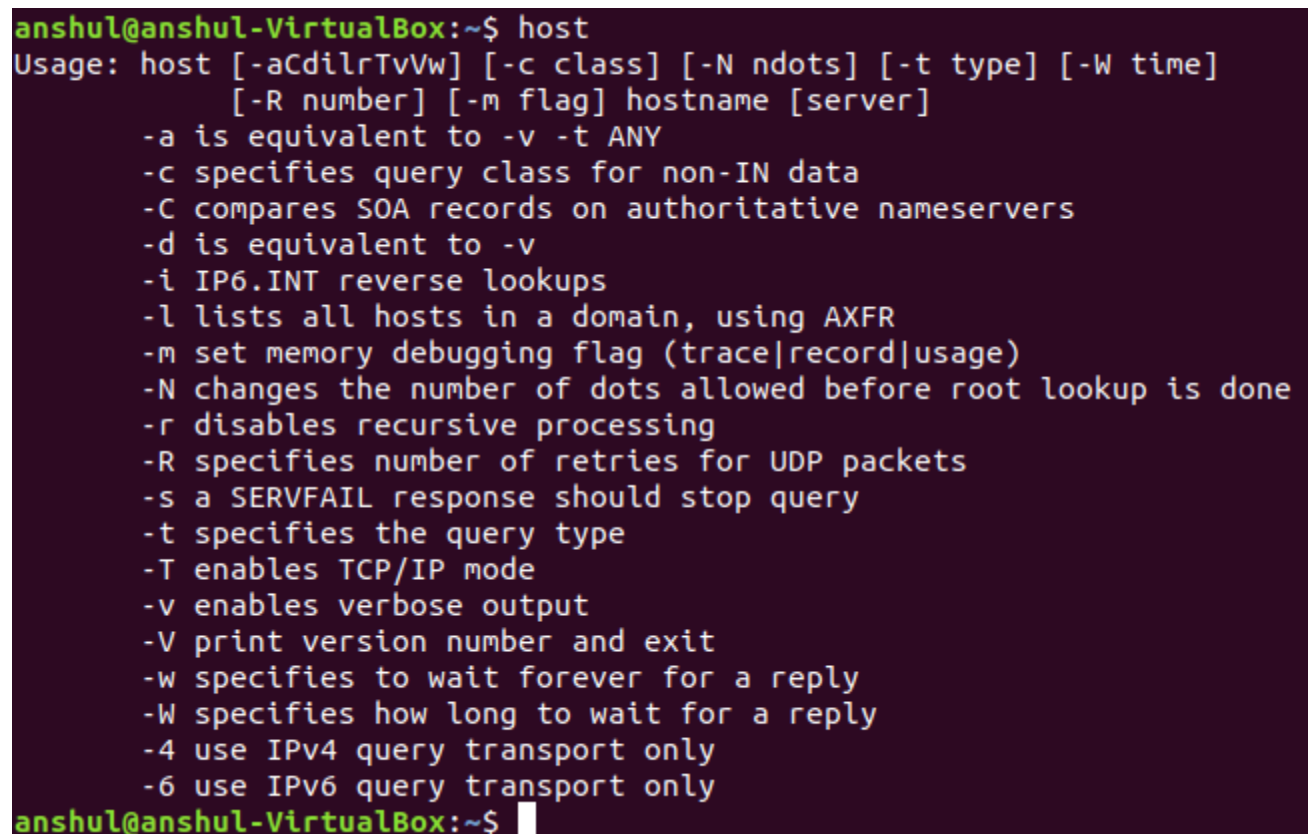**host** command in Linux system is used for DNS (Domain Name System) lookup operations. In simple words, this command is used to find the IP address of a particular domain name or if you want to find out the domain name of a particular IP address the host command becomes handy. You can also find more specific details of a domain by specifying the corresponding option along with the domain name.

Syntax:

```
host [-aCdlriTWV] [-c class] [-N ndots] [-t type] [-W time]
     [-R number] [-m flag] hostname [server]
```

host command without any option: It will print the general syntax of the command along with the various options that can be used with the host command as well as gives a brief description about each option.

Example:

Different options with the host command:

- **host domain_name:** This will print the IP address details of the specified domain.

    Example:

```
host geeksforgeeks.org
```


- **host IP_Address:** This will display the domain details of the specified IP Address.

    Example:

    ```
    host 52.25.109.230
    ```


- **-a or -v:** It used to specify the query type or enables the verbose output.

