

martedì 10 dicembre 2024

S3/L2

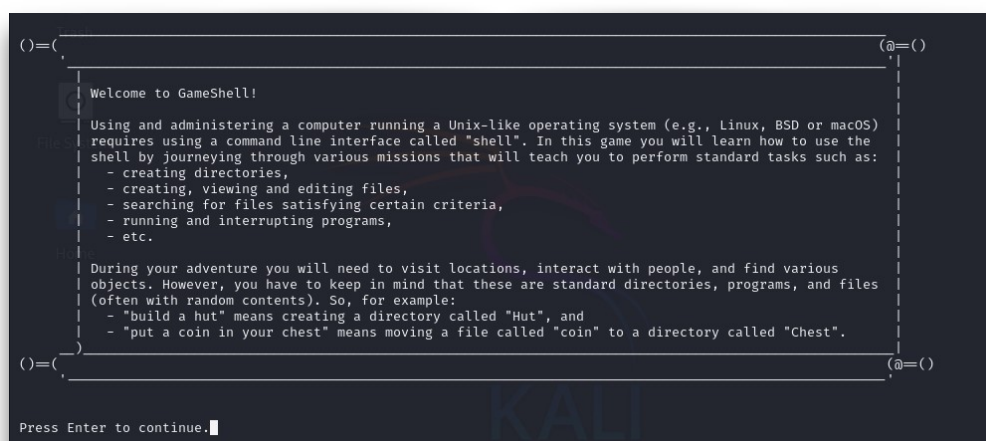
L'esercizio di oggi prevede l'installazione di un gioco su Kali Linux, utile per familiarizzare con i comandi della shell.

1. INSTALLAZIONE E AVVIO

- Una volta eseguiti i comandi indicati nella traccia, lancio il gioco con il comando `# bash gameshell.sh` e mi trovo in questa schermata:



- Premo enter e trovo la spiegazione del gioco:



- Premendo ancora enter entro nella prima missione:

```

| Trash
|-----|
| Run the command
|   $ gsh goal
| to discover your first mission.
|
| You can check the mission has been completed with
|   $ gsh check
|
| The command
|   $ gsh help
| displays the list of available (gsh) commands.
|-----|
| Home
[mission 1] $ 

```

2. MISSIONE 1

- Con “gsh goal” svelo l’obiettivo della prima missione:

```

| Trash
|-----|
| 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.
|-----|
|
| [use 'gsh help' to get a list of available commands]
[mission 1] $ 

```

- L'obiettivo è raggiungere la cima della torre principale del castello. In più vedo tra i comandi utili "cd", quindi si tratterà di raggiungere una directory.
- Con il comando "pwd" vedo in che directory mi trovo e poi vedo quali sono le directory presenti con "ls":

```
[use 'gsh help' to get a list of available commands]
[mission 1] $ pwd
/home/kali/gameshell.1/World

[use 'gsh help' to get a list of available commands]
[mission 1] $ ls
Castle Forest Garden Mountain Stall
```

- Con "cd Castle" entro nella directory Castle e faccio di nuovo "ls" per vedere quali directory sono presenti:

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

[use 'gsh help' to get a list of available commands]
[mission 1] $ ls
Cellar Great_hall Main_building Main_tower Observatory
```

- Trovo Main Tower, che è l'obiettivo, quindi con cd "Main_tower" entro nella directory, poi nuovamente "ls":

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

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

- Vedo solo First floor e ci entro con “cd” poi “ls”:

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

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

- Eseguo lo stesso procedimento dentro a Second floor:

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

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

- Finalmente vedo la directory Top of the tower, entro con “cd” e con “gsh check” ho conferma della riuscita della missione:

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

3. MISSIONE 2

- L'obiettivo della seconda missione è andare alla cantina del castello, quindi seguirò circa lo stesso procedimento per cercare la giusta directory:

```
[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.
```

- In questo momento mi trovo ancora nella directory top of the tower, devo quindi tornare indietro con “cd -”; per logica torno alla directory Castle dove immagino si possa trovare la sotto directory cantina:

```
[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower/First_floor

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower

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

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower/First_floor

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower/First_floor

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower/First_floor

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd -
/home/kali/gameshell.1/World/Castle/Main_tower

[use 'gsh help' to get a list of available commands]
[mission 2] $ cd ..
Cellar Great_hall Main_building Main_tower Observatory
```

- Trovata la directory cellar entro dentro e controllo la riuscita della missione:

```
[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] $ ls
barrel_of_apples

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

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

4. MISSIONE 3

- L'obiettivo della terza missione è tornare alla posizione di partenza e andare alla stanza del trono usando solo 2 comandi, per farlo uso sempre il comando "cd", ma in questo caso alloco già la posizione da raggiungere nello stesso comando:

```
[mission 3] $ gsh goal

(0) >>>=====)

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.

(0) >>>=====)

KALI
```


- Prima di farlo devo scoprire dove si trova la directory interessata, quindi la cerco eseguendo vari comandi “cd”:

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

[use 'gsh help' to get a list of available commands]
[mission 3] $ ls
Castle  Forest  Garden  Mountain  Stall

[use 'gsh help' to get a list of available commands]
[mission 3] $ cd castle
bash: cd: castle: No such file or directory

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

[use 'gsh help' to get a list of available commands]
[mission 3] $ ls
Cellar  Great_hall  Main_building  Main_tower  Observatory

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

[use 'gsh help' to get a list of available commands]
[mission 3] $ ls
Library  Throne_room
```

- Una volta trovata riavvio il livello perché devo concludere in 2 mosse!
- Dall’inizio del livello faccio “cd” per tornare all’inizio e poi “cd Castle/Main_building/Throne_room”, per entrare nella directory; poi controllo il risultato:

```
[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!
```

5. MISSIONE 4

- Nella quarta missione viene chiesto di costruire una capanna nella foresta e poi di inserire un forziere nella capanna; il che potrebbe significare: crea una directory nella directory Forest e inserisci una directory chiamata chest....:

```
~/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".
```

- Per prima cosa cerco la directory Forest:

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

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

- Una volta trovata ci entro e inserisco una nuova directory chiamata Hut con il comando "mkdir Hut":

```
~
[mission 4] $ cd Forest

~/Forest
[mission 4] $ ls

~/Forest
[mission 4] $ mkdir hut

~/Forest
[mission 4] $ ls
hut
```


- Non mi resta che creare la directory chest all'interno della directory Hut e controllare la missione:

```
~/Forest
[mission 4] $ ls
Hut

~/Forest
[mission 4] $ cd Hut

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

~/Forest/Hut
[mission 4] $ ls
Chest

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

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

6. MISSIONE 5

- La quinta missione richiede di tornare in cantina e sbarazzarsi di tutti i ragni senza intaccare i pipistrelli; immagino che voglia dire di eliminare le directory che interessano i ragni e lasciare quelle dei pipistrelli:

```
~/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".

- Quindi torno alla directory cellar:

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

~
[mission 5] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 5] $ cd Castle

~/Castle
[mission 5] $ ls
Cellar  Great_hall  Main_building  Main_tower  Observatory

~/Castle
[mission 5] $ cd Cellar
```

- Una volta qui, con il comando “rm ...” elimino le directory con scritto spider e lascio le altre intatte, infine controllo la missione:

```
~/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 spider_2 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!
```

7. MISSIONE 6

- La sesta missione richiede di raccogliere tutte le monete che trovo nel giardino e di collocarle nella directory Chest che ho creato prima; quindi mi sta chiedendo di spostare i file presenti nella directory giardino alla directory chest:

```
~/Castle/Cellar
[mission 6] $ gsh goal

(0)=>
Mission goal
Collect all the coins that you can find in the garden in front of the castle, and put them in your chest in your hut in the forest.

Useful commands
mv FILE1 FILE2 ... FILEn DIRECTORY
Move the files to the directory.
Remark: `mv` is an abbreviation of "move".

~
The "~" symbol is an abbreviation for the initial directory.
Example: wherever you are, `~/Tavern` denotes the directory (or file) "Tavern" in the initial directory.

(0)=<
```

