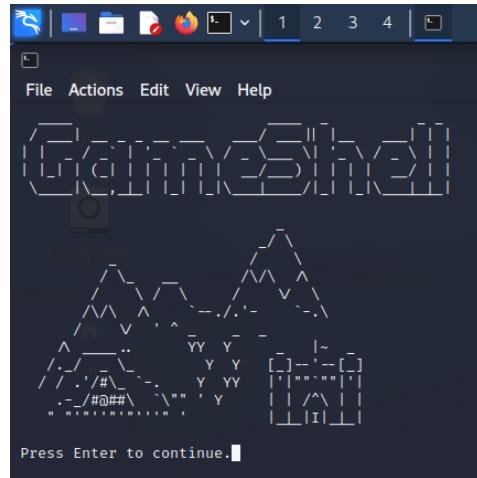


GAME SHELL

Nell'esercizio di oggi abbiamo installato un gioco su Kali Linux per familiarizzare con i comandi della shell.

Una volta installato abbiamo lanciato il gioco con “bash gameshell.sh”.



Il gioco è strutturato in più livelli e l'avanzamento di essi richiede il completamento delle missioni.

Per ogni livello si può controllare la missione con il comando “gsh goal” e se sia completata o meno con “gsh check”, oppure riavviarla con “gsh reset”.



All'inizio dei vari livelli dopo aver inserito “gsh goal” ci verrà mostrata la richiesta della missione ed i comandi da utilizzare per completarla.

Livello 1

```
[mission 1] $ gsh goal

Mission goal
=====
Go to the top of the main tower of the castle.

Useful commands
=====
cd LOCATION
Move to the given location.
Remark: ``cd`` is an abbreviation for "change directory".

pwd
Show the path to your current location.
Remark: ``pwd`` is an abbreviation for "print working directory".

ls
Show a list of locations that are currently accessible.
Remark: ``ls`` is an abbreviation of "list".

gsh check
Check if the mission objective has been achieved.

gsh reset
Restart the mission from the beginning.

Remarks
=====
UPPERCASE words appearing in commands are meta-variables: you need to replace them by appropriate (string) values.
Most filesystems treat uppercase and lowercase characters differently. Make sure you use the correct path.

[mission 1] $ █
```

In questo livello abbiamo dovuto utilizzare pwd, cd ed ls per controllare in quale directory ci trovavamo, spostarci nelle directory e mostrarne il contenuto.

```
[mission 1] $ pwd
/home/kali/gameshell/World
[mission 1] $ ls
Castle Forest Garden Mountain Stall
[mission 1] $ cd Castle/
[mission 1] $ ls
Cellar Great_hall Main_building Main_tower Observatory
[mission 1] $ cd Main_tower/
[mission 1] $ ls
First_floor
[mission 1] $ cd First_floor/
[mission 1] $ ls
Second_floor
[mission 1] $ cd Second_floor/
[mission 1] $ ls
Top_of_the_tower
[mission 1] $ cd Top_of_the_tower
[mission 1] $ ls
[mission 1] $ gsh check
Congratulations, mission 1 has been successfully completed!
```

Livello 2

```
[mission 2] $ gsh goal
Mission goal
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] $
```

In questo livello abbiamo dovuto utilizzare i comandi “cd-“ e “cd ..” per spostarci tra le directory.

```
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ cd ..
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd -
[mission 2] $ cd ..
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Main_tower
[mission 2] $ cd ..
[mission 2] $ pwd
/home/kali/gameshell/World/Castle
[mission 2] $ ls
Cellar Great_hall Main_building Main_tower Observatory
[mission 2] $ cd Cellar/
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Cellar
[mission 2] $ ls
barrel_of_apples
[mission 2] $ gsh check
Congratulations, mission 2 has been successfully completed!
```

Livello 3

```
[mission 3] $ gsh goal
Home
  / \ | Mission goal
  \_ |
    Go back to the starting location and then go to the throne room using only two commands.

  Remark
  _____
    You may experiment with as many commands as you want, but
    to validate the mission the following conditions need to be met:
    - the second to last command takes you to the starting point,
    - the last command takes you directly to the throne room.

  Useful commands
  _____
    cd
    Move back to the starting location.

    cd LOCATION1/LOCATION2/LOCATION3
    Make several moves in one command.

  Remark
  _____
    UPPERCASE words appearing in commands are meta-variables: you need to replace them by appropriate (string) values.

[mission 3] $
```

Anche in questo livello abbiamo dovuto utilizzare i comandi “cd” per spostarci nelle varie directory.

```
[mission 3] $ cd
[mission 3] $ cd Castle/Main_building/Throne_room
[mission 3] $ gsh check

Congratulations, mission 3 has been successfully completed!
Home

Well done!!!
From now on, the current location will be shown just before the command prompt.

jgs
```

Livello 4

```
~/Castle/Main_building/Throne_room
[mission 4] $ gsh goal

Mission goal
=====
Build a "Hut" in the forest, and then build a "Chest" in the hut.

Useful commands
=====
mkdir DIRECTORY
Create a new directory inside the current directory.
Remark: ``mkdir'' is an abbreviation for "make directory".
```

In questo livello abbiamo dovuto creare delle directory dentro una specifica altra directory con il comando “mkdir”.

```
~/Castle/Main_building/Throne_room
[mission 4] $ pwd
/home/kali/gameshell/World/Castle/Main_building/Throne_room

~/Castle/Main_building/Throne_room
[mission 4] $ cd

~
[mission 4] $ pwd
/home/kali/gameshell/World

~
[mission 4] $ ls
Castle Forest Garden Mountain Stall

~
[mission 4] $ cd Forest/
~/Forest
[mission 4] $ pwd
/home/kali/gameshell/World/Forest

~/Forest
[mission 4] $ mkdir Hut

~/Forest
[mission 4] $ ls
Hut

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

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

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

Livello 5

```
~/Forest/Hut
[mission 5] $ gsh goal


Mission goal
=====
Go back to the cellar and get rid of all the spiders. Leave the bats alone: they appear on the castle's coat of arms and are said to confer luck.

