

DTL – Assignment : Bash Scripting

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Division: 1

Batch: S3

1. Making new file and entering text into it
2. Making the file executable
3. Listing all the files in directory
4. Executing the file

```
aditya@LAPTOP-JTQ25I1G:~$ cd dtl
aditya@LAPTOP-JTQ25I1G:~/dtl$ mkdir assg2
aditya@LAPTOP-JTQ25I1G:~/dtl$ cd assg2
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ echo echo Hello world >hello_world.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ ls
hello_world.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ bash hello_world.sh
Hello world
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$
```

1. Adding multiple lines to a file
2. Changing permission of the file created
3. Listing all the files in the directory
4. Executing the file

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ cat << ALLDONE >hello_world_multiline.sh
> echo This is DTL Assignment.
> echo Hello, I am Aditya Ingle.
> echo This is multiline file.
> ALLDONE
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ chmod 755 hello_world_multiline.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ ls
hello_world.sh  hello_world_multiline.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$ bash hello_world_multiline.sh
This is DTL Assignment.
Hello, I am Aditya Ingle.
This is multiline file.
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2$
```

1. Opening Downloads directory
2. Creating a new file with current timestamp
3. Opening the file
4. Changing permissions
5. Listing the files in the directory
6. Executing the file

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ touch hello-world.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano hello-world.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod +x hello-world.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ./hello-world.sh
Hello, I am Aditya.
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

```
GNU nano 6.2 hello-world.sh *
# !/bin/bash -xv

# This is DTL Assignment.

echo "Hello, I am Aditya."
```

Special Parameters:

```
GNU nano 6.2 file1.sh
#!/bin/bash -xv

echo ${1} ${2} ${8} ${9}

aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano file1.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 file1.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls
file1.sh  hello-world.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ bash file1.sh {A..Z}
A B H I
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Exploring all special parameters:

```
GNU nano 6.2 file2.sh *
#!/bin/bash

echo
echo $* Represents all arguments as single string
echo
echo $@ Represents all arguments as an array rather than a string
echo
echo $# Total number of positional arguments
echo
echo $- Current flag position
echo
echo $$ PID of shell
echo
echo $! PDI of last executed background command
echo
echo $0 Name of the shell or shell script
echo
echo $_ Final argument of last executed foreground command
echo
echo $? Represents exit status of the last executed foreground command
echo
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano file2.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 file2.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ bash file2.sh {A..Z}

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Represents all arguments as single string
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Represents all arguments as an array rather than a string
26 Total number of positional arguments
hB Current flag position
108 PID of shell
PDI of last executed background command
file2.sh Name of the shell or shell script
echo Final argument of last executed foreground command
0 Represents exit status of the last executed foreground command
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Bracket Expansion:

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo a{b,d,c}e
abe ade ace
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo {A..Z}
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ mkdir z{1..10}
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls
file1.sh file2.sh hello-world.sh z1 z10 z2 z3 z4 z5 z6 z7 z8 z9
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $BASH
/bin/bash
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Using variables:

```
GNU nano 6.2 variable.sh *
#!/bin/bash

name="Aditya Ingle"
echo My name is ${name}.
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano variable.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 variable.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ./variable.sh
My name is Aditya Ingle.
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Arithmetic Expansion:

```
GNU nano 6.2 arithmetic.sh *
#!/bin/bash

a=15
b=20

echo a=${a} and b=${b}
echo a+b = $((a+b))
echo $((a=a+b))
echo ${a}
((a++))
echo
echo ${a}
echo
unset b
((b--))
echo ${b}
echo
a=1
let a++
echo ${a}
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano arithmetic.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 arithmetic.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ./arithmetic.sh
a=15 and b=20
a+b = 35
35
35

36

-1

2
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Command Substitution :

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ file arithmetic.sh
arithmetic.sh: Bourne-Again shell script, ASCII text executable
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

```
GNU nano 6.2 greet.sh *
#!/bin/bash

greeting="heyy, welcome"
user=$(whoami)
date=$(date +%F)

