

PROGETTO DI FINE MODULO 2

GAMESHELL

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{
Welcome to GameShell!

Using and administering a computer running a Unix-like operating system (e.g., Linux, BSD or macOS) requires using a command line
interface called "shell". In this game you will learn how to use the shell by journeying through various missions that will teach
you to perform standard tasks such as:
- creating directories,
- creating, viewing and editing files,
- searching for files satisfying certain criteria,
- running and interrupting programs,
- etc.

During your adventure you will need to visit locations, interact with people, and find various objects. However, you have to keep in
mind that these are standard directories, programs, and files (often with random contents). So, for example:
- "build a hut" means creating a directory called "Hut", and
- "put a coin in your chest" means moving a file called "coin" to a directory called "Chest".

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Press Enter to continue.
```

MISSION 1

```
[mission 1] $ ls
Castle Forest Garden Mountain Stall ls
[mission 1] $ pwd
/home/kali/gameshell/World
[mission 1] $ cd /home/kali/World/Castle
bash: cd: /home/kali/World/Castle: No such file or directory
[mission 1] $ cd
[mission 1] $ pwd
/home/kali/gameshell/World
[mission 1] $ cd Castle
[mission 1] $ pwd
/home/kali/gameshell/World/Castle
[mission 1] $ ls
Cellar Great_hall Main_building Main_tower Observatory
[mission 1] $ cd Main_tower
[mission 1] $ pwd
/home/kali/gameshell/World/Castle/Main_tower
[mission 1] $ ls
First_floor
[mission 1] $ cd First_floor
[mission 1] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/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] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 1] $ ls
[mission 1] $ gsh check

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

MISSION 2

```
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ cd -
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd ..
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor
[mission 2] $ cd ..
[mission 2] $ cd ..
[mission 2] $ cd cellar
bash: cd: cellar: No such file or directory
[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] $ ls
barrel_of_apples
[mission 2] $ gsh check

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

MISSION 3

```

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

[mission 3] $ cd
[mission 3] $ cd /home/kali/gameshell/World/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.

KALI LINUX
"the quieter you become, the more you are able to hear"

jgs
  
```

MISSION 4

Creare la directory "Hut" nella foresta e al suo interno creare la directory "Chest"

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

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

~
[mission 4] $ cd Forest

~/Forest
[mission 4] $ ls

~/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] $ ls
Chest

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

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

MISSION 5

Rimuovi tutti i ragni dalle celle con rm

```
~
[mission 5] $ cd Castle

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

MISSION 6

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

~/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!
```

MISSION 7

Controllare con il comando `ls -A` i file nascosti e spostarli nella Chest

```
~/Garden
[mission 7] $ mv .33823_coin_3 35286_coin_1 .8222_coin_2 ~/Forest/Hut/Chest
mv: cannot stat '35286_coin_1': No such file or directory
```

```
~/Forest
[mission 7] $ cd Hut

~/Forest/Hut
[mission 7] $ cd Chest

~/Forest/Hut/Chest
[mission 7] $ ls
coin_1  coin_2  coin_3

~/Forest/Hut/Chest
[mission 7] $ ls -A
.33823_coin_3  .35286_coin_1  .8222_coin_2  coin_1  coin_2  coin_3

