

EXP NO:1

BASIC LINUX COMMANDS

PROGRAM

```
[cse81@localhost ~]$ sh reverse.sh  
enter a number  
12345  
54321
```

```
[cse81@localhost ~]$ date  
Fri Jan 31 10:41:49 IST 2025  
[cse81@localhost ~]$ date +%m  
01  
[cse81@localhost ~]$ date +%h  
Jan  
[cse81@localhost ~]$ date +%d  
31  
[cse81@localhost ~]$ date +%y  
25  
[cse81@localhost ~]$ date +%H  
10  
[cse81@localhost ~]$ date +%M  
42  
[cse81@localhost ~]$ date +%S  
39
```

```
[cse81@localhost ~]$ echo "hi hello"  
hi hello
```

```
[cse81@localhost ~]$ who
root      pts/0      2025-01-31 07:58 (:0)
cse85     pts/1      2025-01-31 10:15 (172.16.9.23)
cse80     pts/2      2025-01-31 10:16 (172.16.9.20)
cse87     pts/3      2025-01-31 10:16 (172.16.8.237)
cse52     pts/4      2025-01-31 10:19 (172.16.9.1)
cse81     pts/5      2025-01-31 10:19 (172.16.9.21)
cse88     pts/6      2025-01-31 10:19 (172.16.9.28)
cse83     pts/7      2025-01-31 10:20 (172.16.9.24)
cse42     pts/8      2025-01-31 10:21 (172.16.9.26)
cse54     pts/9      2025-01-31 10:35 (172.16.9.2)
cse75     pts/10     2025-01-31 10:36 (172.16.9.8)
cse66     pts/11     2025-01-31 10:23 (172.16.9.27)
cse64     pts/12     2025-01-31 10:23 (172.16.9.22)
cse60     pts/13     2025-01-31 10:23 (172.16.9.12)
```

```
[cse81@localhost ~]$ uname
Linux
[cse81@localhost ~]$ uname -a
Linux localhost.localdomain 4.11.8-300.fc26.i686+PAE #1 SMP Thu Jun 29 20:38:21 UTC 2017 i686 i686 i386
[cse81@localhost ~]$
```

```
[cse81@localhost ~]$ uname
Linux
[cse81@localhost ~]$ uname -a
Linux localhost.localdomain 4.11.8-300.fc26.i686+PAE #1 SMP Thu Jun 29 20:38:21 UTC 2017 i686 i686 i386
[cse81@localhost ~]$ uname -m
i686
[cse81@localhost ~]$ uname -r
4.11.8-300.fc26.i686+PAE
[cse81@localhost ~]$ uname -s
Linux
[cse81@localhost ~]$ uname -v
#1 SMP Thu Jun 29 20:38:21 UTC 2017
[cse81@localhost ~]$
```

```
[cse81@localhost ~]$ bc
bc 1.06.95
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006 Free Software Foundation
This is free software with ABSOLUTELY NO WARRANTY.
For details type `warranty'.
12+5
17
12/6
2
```

```

[cse81@localhost ~]$ cat > d2
welcome to the world
[cse81@localhost ~]$ cat d2
welcome to the world
[cse81@localhost ~]$ cat > d3
[cse81@localhost ~]$ cp d2 d3
[cse81@localhost ~]$ rm hh
[cse81@localhost ~]$ mv d2 d3
[cse81@localhost ~]$ file d2
d2: cannot open `d2' (No such file or directory)
[cse81@localhost ~]$ file d3
d3: ASCII text

```

```

[cse81@localhost ~]$ wc d3
 1  4 21 d3
[cse81@localhost ~]$ ls > d2
[cse81@localhost ~]$ who | wc -l
24
[cse81@localhost ~]$ who | tee d2 | wc -l
24
[cse81@localhost ~]$ ls r**
rec reverse.sh
[cse81@localhost ~]$ ls [a-z]*
aa calc.sh cec d2 d3 divya hash.sh kk leap.sh

dl:

dd:

irah:
[cse81@localhost ~]$ ls [!a-z]*
ls: cannot access '[!a-z]*': No such file or directory
[cse81@localhost ~]$ ls [!a-m]*
rec reverse.sh ss year.sh
[cse81@localhost ~]$