echo "$greeting $user! Today is $date"
echo "Your bash shell version is : $BASH_VERSION.!"
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano greet.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 greet.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ./greet.sh
heyy, welcome aditya! Today is 2023-02-06
Your bash shell version is : 5.1.16(1)-release.!
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ a=25
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $a
25
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ b=12
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $b
12
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $[$a + $b]
37
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Creating Backup:

```
GNU nano 6.2 file3.sh *
#!/bin/bash

user=$(whoami)
input=/home/${user}
output=/tmp/${user}_home_$(date +%Y-%m-%d_%H%M%S).tar.gz

tar -cvf $output $input

echo "$input backup is complete! Details of backup are:"
ls -l $output
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano file3.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 file3.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ./file3.sh
tar: Removing leading '/' from member names
/home/aditya/
/home/aditya/.sudo_as_admin_successful
/home/aditya/injured-hazlewood-set-to-miss-first-test-in-doubt-for-second
/home/aditya/.bash_history
/home/aditya/.wget-hsts
/home/aditya/.motd_shown
/home/aditya/.config/
/home/aditya/.config/procps/
/home/aditya/wget-log
/home/aditya/dtl/
/home/aditya/dtl/home/
/home/aditya/dtl/home/aditya/
/home/aditya/dtl/home/aditya/dtl/
/home/aditya/dtl/home/aditya/dtl/dir1/
/home/aditya/dtl/assg2/
/home/aditya/dtl/assg2/hello_world_multiline.sh
/home/aditya/dtl/assg2/hello_world.sh
/home/aditya/dtl/assg2/DTL/
/home/aditya/dtl/assg2/DTL/z10/
/home/aditya/dtl/assg2/DTL/z8/
/home/aditya/dtl/assg2/DTL/greet.sh
/home/aditya/dtl/assg2/DTL/z2/
/home/aditya/dtl/assg2/DTL/z1/
/home/aditya/dtl/assg2/DTL/z4/
/home/aditya/dtl/assg2/DTL/z6/
/home/aditya/dtl/assg2/DTL/z3/
/home/aditya/dtl/assg2/DTL/file1.sh
/home/aditya/dtl/assg2/DTL/z9/
/home/aditya/dtl/assg2/DTL/z5/
/home/aditya/dtl/assg2/DTL/file3.sh
/home/aditya/dtl/assg2/DTL/file2.sh
/home/aditya/dtl/assg2/DTL/hello-world.sh
/home/aditya/dtl/assg2/DTL/z7/
/home/aditya/dtl/assg2/DTL/arithmetic.sh
/home/aditya/dtl/assg2/DTL/variable.sh
/home/aditya/dtl/dir3/
/home/aditya/dtl/dir3/file1.txt
/home/aditya/dtl/newarchive.tar
/home/aditya/dtl/dir2/
/home/aditya/dtl/dir2/file1.txt
/home/aditya/dtl/newzip.zip
/home/aditya/dtl/dir1/
/home/aditya/dtl/dir1/mergedfile.txt
/home/aditya/dtl/dir1/file1.txt
/home/aditya/dtl/dir1/file2.txt
/home/aditya/dtl/dir1/file3.txt
/home/aditya/dtl/dir1/globalwarming.txt
/home/aditya/.profile
/home/aditya/.bash_logout
/home/aditya/.viminfo
/home/aditya/add.c
/home/aditya/.bashrc
/home/aditya/.local/
/home/aditya/.local/share/
/home/aditya/.local/share/nano/
/home/aditya/.lessht
/home/aditya/a.out
/home/aditya backup is complete! Details of backup are:
-rw-r--r-- 1 aditya aditya 194560 Feb  6 09:06 /tmp/aditya_home_2023-02-06_090618.tar.gz
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

Environment:

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ env
SHELL=/bin/bash
WSL_DISTRO_NAME=Ubuntu
WT_SESSION=43047ecf-5bfb-48f0-ac67-b2f77fae505b
NAME=LAPTOP-JTQ25I1G
PWD=/home/aditya/dtl/assg2/DTL
LOGNAME=aditya
MOTD_SHOWN=update-motd
HOME=/home/aditya
LANG=C.UTF-8
WSL_INTEROP=/run/WSL/15_interop
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:tar=01;31:*.tgz=01;31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lzh=01;31:*.lzm=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:*.lz=01;31:*.lzo=01;31:*.xz=01;31:*.zst=01;31:*.tzt=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=01;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wim=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.xbm=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.mp4=01;35:*.m4v=01;35:*.mp4v=01;35:*.vol=01;35:*.qt=01;35:*.nuv=01;35:*.wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avi=01;35:*.fli=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mid=00;36:*.midi=00;36:*.mka=00;36:*.mp3=00;36:*.mpc=00;36:*.ogg=00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36:
LESSCLOSE=/usr/bin/lesspipe %s %s
TERM=xterm-256color
LESSOPEN=| /usr/bin/lesspipe %s
USER=aditya
SHLVL=1
WSLENV=WT_SESSION:WT_PROFILE_ID
XDG_DATA_DIRS=/usr/local/share:/usr/share:/var/lib/flatpak/desktop
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/usr/lib/wsl/lib:/mnt/c/windows/system32:/mnt/c/windows:/mnt/c/windows/System32/Wbem:/mnt/c/windows/System32/WindowsPowerShell/v1.0:/mnt/c/windows/System32/OpenSSH:/mnt/c/Users/Aditya Ingle/AppData/Local/Programs/Python/Python37-32:/mnt/c/MinGW/bin:/mnt/c/Users/Aditya Ingle/anaconda3:/mnt/c/Users/Aditya Ingle/anaconda3/Library/mingw-w64/bin:/mnt/c/Users/Aditya Ingle/anaconda3/Library/usr/bin:/mnt/c/Users/Aditya Ingle/anaconda3/Library/bin:/mnt/c/Users/Aditya Ingle/anaconda3/Scripts:/mnt/c/Users/Aditya Ingle/AppData/Local/Microsoft/WindowsApps:/mnt/c/Users/Aditya Ingle/AppData/Local/Programs/Python/Python37-32/Scripts:/mnt/c/Users/Aditya Ingle/AppData/Local/Programs/Microsoft VS Code/bin:/mnt/c/Users/Aditya Ingle/AppData/Local/Programs/MiKTeX/miktex/bin/x64:/snap/bin
HOSTTYPE=x86_64
WT_PROFILE_ID={51855cb2-8cce-5362-8f54-464b92b32386}
_=/usr/bin/env
OLDPWD=/home/aditya/dtl/assg2
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cat /etc/profile
# /etc/profile: system-wide .profile file for the Bourne shell (sh(1))
# and Bourne compatible shells (bash(1), ksh(1), ash(1), ...).
```

```
if [ "${PS1}" ]; then
    if [ "${BASH}" ] && [ "$BASH" != "/bin/sh" ]; then
        # The file bash.bashrc already sets the default PS1.
        # PS1='\h:\w\$ '
        if [ -f /etc/bash.bashrc ]; then
            . /etc/bash.bashrc
        fi
    else
        if [ "$(id -u)" -eq 0 ]; then
            PS1='# '
        else
            PS1='$ '
        fi
    fi
fi
```

```
if [ -d /etc/profile.d ]; then
    for i in /etc/profile.d/*.sh; do
        if [ -r $i ]; then
            . $i
        fi
    done
    unset i
fi
```