- Prima di tutto raggiungo la directory Garden dove trovo le monete:

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

~
[mission 6] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 6] $ cd Garden

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

- Poi con “mv coin_1 coin_2 coin_3 ~/Forest/Hut/Chest” Sposto i file nella directory chest, infine controllo:

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

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

~/Garden
[mission 6] $ gsh check

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

8. MISSIONE 7

- Nella missione sette viene chiesto di fare lo stesso esercizio ma in questo caso di considerare anche i file nascosti, che si mettono in evidenza con “ls -A”:

```
~/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.
```

- Nella directory garden lancio “ls -A” per scoprire i file nascosti (iniziano con .), dopodiché eseguo lo stesso comando “mv” di prima per spostarli nella giusta directory:

```
~/Garden
[mission 7] $ cd

~
[mission 7] $ ls
Castle Forest Garden Mountain Stall

~
[mission 7] $ cd Garden

~/Garden
[mission 7] $ ls -A
.20840_coin_2 .23565_coin_3 .60031_coin_1 Flower_garden Maze Shed

~/Garden
[mission 7] $ mv .20840_coin_2 .23565_coin_3 .60031_coin_1 ~/Forest/Hut/Chest

~/Garden
[mission 7] $ ls
Flower_garden Maze Shed

~/Garden
[mission 7] $ gsh check

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

9. MISSIONE 8

- In questa missione viene chiesto di eliminare tutti i file nascosti che riguardano i ragni nella directory Cellar, per farlo li spotto con “ls -A” e poi li rimuovo facendo una selezione intelligente “*spider*”:

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

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

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
*0*  -> Folder-1 potato
x*   -> error, no matching file
*~?  -> file-1 Folder-1
*~?? -> file-14
```

- Prima di tutto entro nella directory Cellar e spotto tutti i file nascosti:

```
~/Garden
[mission 8] $ cd

~
[mission 8] $ ls
Castle Forest Garden Mountain Stall

~
[mission 8] $ cd Castle

~/Castle
[mission 8] $ ls
Cellar Great_hall Main_building Main_tower Observatory

~/Castle
[mission 8] $ cd Cellar

~/Castle/Cellar
[mission 8] $ ls -A
13484_spider_45 16498_spider_5 20103_bat_4 23699_spider_26 274_spider_28 30886_bat_2 7285_spider_19
13811_spider_31 17328_spider_23 2107_spider_14 24263_spider_38 27514_bat_3 31266_bat_1 7885_spider_44
13950_spider_49 17437_spider_29 21291_spider_11 25537_spider_4 27610_bat_5 31839_spider_20 7958_spider_17
14431_spider_46 17935_spider_16 21782_spider_34 25663_spider_30 27627_spider_7 31862_spider_21 8793_spider_47
14813_spider_27 18830_spider_10 22155_spider_24 25826_spider_9 28690_spider_40 3332_spider_25 9505_spider_37
14981_spider_12 19600_spider_41 22513_spider_18 26157_spider_35 29253_spider_1 3337_spider_43 9659_spider_42
15296_spider_33 19769_spider_15 23069_spider_48 26435_spider_32 30537_spider_13 4898_spider_50 9945_spider_6
16469_spider_2 19865_spider_39 23534_spider_8 27332_spider_3 30729_spider_22 5779_spider_36 barrel_of_apples
```

- Con “rm *spider*” rimuovo tutti i file contenenti la parola spider:

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

~/Castle/Cellar
[mission 8] $ ls -A
20103_bat_4 27514_bat_3 27610_bat_5 30886_bat_2 31266_bat_1 barrel_of_apples

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

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