

## Programming Constructs

The shell program has several constructs that give added flexibility to your program

- Comments - lets you document the function of a program
- The exit command lets you terminate a program at a time point other than the end of program
- looping - for and while, allows a program to iterate through groups of command in a loop.
  - For loop  
The for loop operates on list of items. It repeats a set of commands for every item in a list.

example

```
for a in 1 2 3 4 5 6 7 8
do
    if [ $a = 5 ]
    then
        break
    fi
    echo "Iteration no $a"
done
```

\*\* This is also an example for if statements

## \* while loop

```
while [ $a -lt 10 ]
```

```
do
```

```
echo $a
```

```
a = expr $a + 1
```

```
done
```

Here command is evaluated based on the result-loop, if the command turns to be false the loop will be terminated.

## \* ~~Control~~

Conditional - if and case , execute a group of command only if particular set of condition is met.

\* if

This block will process if specified condition is true

Syntax

```
if [ expression ]
```

```
then
```

```
statement
```

```
fi
```

- \* if - else statement  
if specified condition is not true then else part will be executed

syntax

if [ expression ]

then

statements 1

else

statement 2

fi

- \* Nested if.

Nest if - else block can be used when, one condition is satisfied then it again checks another conditions

syntax

if [ expression 1 ]

then

statement 1

statement 2

else

if [ expression 2 ]

then

statements 3

fi

fi

## switch statement

case statements works as a switch statement if specified value match with the pattern then it will execute a block of that particular pattern.

## syntax

case in

pattern 1) statement 1;

pattern n) statement n;

esac

- break - This command allows a program to exit unconditionally from loop.