~/Forest/Hut/Chest
[mission 7] $ gsh check

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

MISSION 8

SBARAZZARSI DI TUTTI I RAGNI ALL'INTERNO DELLE CELLE

```
~/Castle/Cellar
[mission 8] $ ls -A
10427_bat_4      14954_spider_10  18377_spider_22  22083_spider_33  25512_spider_26  30044_bat_1      32584_spider_21  7546_spider_48
10787_spider_17 14974_spider_8   18559_spider_4   22193_spider_9   25650_spider_19  30507_spider_1   3296_spider_50   7568_spider_31
11864_spider_35 15197_spider_40  19346_spider_47  22524_spider_28  2706_spider_2    30687_spider_23  4842_spider_39   7736_spider_36
1302_spider_46  15594_spider_24  19574_spider_18  22701_bat_5      27088_spider_38  31635_spider_45  6338_spider_15   870_spider_11
13037_spider_43 15628_spider_42  21413_spider_30  23799_bat_2      28692_spider_32  3163_bat_3      6349_spider_20   9080_spider_16
13366_spider_25 16157_spider_5   21694_spider_37  23830_spider_27  28751_spider_34  32008_spider_29  6609_spider_13   95_spider_44
13500_spider_6   16507_spider_3   21983_spider_14  2538_spider_49   2905_spider_7    32319_spider_12  6959_spider_41   barrel_of_apples

~/Castle/Cellar
[mission 8] $ rm -v *_spider_*
removed '10787_spider_17'
removed '11864_spider_35'
removed '1302_spider_46'
removed '13037_spider_43'
removed '13366_spider_25'
removed '13500_spider_6'
removed '14954_spider_10'
removed '14974_spider_8'
removed '15197_spider_40'
removed '15594_spider_24'
removed '15628_spider_42'
removed '16157_spider_5'
removed '16507_spider_3'
removed '18377_spider_22'
removed '18559_spider_4'
removed '19346_spider_47'
removed '19574_spider_18'
removed '21413_spider_30'
removed '21694_spider_37'
removed '21983_spider_14'
```

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

Congratulations, mission 8 has been successfully completed!

MISSION 9

```
~/Castle/Cellar
[mission 9] $ ls -A
.10663_spider_45 .149_spider_20 .1929_bat_2 .2231_spider_43 .2535_spider_27 .27693_spider_50 .32012_spider_26 .6733_spider_49 22701_bat_5
.10688_spider_10 .1506_spider_37 .20049_spider_18 .22425_bat_1 .25487_spider_12 .28385_spider_39 .3301_spider_46 .743_spider_21 23799_bat_2
.10977_spider_28 .15849_spider_8 .20169_spider_9 .23185_spider_1 .25540_spider_11 .28918_spider_3 .3646_spider_19 .8372_spider_2 30044_bat_1
.11088_spider_30 .16943_spider_24 .20257_spider_35 .24014_spider_40 .25594_spider_25 .28953_spider_36 .3792_spider_22 .8808_spider_14 3163_bat_3
.11875_spider_48 .17276_bat_5 .20302_bat_3 .24098_spider_32 .26084_spider_4 .29459_spider_44 .5974_spider_38 .930_spider_31 barrel_of_apples
.12181_spider_42 .18275_spider_15 .20729_spider_34 .24947_spider_29 .26707_bat_4 .30602_spider_33 .6142_spider_17 .9738_spider_7
.12185_spider_5 .18602_spider_47 .2182_spider_13 .24964_spider_41 .27186_spider_6 .31844_spider_23 .6343_spider_16 10427_bat_4

~/Castle/Cellar
[mission 9] $ rm -v .*_spider_*
removed '.10663_spider_45'
removed '.10688_spider_10'
removed '.10977_spider_28'
removed '.11088_spider_30'
removed '.11875_spider_48'
removed '.12181_spider_42'
removed '.12185_spider_5'
removed '.149_spider_20'
removed '.1506_spider_37'
removed '.15849_spider_8'
removed '.16943_spider_24'
removed '.18275_spider_15'
removed '.18602_spider_47'
removed '.20049_spider_18'
removed '.20169_spider_9'
removed '.20257_spider_35'
removed '.20729_spider_34'
removed '.2182_spider_13'
removed '.2231_spider_43'
```

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

Congratulations, mission 9 has been successfully completed!

Congratulations !
From now on, the ``ls`` command will automatically show a "/" character at the end of directories.

KALI LINUX
"the quieter you become, the more you are able to hear"
```

MISSION 10

FARE UNA COPIA DEGLI “STANDARD” NELLA “CHEST”

```
~/Castle
[mission 10] $ ls
Cellar/ Great_hall/ Main_building/ Main_tower/ Observatory/

~/Castle
[mission 10] $ cd Great_hall

~/Castle/Great_hall
[mission 10] $ ls
5260_decorative_shield 56595_stag_head 59859_suit_of_armour standard_1 standard_2 standard_3 standard_4

