 31 * 14 = ?? 57 * 43 = ?? 5 * 57 = ?? 51 * 85 = ?? 8 * 99 = ?? 2 * 37 = ?? 32 * 21 = ?? 31 * 8 = ?? 70 * 85 = ??
49 * 21 = ?? 10 * 20 = ?? 61 * 15 = ?? 50 * 10 = ?? 2 * 15 = ?? 14 * 51 = ?? 85 * 71 = ?? 28 * 69 = ?? 9 * 34 = ??
88 * 89 = ?? 76 * 53 = ?? 56 * 42 = ?? 44 * 18 = ?? 91 * 45 = ?? 14 * 53 = ?? 1 * 21 = ?? 85 * 54 = ?? 77 * 34 = ??
31 * 72 = ?? 6 * 32 = ?? 8 * 82 = ?? 67 * 83 = ?? 56 * 72 = ?? 63 * 30 = ?? 60 * 72 = ?? 32 * 52 = ?? 15 * 64 = ??
27 * 23 = ?? 82 * 80 = ?? 97 * 80 = ?? 100 * 66 = ?? 8 * 8 = ?? 23 * 41 = ?? 96 * 23 = ?? 26 * 73 = ?? 40 * 54 = ?
? 46 * 65 = ?? 76 * 3 = ?? 14 * 75 = ?? 45 * 57 = ?? 99 * 79 = ?? 53 * 91 = ?? 47 * 11 = ?? 55 * 32 = ?? 7 * 99 = ?
? 53 * 50 = ?? 15 * 68 = ?? 70 * 100 = ?? 18 * 83 = ?? 79 * 47 = ?? 71 * 100 = ?? 18 * 8 = ?? 100 * 80 = ?? 79 * 71
= ?? 82 * 59 = ??
Congratulations, mission 33 has been successfully completed!
```

**Mission34:** Ho mostrato i file il cui nome contenevano grimoire presenti in Merlin\_office e passato l'output su inventory.txt, salvandolo sotto Drawer. Utilizzando > per l'output da file.

```
~/Castle/Main_building/Library/Merlin_s_office
[mission 34] $ ls grimoire* > Drawer/inventory.txt

~/Castle/Main_building/Library/Merlin_s_office
[mission 34] $ gsh check
Congratulations, mission 34 has been successfully completed!
```

**Mission35:** Ho mostrato i file il cui nome inizia con grimoire, col susseguirsi di qualsiasi carattere, che contengono la stringa 'gsh', non facendo distinzione tra maiuscole e minuscole nel nome del file, e inviando messaggi di errore (dovuti a permessi) a /dev/null. Ho utilizzato il comando *grep* 'stringa' FILE

```
~/Castle/Main_building/Library/Merlin_s_office
[mission 35] $ grep 'gsh' grimoire* -i -l 2> /dev/null
grimoire_BtZFuzakLYPckpeKC
grimoire_bXpfdjccZOTAceBLcpjggzdsFyQgA
grimoire_DGEQuBFusMkFb
grimoire_dLzSyKgSpY
grimoire_gBHLMSOpsaEl
grimoire_GJDMjGKaVkhkGiWai
grimoire_hGyCehoQLqUXuPWKZHHHywsqTibWh
grimoire_hQESUzccLOzzkufKLwpFAYWYSLI
grimoire_kpLGrpHjpHJOtc
grimoire_kyjdWLYykZcXMmLcjNMVE
grimoire_lPvhcVTgjfwXHqAdyXwXchJBku
grimoire_lyMbbLUxUOgqyVEIevLoJlrn
grimoire_NhmIGlbykmQWoPyCkKeZBPiBYVd
grimoire_NWMTQKLqEBTPVYuUggUK
grimoire_OWkGqcqjczXasWeSlf
grimoire_OXFLNufhxZVfTEGK
grimoire_pCDDDenLYZTkgrijXtGBFVfUx
grimoire_PrhynLUTA
grimoire_qnfDBKoaApZNifrhIUxSd
grimoire_ThXnOhheeLJwsqQdiuGwGbmW
grimoire_tnGvaJXIrIoFZKXuXKDyVAIroyw
grimoire_uXUkGvbJkIElBX
grimoire_XQporSaKZTSdaKcm
grimoire_yqvlxqZtXjrv

~/Castle/Main_building/Library/Merlin_s_office
[mission 35] $ gsh check
Congratulations, mission 35 has been successfully completed!
```

**Mission 36:** Ho eseguito merlin che conteneva degli errori, ho inviato questi a /dev/null, pulendo così l'output per renderlo leggibile, capendo l'indizio ho rieseguito merlin separando il messaggio filtrato dall'errore e inviandolo ad un file key.txt. Poi ho passato il contenuto di key.txt come input.

