Project 2: Strong Password Policy & Password Cracking Demo

Goal

To demonstrate how weak passwords can be cracked using **John the Ripper** and highlight the importance of using strong passwords in cybersecurity.

Tools Used

- **Kali Linux**
- **OpenSSL** (for generating hashes)
- **John the Ripper** (for cracking)

Steps Performed

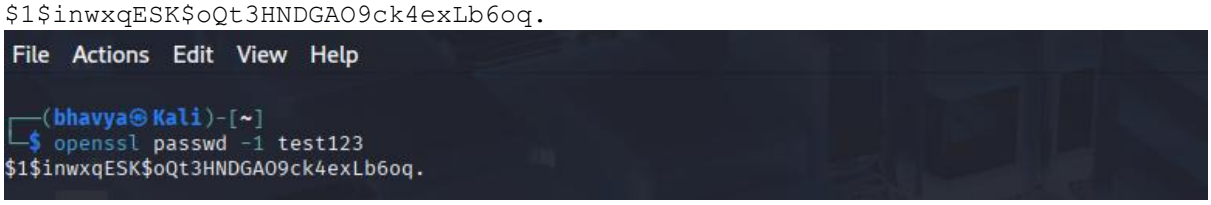
1. Generate a Password Hash

Used OpenSSL to create an MD5 hash of the password `test123`:

```
openssl passwd -1 test123
```

Output:

```
$1$inwxqESK$oQt3HNDGAO9ck4exLb6oq.
```



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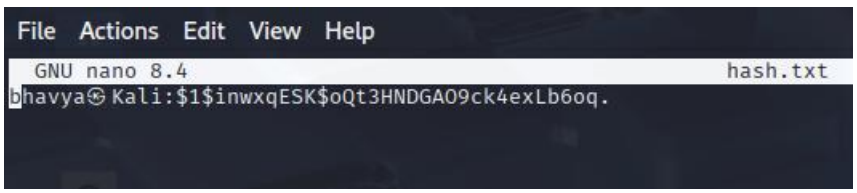
2. Save the Hash in a File

Created a file `hash.txt` with the following content:



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3. Create a Wordlist

Created a file `mylist.txt` with possible weak passwords:

```
123456
```

```
password
qwerty
welcome
letmein
test123
```

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4. Run John the Ripper

Executed the cracking process:

```
john --wordlist=mylist.txt hash.txt
```

John compared the hash against the wordlist and successfully cracked the password.

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5. Display Cracked Password

To confirm the cracked password:

```
john --show hash.txt
```

Output:

Password successfully cracked: `test123`