Useful commands
=====
rm FILE1 FILE2 ... FILEn
Delete the files (permanently).
Remark: "rm" is an abbreviation for "remove".


~/Forest/Hut
[mission 5] $ █
```

In questo livello abbiamo dovuto eliminare dei file dentro una directory utilizzando il comando “rm”.

```
~/Forest/Hut
[mission 5] $ cd

~
[mission 5] $ pwd
/home/kali/gameshell/World

~
[mission 5] $ cd Castle/Cellar/

~/Castle/Cellar
[mission 5] $ pwd
/home/kali/gameshell/World/Castle/Cellar

~/Castle/Cellar
[mission 5] $ ls
barrel_of_apples bat_1 bat_2 spider_1 spider_2 spider_3

~/Castle/Cellar
[mission 5] $ rm spider_1

~/Castle/Cellar
[mission 5] $ ls
barrel_of_apples bat_1 bat_2 spider_2 spider_3

~/Castle/Cellar
[mission 5] $ rm spider_2

~/Castle/Cellar
[mission 5] $ rm spider_3

~/Castle/Cellar
[mission 5] $ ls
barrel_of_apples bat_1 bat_2

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

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

Livello 6

In questo livello abbiamo dovuto spostare un determinato numero di file da una directory ad un'altra con il comando “mv”.

```
~/Castle/Cellar
[mission 6] $ cd

~
[mission 6] $ cd Garden/

~/Garden
[mission 6] $ ls
coin_1  coin_2  coin_3  Flower_garden  Maze  Shed

~/Garden
[mission 6] $ mv coin_1 coin_2 coin_3 World/Forest/Hut/Chest/
mv: target 'World/Forest/Hut/Chest/' is not a directory

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

~/Garden
[mission 6] $ gsh check

Congratulations, mission 6 has been successfully completed!

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

Livello 7

```

~/Garden
[mission 7] $ gsh goal


    / \_ 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] $ █

```

In questo livello abbiamo dovuto mostrare tutti gli elementi, anche quelli nascosti, in una directory con il comando “ls -A”, per poi spostarli di nuovo in un’altra directory.

```

~/Garden
[mission 7] $ ls -A
.22440_coin_3 .44769_coin_2 .45058_coin_1 Flower_garden Maze Shed

~/Garden
[mission 7] $ mv .22440_coin_3 .44769_coin_2 .45058_coin_1
.22440_coin_3 .44769_coin_2 .45058_coin_1 Flower_garden/ Maze/ Shed/

~/Garden
[mission 7] $ mv .22440_coin_3 .44769_coin_2 .45058_coin_1 ~/Forest/Hut/Chest

~/Garden
[mission 7] $ gsh check

Congratulations, mission 7 has been successfully completed!


    | _____
    | | Use the command
    | | $ gsh help
    | | to get the list of "gsh" commands.
    | |


```

Livello 8

```
~/Garden  
[mission 8] $ gsh goal

File System
/ \
|   Mission goal
\_

Get rid of all the spiders that are crawling in the cellar. Again, do not do not disturb the bats.

Home
Shell patterns
=====

*
The "*" character stands in for any sequence of characters
(including an empty sequence).

?
The "?" character stands in for any single character.

Those wildcards can be used to denote lists of existing files / directories in the current working directory.

For example: if the current folder contains
file-1 Folder-1 file-14 potato
then
    *      →  file-1 Folder-1 file-14 potato
    *1     →  file-1 Folder-1
    *o*    →  Folder-1 potato
    x*    →  error, no matching file
    *-?   →  file-1 Folder-1
    *-??  →  file-14
```

In questo livello abbiamo dovuto trovare tutti i file con un determinato nome in comune ed eliminarli utilizzando la wildcard “*”.

```
-/Garden
[mission 8] $ cd
-
[mission 8] $ ls
Castle Forest Garden Mountain Stall
-
[mission 8] $ cd Castle/Cellar
-
[Castle/Cellar
[mission 8] $ ls
10692_spider_12 12687_spider_13 1820_spider_6 19525_spider_20 21009_bat_1 24669_spider_39 26161_spider_19 29668_spider_24 32153_spider_1 6579_bat_3 8096_spider_26 barrel_of_apples
10977_spider_34 13151_spider_43 18427_spider_28 19597_spider_15 21125_bat_2 25521_spider_4 26370_spider_29 30124_spider_18 4475_spider_40 752_spider_44 8339_spider_2 bat_1
11798_spider_30 1529_spider_26 18560_spider_45 19616_spider_14 22393_spider_21 25602_spider_38 26563_spider_35 30143_spider_23 4816_spider_5 7618_spider_42 9003_spider_50 bat_2
11833_spider_11 17066_spider_25 18779_spider_41 20287_spider_16 23679_spider_19 25710_spider_31 27959_spider_9 31217_spider_7 4884_spider_17 7824_bat_5 9436_spider_8
1215_spider_48 17548_spider_27 19070_bat_4 20583_spider_22 23813_spider_49 25889_spider_37 27179_spider_33 31734_spider_47 5142_spider_32 7861_spider_3 981_spider_46

[Castle/Cellar
[mission 8] $ *spider*
10692_spider_12 command not found

[Castle/Cellar
[mission 8] $ ls *spider*
10692_spider_12 1215_spider_48 17066_spider_25 18560_spider_45 19616_spider_14 23679_spider_19 25602_spider_38 26370_spider_29 29668_spider_24 31734_spider_47 4884_spider_17 7861_spider_3 9436_spider_46
10977_spider_34 12687_spider_13 17548_spider_27 18779_spider_41 20287_spider_16 23813_spider_49 25710_spider_31 26563_spider_35 30134_spider_18 32153_spider_1 5142_spider_32 8096_spider_36 981_spider_46
11798_spider_30 13151_spider_43 1820_spider_6 19525_spider_20 20503_spider_22 24669_spider_39 25889_spider_37 27069_spider_9 30143_spider_23 4475_spider_40 752_spider_44 8339_spider_2
11833_spider_11 1529_spider_26 18427_spider_28 19597_spider_15 22393_spider_21 25521_spider_4 26161_spider_10 27179_spider_33 31217_spider_7 4816_spider_5 7618_spider_42 9003_spider_50

[Castle/Cellar
[mission 8] $ rm *spider*
-
[Castle/Cellar
[mission 8] $ ls
19670_bat_4 21009_bat_1 21125_bat_2 6579_bat_3 7824_bat_5 barrel_of_apples bat_1 bat_2

-[Castle/Cellar
[mission 8] $ gsh check
Congratulations, mission 8 has been successfully completed!
```

Livello 9

```
~/Castle/Cellar  
[mission 9] $ gsh goal  
  
/ \ \ _ ..  
\ _ / / )  
  
The spiders are getting clever: they found a way to hide.  
Get rid of all the spiders that are hiding in the cellar without disturbing the bats.  
  
