

`sudo apt update`

`sudo apt install hashdeep`

(first create a file example.txt in desktop,

and open terminal in desktop,

do `cd desktop`)

1 check the version of Hashdeep - `hashdeep -V`

2. To display help about hashdeep - `hashdeep -h` or `hashdeep -hh`

3. To display the manual page of hashdeep- `man hashdeep`

4. To display the manual page of any specific hash algorithm supported
by hashdeep- `man md5deep`

By default, hashdeep generates MD5 n SHA256 hash values.

5. To hash a file - `hashdeep filename`

6. If you don't want to display the full path of file in output hash
record- `hashdeep -b filename`

7. To suppress any error messages- `hashdeep -s filename`

8. To apply multiple hash algorithms than default-

`hashdeep -c md5,sha1,sha256,tiger filename`

9. To hash multiple files (say all text files) using md5

`hashdeep -c md5 *.txt`

10. To hash multiple files (say all text files) using md5 and sha1

`hashdeep -c md5,sha1 *.txt`

11. Hashing block of files- `hashdeep -c md5 -p 100 example.txt`

12. To recursively calculate hash (all files and subdirectories in a
specified directory)

`hashdeep c md5 -r /home/shachi/myfiles`

13. To redirect the output of md5 hash of files to another file

`md5deep *.txt>hashset.txt`

`hashdeep *.txt>hashtext1.txt`

Check the content of output file-

```
cat hashset.txt
```

```
cat hashset1.txt
```

14. To display output in matching mode

```
md5deep -m hashset.txt *
```

```
hashdeep -m -k hashset1.txt *
```

15. To suppress unwanted system msgs/error

```
md5deep -m hashset.txt *
```

```
hashdeep -s -m hashset1.txt *
```

No output is displayed if there is no matching hashed file is found.

16. To display all files which are negatively matching use -x option

```
Md5deep -s -x hashset.txt *
```

```
hashdeep -s -x hashset1.txt *
```

Forensic auditing can be done using hashdeep tool which means a check to determine if any files in the system are changed due to malware or any normal system operation like update patching.

17. To audit, first create a hashset file and then audit it against the files to be checked if they are modified.

```
hashdeep -c md5,sha1,sha256 -r /home/shachi/myfiles>hashset1.txt
```

```
hashdeep -a -r -k hashset1.txt /home/shachi/myfiles
```

18. Add new file to the directory and audit. It fails.

```
touch /home/shachi/myfiles/newfile.txt
```

```
hashdeep -a -r -k hashset1.txt /home/shachi/myfiles
```

19. To get where it failed use the command with -v option

```
hashdeep -v -a -r -k hashset1.txt /home/shachi/myfiles
```

20. Move one of the files to another directory and audit n see output

```
mv /home/shachi/myfiles/example.txt /tmp
```

```
hashdeep -v -a -r -k hashset1.txt /home/shachi/myfiles
```

21. Rename one of the files and audit n see the output

```
mv /home/shachi/myfiles/shachi.txt /home/shachi/myfiles/shachi.bak
```

```
hashdeep -v -a -r -k hashset1.txt /home/shachi/myfiles
```

22. For verbose output of audit

```
hashdeep -vv -a -r -k hashset1.txt /home/shachi/myfiles
```

```
hashdeep -vvv -a -r -k hashset1.txt /home/shachi/myfiles
```