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

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

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

MISSION 11

```
~/Castle/Great_hall
[mission 11] $ ls
1536_tapestry_09 25244_tapestry_08 34196_tapestry_02 42321_tapestry_10 62567_suit_of_armour 6503_tapestry_06 9933_decorative_shield standard_2 standard_4
21146_stag_head 30603_tapestry_01 34312_tapestry_04 4233_tapestry_07 628_tapestry_03 7479_tapestry_05 standard_1 standard_3

~/Castle/Great_hall
[mission 11] $ cp -v *_tapestry_* ~/Forest/Hut/Chest
'1536_tapestry_09' → '/home/kali/gameshell/World/Forest/Hut/Chest/1536_tapestry_09'
'25244_tapestry_08' → '/home/kali/gameshell/World/Forest/Hut/Chest/25244_tapestry_08'
'30603_tapestry_01' → '/home/kali/gameshell/World/Forest/Hut/Chest/30603_tapestry_01'
'34196_tapestry_02' → '/home/kali/gameshell/World/Forest/Hut/Chest/34196_tapestry_02'
'34312_tapestry_04' → '/home/kali/gameshell/World/Forest/Hut/Chest/34312_tapestry_04'
'42321_tapestry_10' → '/home/kali/gameshell/World/Forest/Hut/Chest/42321_tapestry_10'
'4233_tapestry_07' → '/home/kali/gameshell/World/Forest/Hut/Chest/4233_tapestry_07'
'628_tapestry_03' → '/home/kali/gameshell/World/Forest/Hut/Chest/628_tapestry_03'
'6503_tapestry_06' → '/home/kali/gameshell/World/Forest/Hut/Chest/6503_tapestry_06'
'7479_tapestry_05' → '/home/kali/gameshell/World/Forest/Hut/Chest/7479_tapestry_05'

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

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

```
~/Castle/Main_tower/First_floor
[mission 12] $ cat painting_sBhcuKIb
dd46ac65cfbd5338c9a5d5edf70dcfd70c8872b6@24479
```


MISSION 13

```
~/Castle/Main_tower/First_floor
[mission 13] $ cal 1984
```

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	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	7	
8	9	10	11	12	13	14	7	8	9	10	11	12	8	9	10	11	12	13	14	
15	16	17	18	19	20	21	13	14	15	16	17	18	15	16	17	18	19	20	21	
22	23	24	25	26	27	28	19	20	21	22	23	24	18	19	20	21	22	23	24	
29	30	31					26	27	28	29			25	26	27	28	29	30	31	

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

```
~/Castle/Main_tower/First_floor
[mission 13] $ gsh check
What was the day of the week for the 04-14-1984?
1 : Monday
2 : Tuesday
3 : Wednesday
4 : Thursday
5 : Friday
6 : Saturday
7 : Sunday
Your answer: 6
Congratulations, mission 13 has been successfully completed!
```

MISSION 15

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

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

MISSION 17

```
~/Castle/Cellar/.Lair_of_the
[mission 17] $ rm oqjppmYtRr

~/Castle/Cellar/.Lair_of_the
[mission 17] $ gc
Perfect, it took you only 19
Congratulations, mission 17
```

MISSION 18

```
~/Castle/Cellar/.Lair_of_the_spider_queen QTZdFBywkgNGBQRp lGoSnykZTXkZMxXi
[mission 18] $ xeyes
^C

~/Castle/Cellar/.Lair_of_the_spider_queen QTZdFBywkgNGBQRp lGoSnykZTXkZMxXi
[mission 18] $ xeyes $
Unknown argument(s):

usage: xeyes [-display [{host}]:{vs}]
             [-geometry [{width}][x{height}][{+-}{xoff}[{+-}{yoff}]]]
             [-fg {color}] [-bg {color}] [-bd {color}] [-bw {pixels}]
             [-shape | +shape] [-outline {color}] [-center {color}]
             [-backing {backing-store}] [-distance]
             [-biblicallyAccurate]
             [-render | +render]
             [-present | +present]
xeyes -help
xeyes -version

~/Castle/Cellar/.Lair_of_the_spider_queen QTZdFBywkgNGBQRp lGoSnykZTXkZMxXi
[mission 18] $ xeyes &
[1] 317912

~/Castle/Cellar/.Lair_of_the_spider_queen QTZdFBywkgNGBQRp lGoSnykZTXkZMxXi
[mission 18] $ gc