/ \ \ _ ..  
Shell patterns  
\ _ / /  
  
*  
The "*" character stands in for any sequence of characters (including an empty sequence).  
  
?  
The "?" character stands in for any single character.  
  
/ \ \ _ ..  
Remark  
\ _ / /  
  
/ \ \ _ ..  
The wildcards "*" and "?" don't see hidden files, you need to add an explicit dot at the start of the pattern.  
\ _ / /
```

In questo livello, come il precedente, abbiamo dovuto eliminare tutti i file questa volta nascosti, con un determinato nome, utilizzando “*”.

Livello 10

```
~/Castle/Cellar  
[mission 10] $ gsh goal  
_____  
()=(  
| Mission goal  
| _____  
| You have taken a fancy to the four standards in the great hall of the castle. As stealing them would not go unnoticed, put a copy (same name, same content) of each in your chest.  
|  
| Useful commands  
| _____  
| cp FILE DIRNAME  
| Copy the file to the directory.  
| Remark: "cp" is an abbreviation of "copy".  
()  
| .  
| _____  
| (a=()
```

In questo livello abbiamo dovuto fare una copia di file con il comando “cp” per poi spostare le copie in una determinata directory.

Livello 11

Anche in questo livello abbiamo dovuto utilizzare “cp” per copiare dei file da una directory ad un’altra, utilizzando però “*” per copiare tutti i file con un determinato nome.

```
~/Castle/Great_hall
[mission 11] $ ls
22755_tapestry_01  29086_tapestry_07  48926_tapestry_03  50892_tapestry_04  52605_stag_head  56470_decorative_shield  63442_tapestry_05  standard_2  standard_4
23026_tapestry_10  3327_tapestry_02  50700_suit_of_armour  5091_tapestry_06  54165_tapestry_09  57039_tapestry_08  standard_1  standard_3

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

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

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

Livello 12

```
~/Castle/Great_hall
[mission 12] $ gsh goal

()=(_____,_____)@=()
| Mission goal
| =====
| While wandering around the first floor of the main tower, some magnificent paintings catch your eye. Add a copy of the oldest one to your chest.
| Secondary objectives
| -----
| Take a moment to admire the sheer beauty of the paintings.
| Useful commands
| =====
| ls -l
| Print the list of files of the current directory, with additional information including last modification date.
| cat FILE
| Display the contents of the file.
()=(_____,_____)@=()

~/Castle/Great_hall
[mission 12] $ █
```

In questa missione, come nelle precedenti, abbiamo dovuto copiare un file da una directory ad un'altra, aggiungendo però il comando “cat” per mostrare il contenuto del file.

```

painting_aUHGAWhZ  painting_OqospFym  painting_ZMLGNkvM  Second_floor/
[mission 12] $ ls -l
total 16
-rw-r--r-- 1 kali kali 1455 Sep 23 1998 painting_aUHGAWhZ
-rw-r--r-- 1 kali kali 1503 Oct  7 1986 painting_OqospFym
-rw-r--r-- 1 kali kali 1055 Jun 22 2013 painting_ZMLGNkvM
drwxr-xr-x 3 kali kali 4096 Nov 11 04:01 Second_floor/

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

~/Castle/Main_tower/First_floor
[mission 12] $ cat painting_OqospFym
45ce02b3450842af206618fadbb6bec00ca765f2@56131
<><><><><><><><><><><><><><><>
<><><><><><><><><><><><><><><>
<>
<>
<>          88Z8888
<>          D888$88
<>          88888
<>          88888
<>          88Z88
<>          88ZD8
<>          ZZ$M88D      I::Z88
<>          77MMMMMM88M    MM::=I7
<>          NN877$MNNNNNMM   NMM::=I7
<>          NNNNNNNNNNNNNN  NMM88MI
<>          DDDDDDDDDNNNNNNNN8MM
<>          8888888DDNNNNNNNNNM
<>          80ZZ088DDNNNNNNNM
<>          Z$7$Z088DNNNNM
<>          Z$7$Z088DNNNN
<>          NNZZ088DDNNNNNNNN
<>          NNNNNNNNNNNNNNNNNNN
<>
<>          Ceci n'est pas un fichier
<>
<>
<><><><><><><><><><><><><><>
~/Castle/Main_tower/First_floor
[mission 12] $ gsh check

Congratulations, mission 12 has been successfully completed!

```

Livello 13

```

~/Castle/Main_tower/First_floor
[mission 13] $ gsh goal

()=(_____) @=()
| Mission goal
| =====
| Nostradamus predicted a spectacular star conjunction on the 09-14-1994.
| But what will the day of the week be on that date?
| When you have it, run the command ``gsh check``.
|
| Useful commands
| =====
| cal
| Print a calendar for the current month.
|
| cal YEAR
| Print a calendar for the given year.
()=(_____) @=()

