

Shell Script- Positional Parameters/Command Line arguments:

A bash shell script have parameters. These parameters start from **\$1** to **\$9**.

When we pass arguments into the command line interface, a positional parameter is assigned to these arguments through the shell.

The first argument is assigned as \$1, second argument is assigned as \$2 and so on....

If there are more than 9 arguments, then **tenth** or onwards arguments can't be assigned as \$10 or \$11. It will represent by \${10}, \${11} and so on....

Shell Parameters

Parameters	Function
\$0	Represent name of the script(source file)
\$1-\$9	Represent positional parameters for arguments one to nine
\${10}-\${n}	Represent positional parameters for arguments after nine
\$*	Represent all the arguments as a single string
@	Same as \$*,Represent all the arguments as a single string
\$#	Represent total number of arguments
\$\$	PID of the script
\$?	Exit status / Represent last return code

Example:

```
#using command line arguments

#!/bin/bash

echo $1 $2 $3 $4 $5 $6 $7 $8 $9 ${10}

output:

debasis@LAPTOP-H3N6JCNE:~/BCA$ sh cmdline1.sh 1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10
```

```
debasis@LAPTOP-H3N6JCNE:~/BCA$ vi smcmd.sh

#addition using command line arguments

#!/bin/bash

a=$1
b=$2
s=`expr $a + $b`

echo -n "sum= "$s

echo

output:

debasis@LAPTOP-H3N6JCNE:~/BCA$ sh smcmd.sh 20 40

sum= 60
```

```
debasis@LAPTOP-H3N6JCNE:~/BCA$ vi cmdline10.sh

#Example of command line arguments

#!/bin/bash

echo $0 $1 $2 $3 $4 $5 $6 $7 $8 $9 ${10}

echo "Arguments are: " $*

echo "Arguments are: " $@

echo "Process ID(PID): " $$

echo "Exit status: " $?

echo "Total parameters are: " $#

output:

debasis@LAPTOP-H3N6JCNE:~/BCA$ sh cmdline10.sh 11 20 1 12 13 14 15 16
24 50

cmdline10.sh 11 20 1 12 13 14 15 16 24 50
```

Arguments are: 11 20 1 12 13 14 15 16 24 50

Arguments are: 11 20 1 12 13 14 15 16 24 50

Process ID(PID): 166

Exit status: 0

Total parameters are: 10

```
debasis@LAPTOP-H3N6JCNE:~$ vi cmdLine.sh
```

```
#Using command line arguments/shell parameters
```

```
#!/bin/bash
```

```
wc -l $1
```

```
echo $2 $3 $4 $5 $6 $7 $8 $9 ${10}
```

```
echo $0
```

```
echo
```

```
echo "Contents of file: " $1
```

```
cat -n $1
```

```
echo
```

```
echo "Total Passing parameters is: " $#
```

```
echo "arguments are: " $*
```

```
echo "arguments are: " $@
```

```
echo "Process ID(PID) : " $$
```

```
echo "Exit status: " $?
```

```
Output:
```

```
debasis@LAPTOP-H3N6JCNE:~$ sh cmdLine.sh abcd.txt 2 3 4 5 6 7 8
```

```
8 abcd.txt
```

```
2 3 4 5 6 7 8
```

cmdLine.sh

Contents of file: abcd.txt

```
1  November 2020
2  Su Mo Tu We Th Fr Sa
3  1  2  3  4  5  6  7
4  8  9 10 11 12 13 14
5 15 16 17 18 19 20 21
6 22 23 24 25 26 27 28
7 29 30
8
```

Total passing parameters is: 8

arguments are: abcd.txt 2 3 4 5 6 7 8

arguments are: abcd.txt 2 3 4 5 6 7 8

Process ID(PID) : 253

Exit status: 0