

Ques: Write a shell script that consists of a function that displays the number of files in the present working directory. Name this function "file_count" and call it in your script. If you use variable in your function, remember to make it a local variable.

```
#!/bin/bash

file_count()
{
    local count=$(ls -1 | wc -l)
    echo "The present working directory contains $count files"
}

file_count
```

```
srishthirupa@linux:~$ touch a2.sh
srishthirupa@linux:~$ chmod 777 a2.sh
srishthirupa@linux:~$ nano a2.sh
srishthirupa@linux:~$ bash a2.sh
The present working directory contains 60 files
srishthirupa@linux:~$
```

Ques : For each directory in the \$PATH, display the number of executable in that directory.

```
#!/bin/bash

IFS= ':' read -ra directories <<< "$PATH"

for dir in "${directories[@]};
do
    number_of_executables=$(find "$dir" -maxdepth 1 -type f -executable | wc -l)
    echo "$dir: $number_of_executables"
done
```

```
srishtirupa@linux:~$ touch a3.sh
srishtirupa@linux:~$ chmod 777 a3.sh
srishtirupa@linux:~$ nano a3.sh
srishtirupa@linux:~$ bash a3.sh
srishtirupa@linux:~$ nano a3.sh
```

Ques : Display the names of any file-system which have less than 10% free space available

```
#!/bin/bash

function find_files()
{
    var= df -h | awk '{if($5<10) print $1}'
    echo $var
}

find_files
```

```
srishtirupa@linux:~$ nano as5.sh
srishtirupa@linux:~$ touch a4.sh
srishtirupa@linux:~$ chmod 777 a4.sh
srishtirupa@linux:~$ nano a4.sh
srishtirupa@linux:~$ bash a4.sh
tmpfs
tmpfs
tmpfs
tmpfs
srishtirupa@linux:~$
```

Ques : Write a script that takes any number of directories as command-line arguments and then lists the contents of each of these directories.

```
#!/bin/bash

for dir_name in "$@";
do
    if [ ! -d "$dir_name" ];
    then
        echo "$dir_name is not a directory"
        continue
    fi

    echo "Content of $dir_name:"
    var= ls -l "$dir_name"
    echo $var
done
```

```
srishtirupa@linux:~$ touch as5.sh
srishtirupa@linux:~$ chmod 777 as5.sh
srishtirupa@linux:~$ nano as5.sh
srishtirupa@linux:~$ bash as5.sh
srishtirupa@linux:~$ ls
a1.sh          demo2.txt.gz  marks.txt    public       s14.sh       s19.sh       s5.sh        shreya1      videos
as5.sh         demo.txt      msg.txt      s10.sh       s151.sh      s1.sh        s6.sh        snap
bigdata        demo.txt.gz   music        s11.sh       s15.sh       s20.sh       s7.sh        t1.txt
class.txt      desktop       new_1.jpg    s12.sh       s161.sh      s21.sh       s8.sh        templates
copied13.txt   documents     new_s.jpg    s131.sh      s171.sh      s2.sh        s9.sh        test12.txt
demo1          downloads     new.txt      s13.sh       s18          s3.sh        seconddir.hello test13.txt
demo12.txt     igtest       pictures     s141.sh      s18.sh       s4.sh        'shell scripting.txt' test3

srishtirupa@linux:~$ bash as5.sh home
home is not a directory
srishtirupa@linux:~$ bash as5.sh dekstop
dekstop is not a directory
srishtirupa@linux:~$ bash as5.sh /dekstop
/dekstop is not a directory
srishtirupa@linux:~$ bash as5.sh .
Content of .:
total 216
-rwxrwxrwx 1 srishtirupa srishtirupa 102 Apr 19 16:55 a1.sh
-rwxrwxrwx 1 srishtirupa srishtirupa 264 Apr 20 16:29 as5.sh
-rw-rw-r-- 1 srishtirupa srishtirupa 26 Apr 14 15:56 bigdata
-rw-rw-r-- 1 srishtirupa srishtirupa 42 Apr 20 00:43 class.txt
-rw-rw-r-- 1 srishtirupa srishtirupa 11 Apr 18 10:18 copied13.txt
-rw-rw-r-- 1 srishtirupa srishtirupa 0 Apr 14 15:49 demo1
-rw-rw-r-- 1 srishtirupa srishtirupa 35 Apr 17 14:15 demo12.txt
-rw-rw-r-- 1 srishtirupa srishtirupa 50 Apr 18 14:44 demo2.txt.gz
-rw-rw-r-- 1 srishtirupa srishtirupa 25 Apr 18 14:47 demo.txt
-rw-rw-r-- 1 srishtirupa srishtirupa 81 Apr 18 14:56 demo.txt.gz
drwxr-xr-x 2 srishtirupa srishtirupa 4096 Apr 18 14:42 desktop
drwxr-xr-x 2 srishtirupa srishtirupa 4096 Apr 20 01:27 documents
drwxr-xr-x 2 srishtirupa srishtirupa 4096 Apr 20 01:27 downloads
-rw-rw-r-- 1 srishtirupa srishtirupa 26 Apr 14 10:01 igtest
-rw-rw-r-- 1 srishtirupa srishtirupa 63 Apr 18 14:52 marks.txt
-rw-rw-r-- 1 srishtirupa srishtirupa 68 Apr 17 13:35 msg.txt
drwxr-xr-x 2 srishtirupa srishtirupa 4096 Apr 14 04:33 music
-rw-rw-r-- 1 srishtirupa srishtirupa 0 Apr 20 16:09 new_1.jpg
-rw-rw-r-- 1 srishtirupa srishtirupa 0 Apr 20 16:09 new_s.jpg
```