```

~/Castle/Main_tower/First_floor
[mission 13] \$ █

In questo livello abbiamo utilizzato il comando “cat YEAR” per mostrare il calendario di un determinato anno specifico.

```
[~] [mission 13] $ gsh check
File Actions Edit View Help
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 6 7 8 9 10 11 12 6 7 8 9 10 11 12
2 3 4 5 6 7 8 9 10 11 12 13 14 15 13 14 15 16 17 18 19 13 14 15 16 17 18 19
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 20 21 22 23 24 25 26
16 17 18 19 20 21 22 23 24 25 26 27 28 29 27 28 27 28 29 30 31
23 24 25 26 27 28 29 30 31
30 31
File System
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 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
31
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 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 1 2 3 4 5 6 7 8 6 7 8 9 10 11 12 4 5 6 7 8 9 10
2 3 4 5 6 7 8 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
[mission 13] $ gsh check
What was the day of the week for the 09-14-1994?
1 : Monday
2 : Tuesday
3 : Wednesday
4 : Thursday
5 : Friday
6 : Saturday
7 : Sunday
Your answer: 3

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

Livello 14

```
[mission 14] $ gsh goal
File system
Mission goal
=====
Checking for hidden files is taking too long!
Create an alias "la" to run the command ``ls -A`` in order to list all files, including hidden ones, with only 2 letters.
Define the synonym
la
for the command
ls -A
and check that it works as expected.
How fortunate, there is a nice rock hidden just where you are.

Useful commands
=====
alias STRING='COMMAND'
Create a synonym for a string, that will stand for a command.

[mission 14] $
```

In questo livello abbiamo dovuto creare un alias per richiamare un comando con un sinonimo, utilizzando il comando “`alias nome_sиноимо=командо`”, per poter così abbreviare il comando stesso.

```
[mission 14] $ alias la='ls -A'
[mission 14] $ gsh check
Congratulations, mission 14 has been successfully completed!
```

Livello 15

In questo livello abbiamo creato un nuovo file in una directory con il comando “nano”.

```
~  
[mission 15] $ cd ~/Forest/Hut/Chest  
  
~/Forest/Hut/Chest  
[mission 15] $ nano journal.txt  
  
~/Forest/Hut/Chest  
[mission 15] $ gsh check  
  
Congratulations, mission 15 has been successfully completed!
```

Livello 16

```
~/Forest/Hut/Chest
[mission 16] $ gsh goal

Mission goal
=====
Create an alias "journal" in order to easily edit your journal file wherever you are.

Details
=====
To edit the journal file with ``nano`` from, for example, the cellar or the throne room, you need to give the full path to the file: ``~/Forest/.../journal.txt``.

To avoid typing this long command each time, you can create an alias just like

alias la='ls -a'

Useful commands
=====
nano FILE
Edit the file from the shell.
(If the file does not exist, it will be created.)

alias STRING='COMMAND'
Create a synonym for a string, that will stand for a command.

Note
=====
If (and only if) you know what you're doing, you can use the ``EDITOR`` variable to define your favorite editor and use it in the alias.

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

In questo livello abbiamo creato un alias per riuscire a modificare un dato file senza dover riscrivere il percorso fino alla directory dove è stato salvato con il comando “alias sinonimo='nano percorso/nome_file”.

Livello 17

In questo livello abbiamo dovuto testare la nostra velocità di compilazione dei comandi dovendo trovare ed eliminare un file in una determinata directory in meno di 20 secondi tramite i comandi già utilizzati nei livelli precedenti.

```
~/Castle/Cellar
[mission 17] $ cd .\Lair_of_the_spider_queen\ havwtrmeaJoEIvez zCzRxgtYQJgDhOVh/
~/Castle/Cellar/.Lair_of_the_spider_queen havwtrmeaJoEIvez zCzRxgtYQJgDhOVh
[mission 17] $ la
SlsCCjBxdQgUFxZb_spider_queen_zWlFRDoalBVmZjKK UJQkpDzaIKRPywPf_baby_bat_JWmDdbuMybxtUhds

~/Castle/Cellar/.Lair_of_the_spider_queen havwtrmeaJoEIvez zCzRxgtYQJgDhOVh
[mission 17] $ rm SlsCCjBxdQgUFxZb_spider_queen_zWlFRDoalBVmZjKK
~/Castle/Cellar/.Lair_of_the_spider_queen havwtrmeaJoEIvez zCzRxgtYQJgDhOVh
[mission 17] $ gsh check
Perfect, it took you only 16 seconds to complete this mission!

Congratulations, mission 17 has been successfully completed!

You are back in the cellar.
```

Livello 18

```
~/Castle/Cellar
[mission 18] $ gsh goal
```
Mission goal
```
As you are walking around the castle, you feel like you are being watched... Turn your head quickly enough and you may see one of the paintings' eyes following you.
1/ Run the ``xeyes`` command, and stop it.
2/ Run the ``xeyes`` command in the background.

```
Useful commands
```
xeyes
Open a window with 2 eyes that track your mouse.

COMMAND &
Run the command in the background.

Control-c
This key binding usually interrupts the current command by sending it the "INT" signal.
```
~/Castle/Cellar
[mission 18] $ █
```

In questo livello abbiamo creato, tramite il comando “xeyes” degli occhi animati che seguono i movimenti del nostro mouse per poi farli apparire solo in background con il comando “xeyes &”.

```
~/Castle/Cellar
[mission 18] $ xeyes
^Z
[2]+ Stopped xeyes
~/Castle/Cellar
[mission 18] $ xeyes &
[3] 66625

~/Castle/Cellar
[mission 18] $ gsh check
Congratulations, mission 18 has been successfully completed!
```

## Livello 19

```

~/Castle/Cellar
[mission 19] $ gsh goal

$$\begin{array}{c} \text{Mission goal} \\ \hline \hline \end{array}$$

Find the copper coin in the small maze in the garden and move it to your chest.
If you want, you can use a graphical file manager. The maze is to be found in directory
/home/kali/gameshell/World/Garden/Maze

$$\begin{array}{c} \text{Mission goal} \\ \hline \hline \end{array}$$

~/Castle/Cellar
[mission 19] $ █

```

In questo livello abbiamo dovuto utilizzare i comandi di ricerca directory/file per trovare un determinato file in un labirinto di directories.

