1.To check how many type of linux servers in my machine:

```
[root@ip-172-31-42-219 ~]# cat /etc/shells
/bin/sh
/bin/bash
/usr/bin/sh
/usr/bin/bash
/bin/csh
/bin/tcsh
/usr/bin/csh
/usr/bin/tcsh
[root@ip-172-31-42-219 ~]#
```

2. If you want to use csh shell use:

```
[root@ip-172-31-42-219 ~]# csh
[root@ip-172-31-42-219 ~]# echo $0
csh
[root@ip-172-31-42-219 ~]#
```

3. Comments(#) are used for for better understanding :

```
#!/bin/bash
#Pupose:Testing Scripting Format
#Date:04/09/2025
#Modification:09/09/2025
```

4. By assigning a variable to the script:

Here we are assigning "echo $a" we can print the output:

```
#!/bin/bash
#Purpose: Testing Script Format
#Date:04/09/2025
#Modifications:04/09/2025

a='hello world'

echo $a
[root@ip-172-31-42-219 scripts]#
```

5. We can add echo in the above and below lines it will give the output with providing space:

```
#!/bin/bash
#pupose:Script for helloworld
#Modification:04/09/2025
#owner:Mujaheed
echo
echo "Hello world"
echo
```

```
[root@ip-172-31-42-219 scripts]# bash helloworld.bash

Hello world

[root@ip-172-31-42-219 scripts]#
```

6. creating a commands file for executing 6 script commands:

```
#!/bin/bash
pwd
ls
whoami
date
cal
touch a b c
~
```

Giving permissions to file commands.bash:

```
-rw-r--r--. 1 root root  47 Sep  4 12:12 commands.bash
-rwxr-xr-x. 1 root root 112 Sep  4 12:08 helloworld.ba
sh
[root@ip-172-31-42-219 scripts]# chmod 755 commands.ba
sh
[root@ip-172-31-42-219 scripts]# ll
total 8
-rwxr-xr-x. 1 root root  47 Sep  4 12:12 commands.bash
-rwxr-xr-x. 1 root root 112 Sep  4 12:08 helloworld.ba
sh
[root@ip-172-31-42-219 scripts]#
```

Pwd- Here it shows the present working directory

Ls- list of files

Whoami – it has given root directory

Date – It has given present date and time

Cal- it has given calender

```
[root@ip-172-31-42-219 scripts]# bash commands.bash
/mujju/scripts
commands.bash  helloworld.bash
root
Thu Sep  4 12:16:06 UTC 2025
    September 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 29 30

[root@ip-172-31-42-219 scripts]#
```

7. If we will do to execute individual commands the output shows as:

```
[root@ip-172-31-42-219 scripts]# pwd
/mujju/scripts
[root@ip-172-31-42-219 scripts]# cal
   September 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 29 30

[root@ip-172-31-42-219 scripts]# touch a b c
[root@ip-172-31-42-219 scripts]# whoami
root
[root@ip-172-31-42-219 scripts]# touch a b c
[root@ip-172-31-42-219 scripts]# ls
a  b  c  commands.bash  helloworld.bash
[root@ip-172-31-42-219 scripts]# |
```

8 . Creating a file named as vi admin.bash

Need to write this commands

```
#!/bin/bash

top | head -10
df -h
free -m
uptime
iostat
```

Then need to change the permissions as chmod 755
admin.bash then we need to execute the output shows like:

```
    PID USER         PR   NI    VIRT     RES      SHR S
      1 root         20    0  172356   17152   10632 S
      2 root         20    0       0       0       0 S
      3 root          0  -20       0       0       0 I
Filesystem          Size  Used Avail Use% Mounted on
devtmpfs            4.0M     0  4.0M   0% /dev
tmpfs               453M     0  453M   0% /dev/shm
tmpfs               181M  448K  181M   1% /run
/dev/nvme0n1p1      8.0G  1.6G  6.5G  20% /
tmpfs               453M     0  453M   0% /tmp
/dev/nvme0n1p128     10M  1.3M  8.7M  13% /boot/efi
tmpfs                91M     0   91M   0% /run/user/1000
              total         used           free        shar
ed   buff/cache    available
Mem:            904          218            466
  0        219          555
Swap:             0            0              0
 12:41:10 up  2:30,  6 users,  load average: 0.00, 0.0
0, 0.00
Linux 6.1.147-172.266.amzn2023.x86_64 (ip-172-31-42-21
9.eu-north-1.compute.internal)  09/04/25        _x86_6
4_      (2 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idl
e
          0.10    0.00    0.05    0.02    0.00    99.8
3

Device            tps    kB_read/s    kB_wrtn/s      kB
_dscd/s    kB_read    kB_wrtn      kB_dscd
nvme0n1          1.18        17.07        45.44
   0.00    154087     410176            0
```

9. Create a file as vi variables.bash

```
#!/bin/bash
#Define vvariables
p=pwd
l=ls
wi=whoami
d=date
c='cal 2025'

echo Run variables tasks
echo
$p
$l
$wi
$d
$c
[root@ip-172-31-42-219 scripts]#
```

Change permissions to the file chmod755 variables.bash and exute it:

```
$C
[root@ip-172-31-42-219 scripts]# chmod 755 variables.b
ash
[root@ip-172-31-42-219 scripts]# bash variables.bash
Run variables tasks

/mujju/scripts
a               b   commands.bash      variables.bash
admin.bash      c   helloworld.bash
root
Thu Sep  4 12:53:01 UTC 2025
                2025

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

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

10 . Create a file as vi input.bash

```
#!/bin/bash
echo Hello,my name is Mujaheed
echo
echo What is your name?
read name
echo
echo hello $name
echo
```

Here, read takes the input from the user

After doing the chmod 755 input.bash and bash input.bash

It gives:

```
[root@ip-172-31-42-219 scripts]# bash input.bash
Hello,my name is Mujaheed

What is your name?
Mujaheed

hello Mujaheed

[root@ip-172-31-42-219 scripts]#
```