```
~/Castle/Observatory
[mission 36] $ ./merlin 2> /dev/null
THESECRETKYISONSTDERR

~/Castle/Observatory
[mission 36] $ ./merlin > filter.txt 2> key.txt

~/Castle/Observatory
[mission 36] $ gsh check < key.txt
What is the secret key?
Congratulations, mission 36 has been successfully completed!
```

**Mission37:** Ho visto i permessi su Kings\_quarter, dovendoci entrare ho cambiato i permessi per user corrente impostando anche il permesso di esecuzione tramite il comando *chmod*

```
~/Castle/Main_building/Throne_room
[mission 37] $ ls -l
total 4
drw-rw-r-- 2 kali kali 4096 Nov 14 13:55 Kings_quarter/

~/Castle/Main_building/Throne_room
[mission 37] $ chmod u+x Kings_quarter/

~/Castle/Main_building/Throne_room
[mission 37] $ cd Kings_quarter/

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 37] $ gsh check

Congratulations, mission 37 has been successfully completed!
```

**Mission38:** Ho mostrato il contenuto (anche nascosto) di Kings\_quarter con relativi permessi, ho cambiato i permessi per .secret\_note, rendendolo leggibile per l'utente corrente, per poi mostrare il suo contenuto e usarlo come combinazione per aprire la cassaforte del re.

```
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 38] $ ls -la
total 16
drwxrwxr-x 2 kali kali 4096 Nov 17 07:50 ./
drwxrwxr-x 3 kali kali 4096 Nov 14 13:55 ../
-rw-rw-r-- 1 kali kali 11 Nov 17 07:50 note
--w--w---- 1 kali kali 11 Nov 17 07:50 .secret_note

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 38] $ chmod u+r .secret_note

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 38] $ cat .secret_note
1252556381

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 38] $ gsh check
What's the combination to open the King's safe? 1252556381

Congratulations, mission 38 has been successfully completed!
```

**Mission39:** La prima parte consiste nel rubare la crown, questa si trova nella directory Safe, essendo protetta da permessi ho dovuto assegnare all'utente corrente permessi 'RWX' (ovvero tutto) per poi entrarci e poter spostare la crown nella mia Chest.

```
~/Castle/Main_building/Throne_room
[mission 39] $ ls -ld Safe/
d----- 2 kali kali 4096 Nov 17 07:56 Safe//

~/Castle/Main_building/Throne_room
[mission 39] $ chmod u+rwX Safe/

~/Castle/Main_building/Throne_room
[mission 39] $ cd Safe/

~/Castle/Main_building/Throne_room/Safe
[mission 39] $ ls
crown

~/Castle/Main_building/Throne_room/Safe
[mission 39] $ mv crown ~/Forest/Hut/Chest/
```

La seconda parte consiste nel leggere il contenuto di crown, anche qui ho dovuto cambiare i permessi

```
~/Forest/Hut/Chest
[mission 39] $ chmod u+rwX crown

~/Forest/Hut/Chest
[mission 39] $ cat crown
      _ . + . _
    ( ^ \ / ^ \ / ^ )
      \ @ * @ * @ /
      { _468 _ }

~/Forest/Hut/Chest
[mission 39] $ gsh check
What are the 3 digits inscribed on the base of the crown? 468

Congratulations, mission 39 has been successfully completed!
```

**Mission40:** Per trovare il rubino nel labirinto ho cercato i file presenti tra le directory sotto Maze

```
~/Garden/Maze
[mission 40] $ find -type f
./257eb7a18dc366dd91e73ba934b8b7c/a4675d4a3eaa0fa2b875728ebe/56d4970b4d7dbf7d695c783fc5f/41767
./748bdfca628aaf330e48dd21/3b4cdf2ee7b8/c8990f5aa277ffa0318dcba1bd/30086
./d4e7012ebc3644f1416201b7/004e28780f9cb356fc4/c37525e9a87a4f0d80e138f5f/48253
./d0d845b061f730b8/9ad64a99531eb4f8262a6/4ab5e76ca3a0d49e/29399
./aedc90d26149f4b1381/c9eeba6bdb16e121/ace4afe31ff7624b/60702
./e9fb0ae641/6de5e5b9052cb0/c86d3f7187b77a67a52a7fa6589/10610
```

Ho poi cercato manualmente con *cat* in quale di questi file ci fosse la stringa 'ruby'

Una volta trovata l'ho spostata nella mia Chest

