

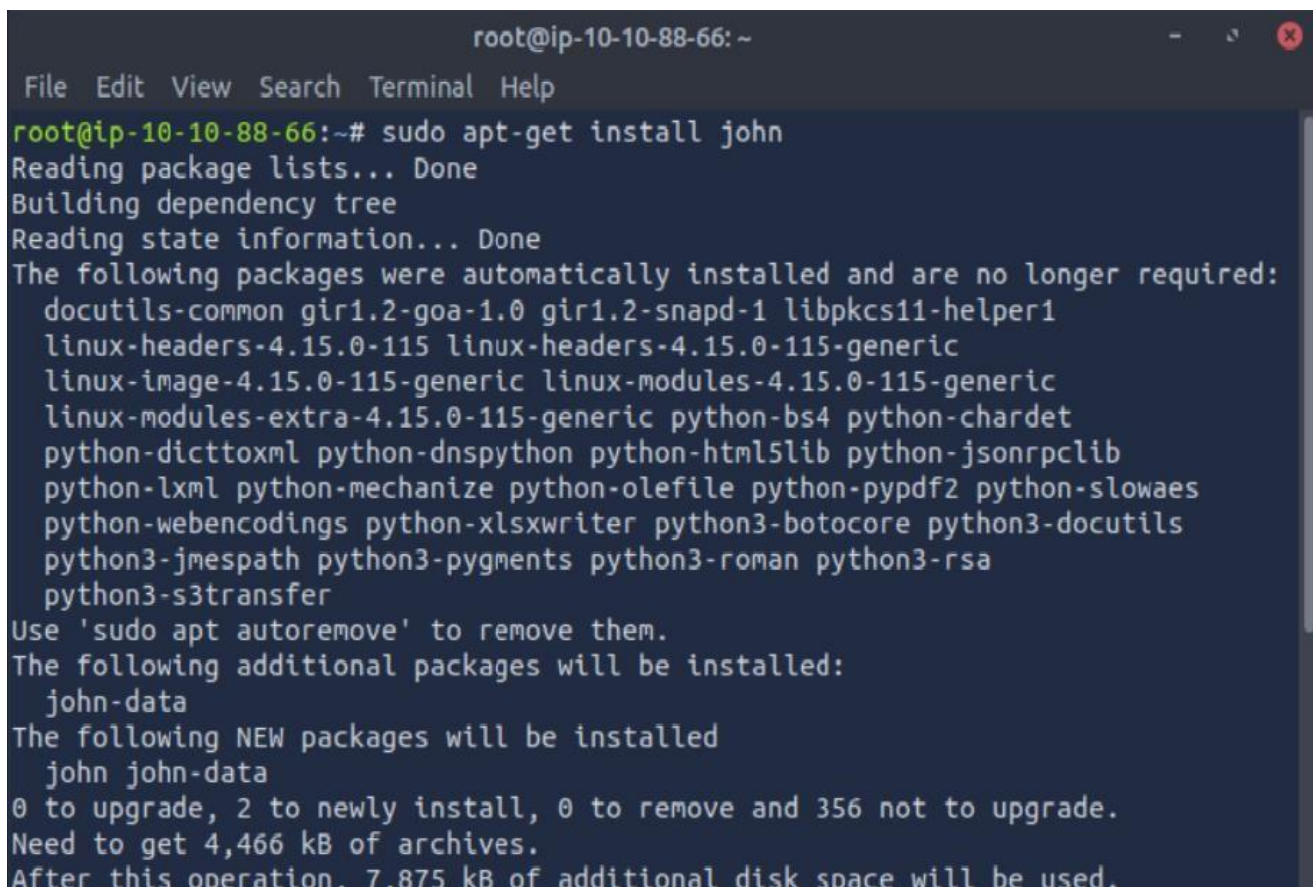
## CRACK THE HASHES

**Aim:**

To install and crack the hashed passwords using John-the-Ripper tool in Kali Linux.