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$
```


Input and Output Redirection:

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ~/.bashrc
-bash: /home/aditya/.bashrc: Permission denied
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cmd < x.in
-bash: x.in: No such file or directory
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ touch foobar
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls -l foobar
-rw-r--r-- 1 aditya aditya 0 Feb  6 09:12 foobar
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls foobar barfoo
ls: cannot access 'barfoo': No such file or directory
foobar
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls foobar barfoo > stdout.txt
ls: cannot access 'barfoo': No such file or directory
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls foobar barfoo 2> stdout.txt
foobar
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls foobar barfoo &> stdoutandstderr.txt
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cat stdout.txt
ls: cannot access 'barfoo': No such file or directory
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 stdout.txt
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cat stdout.txt
ls: cannot access 'barfoo': No such file or directory
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cat stderr.txt
cat: stderr.txt: No such file or directory
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ls foobar barfoo 2> stderr.txt
foobar
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cat stderr.txt
ls: cannot access 'barfoo': No such file or directory
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ cat stdoutandstderr.txt
ls: cannot access 'barfoo': No such file or directory
foobar
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ █
```

Functions:

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ function status { date; uptime; who | grep $USER; }
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ status
Mon Feb  6 09:21:00 IST 2023
 09:21:00 up 1:22,  0 users,  load average: 0.00, 0.00, 0.00
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ my_function() { echo "Hello I'm function"; echo "Bye!"; }
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ my_function
Hello I'm function
Bye!
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ bash --debugger
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ declare -F my_function
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ declare -f my_function
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ unset my_function
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ my_function
my_function: command not found
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ █
```

Numeric and String comparison:

```
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ a=4
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ b=6
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ [ $a -lt $b ]
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $?
0
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ [ $a -gt $b ]
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $?
1
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ █
```



```

aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ [ "apples" = "oranges" ]
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $?
1
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ █

```

Conditional Statements:

```

GNU nano 6.2 file4.sh *
#!/bin/bash

a=19
if ((a==30))
then echo YES;
else
echo NO;
fi

```

```

aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ nano file4.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ chmod 755 file4.sh
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ./file4.sh
NO
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ ~

```

Arithmetic Expression:

```

aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $(( 25+5 ))
30
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $(( 59-10 ))
49
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $(( 13*12 ))
156
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $(( 15/5 ))
3
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ m=25; n=4
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $(( $m + $n ))
29
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ expr 8 + 9
17
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ expr 100 / 20
5
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ let x=50+4
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ echo $x
54
aditya@LAPTOP-JTQ25I1G:~/dtl/assg2/DTL$ █

```