```

~/Garden/Maze/b2fcfa0527d0a54ed8140a/b63dbe21ca35c7fe6b8b8957a21061
[mission 19] $ cd 1439ea1ede96da65/
~/Garden/Maze/b2fcfa0527d0a54ed8140a/b63dbe21ca35c7fe6b8b8957a21061/1439ea1ede96da65
[mission 19] $ la
00000_copper_coin_00000
~/Garden/Maze/b2fcfa0527d0a54ed8140a/b63dbe21ca35c7fe6b8b8957a21061/1439ea1ede96da65
[mission 19] $ mv 00000_copper_coin_00000 ~/Forest/Hut/Chest
~/Garden/Maze/b2fcfa0527d0a54ed8140a/b63dbe21ca35c7fe6b8b8957a21061/1439ea1ede96da65
[mission 19] $ gsh check
Congratulations, mission 19 has been successfully completed!

$$\begin{array}{c} \text{Congratulations!} \\ \hline \hline \end{array}$$

From now on, the command ``ls`` will try using a color code to make it easier to differentiate between directories and several kinds of files.

$$\begin{array}{c} \text{You are back at the entrance of the maze ...} \\ \hline \hline \end{array}$$

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

```

## Livello 20

```

~/Garden/Maze
[mission 20] $ gsh goal

(^)-----(^)
| | | | Mission goal
| | | | =====
| | | |
| | | | Find the silver coin in the maze in the garden and move it to your chest using the shell.
| | | |
| | | | Useful commands
| | | | =====
| | | |
| | | | ls -R
| | | | Print the list of all files / directory, including those in sub-directories (recursively).
| | | |
| | | | tree
| | | | Print the tree of files and directories, starting from the current working directory.
| | |
(^)-----(^)

~/Garden/Maze
[mission 20] $ █

```

Come il livello precedente anche qui abbiamo dovuto trovare dei file dentro un labirinto di directories, aggiungendo però il comando “ls -R” per mostrare una lista dei files/directories e il comando “tree” per stamparne a schermo “l’albero genealogico”.



The terminal window shows a file tree and command history:

```

File Actions Edit View Help
└── b74df9e13e6
 ├── 655660f99a1c2f025fb
 │ ├── 8af09dad0701983642ee3e
 │ │ ├── 17c2cfe4cbd9
 │ │ ├── b661f0964ec39802aa1b7eadb4
 │ │ └── e882c252fb1a
 │ ├── c4f15701eb465251a
 │ │ ├── 03c3ba8206f215
 │ │ ├── 0962dd42b2216d34908b9c4179
 │ │ ├── dac7def56d99b0478e
 │ │ ├── d597ba0d3e470e36d78c2038177f10
 │ │ │ ├── 5a9a1d379fed4b
 │ │ │ ├── 985298750201cf8e8be76cccd5
 │ │ │ └── e9a7f1fe73a21112990
 │ ├── e4afdc16993d5c8c26f7e489f123dd
 │ │ ├── 09f6a5c1a
 │ │ │ ├── 6c34828f9c72148ce564
 │ │ │ ├── aea989259a71
 │ │ │ │ └── 00000_silver_coin_00000
 │ │ │ └── fbaef3abeccf942e
 │ │ ├── 1b9dad13a
 │ │ │ ├── 85dc26ef9d3a4
 │ │ │ ├── 8f605059579717f4ce8e97f5899a
 │ │ │ └── bb098070d05
 │ │ ├── 923d564654da55
 │ │ │ ├── 13ff70c82
 │ │ │ └── 813b50988b0180b
 │ │ └── f49bd1ad894b5b4
 └── Shed
 ├── bucket
 └── wheelbarrow

42 directories, 4 files

~/Garden
[mission 20] $ cd ./Maze/e4afdc16993d5c8c26f7e489f123dd/09f6a5c1a/aea989259a71
~/Garden/Maze/e4afdc16993d5c8c26f7e489f123dd/09f6a5c1a/aea989259a71
[mission 20] $ la
00000_silver_coin_00000

~/Garden/Maze/e4afdc16993d5c8c26f7e489f123dd/09f6a5c1a/aea989259a71
[mission 20] $ mv 00000_silver_coin_00000 ~/Forest/Hut/Chest
~/Garden/Maze/e4afdc16993d5c8c26f7e489f123dd/09f6a5c1a/aea989259a71
[mission 20] $ gsh check

Congratulations, mission 20 has been successfully completed!

You are back at the entrance of the maze ...

```

## Livello 21

```
~/Garden/Maze
[mission 21] $ gsh goal

 / \
 | Mission goal
 = =
 |
 | Find the gold coins in the maze hidden in the garden and move them to your chest.
 |
 | Useful commands
 | =====
 |
 | find CONDITION
 | Search for files satisfying the condition, starting from your current working directory.
 |
 | There are many possible conditions. They can constrain the
 | file names, size, modification date, etc. For example -name "PATTERN"
 | -iname "PATTERN"
 | are both related to file names.
 |
 | man COMMAND
 | Display the manual of the command.
 |
 | Important key bindings:
 | q quit
 | Space scroll down one page
 | / STRING search for the string
 | n find the next occurrence of the
 | search string
 |
 | Remark
 |
 | The description of the ``find`` command is deliberately kept short. You will find more information in the manual. (You can for example search for the string ``-name`` in the manual.)
 |
 | / \
 | _

~/Garden/Maze
[mission 21] $
```

Come nei livelli precedenti, anche in questo abbiamo dovuto cercare dei determinati files in un labirinto, sempre più complesso, di directories.