    Example:

    ```
    host -a geeksforgeeks.org
    ```

```
anshul@anshul-VirtualBox:~$ host -v geeksforgeeks.org
Trying "geeksforgeeks.org"
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 14557
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 0

;; QUESTION SECTION:
;geeksforgeeks.org.                  IN      A

;; ANSWER SECTION:
geeksforgeeks.org.         8        IN      A         52.25.109.230

Received 51 bytes from 127.0.0.53#53 in 1 ms
Trying "geeksforgeeks.org"
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 11597
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 0

;; QUESTION SECTION:
;geeksforgeeks.org.                  IN      AAAA

Received 35 bytes from 127.0.0.53#53 in 583 ms
Trying "geeksforgeeks.org"
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 43282
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 0

;; QUESTION SECTION:
;geeksforgeeks.org.                  IN      MX

;; ANSWER SECTION:
geeksforgeeks.org.         278      IN      MX        5 alt2.aspmx.l.google.co
geeksforgeeks.org.         278      IN      MX        5 alt1.aspmx.l.google.co
geeksforgeeks.org.         278      IN      MX        10 alt4.aspmx.l.google.c
geeksforgeeks.org.         278      IN      MX        10 alt3.aspmx.l.google.c
geeksforgeeks.org.         278      IN      MX        1 aspmx.l.google.com.

Received 153 bytes from 127.0.0.53#53 in 3 ms
anshul@anshul-VirtualBox:~$
```

- **-t :** It is used to specify the type of query.

  Example 1:

  ```
  host -t ns geeksforgeeks.org
  ```

  ```
  anshul@anshul-VirtualBox:~$ host -t ns geeksforgeeks.org
  geeksforgeeks.org name server ns-869.awsdns-44.net.
  geeksforgeeks.org name server ns-245.awsdns-30.com.
  geeksforgeeks.org name server ns-1569.awsdns-04.co.uk.
  geeksforgeeks.org name server ns-1520.awsdns-62.org.
  anshul@anshul-VirtualBox:~$
  ```

Example 2: To print SOA record

```
host -t SOA geeksforgeeks.org
```

```
anshul@anshul-VirtualBox:~$ host -t SOA geeksforgeeks.org
geeksforgeeks.org has SOA record ns-869.awsdns-44.net. awsdns-hostmaster
anshul@anshul-VirtualBox:~$
```

Example 3: To print *txt* record

```
host -t txt geeksforgeeks.org
```

```
anshul@anshul-VirtualBox:~$ host -t txt geeksforgeeks.org
geeksforgeeks.org descriptive text "v=spf1 include:amazonses.com include
anshul@anshul-VirtualBox:~$
```

- **-C :** In order to compare the SOA records on authoritative nameservers.

  Example:

  ```
  host -C geeksforgeeks.org
  ```

  ```
  anshul@anshul-VirtualBox:~$ host -C geeksforgeeks.org
  Nameserver 205.251.198.33:
          geeksforgeeks.org has SOA record ns-869.awsdns-44.net. awsdns-ho
  Nameserver 205.251.197.240:
          geeksforgeeks.org has SOA record ns-869.awsdns-44.net. awsdns-ho
  Nameserver 205.251.192.245:
          geeksforgeeks.org has SOA record ns-869.awsdns-44.net. awsdns-ho
  Nameserver 205.251.195.101:
          geeksforgeeks.org has SOA record ns-869.awsdns-44.net. awsdns-ho
  anshul@anshul-VirtualBox:~$
  ```

- **-R :** In order to specify the number of retries you can do in case one try fails. If anyone try succeeds then the command stops.

  Example:

  ```
  host -R 3 geeksforgeeks.org
  ```

```
anshul@anshul-VirtualBox:~$ host -R 3 geeksforgeeks.org
geeksforgeeks.org has address 52.25.109.230
geeksforgeeks.org mail is handled by 10 alt4.aspmx.l.google.com.
geeksforgeeks.org mail is handled by 5 alt1.aspmx.l.google.com.
geeksforgeeks.org mail is handled by 5 alt2.aspmx.l.google.com.
geeksforgeeks.org mail is handled by 1 aspmx.l.google.com.
geeksforgeeks.org mail is handled by 10 alt3.aspmx.l.google.com.
anshul@anshul-VirtualBox:~$
```

- **-l :**In order to list all hosts in a domain.For this command to work you need to be either an admin or a node server.

  Example:

  ```
  host -l geeksforgeeks.org
  ```