

Q. Execute command "hello" and "ls" and check its execution status and print whether command executed successful or not.

```
MINGW64:~/c:/Users/ZIGCOMPUTERS/Desktop/codinclub
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/Terminal/linux-content (master)
$ cd ..
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/Terminal
$ cd ..
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop
$ mkdir codinclub assignment 3
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop
$ cd codinclub/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub
$ git clone https://github.com/edurekavivekh/linux-content.git |
git: 'clone' is not a git command. See 'git --help'.

The most similar command is
clone
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub
$ git clone https://github.com/edurekavivekh/linux-content.git
Cloning into 'linux-content'...
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 9 (delta 0), reused 6 (delta 0), pack-reused 0
Receiving objects: 100% (9/9), 12.21 MiB | 267.00 KiB/s, done.
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub
$ |

ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub
$ ls
linux-content/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub
$ cd linux-content/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ $ echo "hello"
bash: $: command not found
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ $ echo"hello"
bash: $: command not found
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ echo"hello"
bash: echohello: command not found
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ echo "hello"
hello
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ Echo $?
0
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ echo "ls"
ls
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ Echo $?
0
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codinclub/linux-content (master)
$ |
```


Q. Data analysis / manipulation (Awk)

```
ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | grep captain | awk '{ sum+=$7 } END { print sum }'
1171796

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ if ($4 > 10000){print $2,$4} }'
NATHANIEL 167411
GARY 155966
ALBERT 212739
CHRISTOPHER 77916
PATRICK 134401
DAVID 118602
ALSON 92492
DAVID 256576
JOANNE 285262
PATRICIA 99722
EDWARD 294580

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ if ($4 < 10000){print $2,$4} }'
NATHANIEL 167411
GARY 155966
ALBERT 212739
CHRISTOPHER 77916
PATRICK 134401
DAVID 118602
ALSON 92492
DAVID 256576
JOANNE 285262
PATRICIA 99722
EDWARD 294580

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv
Id EmployeeName JobTitle BasePay OvertimePay OtherPay TotalPay TotalPayBenefits
1 NATHANIEL GM 167411 0 400184 567595 567595
2 GARY CAPTAIN 155966 245131 137811 538909 538909
3 ALBERT CAPTAIN 212739 106088 16452 335279 335279
4 CHRISTOPHER MECHANIC 77916 56120 198306 326373 326373
5 PATRICK DEPUTYCHIEF 134401 9737 182234 332343 332343
6 DAVID ASSTDEPUTY 118602 8601 189082 316285 316285
7 ALSON BATTALIONCHIEF 92492 89062 134426 315981 315981
8 DAVID DEPUTYDIRECTOR 256576 0 51322 307899 307899
10 JOANNE CHIEF 285262 0 17115 302377 302377
12 PATRICIA CAPTAIN 99722 87082 110804 297608 297608
13 EDWARD EXECUTIVE 294580 0 0 294580 294580

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ print $2 " " $7 }'
EmployeeName TotalPay
NATHANIEL 567595
GARY 538909
ALBERT 335279
CHRISTOPHER 332343
PATRICK 326373
DAVID 316285
ALSON 315981
DAVID 307899
JOANNE 302377
PATRICIA 297608
EDWARD 294580

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ |

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | grep captain

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | grep -i captain
2 GARY CAPTAIN 155966 245131 137811 538909 538909
3 ALBERT CAPTAIN 212739 106088 16452 335279 335279
12 PATRICIA CAPTAIN 99722 87082 110804 297608 297608

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | grep -i captain | awk '{ sum+=$7 } END { print sum }'
1171796

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ if ($5 > 7000) if ($5 < 10000){print $2,$5} }'
PATRICK 9737
DAVID 8601

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ sum+=$4 } END { print sum/NR }'
157972

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ sum+=$4 } END { print sum/NR }'
> ^C

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ cat data.csv | awk '{ sum+=$4 } END { print sum/NR }'
157972

ZIGCOMPUTERS@LAPTOP-28GEBLKD MINGW64 ~/Desktop/codinclub/linux-content (master)
$ |
```