```

```

[cse81@localhost ~]$ pwd
/home/cse81
[cse81@localhost ~]$ mkdir dl
[cse81@localhost ~]$ emdir dl
-bash: emdir: command not found
[cse81@localhost ~]$ rmdir dl
[cse81@localhost ~]$ mkdir dl
[cse81@localhost ~]$ cd dl
[cse81@localhost dl]$ cd\
>
[cse81@localhost ~]$ ls
aa calc.sh cec dl dd divya hash.sh hh irah

```

```
[cse81@localhost ~]$ chmod g=wx d3
[cse81@localhost ~]$ chmod 761 d3
[cse81@localhost ~]$ chmod u-wx d3
[cse81@localhost ~]$ chmod u+rw, g+rw d3
```

```
[cse81@localhost ~]$ who && date
root      pts/0          2025-01-31 07:58 (:0)
cse85     pts/1          2025-01-31 10:15 (172.16.9.23)
cse80     pts/2          2025-01-31 10:16 (172.16.9.20)
cse87     pts/3          2025-01-31 10:16 (172.16.8.237)
cse52     pts/4          2025-01-31 10:19 (172.16.9.1)
cse81     pts/5          2025-01-31 10:19 (172.16.9.21)
cse88     pts/6          2025-01-31 10:19 (172.16.9.28)
cse83     pts/7          2025-01-31 10:20 (172.16.9.24)
cse42     pts/8          2025-01-31 10:21 (172.16.9.26)
cse54     pts/9          2025-01-31 10:50 (172.16.9.2)
cse75     pts/10         2025-01-31 11:35 (172.16.9.8)
cse66     pts/11         2025-01-31 10:23 (172.16.9.27)
cse64     pts/12         2025-01-31 10:23 (172.16.9.22)
cse60     pts/13         2025-01-31 10:50 (172.16.9.12)
cse59     pts/14         2025-01-31 11:14 (172.16.9.6)
cse61     pts/15         2025-01-31 10:24 (172.16.9.16)
cse53     pts/17         2025-01-31 10:25 (172.16.9.17)
cse63     pts/18         2025-01-31 10:25 (172.16.9.204)
cse86     pts/19         2025-01-31 10:31 (172.16.9.29)
cse57     pts/20         2025-01-31 10:37 (172.16.10.214)
cse73     pts/21         2025-01-31 10:42 (172.16.9.14)
cse72     pts/22         2025-01-31 10:53 (172.16.9.15)
cse63     pts/23         2025-01-31 11:14
cse63     pts/24         2025-01-31 11:18
cse63     pts/25         2025-01-31 11:18
cse63     pts/26         2025-01-31 11:18
cse63     pts/27         2025-01-31 11:18
cse63     pts/28         2025-01-31 11:18
cse63     pts/29         2025-01-31 11:18
cse63     pts/30         2025-01-31 11:18
cse63     pts/31         2025-01-31 11:18
cse63     pts/32         2025-01-31 11:18
cse63     pts/33         2025-01-31 11:18
cse63     pts/34         2025-01-31 11:18
cse63     pts/35         2025-01-31 11:18
```

```
[cse81@localhost ~]$ who ;date
root      pts/0      2025-01-31 07:58 (:0)
cse85     pts/1      2025-01-31 10:15 (172.16.9.23)
cse80     pts/2      2025-01-31 10:16 (172.16.9.20)
cse87     pts/3      2025-01-31 10:16 (172.16.8.237)
