

# Create and compare hash values

## Tasks:

- Compare the plain text of the two files presented for hashing
- Compute the sha256sum hash of the two separate files
- Compare the hashes provided to identify the differences

1. Use **pwd** command to determine the current directory.

```
analyst@c03da9defc48:~$ pwd
/home/analyst
```

2. Use **ls** command to list the contents of the directory.

```
analyst@c03da9defc48:~$ ls
file1.txt  file2.txt
```

3. Use **cat** command to display the contents of file1.txt and file2.txt.

```
analyst@c03da9defc48:~$ cat file1.txt
X5O!P%@AP[4\PZX54(P^)7CC)7}$EICAR-STANDARD-ANTIVIRUS-TEST-FILE!$H+H*
analyst@c03da9defc48:~$ cat file2.txt
X5O!P%@AP[4\PZX54(P^)7CC)7}$EICAR-STANDARD-ANTIVIRUS-TEST-FILE!$H+H*
```

4. Use **sha256sum** command to generate the hash value for file1.txt and file2.txt.

```
9sxa5Yq20Ranalyst@c03da9defc48:~$ sha256sum file1.txt
131f95c51cc819465fa1797f6ccacf9d494aaaff46fa3eac73ae63ffbfd8267  file1.txt
analyst@c03da9defc48:~$ sha256sum file2.txt
2558ba9a4cad1e69804ce03aa2a029526179a91a5e38cb723320e83af9ca017b  file2.txt
```

5. Use **sha256sum** command and **>>** command to generate the hash value for file1.txt and file2.txt and send the value to new files called file1hash and file2hash. Use **ls** command to confirm the changes.

```
analyst@c03da9defc48:~$ sha256sum file1.txt >> file1hash
analyst@c03da9defc48:~$ sha256sum file2.txt >> file2hash
analyst@c03da9defc48:~$ ls
file1.txt  file1hash  file2.txt  file2hash
```

6. Use **cat** command to display the hash values inside of file1hash and file2hash.

```
analyst@c03da9defc48:~$ cat file1hash
131f95c51cc819465fa1797f6ccacf9d494aaaff46fa3eac73ae63ffbdfd8267 file1.txt
analyst@c03da9defc48:~$ cat file2hash
2558ba9a4cad1e69804ce03aa2a029526179a91a5e38cb723320e83af9ca017b file2.txt
```

7. Use **cmp** command to highlight the difference between file1hash and file2hash.

```
analyst@c03da9defc48:~$ cmp file1hash file2hash
file1hash file2hash differ: char 1, line 1
```

The output of the cmp command indicates that the hashes differ at the first character in the first line.