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

MISSION 19

```
~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33/32585bcbe498
[mission 19] $ ls -la
total 8
drwxr-xr-x 2 kali kali 4096 Dec 16 16:00 .
drwxr-xr-x 4 kali kali 4096 Dec 16 16:00 ..

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33/32585bcbe498
[mission 19] $ cd ../
bash: cd ../: No such file or directory

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33/32585bcbe498
[mission 19] $ cd ../

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33
[mission 19] $ ls
32585bcbe498  bd374cef20e623ff47b47b68574b

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33
[mission 19] $ cd bd374cef20e623ff47b47b68574b/

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33/bd374cef20e623ff47b47b68574b
[mission 19] $ ls -la
total 12
drwxr-xr-x 2 kali kali 4096 Dec 16 16:00 .
drwxr-xr-x 4 kali kali 4096 Dec 16 16:00 ..
-rw-r--r-- 1 kali kali 41 Dec 16 16:00 00000_copper_coin_00000

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33/bd374cef20e623ff47b47b68574b
[mission 19] $ mv 00000_copper_coin_00000 ~/Forest/Hut/Chest

~/Garden/Maze/a69d1b9847f60d547d9c7/2241f7c39c33/bd374cef20e623ff47b47b68574b
[mission 19] $ gc

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

MISSION 20

```
~/Garden/Maze/c39b19d71402b305e3be52e7/6e0925729c/62b2a2bdd9e27172e
[mission 20] $ ls -la
total 12
drwxr-xr-x 2 kali kali 4096 Dec 17 09:54 ./
drwxr-xr-x 5 kali kali 4096 Dec 17 09:54 ../
-rw-r--r-- 1 kali kali 41 Dec 17 09:54 00000_silver_coin_00000

~/Garden/Maze/c39b19d71402b305e3be52e7/6e0925729c/62b2a2bdd9e27172e
[mission 20] $ cd 00000_silver_coin_00000
bash: cd: 00000_silver_coin_00000: Not a directory

~/Garden/Maze/c39b19d71402b305e3be52e7/6e0925729c/62b2a2bdd9e27172e
[mission 20] $ ls -la
total 12
drwxr-xr-x 2 kali kali 4096 Dec 17 09:54 ./
drwxr-xr-x 5 kali kali 4096 Dec 17 09:54 ../
-rw-r--r-- 1 kali kali 41 Dec 17 09:54 00000_silver_coin_00000

~/Garden/Maze/c39b19d71402b305e3be52e7/6e0925729c/62b2a2bdd9e27172e
[mission 20] $ mv 00000_silver_coin_00000 ~/Forest/Hut/Chest

~/Garden/Maze/c39b19d71402b305e3be52e7/6e0925729c/62b2a2bdd9e27172e
[mission 20] $ gc

Congratulations, mission 20 has been successfully completed!

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

MISSION 21

```
~/Garden/Maze
[mission 21] $ find ~ -iname *gol*
/home/kali/gameshell/World/Garden/Maze/5f3e55f39c5f4dde513cb2930e821aa/5f5e534b3678b373f427cd4cf3f9fb/4f82879045849cbf018935/Gold_Coin_2
/home/kali/gameshell/World/Garden/Maze/4191ffe56cc8f/7056a1d738dde6dcee926501dc/35cb8116151d3cfa7520d47/gold_coin_1

~/Garden/Maze
[mission 21] $ mv /home/kali/gameshell/World/Garden/Maze/5f3e55f39c5f4dde513cb2930e821aa/5f5e534b3678b373f427cd4cf3f9fb/4f82879045849cbf018935/Gold_Coin_2 /home/k
ali/gameshell/World/Garden/Maze/4191ffe56cc8f/7056a1d738dde6dcee926501dc/35cb8116151d3cfa7520d47/gold_coin_1 ~/Forest/Hut/Chest

~/Garden/Maze
[mission 21] $ gc

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

MISSION 22

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

~/Mountain/Cave
[mission 22] $ head -6 page_07
head: cannot open 'page_07' for reading: No such file or directory

~/Mountain/Cave
[mission 22] $ ls
Book_of_potions/ servillus

~/Mountain/Cave
[mission 22] $ head -6 Book_of_potions/page_07
Herbal tea
_____

1) Boil water.
2) Add herbs from the forest.
3) Let it sit for five minutes and drink while hot.

~/Mountain/Cave
[mission 22] $ gc

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

MISSION 23

