25/06/2021

UNIX PROGRAMMING. → ① Yashwant Kanetkar
② Sumitabha Das.

Shell programming

Display → echo ✓

Input from keyboard → read ✓

Arithmetic operator:

+, -, *, /, %

a+b.

```
c=`expr $a + $b`
echo $c
```

(a+b) *c

✓
```
d=`expr \($a + $b\) \* c`
echo $d
```

$ nano test.sh ↵

```
echo "Enter a no"
read n
echo $n
echo "output is $n"
```

ctrl+X → yes → ↵

$ sh test.sh ↵

```
Enter a no
5
5
output is 5
```

$bc ↵

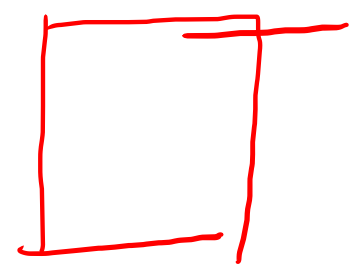
2+3 ↵

5 ↵

3.2+4.5 ↵

7.7 ↵

$nano test2.sh ↵



read a b ↵

echo $a $b

2.7

scale.

2

(a+b)*c.

d=`expr "($a + $b) * $c" | bc`

d=`expr $a / $b`

3/2

1.5

d=`expr "scale=2; $a / $b" | bc`

d=`expr .... | bc -l`

1.5000000

20

20

Relational operator:

Meth:

>, <, >=, <=, !=, =

1. Numerical test
2. string test
3. file test. →
   - -f → ordinary
   - -d → directory
   - -r → read
   - -w → write
   - -x → execute
   - -z → size > 0
   - -n → size = 0

- -gt → greater than
- -lt → less than
- -ge → greater than equal to
- -le → less than equal to
- -ne → Not equal to
- -eq → equal to.

length of string

- Str1 = Str2
- Str1 > Str2
- Str1 < Str2
- Str1 != Str2.

```
if (condition)
{
   stmt1
}
else{
```

Nested if

```
if [      ]
then
=
elif [      ]
 then
    =
fi
```

```
if [ condition/ expression ]
then
      stmt1
      stmt2
endif
      write
```

shell programing

Ex: to find out ~~whether~~ the maximum between two nos.

```
echo "Enter two nos"
read a b
if [$a -gt $b] ; then
then
   echo "$a is greater than $b"
else
fi echo "$b is greater than $a"
```

H/W #1. Write a shell program to find out a maximum no. among three numbers. (without logical operator).

a=5

Logical operators:

- AND → -a
- OR → -o