BASH SCRIPTS EXECUTION TASK 05

Display all shells:

```
[root@ip-172-31-91-215 ~]#  cat /etc/shells
/bin/sh
/bin/bash
/usr/bin/sh
/usr/bin/bash
/bin/tcsh
/bin/csh
[root@ip-172-31-91-215 ~]# echo $0
-bash
```

Basic bash script 'hello world' as output:

```
[root@ip-172-31-91-215 scripts]# vi first.bash
[root@ip-172-31-91-215 scripts]# ll
total 4
-rwxr--rwx 1 root root 121 Feb 13 10:14 first.bash
[root@ip-172-31-91-215 scripts]# chmod 777 first.bash
[root@ip-172-31-91-215 scripts]# ll
total 4
-rwxrwxrwx 1 root root 121 Feb 13 10:14 first.bash
[root@ip-172-31-91-215 scripts]# ./first.bash

hello world!
```

Variable script:

```
[root@ip-172-31-91-215 scripts]# vi variables.bash
[root@ip-172-31-91-215 scripts]# chmod 754 variables.bash
[root@ip-172-31-91-215 scripts]# ./
admin.bash       first.bash       variables.bash
[root@ip-172-31-91-215 scripts]# ./variables.bash
Run Variables tasks

/narendar/scripts
a  admin.bash  b  c  command.bash  first.bash  variables.bash
root
Thu Feb 13 10:41:13 UTC 2025
                        2023

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

Administration script:

```
[root@ip-172-31-91-215 scripts]# vi admin.bash
[root@ip-172-31-91-215 scripts]# ll
total 12
-rw-r--r-- 1 root root    0 Feb 13 10:22 a
-rw-r--r-- 1 root root   47 Feb 13 10:30 admin.bash
-rw-r--r-- 1 root root    0 Feb 13 10:22 b
-rw-r--r-- 1 root root    0 Feb 13 10:22 c
-rw-r--r-- 1 root root   49 Feb 13 10:21 command.bash
-rwxrwxrwx 1 root root  121 Feb 13 10:14 first.bash
[root@ip-172-31-91-215 scripts]# chmod 755 admin.bash
[root@ip-172-31-91-215 scripts]# ./admin.bash
```

Output

```
[root@ip-172-31-91-215 scripts]# vi admin.bash
[root@ip-172-31-91-215 scripts]# ./admin.bash
top - 10:33:50 up  1:26,  1 user,  load average: 0.00, 0.00, 0.00
Tasks:  97 total,   1 running,  54 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.0 us,  0.0 sy,  0.0 ni,100.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :  975524 total,  669068 free,   87476 used,  218980 buff/cache
KiB Swap:       0 total,       0 free,       0 used.  742064 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
      1 root      20   0  123500   5356   3892 S  0.0  0.5   0:00.67 systemd
      2 root      20   0       0      0      0 S  0.0  0.0   0:00.00 kthreadd
      3 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 rcu_gp
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        468M     0  468M   0% /dev
tmpfs           477M     0  477M   0% /dev/shm
tmpfs           477M  464K  476M   1% /run
tmpfs           477M     0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.4G  6.7G  17% /
tmpfs            96M     0   96M   0% /run/user/1000
tmpfs            96M     0   96M   0% /run/user/0
              total        used        free      shared  buff/cache   available
Mem:            952          85         653           0         213         724
Swap:             0           0           0
 10:33:50 up  1:26,  1 user,  load average: 0.00, 0.00, 0.00
Linux 5.10.233-224.894.amzn2.x86_64 (ip-172-31-91-215.ec2.internal)    02/13/2025    _x86_64_    (1 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           0.08    0.07    0.16    0.17    4.54   94.98

Device:            tps    kB_read/s    kB_wrtn/s    kB_read    kB_wrtn
xvda              3.24        35.80         8.88     194250      48159
```

Commands script:

```
[root@ip-172-31-91-215 scripts]# vi command.bash
[root@ip-172-31-91-215 scripts]# ./command.bash
-bash: ./command.bash: Permission denied
[root@ip-172-31-91-215 scripts]# bash ./command.bash
/narendar/scripts
command.bash  first.bash
root
Thu Feb 13 10:22:00 UTC 2025
    February 2025
Su Mo Tu We Th Fr Sa
                   1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28

[root@ip-172-31-91-215 scripts]# cat commands.bash
cat: commands.bash: No such file or directory
[root@ip-172-31-91-215 scripts]# ls
a  b  c  command.bash  first.bash
[root@ip-172-31-91-215 scripts]# cat command.bash
#!/bin/bash
pwd
ls
whoami
date
cal
touch a b c
```

Input script:

```
[root@ip-172-31-91-215 scripts]# vi input.bash
[root@ip-172-31-91-215 scripts]# cat input.bash
#!/bin/bash
echo Hello, my name is sabair
echo
echo what is your name?
read name
echo
echo Hello $name
echo

[root@ip-172-31-91-215 scripts]# chmod 754
chmod: missing operand after '754'
Try 'chmod --help' for more information.
[root@ip-172-31-91-215 scripts]# ./input.bash
-bash: ./input.bash: Permission denied
[root@ip-172-31-91-215 scripts]# chmod 755 input.bash
[root@ip-172-31-91-215 scripts]# ./input.bash
Hello, my name is sabair

what is your name?
narendar

Hello narendar
```

Output script:

```
[root@ip-172-31-91-215 scripts]# vi output.bash
[root@ip-172-31-91-215 scripts]# cat output.bash
#!/bin/bash

#we need to use the ticks if you want to use this in echo or else not required
a=`hostname`
echo Hello, my name is $a
echo
echo what is your name?
read b
echo
echo Hello $b

[root@ip-172-31-91-215 scripts]# chmod 755
chmod: missing operand after '755'
Try 'chmod --help' for more information.
[root@ip-172-31-91-215 scripts]# chmod 755 output.bash
[root@ip-172-31-91-215 scripts]# ./output.bash
Hello, my name is ip-172-31-91-215.ec2.internal

what is your name?
narendar

Hello narendar
```

Bash script user case

1) write a script to print Hello wrold ?

```
[root@ip-172-31-91-215 scripts]# vi first.bash
[root@ip-172-31-91-215 scripts]# ll
total 4
-rwxr--rwx 1 root root 121 Feb 13 10:14 first.bash
[root@ip-172-31-91-215 scripts]# chmod 777 first.bash
[root@ip-172-31-91-215 scripts]# ll
total 4
-rwxrwxrwx 1 root root 121 Feb 13 10:14 first.bash
[root@ip-172-31-91-215 scripts]# ./first.bash

hello world!
```

2) write a script to add 2 number

```
#!/bin/bash

Num1=10

 Num2=3

((Sum=Num1+Num2))

echo "Sum = $Sum"
```

```
Hello narendar
[root@ip-172-31-91-215 scripts]# sum.bash
-bash: sum.bash: command not found
[root@ip-172-31-91-215 scripts]# vi sum.bash
[root@ip-172-31-91-215 scripts]# chmod 755 sum.bash
[root@ip-172-31-91-215 scripts]# ./sum.bash
Sum = 13
```

3) write a script to create a directory & check weather its created ?

```
#!/bin/bash
echo"to create a directory by name song"
mkdir song
echo"check weather its created or not"
ls -ltr
echo"directory created using the above command"
```

```
[root@ip-172-31-91-215 ~]# vi songs.bash
[root@ip-172-31-91-215 ~]# chmod 755 songs.bash
[root@ip-172-31-91-215 ~]# ./songs.bash
to create a directory by name song
mkdir: cannot create directory 'song': File exists
check weather its created or not
total 8
drwxr-xr-x 2 root root    6 Feb 13 11:48 song
-rwxr-xr-x 1 root root 210 Feb 13 11:54 song1.bash
-rwxr-xr-x 1 root root 210 Feb 13 11:56 songs.bash
directory created using the above command
[root@ip-172-31-91-215 ~]# ls
song  song1.bash  songs.bash
```

4) write a script to create multiple directory ?

#!/bin/bash

echo "create a multiple directory inside a directory"

mkdir -p opt/sample/devops/test

echo "check weather the directory test is created or not"

cd opt/sample/devops/test

echo "directory created"

```
[root@ip-172-31-91-215 ~]# vi multidir.bash
[root@ip-172-31-91-215 ~]# ll
total 12
-rwxr-xr-x 1 root root 264 Feb 13 12:13 multidir.bash
drwxr-xr-x 3 root root  20 Feb 13 12:03 opt
drwxr-xr-x 2 root root   6 Feb 13 11:48 song
-rwxr-xr-x 1 root root 210 Feb 13 11:54 song1.bash
-rwxr-xr-x 1 root root 210 Feb 13 11:56 songs.bash
[root@ip-172-31-91-215 ~]# cd opt
[root@ip-172-31-91-215 opt]# ls
sample
[root@ip-172-31-91-215 opt]# cd opt/sample/
-bash: cd: opt/sample/: No such file or directory
[root@ip-172-31-91-215 opt]# cd sample
[root@ip-172-31-91-215 sample]# ls
devops
[root@ip-172-31-91-215 sample]# cd devops
[root@ip-172-31-91-215 devops]# ls
test
```

echo "directory created"

9) write a script to check free space on system ?

#!/bin/bash

echo "to check free space in system"

free -m

echo "using this command we may know the free space"

```
[root@ip-172-31-91-215 scripts]# vi free.bash
[root@ip-172-31-91-215 scripts]# chmod 755 free.bash
[root@ip-172-31-91-215 scripts]# ./free.bash
to check free space in system
              total        used        free      shared  buff/cache   available
Mem:            952          98         621           0         233         703
Swap:             0           0           0
using this command we may know the free space
[root@ip-172-31-91-215 scripts]#
```

10) write a script to find the file in pwd:

#!/bin/bash

echo " to find a file in system"

find / -name filename

echo "find command using that command"

```
[root@ip-172-31-91-215 scripts]# vi find.bash
[root@ip-172-31-91-215 scripts]# chmod 777 find.bash
[root@ip-172-31-91-215 scripts]# ./find.bash
 to find a file in system
/root/song1.bash
```