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## **TATA CONSULTANCY SERVICES**

### **vILP – Unix - Command Usage**

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#### **Content Manual**

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## 0.1 *bc command*

bc is a language that supports arbitrary-precision numbers, meaning that it delivers accurate results regardless of how large (or very very small) the numbers are. It has an interactive mode, accepting input from the terminal and providing calculations on request. bc starts by processing code from all the files listed on the command line in the order listed. After all files have been processed, bc reads from the standard input. All code is executed as it is read.

**Syntax:** bc [ -hlwsqv ] [long-options] [ file ... ]

**Example:** Calculation using Single command

### Options

-h, --help	Print a help message and exit.
-i, --interactive	Force interactive mode.
-l, --mathlib	Define the standard math library.
-w, --warn	Give warnings for extensions to POSIX bc.
-s, --standard	Process exactly the POSIX bc language.
-q, --quiet	Do not print the normal GNU bc welcome message.
-v, --version	Print the version number and copyright information, and exit.

```
$ echo "4+10" | bc
14
```

Calculation using Multiple commands

```
$ echo "obase=15;5+9" | bc
E
```

Another way of executing bc calculation

```
$ bc <<< 4+2
6
```

## 0.2 *passwd* command

The `passwd` command is used to change passwords for user accounts. A normal user may only change the password for his or her own account, while the superuser may change the password for any account.

Syntax : `passwd [options] [LOGIN]`

Options:

Short Option	Long Option	Option Description
-a	-all	This option can be used only with -S and causes show status for all users.
-d	-delete	Delete a users password (make it empty). This is a quick way to disable a password for an account. It will set the named account password-less.
-e	-expire	Immediately expire an accounts password. This in effect can force a user to change his/her password at the users next login.
-i	-inactive INACTIVE	This option is used to disable an account after the password has been expired for a number of days. After a user account has had an expired password for INACTIVE days, the user may no longer sign on to the account.
-k	-keep-tokens	Indicate password change should be performed only for expired authentication tokens (passwords). The user wishes to keep their non-expired tokens as before.
-l	-lock	Lock the password of the named account. This option disables a password by changing it to a value which matches no possible encrypted value (it adds a '!' at the beginning of the password). Note that this does not disable the account. The user may still be able to login using another authentication token (e.g. an SSH key). To disable the account, administrators should use <code>usermod -expiredate 1</code> (this set the accounts expire date to Jan 2, 1970). Users with a locked password are not allowed to change their password.
-n	-mindays MIN_DAYS	Set the minimum number of days between password changes to MIN_DAYS. A value of zero for this field indicates that the user may change his/her password at any time.
-q	-quiet	Quiet mode.

Example:

```
$ passwd guest
Changing password for guest.
(current) UNIX password:
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
```

Display the account status information using -S option

```
$ passwd -S himanshu
himanshu P 03/12/2011 0 99999 7 -1
```

Delete an account password using the -d option

```
$ sudo passwd -d guest
passwd: password expiry information changed.
```

Immediately expire the account password using -e option

```
$ sudo passwd -e guest
passwd: password expiry information changed.
```

Perform actions quietly by using -q option

```
$sudo passwd -eq guest
```

### 0.3 uname command

Print certain system information.

Syntax : uname [OPTION]...

Tag	Description
<b>-a, --all</b>	print all information, in the following order, except omit <b>-p</b> and <b>-i</b> if unknown:
<b>-s, --kernel-name</b>	print the kernel name
<b>-n, --nodename</b>	print the network node hostname
<b>-r, --kernel-release</b>	print the kernel release
<b>-v, --kernel-version</b>	print the kernel version
<b>-m, --machine</b>	print the machine hardware name
<b>-p, --processor</b>	print the processor type or "unknown"
<b>-i, --hardware-platform</b>	print the hardware platform or "unknown"
<b>-o, --operating-system</b>	print the operating system
<b>--help</b>	display this help and exit
<b>--version</b>	output version information and exit

**Examples:** To show the name of the OS

```
$ uname  
Linux
```

To get the kernel name, you can use -s parameter.

```
$ uname -s
```

To get the kernel release

```
$ uname -r
```

## 0.4 tty command

Prints the file name of the terminal connected to standard input.

Syntax : **tty** [OPTION]...

Options:

Tag	Description
<b>-s, --silent, --quiet</b>	
	print nothing, only return an exit status
<b>--help</b>	display this help and exit
<b>--version</b>	
	output version information and exit

```
$ tty  
/dev/pts/2
```

## 0.5 Video : Basic Commands

<http://www.youtube.com/watch?v=AO0jzD1hpXc&list=PL8A83A276F0D85E70>