Q. Find the difference between original file and the updated file.
Apply changes to the origin

```
access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ updated/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
total 14805
-rw-r--r-- 1 ZIGCOMPUTERS 197121 15 Jul 25 10:01 README.md
-rw-r--r-- 1 ZIGCOMPUTERS 197121 826022 Jul 25 10:01 access.log
-rw-r--r-- 1 ZIGCOMPUTERS 197121 946 Jul 25 10:01 data.csv
-rw-r--r-- 1 ZIGCOMPUTERS 197121 8260403 Jul 25 10:01 linux_chit_sheet.pdf
-rw-r--r-- 1 ZIGCOMPUTERS 197121 6065809 Jul 25 10:01 linux_problem_sheet.pdf
drwxr-xr-x 1 ZIGCOMPUTERS 197121 0 Jul 25 11:19 original/
drwxr-xr-x 1 ZIGCOMPUTERS 197121 0 Jul 25 11:19 updated/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ touch original-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ touch updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ cp original-file.sh original
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ cp updated-file.sh updated
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ll
total 14805
-rw-r--r-- 1 ZIGCOMPUTERS 197121 15 Jul 25 10:01 README.md
-rw-r--r-- 1 ZIGCOMPUTERS 197121 826022 Jul 25 10:01 access.log
-rw-r--r-- 1 ZIGCOMPUTERS 197121 946 Jul 25 10:01 data.csv
-rw-r--r-- 1 ZIGCOMPUTERS 197121 8260403 Jul 25 10:01 linux_chit_sheet.pdf
-rw-r--r-- 1 ZIGCOMPUTERS 197121 6065809 Jul 25 10:01 linux_problem_sheet.pdf
drwxr-xr-x 1 ZIGCOMPUTERS 197121 0 Jul 25 11:22 original/
-rw-r--r-- 1 ZIGCOMPUTERS 197121 0 Jul 25 11:21 original-file.sh
drwxr-xr-x 1 ZIGCOMPUTERS 197121 0 Jul 25 11:23 updated/
-rw-r--r-- 1 ZIGCOMPUTERS 197121 0 Jul 25 11:21 updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$
```

```
access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ touch updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ cp original-file.sh original
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ cp updated-file.sh updated
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ll
total 14805
-rw-r--r-- 1 ZIGCOMPUTERS 197121 15 Jul 25 10:01 README.md
-rw-r--r-- 1 ZIGCOMPUTERS 197121 826022 Jul 25 10:01 access.log
-rw-r--r-- 1 ZIGCOMPUTERS 197121 946 Jul 25 10:01 data.csv
-rw-r--r-- 1 ZIGCOMPUTERS 197121 8260403 Jul 25 10:01 linux_chit_sheet.pdf
-rw-r--r-- 1 ZIGCOMPUTERS 197121 6065809 Jul 25 10:01 linux_problem_sheet.pdf
drwxr-xr-x 1 ZIGCOMPUTERS 197121 0 Jul 25 11:22 original/
-rw-r--r-- 1 ZIGCOMPUTERS 197121 0 Jul 25 11:21 original-file.sh
drwxr-xr-x 1 ZIGCOMPUTERS 197121 0 Jul 25 11:23 updated/
-rw-r--r-- 1 ZIGCOMPUTERS 197121 0 Jul 25 11:21 updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ diff -q original updated
Only in original: original-file.sh
Only in updated: updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ cp -r original original-backup
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$ ls
README.md access.log data.csv linux_chit_sheet.pdf linux_problem_sheet.pdf original/ original-backup/ original-file.sh updated/ updated-file.sh
ZIGCOMPUTERS@LAPTOP-28GEBLDK MINGW64 ~/Desktop/codincub/linux-content (master)
$
```

Q. Check if a folder exists or not. If it's not present, create it

a) Test if particular folder exists in current directory or not

b) If its doesn't exists then create it else print "folder already exists.."

```
MINGW64:/c/Users/ZIGCOMPUTERS/OneDrive/Desktop/Terminal
ZIGCOMPUTERS\LAPTOP-28GE8LDK MINGW64 ~ (master)
$ cd OneDrive/
cd
ZIGCOMPUTERS\LAPTOP-28GE8LDK MINGW64 ~/OneDrive (master)
$ cd Desktop
ZIGCOMPUTERS\LAPTOP-28GE8LDK MINGW64 ~/OneDrive/Desktop (master)
$ cd Terminal
ZIGCOMPUTERS\LAPTOP-28GE8LDK MINGW64 ~/OneDrive/Desktop/Terminal (master)
$ nano folder.sh
Error in /etc/nanorc on line 237: Error expanding /usr/share/nano/*.nanorc: No such file or director
ZIGCOMPUTERS\LAPTOP-28GE8LDK MINGW64 ~/OneDrive/Desktop/Terminal (master)
$ ./folder.sh
Create New Folder
ZIGCOMPUTERS\LAPTOP-28GE8LDK MINGW64 ~/OneDrive/Desktop/Terminal (master)
$ |
```

```
MINGW64:/c/Users/ZIGCOMPUTERS/OneDrive/Desktop/Terminal
GNU nano 5.8
#!/bin/bash
if [ -d ~/assignment1 ];
then
echo "Folder Already Exist";
else
mkdir assignment1;
echo "Create New Folder";
fi|
```