```
~/Mountain/Cave/Book_of_potions
[mission 23] $ tail 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/Book_of_potions
[mission 23] $ cd ../

~/Mountain/Cave
[mission 23] $ 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 23] $ gc

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

MISSION 24

```
~/Mountain/Cave
[mission 24] $ cat Book_of_potions/table_of_contents/page_1 Book_of_potions/table_of_contents/page_2
cat: Book_of_potions/table_of_contents/page_1: Not a directory
cat: Book_of_potions/table_of_contents/page_2: Not a directory

~/Mountain/Cave
[mission 24] $ cat Book_of_potions/page_01 Book_of_potions/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] $ gc

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

MISSION 25

```
~/Mountain/Cave
[mission 25] $ cat Book_of_potions/page_03 cat Book_of_potions/page_04 | tail -n 16
cat: cat: No such file or directory
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] $ gc
cat: cat: No such file or directory

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


MISSION 26

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

```
~/Mountain/Cave
[mission 26] $ gc
```

Congratulations, mission 26 has been successfully completed!

```

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

MISSION 27

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

```

*#@*
G_**/~
!$-#
```

```

*#@*
G_**/~
!$-#
```

kill

```

*#@*
G_**/~
!$-#
```

400191

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

Congratulations, mission 27 has been successfully completed!

MISSION 29

Killed

MISSION 30

```
~/Castle/Main_building/Library
[mission 30] $ gc
55 + 28 = ?? 83
29 + 9 = ?? 38
93 + 81 = ?? 174
5 + 51 = ?? 56
70 + 43 = ?? 113

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

MISSION 31

```
~/Castle/Main_building/Library
[mission 31] $ gc < Mathematics_101
96 * 3 = ?? 37 * 9 = ?? 23 * 8 = ?? 72 * 39 = ?? 30 * 8 = ?? 77 * 66 = ?? 92 * 60 = ?? 70 * 87 = ?? 19 * 55 = ?? 38 * 35 = ?? 60 * 2 = ?? 58 * 63 = ?? 73 * 54 = ?
? 67 * 31 = ?? 43 * 29 = ?? 98 * 100 = ?? 54 * 10 = ?? 93 * 90 = ?? 54 * 20 = ?? 50 * 62 = ?? 49 * 48 = ?? 77 * 19 = ?? 79 * 83 = ?? 94 * 32 = ?? 15 * 20 = ?? 90
* 67 = ?? 29 * 93 = ?? 48 * 87 = ?? 2 * 99 = ?? 45 * 82 = ?? 79 * 30 = ?? 65 * 81 = ?? 61 * 10 = ?? 98 * 40 = ?? 96 * 78 = ?? 74 * 9 = ?? 82 * 20 = ?? 26 * 38 = ?
? 45 * 31 = ?? 57 * 9 = ?? 49 * 10 = ?? 71 * 65 = ?? 98 * 3 = ?? 87 * 91 = ?? 2 * 57 = ?? 54 * 4 = ?? 41 * 22 = ?? 37 * 89 = ?? 52 * 21 = ?? 18 * 86 = ?? 35 * 95
= ?? 8 * 38 = ?? 11 * 37 = ?? 59 * 10 = ?? 62 * 98 = ?? 5 * 46 = ?? 81 * 21 = ?? 38 * 66 = ?? 54 * 5 = ?? 15 * 78 = ?? 19 * 24 = ?? 77 * 31 = ?? 48 * 8 = ?? 16 *
33 = ?? 18 * 67 = ?? 94 * 96 = ?? 94 * 98 = ?? 11 * 6 = ?? 92 * 34 = ?? 18 * 18 = ?? 7 * 77 = ?? 42 * 76 = ?? 19 * 34 = ?? 21 * 81 = ?? 23 * 20 = ?? 56 * 31 = ??
58 * 65 = ?? 60 * 66 = ?? 2 * 59 = ?? 66 * 3 = ?? 57 * 30 = ?? 54 * 56 = ?? 49 * 80 = ?? 48 * 99 = ?? 94 * 89 = ?? 66 * 3 = ?? 82 * 76 = ?? 95 * 9 = ?? 65 * 45 = ??
?? 82 * 10 = ?? 36 * 69 = ?? 100 * 58 = ?? 39 * 95 = ?? 34 * 83 = ?? 92 * 17 = ?? 74 * 15 = ?? 54 * 50 = ?? 93 * 12 = ?? 12 * 85 = ?? 42 * 71 = ??

Congratulations, mission 31 has been successfully completed!

While you are waiting, a bat flies by...
```