```
~/Garden/Maze
[mission 21] $ find . -type -iname *gold*
find: Unknown argument to -type: -
~/Garden/Maze
[mission 21] $ find . -type f -iname *gold*
./66298bc427a926c48679bff8322a3/5a4a07a397c/ccde2dd52c2ddfa0feaf459650ba/Gold_CoiN_2
./66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f/gold_coin_1

~/Garden/Maze
[mission 21] $ cd ./66298bc427a926c48679bff8322a3/5a4a07a397c/ccde2dd52c2ddfa0feaf459650ba/
~/Garden/Maze/66298bc427a926c48679bff8322a3/5a4a07a397c/ccde2dd52c2ddfa0feaf459650ba
[mission 21] $ la
Gold_CoiN_2

~/Garden/Maze/66298bc427a926c48679bff8322a3/5a4a07a397c/ccde2dd52c2ddfa0feaf459650ba
[mission 21] $ mv Gold_CoiN_2 ~/Forest/Hut/Chest

~/Garden/Maze/66298bc427a926c48679bff8322a3/5a4a07a397c/ccde2dd52c2ddfa0feaf459650ba
[mission 21] $ cd ./66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f/
bash: cd: ./66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f/: No such file or directory

~/Garden/Maze/66298bc427a926c48679bff8322a3/5a4a07a397c/ccde2dd52c2ddfa0feaf459650ba
[mission 21] $ cd

~
[mission 21] $ cd Garden/Maze

~/Garden/Maze
[mission 21] $ cd ./66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f/
~/Garden/Maze/66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f
[mission 21] $ la
gold_coin_1

~/Garden/Maze/66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f
[mission 21] $ mv gold_coi_1 ~/Forest/Hut/Chest
mv: cannot stat 'gold_coi_1': No such file or directory

~/Garden/Maze/66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f
[mission 21] $ mv gold_coin_1 ~/Forest/Hut/Chest

~/Garden/Maze/66298bc427a926c48679bff8322a3/759d0f32eaa3a2/af2bcae563f
[mission 21] $ gsh check

Congratulations, mission 21 has been successfully completed!

You are back at the entrance of the maze ...
```

## Livello 22

```
~/Garden/Maze
[mission 22] $ gsh goal

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.

~/Garden/Maze
[mission 22] $
```

In questo livello, e nei successivi, oltre a fare la conoscenza di Servillus, abbiamo dovuto lavorare sul comando “cat”, aggiungendovi il comando “head” o “head -n” per far vedere solo un determinato numero di linee del file che abbiamo deciso di mostrare.

```
\\L_j^\\/I o
 \--v} I o .
 | I
 | I c(-----)o
 | l I \.^_/
 j L _I _/_/^__ Row

~/Mountain/Cave
[mission 22] $ cd Book_of_potions

~/Mountain/Cave/Book_of_potions
[mission 22] $ ls
page_01 page_02 page_03 page_04 page_05 page_06 page_07 page_08 page_09 page_10 page_11 page_12 page_13 table_of_contents

~/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. Philiter 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] $ cp page_07 ~/Mountain/Cave/

~/Mountain/Cave/Book_of_potions
[mission 22] $ cd ..

~/Mountain/Cave
[mission 22] $ head -n 6 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!
```

## Livello 23

```
~/Mountain/Cave
[mission 23] $ gsh goal
```

#### Mission goal

The old man seems to enjoy your company very much. He invites you to stay for supper, and starts preparing a delicious stew for the both of you. While getting the cauldron ready he asks for your help. Read him the steps of the recipe from his book.

In order to validate the mission, you need to be in the cave with Servillus \*\*and\*\* last command prior to "gsh check" must show the steps of the recipe (without its title).

Note: you shouldn't alter the content of the book of potions.

#### Useful commands

```
cat FILE
```

Display the contents of the file.

```
tail FILE
```

Print the last 10 lines of the file.

```
tail -n K FILE
```

Print the last K lines of the file.

```
~/Mountain/Cave
[mission 23] $ █
```

In questo livello abbiamo dovuto utilizzare il comando "tail" o "tail -n" al posto del comando "head".

```
~/Mountain/Cave
[mission 23] $ cat servillus
93da049c9db84c604f37a48ec3daa2f71a53516b@37430
```

^ ^ .  
/ \ I o o  
/ .. \ I .  
]. [ / I  
/ l \ / j \ ( ) . o  
. ~ , / I  
\ \ L \_ j ^ / I o .  
\ -- v } I o .  
| | I  
| | I c(-----)o  
| | l I \ .  
/ j \ l \ I \_ // ^ — ^ \ \ Row

```
~/Mountain/Cave
[mission 23] $ tail -n 9 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 23] $ gsh check
```

Congratulations, mission 23 has been successfully completed!

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

## Livello 24

```
~/Mountain/Cave
[mission 24] $ gsh goal

Mission goal
=====
While cleaning the dishes, Servillus mentions an interesting potion that lets the drinker (temporarily) take the physical appearance of anyone.
Read the recipe of the potion from the hermit's book.

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 whole recipe (with its title).

Note: you shouldn't alter the content of the book of potions.

Useful commands
=====
cat FILE1 FILE2 ... FILEN
Display the contents of the files in order.
Remark: ``cat`` is an abbreviation for "concatenate".
```

In questo livello abbiamo dovuto mostrare a schermo più files con il comando “cat”.

```
~/Mountain/Cave
[mission 24] $ cat servillus
1eff256bba28a47ec10b67e940d2ffff5a0b8e898@6741

 .
 ^\` .
 ^\` V' .
 /_ \ I o o
 // .. \ I .
 \].` [/ I
 /V\j\ () . o
 /. ~ ,\` I
 \\L_j^/\` I o .
 \/-v} I o .
 | | I
 | | I c(-----')o
 | l I \.
 _/j L \` I _/`^--^`_ Row

~~~~~
```

```
~/Mountain/Cave
[mission 24] $ cat page_01 page_02
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 24] $ gsh check

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

**Livello 25**

```

~/Mountain/Cave
[mission 25] $ gsh goal
( \_/\_) _____ ( \_/\_)
| \_/\_| Mission goal | \_/\_
| \_/\_| _____ | \_/\_
| \_/\_| The old hermit notices your interest for potion recipes, and sees promise in your ability to lookup lists of ingredients. He challenges you to find the steps for the elixir of Youth.
| \_/\_| 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
| \_/\_| _____
| \_/\_| cat FILE1 FILE2 ... FILEn
| \_/\_| Display the contents of the files in order.
| \_/\_| tail
| \_/\_| Print the last 10 lines sent on the standard input.
| \_/\_| tail -n K
| \_/\_| Print the last K lines sent on the standard input.
| \_/\_| 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".
| \_/\_| _____
| \_/\_| Explanations
| \_/\_| _____
| \_/\_| Many of Unix commands process text: they receive text as input and produce text as output.
| \_/\_| It is common for those commands to write their output to their "standard output", which means that (by default) the output is written into the terminal.
| \_/\_| Most of those commands can receive input either through files (given as arguments) or from their "standard input". For example:
| \_/\_| - ``head FILE`` reads its input from the file,
| \_/\_| - ``head`` reads its input on the standard input.
| \_/\_| By default, data from the standard input is read from the keyboard, but a pipe can change that.
( \_/\_) _____ ( \_/\_)
| \_/\_| _____ | \_/\_

```

In questo livello abbiamo dovuto combinare i comandi “cat” e “tail” con il pipe “|”.

