

Session 9: Loop control in shell scripting (3 Hrs.)

Content Delivery (1.5 Hrs)

Agenda:

1. For Loop
2. Nesting of for Loop
3. While loop

For Loop

First, the variable used in loop condition must be initialized, then execution of the loop begins.

A test (condition) is made at the beginning of each iteration.

The body of loop ends with a statement that modifies the value of the test (condition) variable.

Syntax:

```
for { variable name } in { list }
```

```
do
```

```
execute one for each item in the list until the list is not finished and
```

repeat all statement between do and done

done

Example:

```
for i in 1..5
do
echo "Welcome $i times"
done
```

Syntax:

```
for (( expr1; expr2; expr3 ))
do
repeat all statements between
do and done until expr2 is TRUE
Done
```

Example:

```
for (( i = 0 ; i <= 5; i++ ))
do
echo "Welcome $i times"
done
```

Nesting of for Loop

Example:

```
for (( i = 1; i <= 5; i++ ))
do

    for (( j = 1 ; j <= 5; j++ ))
        do
            echo -n "$i "
        done

    echo ""
done
```

While loop

Syntax:

```
while [ condition ]
do
    command1 command2 command3 .. ....
done
```

Example:

```
COUNT=4
while [ $COUNT -gt 0 ];
do
    echo "Value of count is: $COUNT"
    COUNT=$((COUNT - 1))
done
```

Lab Task (1.5 Hrs)

1. Finding Odd and Even number from the list.
2. Finding addition value from the list.
3. Print reverse from the list.
4. Print:

```
*
*  *
*  *  *
*  *  *  *
*  *  *  *  *
```

5. Print:

```
*   *   *   *   *  
*   *   *   *  
*   *   *  
*   *  
*
```