MISSION 32

```
~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $ ls grimoire*
grimoire_10031 grimoire_12489 grimoire_14910 grimoire_19211 grimoire_2306 grimoire_25738 grimoire_29280 grimoire_31752 grimoire_5023 grimoire_7597
grimoire_10585 grimoire_13002 grimoire_15068 grimoire_20322 grimoire_23145 grimoire_26251 grimoire_2936 grimoire_31919 grimoire_5442 grimoire_8196
grimoire_10609 grimoire_14022 grimoire_15259 grimoire_20467 grimoire_23194 grimoire_26475 grimoire_29363 grimoire_32074 grimoire_5537 grimoire_8474
grimoire_11042 grimoire_14032 grimoire_15564 grimoire_20747 grimoire_23374 grimoire_26537 grimoire_29784 grimoire_32732 grimoire_5631 grimoire_855
grimoire_11100 grimoire_14106 grimoire_15724 grimoire_20967 grimoire_23646 grimoire_27273 grimoire_29841 grimoire_3719 grimoire_6297 grimoire_8602
grimoire_11162 grimoire_14112 grimoire_16564 grimoire_20971 grimoire_23914 grimoire_27335 grimoire_30446 grimoire_4007 grimoire_6387 grimoire_8762
grimoire_1135 grimoire_14217 grimoire_16703 grimoire_21645 grimoire_24129 grimoire_28655 grimoire_30681 grimoire_4059 grimoire_6698 grimoire_9033
grimoire_11417 grimoire_14270 grimoire_17110 grimoire_22291 grimoire_24461 grimoire_28788 grimoire_30844 grimoire_4562 grimoire_6824 grimoire_9196
grimoire_11937 grimoire_14282 grimoire_17183 grimoire_22302 grimoire_25083 grimoire_28936 grimoire_31083 grimoire_4695 grimoire_7180 grimoire_9251
grimoire_12250 grimoire_14299 grimoire_17282 grimoire_22597 grimoire_2545 grimoire_2894 grimoire_31548 grimoire_4796 grimoire_7533 grimoire_9416

~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $ ls grimoire* > Drawer/inventory.txt

~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $ gc

Congratulations, mission 32 has been successfully completed!
```

