# Create hash values

## Scenario

In this scenario, you need to investigate whether two files are identical or different.

# Task 1. Generate hashes for files

1.1. Command to display the contents of the `file1.txt` and `file2.txt` file:

```
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$ cat file1.txt
X5O!P%@AP[4\PZX54(P^)7CC)7}$EICAR-STANDARD-ANTIVIRUS-TEST-FILE!$H+H*
analyst@c78377d6fc94:~$ cat file2.txt
X5O!P%@AP[4\PZX54(P^)7CC)7}$EICAR-STANDARD-ANTIVIRUS-TEST-FILE!$H+H*
9sxa5Yq20Ranalyst@c78377d6fc94:~$
```

1.2. Command to generate the hash of the `file1.txt` and `file2.txt` file:

**Command: sha256sum file1.txt**
**Command: sha256sum file2.txt**

```
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$ sha256sum file1.txt
131f95c51cc819465fa1797f6ccacf9d494aaaff46fa3eac73ae63ffbdfd8267  file1.txt
analyst@c78377d6fc94:~$ sha256sum file2.txt
2558ba9a4cad1e69804ce03aa2a029526179a91a5e38cb723320e83af9ca017b  file2.txt
analyst@c78377d6fc94:~$
```

# Task 2. Compare hashes

2.1. Command to generate the hash of the `file1.txt` file, and send the output to a new file called `file1hash`:

Command to generate the hash of the `file2.txt` file, and send the output to a new file called `file2hash`:

Command: sha256sum file1.txt >> file1hash

Command: sha256sum file2.txt >> file2hash

```
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$ sha256sum file1.txt >> file1hash
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$ sha256sum file2.txt >> file2hash
analyst@c78377d6fc94:~$
```

2.2. Display the hash values in the `file1hash` and `file2hash` files.

**cat file1hash**
**cat file2hash**

```
analyst@c78377d6fc94:~$ cat file1hash
131f95c51cc819465fa1797f6ccacf9d494aaaff46fa3eac73ae63ffbdfd8267  file1.txt
analyst@c78377d6fc94:~$ cat file2hash
2558ba9a4cad1e69804ce03aa2a029526179a91a5e38cb723320e83af9ca017b  file2.txt
analyst@c78377d6fc94:~$
```

2.3. Command to highlight the differences in the `file1hash` and `file2hash` files:

**Command: cmp file1hash file2hash**

```
analyst@c78377d6fc94:~$
analyst@c78377d6fc94:~$ cmp file1hash file2hash
file1hash file2hash differ: char 1, line 1
analyst@c78377d6fc94:~$
```

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