cse52     pts/4      2025-01-31 10:19 (172.16.9.1)
cse81     pts/5      2025-01-31 10:19 (172.16.9.21)
cse88     pts/6      2025-01-31 10:19 (172.16.9.28)
cse83     pts/7      2025-01-31 10:20 (172.16.9.24)
cse42     pts/8      2025-01-31 10:21 (172.16.9.26)
cse54     pts/9      2025-01-31 10:50 (172.16.9.2)
cse75     pts/10     2025-01-31 11:35 (172.16.9.8)
cse66     pts/11     2025-01-31 10:23 (172.16.9.27)
cse64     pts/12     2025-01-31 10:23 (172.16.9.22)
cse60     pts/13     2025-01-31 10:50 (172.16.9.12)
cse59     pts/14     2025-01-31 11:14 (172.16.9.6)
cse61     pts/15     2025-01-31 10:24 (172.16.9.16)
cse53     pts/17     2025-01-31 10:25 (172.16.9.17)
cse63     pts/18     2025-01-31 10:25 (172.16.9.204)
cse86     pts/19     2025-01-31 10:31 (172.16.9.29)
cse57     pts/20     2025-01-31 10:37 (172.16.10.214)
cse73     pts/21     2025-01-31 10:42 (172.16.9.14)
cse72     pts/22     2025-01-31 10:53 (172.16.9.15)
cse63     pts/23     2025-01-31 11:14
cse63     pts/24     2025-01-31 11:18
cse63     pts/25     2025-01-31 11:18
cse63     pts/26     2025-01-31 11:18
cse63     pts/27     2025-01-31 11:18
cse63     pts/28     2025-01-31 11:18
cse63     pts/29     2025-01-31 11:18
cse63     pts/30     2025-01-31 11:18
cse63     pts/31     2025-01-31 11:18
cse63     pts/32     2025-01-31 11:18
```



```

[cse81@localhost ~]$ head d3
welcome to the world
[cse81@localhost ~]$ head -5 d3
welcome to the world
[cse81@localhost ~]$ tail -5 d3
welcome to the world
[cse81@localhost ~]$ ls -l | more
total 64
-rw-rw-r--. 1 cse81 cse81    8 Jan 22 14:14 aa
-rw-rw-r--. 1 cse81 cse81  203 Jan 31 10:23 calc.sh
-rw-rw-r--. 1 cse81 cse81   29 Jan 24 11:00 cec
dr--r--r--. 2 cse81 cse81 4096 Jan 31 11:08 dl
-rw-rw-r--. 1 cse81 cse81 1248 Jan 31 11:18 d2
-r--rw---x. 1 cse81 cse81   21 Jan 31 11:13 d3
drwxrwxr-x. 2 cse81 cse81 4096 Jan 24 11:42 dd
-rw-rw-r--. 1 cse81 cse81   22 Jan 22 14:27 divya
-rw-rw-r--. 1 cse81 cse81   62 Jan 22 14:42 hash.sh
drwxrwxr-x. 2 cse81 cse81 4096 Jan 24 11:42 irah
-rw-rw-r--. 1 cse81 cse81   41 Jan 24 10:50 kk
-rw-rw-r--. 1 cse81 cse81  181 Jan 29 15:18 leap.sh
-rw-rw-r--. 1 cse81 cse81    0 Jan 29 14:55 leap.shvi
-rw-rw-r--. 1 cse81 cse81    8 Jan 24 10:57 rec
-rw-rw-r--. 1 cse81 cse81  126 Jan 31 10:39 reverse.sh
-rw-rw-r--. 1 cse81 cse81   38 Jan 24 10:49 ss
-rw-rw-r--. 1 cse81 cse81   98 Jan 22 14:49 year.sh
[cse81@localhost ~]$ cat > student
arun cs
ram cs
divya ec
[cse81@localhost ~]$ grep "cs" student
arun cs
ram cs