MISSION 33

```
~/Castle/Main_building/Library/Merlin_s_office
[mission 33] $ grep -i -l "gsh" *grimoire* < /dev/null
grep: grimoire_AYWnfQqoEhaaPPvP: Permission denied
grep: grimoire_AYgcSiDpxovDChytZqQ: Permission denied
grimoire_AvwbwMCqtctWZCDR
grep: grimoire_BZGfNkxmt: Permission denied
grep: grimoire_dorNBKfjH: Permission denied
grep: grimoire_dhwftFeJLvqCUqyMAWozFTILfIPhzOY: Permission denied
grep: grimoire_dymLlsLpZmHyAmkcShLDOLJd: Permission denied
grep: grimoire_ehXFWadeRuFVlBvPtcwyQczuer: Permission denied
grep: grimoire_epDKhrtFnhnc: Permission denied
grep: grimoire_gOpLNHVfUsGXBZxHUaxku: Permission denied
grep: grimoire_hfyiAxgRNMQWZKuNOLaCFrxo: Permission denied
grep: grimoire_iHztDZgeuLrYTgggjfMahCuvaTEVBWC: Permission denied
grep: grimoire_lSDwgKHgsqcfBNQSkjdwYs: Permission denied
grep: grimoire_ltTFJJAhtdxDadXHJFpPapYC: Permission denied
grep: grimoire_lytsxCzuBoDOPNjkUVYrcyZrXiTMF: Permission denied
grep: grimoire_nMqhseknwkg: Permission denied
grep: grimoire_noGcnSVhezovsUXqtPvhzrKhaeaX: Permission denied
grep: grimoire_nwkQAGtjXjPZ: Permission denied
grep: grimoire_ozKRoybONFGIPZvMUYPfsrkWVznUskY: Permission denied
grep: grimoire_pHYXlvDP: Permission denied
grep: grimoire_pzYFAQOAXtUJLCVmYgOYPv: Permission denied
grep: grimoire_qvOLqgaOMWhO0dcUrzQpwNhGv: Permission denied
grep: grimoire_rIiCKHvGjrBWSqHuaYs: Permission denied
grep: grimoire_rSItGKtGlPyvkdjPeoASxVOFQXT: Permission denied
grep: grimoire_rkPHZuleSD: Permission denied
grep: grimoire_vtpWwlisvZYCwsIJFo: Permission denied
grep: grimoire_waSjAJGBNXRxUqOEOWpz: Permission denied
grep: grimoire_yePkIrCIoTHvQKAK: Permission denied
grep: grimoire_zTaGsRMFdpCjzbuqDojzFWKgHEqQ: Permission denied
grep: grimoire_zhFOIGKBuwnSOIgOatczkVbcqRpLq: Permission denied

Congratulations, mission 33 has been successfully completed!
```

MISSION 34

```
~/Castle/Observatory
[mission 34] $ ls -l
total 20
-rwxr-xr-x 1 kali kali 224 Dec 18 11:23 merlin
-rw-r--r-- 1 kali kali 399 Dec 18 11:15 merlin_sdt_error.txt
-rw-r--r-- 1 kali kali 201 Dec 18 11:22 merlin_sdt_error.txt
-rw-r--r-- 1 kali kali 23 Dec 18 11:12 merlin_sdt_output.txt
-rw-r--r-- 1 kali kali 776 Dec 18 11:23 star_chart

~/Castle/Observatory
[mission 34] $ cat merlin_sdt_output.txt
THESECREKEYISONSTDERR

~/Castle/Observatory
[mission 34] $ ./merlin 2> merlin_sdt_error.txt
THESECREKEYISONSTDERR

~/Castle/Observatory
[mission 34] $ cat merlin_sdt_error.txt
fMzPSnnteZcIpyXWCB1zkYDERemyRlgdWmCFnUJHmQemiXLHMZTwKuJqsqsebeyHcFaAysBXXLWEoWkpNmNVnjZUASZOpYsnOKRXDhpLJpKJkhWTsVYWOyDLEFYgxOmnYTJnHAFitcTFWNMgYsbdOecFpQxpemQ
MMYKXCiqSXonckJqJvaLajdOdZLYhqJzbudtT

~/Castle/Observatory
[mission 34] $ gc < merlin_sdt_error.txt
What is the secret key?
Congratulations, mission 34 has been successfully completed!
```

MISSION 35

```
~/Castle
[mission 35] $ ls
Cellar/ Great_hall/ Main_building/ Main_tower/ Observatory/

~/Castle
[mission 35] $ cd Main_building/

~/Castle/Main_building
[mission 35] $ ls
Library/ Throne_room/

~/Castle/Main_building
[mission 35] $ cd Throne_room/

~/Castle/Main_building/Throne_room
[mission 35] $ ls -la
total 12
drwxr-xr-x 3 kali kali 4096 Dec 16 07:00 ./
drwxr-xr-x 4 kali kali 4096 Dec 16 07:00 ../
drw-r--r-- 2 kali kali 4096 Dec 16 07:00 Kings_quarter/

~/Castle/Main_building/Throne_room
[mission 35] $ cd Kings_quarter/
bash: cd: Kings_quarter/: Permission denied

~/Castle/Main_building/Throne_room
[mission 35] $ chmod 777 Kings_quarter/

~/Castle/Main_building/Throne_room
[mission 35] $ cd Kings_quarter/

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 35] $ gc

Congratulations, mission 35 has been successfully completed!
```