```

~/Mountain/Cave
[mission 25] $ cat page_03 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 25] $ gsh check
Congratulations, mission 25 has been successfully completed!

```

## Livello 26

```

~/Mountain/Cave
[mission 26] $ gsh goal
( \_/\_) _____ ( \_/\_)
| \_/\_| 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".
| \_/\_| _____
| \_/\_| Parts in [square brackets] in command descriptions are stand for optional parts. The brackets are not part of the command.
( \_/\_) _____ ( \_/\_)
| \_/\_| _____ | \_/\_

```

Infine, in questo ultimo livello riguardo l'utilizzo del "cat", abbiamo dovuto unire l'utilizzo dei comandi "head" e "tail" con il pipe "|" per mostrare solo un determinato numero di righe dentro i files selezionati.

```
~/Mountain/Cave
[mission 26] $ cat servillus
b6390f12e30aeb308c867c69900bac8b1e7d3eae@51512
.
^   '/\'
`V'   .
/ \ I   o  o
// ..\` I   .
\].`[/ I
/\`/\`j\` (]   .  o
/. ~ ,\`/I
`\`L_j`\`/I   o  .
\`-v} I   o  .
|   | I
|   | I c(`-----')o
|   l I   \.
-/j L l\`_I _//`-`-`-\`_ Row
~~~~~
```

```
~/Mountain/Cave
[mission 26] $ cat 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 26] $ gsh check
Congratulations, mission 26 has been successfully completed!
```

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

```
~/Mountain/Cave
[mission 27] $ █
```

## Livello 27

```

Mission goal
A mischievous imp cast a spell that puts smudges of coal everywhere in the castle.
Find this spell and remove it.

Remark
The spell is a process.

Useful commands
ps
List the processes that are currently executed by the shell.

kill N
Send the termination signal to process number N.
Remark: N is called PID, or "process identifier".

clear
Clear the screen.
The keybinding "Control-L" does the same and is often quicker to use in the terminal.

~/Mountain/Cave
[mission 27] $ *#@*
& **/~
!$-#

```

In questo esercizio abbiamo dovuto terminare un determinato processo in corso tramite il comando “kill” seguito dal PID (process identifier, cioè il numero identificativo del processo) del processo interessato.

```

103509 pts/0
#@
& **/~
!$-#

103509 pts/0
bash: kill: pts/0: arguments must be process or job IDs

~/Mountain/Cave
[mission 27] $ gsh check
Congratulations, mission 27 has been successfully completed!

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

```

**Livello 28**

```
gsh goal
(^) _____(^)
| | Mission goal
| |
| | The mischievous imp has more than one trick up his sleeve. He managed to protect his spell against most tampering.
| | You need to find this spell and try to remove it with standard signal. If it doesn't work, use a more brutal signal.
| |
| | Remark
| |
| | The spell is a process.
| |
| | Useful commands
| | _____
| |
| | ps
| | List the processes that are currently executed by the shell.
| |
| | kill [OPTIONS] N
| | Send the termination signal to process number N.
| |
| | Useful options:
| | -s SIGNAL choose the signal name
| | -NUMBER choose the signal number
| | -l list available signals
| |
| | clear
| | Clear the screen.
| | The keybinding "Control-L" does the same and is often quicker to use in the terminal.
| |
| | Details
| | _____
| |
| | By default ``kill`` sends the "TERM" signal to the processes (TERM stands for "termination").
| | Processes may ignore some signals, but the "KILL" signal cannot be ignored!
| |
(____) _____(____)

~/Mountain/Cave
[mission 28] $ █
```

In quest'ultimo livello da me affrontato, abbiamo dovuto utilizzare il comando “ps” per mostrare a schermo la lista dei processi in esecuzione per poi terminarne un numero specifico tramite il comando “kill -s” seguito dal PID dei processi interessati.

```
105852
Trash
#@
&_**/~
!$-#
File System
#@
&_**/~
!$-#

~/Mountain/Cave
[mission 28] $ kill -s
#@
&_**/~
!$-#

Kill
#@
&_**/~
!$-#

106049

~/Mountain/Cave
[mission 28] $ gsh check

Congratulations, mission 28 has been successfully completed!

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

**Livello 29**

```

~/Castle/Cellar
[mission 29] $ gsh goal

()=(_____
| Mission goal
| _____
| The imp is comparing his magic with a fairy. They met in the cellar, and imp is
| conjuring lumps of coal while the fairy is conjuring delicate snowflakes.
| Remove the imp's spells and the coal that litters the cellar, but don't touch the
| snowflakes!
|
| Remark
| _____
| Do not kill the imp or the fairy.
|
| Useful commands
| _____
| pstree PID
| Print the list of processes with their parent / child relationship.
|
| If no PID is given, show the list of all processes with their parent / child
| relationship.
|
| Useful options:
| -p show the PID of processes
| $$ This variable contains the PID of the
| shell and can be given as the PID.
|
| kill N
| Send the termination signal to process number N.
| Remark: N is called PID, or "process identifier".
)=-_____
()=(_____

```

In questo livello per terminare i processi giusti abbiamo dovuto controllare la lista dei processi con il comando “ps -v” per poi applicare il comando “kill” ai processi interessati.