```

```

Fri Jan 31 11:36:48 IST 2025
[cse81@localhost ~]$ who || date
root      pts/0      2025-01-31 07:58 (:0)
cse85     pts/1      2025-01-31 10:15 (172.16.9.23)
cse80     pts/2      2025-01-31 10:16 (172.16.9.20)
cse87     pts/3      2025-01-31 10:16 (172.16.8.237)
cse52     pts/4      2025-01-31 10:19 (172.16.9.1)
cse81     pts/5      2025-01-31 10:19 (172.16.9.21)
cse88     pts/6      2025-01-31 10:19 (172.16.9.28)
cse83     pts/7      2025-01-31 10:20 (172.16.9.24)
cse42     pts/8      2025-01-31 10:21 (172.16.9.26)
cse54     pts/9      2025-01-31 10:50 (172.16.9.2)
cse75     pts/10     2025-01-31 11:35 (172.16.9.8)
cse66     pts/11     2025-01-31 10:23 (172.16.9.27)
cse64     pts/12     2025-01-31 10:23 (172.16.9.22)
cse60     pts/13     2025-01-31 10:50 (172.16.9.12)
cse59     pts/14     2025-01-31 11:14 (172.16.9.6)
cse61     pts/15     2025-01-31 10:24 (172.16.9.16)
cse53     pts/17     2025-01-31 10:25 (172.16.9.17)
cse63     pts/18     2025-01-31 10:25 (172.16.9.204)
cse86     pts/19     2025-01-31 10:31 (172.16.9.29)
cse57     pts/20     2025-01-31 10:37 (172.16.10.214)
cse73     pts/21     2025-01-31 10:42 (172.16.9.14)
cse72     pts/22     2025-01-31 10:53 (172.16.9.15)
cse63     pts/23     2025-01-31 11:14
cse63     pts/24     2025-01-31 11:18
cse63     pts/25     2025-01-31 11:18
cse63     pts/26     2025-01-31 11:18
cse63     pts/27     2025-01-31 11:18
cse63     pts/28     2025-01-31 11:18
cse63     pts/29     2025-01-31 11:18
cse63     pts/30     2025-01-31 11:18
cse63     pts/31     2025-01-31 11:18
cse63     pts/32     2025-01-31 11:18
cse63     pts/33     2025-01-31 11:18

```

```

[cse81@localhost ~]$ sort student
arun cs
divya ec
ram cs
[cse81@localhost ~]$ nl student
  1 arun cs
  2 ram cs
  3 divya ec
[cse81@localhost ~]$ cut -c student

```

```
[cse81@localhost ~]$ free -t
```

	total	used	free	shared	buff/cache	available
Mem:	4062248	382416	2671744	38516	1008088	3462364
Swap:	3424252	0	3424252			
Total:	7486500	382416	6095996			

```
[cse81@localhost ~]$ top
```