MISSION 36

```
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ ls -la
total 16
drwxrwxrwx 2 kali kali 4096 Dec 18 11:42 ./
drwxr-xr-x 3 kali kali 4096 Dec 16 07:00 ../
--w----- 1 kali kali 11 Dec 18 11:42 .secret_note
-rw-r--r-- 1 kali kali 11 Dec 18 11:42 note

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ chmod 777 .secret_note

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ cat .secret_note
2903755926

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ gc
What's the combination to open the King's safe? 2903755926

Congratulations, mission 36 has been successfully completed!
```

MISSION 37

```
~/Castle/Main_building/Throne_room
[mission 37] $ chmod 777 Safe

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

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ ls -la
total 12
drwxrwxrwx 2 kali kali 4096 Dec 18 11:46 ./
drwxr-xr-x 4 kali kali 4096 Dec 18 11:46 ../
----- 1 kali kali 48 Dec 18 11:46 crown

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ cat crown
cat: crown: Permission denied

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ chmod 777 crown

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ cat crown
  +-----+
(^\\/^\\/^)  jgs
 \\@*#@/
 {_141_}

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ mv crown ~/Forest/Hut/Chest

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ gc
What are the 3 digits inscribed on the base of the crown? jcs
What are the 3 digits inscribed on the base of the crown? 141

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

MISSION 38

```
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 281675e517f/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 41074d6d120f9764ae1a8eb/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 5509e73a147/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 66d1eed0f30ef4ddcbd1c6e85d/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 8815cbb99dd10dc988d6a3c10ee9c/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 94773271c03df2f90/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 9e3c6cf0fad20dacd7/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 abca88ff17d685581a445/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 c8801bddb/
drwxr-xr-x 12 kali kali 4096 Dec 18 11:51 f5e46f3556527beb151daf/

~/Garden/Maze
[mission 38] $ find -type f
./41074d6d120f9764ae1a8eb/dfeef36f927d23a7/05b389b226d0186c32a83f0c/42459
./f5e46f3556527beb151daf/69ad00100cfd9fe5ee8d723b/7377ee55c09cfc4659786e9e12/47545
./8815cbb99dd10dc988d6a3c10ee9c/4441dd843a9c3daf8b2/c22fa889/17418
./5509e73a147/5b558328c00ed053178c372d57a7e6/a79e516b5515dee3063571a5c2f/53434
./9e3c6cf0fad20dacd7/c942095cb758939/d8083be5580fec722e8/20238
./281675e517f/ecc83e86f0867319b088642d6d7c2/db7c2d2a58a510c267b9a8/41192

~/Garden/Maze
[mission 38] $ cat ./41074d6d120f9764ae1a8eb/dfeef36f927d23a7/05b389b226d0186c32a83f0c/42459
42459 stone 00f8126ae0d83ad4ed21ecc8877492742c5fbb41

~/Garden/Maze
[mission 38] $ cat ./f5e46f3556527beb151daf/69ad00100cfd9fe5ee8d723b/7377ee55c09cfc4659786e9e12/47545
47545 stone 8c3c7a9940d0ab9c99c5877655943477ef2c4432

~/Garden/Maze
[mission 38] $ cat ./5509e73a147/5b558328c00ed053178c372d57a7e6/a79e516b5515dee3063571a5c2f/53434
53434 ruby cb99e3094ebb2d3fc945f658c03ad7c964c217d8

~/Garden/Maze
[mission 38] $ mv ./5509e73a147/5b558328c00ed053178c372d57a7e6/a79e516b5515dee3063571a5c2f/53434 ~/Forest/Hut/Chest

~/Garden/Maze
[mission 38] $ gc

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

MISSION 39

```
~/Garden/Maze
[mission 39] $ find . -type f -exec grep -l diamond {} +
./c22821c5c/0c9a41b7bf3c508/b1b24bb731bb3c5497af48e0a

~/Garden/Maze
[mission 39] $ mv ./c22821c5c/0c9a41b7bf3c508/b1b24bb731bb3c5497af48e0a ~/Forest/Hut/Chest

~/Garden/Maze
[mission 39] $ gc

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