```

19070_bat_4 28291_coal 38212_snowflake 49026_coal 58350_snowflake 8969_snowflake
19551_coal 28687_snowflake 38263_coal 49106_snowflake 58355_snowflake 8985_coal
19577_snowflake 28764_snowflake 38508_snowflake 49158_snowflake 58372_snowflake 8985_snowflake
195_coal 28850_coal 38590_coal 49201_snowflake 58419_coal 9030_snowflake
19656_snowflake 28879_snowflake 38657_snowflake 49344_snowflake 58423_coal 9057_coal
19680_coal 28935_snowflake 386_snowflake 49351_snowflake 58488_snowflake 9121_coal
19707_coal 28965_snowflake 38731_coal 49387_coal 58521_snowflake 9248_snowflake
19803_coal 29086_snowflake 38829_snowflake 49410_snowflake 58590_coal 9532_snowflake
19830_snowflake 29468_snowflake 38874_snowflake 49457_snowflake 58605_snowflake 9615_coal
19957_coal 29522_coal 3901_coal 49466_snowflake 58657_coal 9642_snowflake
19984_coal 29548_snowflake 39024_snowflake 49541_snowflake 58829_snowflake 9668_snowflake
20024_coal 29567_snowflake 39179_snowflake 49689_snowflake 58928_snowflake 9738_snowflake
20077_coal 29580_snowflake 39205_snowflake 49750_snowflake 58949_coal 975_coal
20118_snowflake 29583_coal 39215_coal 49793_coal 5898_snowflake 9908_snowflake
20198_coal 29644_snowflake 39308_coal 49820_snowflake 59039_coal 9926_coal
20250_coal 29647_coal 39596_snowflake 49921_coal 59067_coal 9935_snowflake
2025_snowflake 29673_snowflake 39850_snowflake 49924_snowflake 59067_snowflake 9957_coal
20270_snowflake 29878_snowflake 4003_snowflake 49_coal 59301_coal barrel_of_apples
.20287_bat_4 29884_coal 40090_coal 50024_snowflake 59313_coal bat_1
20384_snowflake 29950_coal 40242_snowflake 50140_coal 59322_coal bat_2
20607_snowflake 30079_coal 40268_snowflake 50167_coal 59322_snowflake

~/Castle/Cellar
[mission 29] $ rm *coal*

```

```

~/Castle/Cellar
[mission 29] $
~/Castle/Cellar
[mission 29] $ gsh check
Congratulations, mission 29 has been successfully completed!

```

```
~/Castle/Cellar
[mission 30] $ gsh goal

()=(_____)@=()
| Mission goal
| _____
| To get better in the magical art, one needs to know mental math.
| Get ready, because Merlin is about to test your precision with sums.
| Run the command ``gsh check`` to start.
()=(_____)@=()

~/Castle/Cellar
[mission 30] $ gsh check
28 + 12 = ?? 40
95 + 53 = ?? 148
32 + 99 = ?? 131
87 + 52 = ?? 139
43 + 48 = ?? 91

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

In questo livello abbiamo dovuto semplicemente risolvere delle operazioni matematiche.

## Livello 31

```
~/Castle/Cellar
[mission 31] $ gsh goal

File system

| 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.
```

In questo livello siamo dovuti andare in una determinata directory (Library/) per aprire un file con il comando “cat” per copiare (letteralmente) e poter dare le risposte in tempo per terminare l’esercizio.

```
233735 * 14 + ?? 90 * 12 + ?? 8 * 39 + ?? 73 + 7 * ?? 46 + 41 + ?? 98 * 15 + ?? 100 * 92 + ?? 62 + 88 + ?? 93 + ?? 57 + 65 + ?? 27 + 25 + ?? 79 + 9 + ?? 82 + 60 + ?? 69 + ?? 81 + ?? 51 + ?? 4 + ?? 79 + ?? 29 + 10 + ?? 9
0 * 58 - ?? 29 * 28 + ?? 91 * 16 - ?? 68 * 96 - ?? 5 * 99 - ?? 78 * 55 - ?? 85 * 30 - ?? 72 * 9 + ?? 24 + ?? 94 - ?? 80 + ?? 91 + ?? 61 + 2 + ?? 34 * 2 + ?? 100 * 33 + ?? 78 * 82 + ?? 87 * 15 - ?? 18 + ?? 46 + ?? 24 + ?? 71 + ?? 59 + ??
9 = ?? 89 * 29 = ?? 39 * 46 = ?? 41 * 76 = ?? 48 * 64 = ?? 95 * 25 = ?? 8 * 61 = ?? 71 * 39 = ?? 28 * 61 = ?? 74 * 65 = ?? 82 * 16 = ?? 16 * 71 = ?? 33 * 72 = ?? 89 * 16 = ?? 39 * 58 = ?? 87 * 61 = ?? 61 * 16 = ?? 59 * 97 =
?? 58 * 25 - ?? 61 * 98 - ?? 59 * 16 - ?? 96 * 4 - ?? 3 * 74 - ?? 14 * 72 - ?? 71 * 88 - ?? 9 * 11 - ?? 88 * 22 - ?? 96 * 28 - ?? 82 * 95 - ?? 23 * 17 - ?? 58 * 19 - ?? 44 * 76 - ?? 82 * 98 - ?? 84 * 45 - ?? 63 * 14 - ?? 87 * 95 - ?? 8
1 * 11 + ?? 35 + ?? 92 * 86 + ?? 22 + ?? 19 * 18 + ?? 32 * 26 + ?? 70 * 5 = ?? 13 * 56 = ?? 81 * 59 = ?? 43 * 57 = ?? 62 * 21 + ?? 17 * 78 = ?? 26 * 71 + ?? 3 * 6 + ?? 72 * 17 + ?? 77 + ?? 28 + ?? 20 * 76 + ?? 4 * 53
- ?? 65 * 48 + ?? 72 * 23 + ?? 44 * 67 + ?? 66 * 24 + ?? 74 * 15 + ?? 63 * 41 + ?? 41 * 57 - ??
```

Congratulations, mission 31 has been successfully completed!

While you are waiting, a duck swims by ...

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

Questo gioco, da me non completato, aiuta a sviluppare confidenza con i comandi della shell ed impararne i vari utilizzi e scopi.