Aim: Study the use of network reconnaissance tool like whois, dig, traceroute, nslookup to gather information about network.

WHOIS Command: -

```
bishwajit@bishwajitVM:~$ whois geeksforgeeks.org
Domain Name: geeksforgeeks.org
Registry Domain ID: f507261c73964021b7430545a8b370ee-LROR
Registrar WHOIS Server: http://whois.publicdomainregistry.com
Registrar URL: http://www.publicdomainregistry.com
Updated Date: 2022-04-21T06:36:07Z
Creation Date: 2009-03-19T06:08:55Z
Registry Expiry Date: 2030-03-19T06:08:55Z
Registrar: PDR Ltd. d/b/a PublicDomainRegistry.com
Registrar IANA ID: 303
Registrar Abuse Contact Email: abuse@publicdomainregistry.com
Registrar Abuse Contact Phone: +1.2013775952
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
Registry Registrant ID: REDACTED FOR PRIVACY
Registrant Name: REDACTED FOR PRIVACY
Registrant Organization: Privacy Protect, LLC (PrivacyProtect.org)
Registrant Street: REDACTED FOR PRIVACY
Registrant City: REDACTED FOR PRIVACY
Registrant State/Province: MA
Registrant Postal Code: REDACTED FOR PRIVACY
Registrant Country: US
Registrant Phone: REDACTED FOR PRIVACY
Registrant Phone Ext: REDACTED FOR PRIVACY
Registrant Fax: REDACTED FOR PRIVACY
Registrant Fax Ext: REDACTED FOR PRIVACY
Registrant Email: Please query the RDDS service of the Registrar of Record identified in this output for info
rmation on how to contact the Registrant, Admin, or Tech contact of the queried domain name.
Registry Admin ID: REDACTED FOR PRIVACY
Admin Name: REDACTED FOR PRIVACY
Admin Organization: REDACTED FOR PRIVACY
Admin Street: REDACTED FOR PRIVACY
Admin City: REDACTED FOR PRIVACY
Admin State/Province: REDACTED FOR PRIVACY
Admin Postal Code: REDACTED FOR PRIVACY
Admin Country: REDACTED FOR PRIVACY
Admin Phone: REDACTED FOR PRIVACY
Admin Phone Ext: REDACTED FOR PRIVACY
Admin Fax: REDACTED FOR PRIVACY
Admin Fax Ext: REDACTED FOR PRIVACY
Admin Email: Please query the RDDS service of the Registrar of Record identified in this output for informati
on on how to contact the Registrant, Admin, or Tech contact of the queried domain name.
Registry Tech ID: REDACTED FOR PRIVACY
Tech Name: REDACTED FOR PRIVACY
Tech Organization: REDACTED FOR PRIVACY
Tech Street: REDACTED FOR PRIVACY
Tech City: REDACTED FOR PRIVACY
Tech State/Province: REDACTED FOR PRIVACY
Tech Postal Code: REDACTED FOR PRIVACY
Tech Country: REDACTED FOR PRIVACY
Tech Phone: REDACTED FOR PRIVACY
```
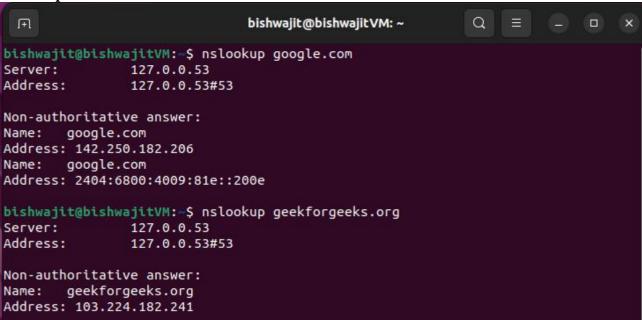
Dig Command: -

```
bishwajit@bishwajitVM:~$ dig geeksforgeeks.org

; <<>> DiG 9.18.1-1ubuntu1.1-Ubuntu <<>> geeksforgeeks.org
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 3129
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 4, ADDITIONAL: 9

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;geeksforgeeks.org.            IN      A

;; ANSWER SECTION:
geeksforgeeks.org.      30      IN      A       34.218.62.116

;; AUTHORITY SECTION:
geeksforgeeks.org.      1967    IN      NS      ns-245.awsdns-30.com.
geeksforgeeks.org.      1967    IN      NS      ns-1569.awsdns-04.co.uk.
geeksforgeeks.org.      1967    IN      NS      ns-869.awsdns-44.net.
geeksforgeeks.org.      1967    IN      NS      ns-1520.awsdns-62.org.

;; ADDITIONAL SECTION:
ns-1520.awsdns-62.org.  78595   IN      A       205.251.197.240
ns-1520.awsdns-62.org.  78595   IN      AAAA    2600:9000:5305:f000::1
ns-1569.awsdns-04.co.uk. 78582  IN      A       205.251.198.33
ns-1569.awsdns-04.co.uk. 78582  IN      AAAA    2600:9000:5306:2100::1
ns-245.awsdns-30.com.   78584   IN      A       205.251.192.245
ns-245.awsdns-30.com.   78584   IN      AAAA    2600:9000:5300:f500::1
ns-869.awsdns-44.net.   78580   IN      A       205.251.195.101
ns-869.awsdns-44.net.   78580   IN      AAAA    2600:9000:5303:6500::1

;; Query time: 8 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Mon Sep 26 19:27:54 IST 2022
;; MSG SIZE  rcvd: 375
```

Traceroute Command: -


```
bishwajit@bishwajitVM:~$ traceroute google.com
traceroute to google.com (142.250.182.206), 64 hops max
  1   10.0.2.2   2.520ms   2.588ms   3.923ms
  2    *    *    *
  3    *    *    *
  4    *    *    *
  5    *    *    *
  6    *    *    *
  7    *    *    *
```

Nslookup Command: -


```
bishwajit@bishwajitVM:~$ nslookup google.com
Server:          127.0.0.53
Address:         127.0.0.53#53

Non-authoritative answer:
Name:    google.com
Address: 142.250.182.206
Name:    google.com
Address: 2404:6800:4009:81e::200e

bishwajit@bishwajitVM:~$ nslookup geekforgeeks.org
Server:          127.0.0.53
Address:         127.0.0.53#53

Non-authoritative answer:
Name:    geekforgeeks.org
Address: 103.224.182.241
```

Conclusion: -
We conclude that we learned different tools and commands to gather information of the target by using following command like nslookup, traceroute, dig and whois.