```
~/Garden/Maze
[mission 40] $ cat ./d4e7012ebc3644f1416201b7/004e28780f9cb356fc4/c37525e9a87a4f0d80e138f5f/48253
48253 ruby b58c3446e0f55ec56f236a3c870c4f1b7b484cad

~/Garden/Maze
[mission 40] $ mv ./d4e7012ebc3644f1416201b7/004e28780f9cb356fc4/c37525e9a87a4f0d80e138f5f/48253 ~/Forest/Hut/Chest/

~/Garden/Maze
[mission 40] $ gsh check

Congratulations, mission 40 has been successfully completed!
```

**Mission41:** Stesso obiettivo del livello precedente ma devo trovare il diamond, dato che i file ora sono molti di più mi sono servito di un pipe e a seguire del comando xargs che serve per usare come argomento del comando successivo la lista che ho stampato con find -type f (lista dei file sotto Maze), questo argomento è usato per cercare la stringa 'diamond' tra tutti i file trovati.

```
~/Garden/Maze
[mission 41] $ find -type f | xargs grep 'diamond' -l -i
./207b720dce7611caa07ad7ba05/d9e2b00b/07db9ba4f61445cedae2cd

~/Garden/Maze
[mission 41] $ cat ./207b720dce7611caa07ad7ba05/d9e2b00b/07db9ba4f61445cedae2cd
07db9ba4f61445cedae2cd diamond 814f77966f7365c33113b75e9e7c6efc418c6964

~/Garden/Maze
[mission 41] $ mv ./207b720dce7611caa07ad7ba05/d9e2b00b/07db9ba4f61445cedae2cd ~/Forest/Hut/Chest/

~/Garden/Maze
[mission 41] $ gsh check

Congratulations, mission 41 has been successfully completed!
```

**Mission42:** Per scoprire a quanto ammonta il debito del re ho dovuto prima trovare il file 'scroll' dove sono scritti i debiti di tutti, ho dovuto quindi mostrare la lista completa e da questa escludere tutti i file chiamati 'boring\_object' con un pipe. Dopodichè ho mostrato il contenuto di scroll, + pipe, stampo le righe che contengono la stringa 'the king' indifferentemente da maiuscole/minuscole, + pipe, non stampo le righe che contengono la stringa 'PAID'. Utilizzando questo comando sono riuscito a vedere solo le linee di testo che contenevano i debiti del re.

```
(0)
~/Stall
[mission 42] $ ls | grep "boring_object" -v
cb7be7b6ae29905_s_c_r_o_l_l_cb7be7b6ae29905d
(1)
~/Stall
[mission 42] $ cat cb7be7b6ae29905_s_c_r_o_l_l_cb7be7b6ae29905d | grep -i "the king" | grep -v "PAID"
the King bought an apple for 5 coppers.
the King bought a horse for 4 coppers.
the King bought a chackal for 3 coppers.
the King bought a horse for 3 coppers.
the King bought an apple for 5 coppers.
(2)
~/Stall
[mission 42] $ gsh check
How much does the king owe? 20

Congratulations, mission 42 has been successfully completed!
```

**Mission43:** Ho fatto una sequenza di comandi con pipe per scoprire quanti oggetti non pagati ci sono:

guardo il contenuto di Stall non includendo i 'boring\_object' passandone il contenuto come argomento cercando le linee dove non c'è la stringa 'PAID' stampo il numero di linee, parole e caratteri

(nello screen ho erroneamente aggiunto un *grep -v 'PAID'* di troppo)

```
(0)
~/Stall
[mission 43] $ ls | grep "boring_object" -v | grep -v "PAID" | xargs grep -v "PAID" | wc
69      606     3433
(1)
~/Stall
[mission 43] $ gsh check
How many unpaid items are there? 69

Congratulations, mission 43 has been successfully completed!
```

**Mission44:** Per decifrare il secret\_message l'ho stampato in pipe con il comando tr , per tradurre ogni lettera secondo il meccanismo di cifratura.

```
~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 44] $ cat secret_message
urer vf zl jvyy:
lbh jvyy trg zl purfg, naq rirelguvat vg pbagnvaf.
guvf purfg vf va gur pryyne, naq gur jbeq gb znxr
vg er-nccrne vf: bsui
zreyva gur rapunagre

~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 44] $ cat secret_message | tr "a-z" "n-za-o"
here is my will:
you will get my chest, and everything it contains.
this chest is in the cellar, and the word to make
it re-appear is: ofhv
merlin the enchanter

~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 44] $ gsh check
What's the key that will make Merlin's chest to appear?
ofhv

Congratulations, mission 44 has been successfully completed!
```

FINITO!!

