<u>Project Report</u>

Password Cracking->John The Ripper

By- Abhinav Lather

John The Ripper Tool

John the Ripper is an Open Source password security auditing and password recovery tool available for many operating systems. **John the Ripper jumbo** supports hundreds of hash and cipher types, including for: user passwords of Unix flavors (Linux, *BSD, Solaris, AIX, QNX, etc.), macOS, Windows, "web apps" (e.g., WordPress), groupware (e.g., Notes/Domino), and database servers (SQL, LDAP, etc.); network traffic captures (Windows network authentication, WiFi WPA-PSK, etc.)

->What is hashing a password?

Password hashing is the practice of algorithmically turning a password into ciphertext, or an irreversibly obfuscated version of itself, as a means of blocking against the threat of password breaches.

Some algorithms for Hashing are:-

- SHA-1
- SHA-256
- MD5
- AES

Passwords are stored in a hashed form so that they are not easy to read.

Commands used for cracking the password

- 1. pdf2john filename.pdf > hashfilename.txt
- 2. john hashfilename.txt --wordlist='file containing list of passwords'

Screenshots

```
File Actions Edit View Help

(abhinavlather® kali)-[~]
$ sudo su
[sudo] password for abhinavlather:

(root® kali)-[/home/abhinavlather]

(root® kali)-[/home/abhinavlather]

(root® kali)-[/home/abhinavlather/Desktop]

# pdf2john protected.pdf > hashfile.txt

(root® kali)-[/home/abhinavlather/Desktop]

# cat hashfile.txt

protected.pdf:$pdf$4***128*-4*116*1941580fd607626538583d976437d0e2*32*d712c4a68eb52ed9176
08d9a80a8cc4428bf4e5e4e758a4164004e56fffa0108*32*33df01658e83944939d745abbad0fb6306f8b4b23
3975cbf5f15fccf41abf143

(root® kali)-[/home/abhinavlather/Desktop]
# john hashfile.txt --wordlist=john.lst [
Using default input encoding: UTF-8
Loaded 1 password hash (PDF [MD5 SHA2 RC4/AES 32/64])
Cost 1 (revision) is 4 for all loaded hashes
Press 'q' or Ctrl-C to abort, almost any other key for status
monkey12 (protected.pdf)

1g 0:00:00:00 DONE (2023-12-25 12:33) 8.333g/s 17266p/s 17266c/s 17266c/s drowssap..qlw2e3
r4
Use the "--show --format=PDF" options to display all of the cracked passwords reliably
Session completed.
```

