

System Utility Commands: date, uptime, hostname, uname, which, cal,

bc.

Certainly! Here are detailed explanations of the system utility commands you've mentioned

1. date:

- Usage: The `date` command is used to display the current date and time on the system.

- Example:

```
```bash
```

```
date
```

```
```
```

- Output Example:

```
```bash
```

```
Wed Dec 8 14:32:45 UTC 2023
```

```
```
```

2. uptime:

- Usage The `uptime` command provides information about how long the system has been running, the number of users currently logged in, and the system load averages.

- Example:

```
```bash
```

```
uptime
```

```
```
```

- Output Example:

```
```bash
```

```
14:32:45 up 10 days, 2:30, 3 users, load average: 0.25, 0.12, 0.09
```

```
```
```

```
last 1 min load, last 5 min load, last 15 minutes load of CPU
```

In this example, the system has been running for 10 days and 2 hours and 30 minutes.

3. hostname:

- Usage: The `hostname` command displays the name of the current host or sets the system's hostname.

- Example:

```
```bash
```

```
hostname
```

```
```
```

- ****Output Example:****

```
```bash
```

```
my-computer
```

```
```
```

You can also change the hostname by command:

```
hostname master
```

but this will be temporary if you want to make it permanent then need to do changes in `/etc/hosts`

4. **uname:**

- Usage: The ``uname`` command provides information about the system. Common options include ``-a`` for all information and ``-s`` for the kernel name.

- Example:

```
```bash
```

```
uname -a
```

```
```
```

- Output Example:

```
```bash
```

```
Linux my-computer 5.4.0-89-generic #100-Ubuntu SMP Fri Sep 24 14:50:10 UTC 2021 x86_64
x86_64 x86_64 GNU/Linux
```

```
```
```

5. **which:**

- Usage: The ``which`` command is used to locate the full path of an executable in the user's PATH.

- Example:

```
```bash
```

```
which ls
```

```
```
```

- ****Output Example:****

```
```bash
```

```
/bin/ls
```

```
```
```

In this example, it shows the full path of the `ls` command.

6. cal:

- Usage: The `cal` command displays a simple calendar.

- Example:

To install it: **apt-get install ncal**

```
```bash
```

```
cal
```

```
```
```

- Output Example:

```
```bash
```

```
December 2023
```

```
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 31
```

```
```
```

In this example, it displays the calendar for the current month.

To print all the months of this year:

```
cal 2023
```

To see calendar for particular month

```
cal may 2023
```

```
root@ubuntu1:/home/simran# ncal
December 2023
Su   3 10 17 24 31
Mo   4 11 18 25
Tu   5 12 19 26
We   6 13 20 27
Th   7 14 21 28
Fr  1  8 15 22 29
Sa  2  9 16 23 30
root@ubuntu1:/home/simran#
```

7. bc:

- Usage: The `bc` command is a command-line calculator that supports **arbitrary precision arithmetic**.

- Example:

```
```bash
echo "5 + 3" | bc
```
```

- **Output Example:**

```
```bash
8
```
```

In this example, it calculates the sum of 5 and 3.

```
root@ubuntu1:/home/simran# echo "20/5" | bc
4
root@ubuntu1:/home/simran# echo "x=10; y=20; x+y" | bc
30
root@ubuntu1:/home/simran#
```