top - 14:37:12 up 36 min, 10 users, load average: 0.16, 0.13, 0.09

Tasks: 194 total, 2 running, 192 sleeping, 0 stopped, 0 zombie

%Cpu(s): 0.7 us, 0.2 sy, 0.0 ni, 99.0 id, 0.0 wa, 0.0 hi, 0.2 si, 0.0 st

KiB Mem : 4062248 total, 2667128 free, 384048 used, 1011072 buff/cache

KiB Swap: 3424252 total, 3424252 free, 0 used. 3460580 avail Mem

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
656	avahi	20	0	34616	7512	3860	R	1.3	0.2	5:01.35	avahi-daemon
2017	cse81	20	0	42000	5064	3980	S	0.3	0.1	0:00.01	sshd
1	root	20	0	32260	10520	8200	S	0.0	0.3	0:01.52	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
4	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
6	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	mm_percpu_wq
7	root	20	0	0	0	0	S	0.0	0.0	0:00.02	ksoftirqd/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.25	rcu_sched
9	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
11	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
13	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/1
14	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	watchdog/1
15	root	rt	0	0	0	0	S	0.0	0.0	0:00.08	migration/1
16	root	20	0	0	0	0	S	0.0	0.0	0:00.02	ksoftirqd/1
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/1:0H
19	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
20	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
22	root	20	0	0	0	0	S	0.0	0.0	0:00.19	kworker/0:1
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
24	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback


```

 85 root      0 -20      0      0      0
 86 root      0 -20      0      0      0
[1]+  Stopped                  top
[cse81@localhost ~]$ ps -e
  PID TTY          TIME CMD
   1 ?        00:00:01 systemd
   2 ?        00:00:00 kthreadd
   4 ?        00:00:00 kworker/0:0H
   6 ?        00:00:00 mm_percpu_wq
   7 ?        00:00:00 ksoftirqd/0
   8 ?        00:00:00 rcu_sched
   9 ?        00:00:00 rcu_bh
  10 ?        00:00:00 migration/0
  11 ?        00:00:00 watchdog/0
  12 ?        00:00:00 cpuhp/0
  13 ?        00:00:00 cpuhp/1
  14 ?        00:00:00 watchdog/1
  15 ?        00:00:00 migration/1
  16 ?        00:00:00 ksoftirqd/1
  18 ?        00:00:00 kworker/1:0H
  19 ?        00:00:00 kdevtmpfs
  20 ?        00:00:00 netns
  22 ?        00:00:00 kworker/0:1
  23 ?        00:00:00 oom_reaper
  24 ?        00:00:00 writeback
  25 ?        00:00:00 kcompactd0
  26 ?        00:00:00 ksmd
  27 ?        00:00:00 crypto
  28 ?        00:00:00 kintegrityd

```

```

[cse81@localhost ~]$ ping 172.16.4.1
PING 172.16.4.1 (172.16.4.1) 56(84) bytes of data.
64 bytes from 172.16.4.1: icmp_seq=1 ttl=64 time=0.168 ms
64 bytes from 172.16.4.1: icmp_seq=2 ttl=64 time=0.112 ms
64 bytes from 172.16.4.1: icmp_seq=3 ttl=64 time=0.120 ms
64 bytes from 172.16.4.1: icmp_seq=4 ttl=64 time=0.161 ms
64 bytes from 172.16.4.1: icmp_seq=5 ttl=64 time=0.136 ms
64 bytes from 172.16.4.1: icmp_seq=6 ttl=64 time=0.110 ms
64 bytes from 172.16.4.1: icmp_seq=7 ttl=64 time=0.115 ms
64 bytes from 172.16.4.1: icmp_seq=8 ttl=64 time=0.120 ms
64 bytes from 172.16.4.1: icmp_seq=9 ttl=64 time=0.113 ms
64 bytes from 172.16.4.1: icmp_seq=10 ttl=64 time=0.134 ms
64 bytes from 172.16.4.1: icmp_seq=11 ttl=64 time=0.118 ms
^Z
[2]+  Stopped                  ping 172.16.4.1
[cse81@localhost ~]$ inconfig
-bash: inconfig: command not found
[cse81@localhost ~]$ ifconfig
enp3s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.8.127 netmask 255.255.252.0 broadcast 172.16.11.255
    inet6 fe80::a6fb:cdb1:131c:6e50 prefixlen 64 scopeid 0x20<link>
    ether 00:27:0e:13:f6:d9 txqueuelen 1000 (Ethernet)
    RX packets 348707 bytes 380129088 (362.5 MiB)
    RX errors 0 dropped 15 overruns 0 frame 0
    TX packets 24644 bytes 2266472 (2.1 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[cse81@localhost ~]$ traceroute www.rajalakshmi.org
traceroute to www.rajalakshmi.org (14.99.10.232), 30 hops max, 60 byte packets
 1  rajalakshmi.org (14.99.10.232)  0.133 ms  0.116 ms  0.130 ms
 2  * rajalakshmi.org (14.99.10.232)  0.442 ms  *

```