

Progetto finale Modulo 2 (W8D4) - Alessandro Criscuoli

Mission1: Cambio directory tramite `cd` controllando tramite `/s` 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 Cellar`.

```
[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!
```

Mission7: 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", usanndo 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_GxCYeJJ
-rw-rw-r-- 1 kali kali 1502 Oct 24 1988 painting_KUbwfAgG
-rw-rw-r-- 1 kali kali 1455 Jan  2 2000 painting_OF7zRMYR
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] $ cal 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       1       1       1       1       1
  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
 30   31
```

```
~/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
```

MISSION 14: Ho creato un alias la per eseguire ls -A tramite il comando *alias la='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 PfEvmyADImAE0ZBe/
~/Castle/Cellar/.Lair_of_the_spider_queen JSdKzfCfOTBzvWqb PfEvmyADImAE0ZBe
[mission 17] $ ls -l
total 8
-rw-rw-r-- 1 kali kali 384 Nov 16 11:28 IPGTumEaRwt0Oydi_spider_queen_LuUHusPAGMscVAYt
-rw-rw-r-- 1 kali kali 130 Nov 16 11:28 VDc0HZNSQTcRbuUY_baby_bat_muRYiwomNCJlIWKh

~/Castle/Cellar/.Lair_of_the_spider_queen JSdKzfCfOTBzvWqb PfEvmyADImAE0ZBe
[mission 17] $ rm IPGTumEaRwt0Oydi_spider_queen_LuUHusPAGMscVAYt

~/Castle/Cellar/.Lair_of_the_spider_queen JSdKzfCfOTBzvWqb PfEvmyADImAE0ZBe
[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
└── fc6ff4d28658facb737baaa5a
    ├── 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 tramide *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
vvvvvvvvvvv
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
vvvvvvvvvvvvvvvvvvvvvvvvvv
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 = ?? 48 * 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_bXpfdjccZOTAcBLcpjqgzdsFyQgA  
grimoire_DGEquBFusMkFb  
grimoire_dlzSyKgSpY  
grimoire_gBHLMsOpstael  
grimoire_GJDmjGKaVkhkGiWai  
grimoire_hGyCehoQLquXuPwKZHHywsqTibWh  
grimoire_hQEUszclOzzkufKLwpFAYWYSLI  
grimoire_kpLGrphipHJ0tc  
grimoire_kyjdWLyykZcXmMlcjNMVE  
grimoire_lPvhcVTgjfWxHQAdyXwXchJBku  
grimoire_lyMbblUxUOgqvxEIevLoJlrn  
grimoire_NhmIGlbykmQWoPyCkkeZBPIByVd  
grimoire_NWMTQKLQeBTPVYuUggUK  
grimoire_OWkGacqjcZkasWeSlf  
grimoire_OXFLNufhxZVfTEGK  
grimoire_pCDDDenLYZTkgrijXtGBfVfUx  
grimoire_PrhynLUtaU  
grimoire_qnfDBKoaApZNifrhIUxSd  
grimoire_ThXnOhheelJwsqQdiuGwGbmwH  
grimoire_tnGvaJXIrlofZKxuXKDVAIroyw  
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
THESECRETKEYISONSTDERR

~/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
          jgs
(^\\/^\\/^)
\@*@\@/
{_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
./748bdfca628aaaf330e48dd21/3b4cdf2ee7b8/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 quando 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 pryne, 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!!