**Algorithm:**

1. Install John-the-Ripper on your system using `sudo apt install john`
2. Prepare the hash file `hashes.txt` that is to be cracked.
3. Run John-the-Ripper specifying the path to the `wordlist.txt` and `hashes.txt`
4. Monitor the cracking process using `status` option in another terminal

**Output:**A screenshot of a terminal window titled 'root@ip-10-10-88-66: ~'. The terminal shows the command 'sudo apt-get install john' being executed. The output indicates that several packages were automatically installed and are no longer required, including docutils-common, gir1.2-goa-1.0, gir1.2-snapd-1, libpkcs11-helper1, linux-headers-4.15.0-115, linux-headers-4.15.0-115-generic, linux-image-4.15.0-115-generic, linux-modules-4.15.0-115-generic, linux-modules-extra-4.15.0-115-generic, python-bs4, python-chardet, python-dicttoxml, python-dnspython, python-html5lib, python-jsonrpclib, python-lxml, python-mechanize, python-olefile, python-pypdf2, python-slowaes, python-webencodings, python-xlswriter, python3-boto, python3-docutils, python3-jmespath, python3-pygments, python3-roman, python3-rsa, and python3-s3transfer. It also shows that 'john-data' will be installed along with 'john'. The terminal concludes with the disk space requirements: 4,466 kB of archives needed and 7.875 kB of additional disk space used after the operation.

```
root@ip-10-10-88-66: ~
File Edit View Search Terminal Help
root@ip-10-10-88-66:~# sudo apt-get install john
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
 docutils-common gir1.2-goa-1.0 gir1.2-snapd-1 libpkcs11-helper1
 linux-headers-4.15.0-115 linux-headers-4.15.0-115-generic
 linux-image-4.15.0-115-generic linux-modules-4.15.0-115-generic
 linux-modules-extra-4.15.0-115-generic python-bs4 python-chardet
 python-dicttoxml python-dnspython python-html5lib python-jsonrpclib
 python-lxml python-mechanize python-olefile python-pypdf2 python-slowaes
 python-webencodings python-xlswriter python3-boto python3-docutils
 python3-jmespath python3-pygments python3-roman python3-rsa
 python3-s3transfer
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
 john-data
The following NEW packages will be installed
 john john-data
0 to upgrade, 2 to newly install, 0 to remove and 356 not to upgrade.
Need to get 4,466 kB of archives.
After this operation, 7.875 kB of additional disk space will be used.
```

```
root@ip-10-10-233-209: ~
File Edit View Search Terminal Help
root@ip-10-10-233-209:~# echo -n joshua1993 | md5sum | awk '{print $1}' > hashes.
txt
root@ip-10-10-233-209:~# cat hashes.txt
046df2d40bc0a99fd11a1cc0a8e67434
root@ip-10-10-233-209:~# john --format=raw-md5 --wordlist=/usr/share/wordlists/
rockyou.txt hashes.txt
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-MD5 [MD5 256/256 AVX2 8x3])
Warning: no OpenMP support for this hash type, consider --fork=2
Press 'q' or Ctrl-C to abort, almost any other key for status
joshua1993 (?)
1g 0:00:00:00 DONE (2024-06-19 07:30) 33.33g/s 6668Kp/s 6668Kc/s 6668KC/s kensle
y..joseph85
Use the "--show --format=Raw-MD5" options to display all of the cracked password
s reliably
Session completed.
root@ip-10-10-233-209:~#
```

```
root@ip-10-10-233-209: ~
File Edit View Search Terminal Help
0g 0:00:00:01 0g/s 0p/s 0c/s 0C/s
root@ip-10-10-233-209:~# john --status
0g 0:00:00:01 3/3 0g/s 71632p/s 71632c/s 143264C/s
```

**Result:** Thus, successfully installed John-the-Ripper tool and cracked the password hashes.

