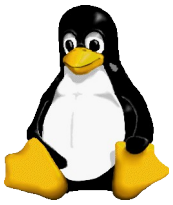

Tutorial - File Integrity

Linux

Each an every distribution of Linux have inbuilt integrity checking tools for the distribution packages are verified for integrity through checksumming using these tools. In this hands-on we will teach you how to check integrity of a directory containing files by using MD5 algorithm.

```
$ md5sum * > ../integrity-md5

$ cat ../integrity-md5

3e7705498e8be60520841409ebc69bc1  test1
126a8a51b9d1bbd07fddc65819a542c3  test2
3bc3be114fb6323adc5b0ad7422d193a  test3
b5163cf270a3fbac34827c4a2713eef4  test4
```

Check the checksums could validate the integrity of the files

```
$  md5sum -c < ../integrity-md5
test1: OK
test2: OK
test3: OK
test4: OK
```

From the above example we have created the checksums of the files using MD5. Now we should change something in a file and check weather that we could catch the changed file. For example we'll change the file called test3.

Note: *This does not tell you what change has been done but what file has been changed.*

```
$ md5sum -c < ../integrity-md5
test1: OK
test2: OK
test3: FAILED
test4: OK
md5sum: WARNING: 1 of 4 computed checksums did NOT match
```

Activities:

1. Calculate and verify the integrity checking code of the files in the given directory by using SHA1 algorithm.
2. Calculate and verify the integrity checking code of a given file and a password by using MD5 algorithm. Password is given in the file called pass.