

ASSIGNMENT 3
GROUP NO-33(180101065,180101066)
Question-4

README

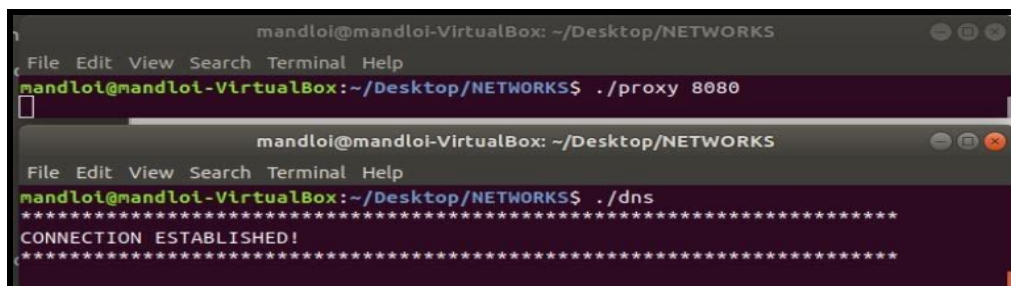
- 1) We have included a makefile.
Running make command compiles all the three files
dns_server.c, client.c, proxy_server.c
- 2) Run the dns executable by running **“./dns”**
- 3) Run the proxy executable by running **“./proxy <port>”** (Eg. ./proxy 8080)
- 4) You can see that the connection between dns and proxy is established in dns terminal window.
- 5) Run the client executable by running **“./client <ip> <port>”** (Eg. ./client 127.0.0.1 8080)
- 6) The request for domain/ip
command::: **<type><single space><domain/ip>**, Eg. 1 www.google.com

Key points

- 1.)Port 8080**
- 2.)ip 127.0.0.1**
- 3.)Cache size 2**

Some Screenshots have been taken for the reference

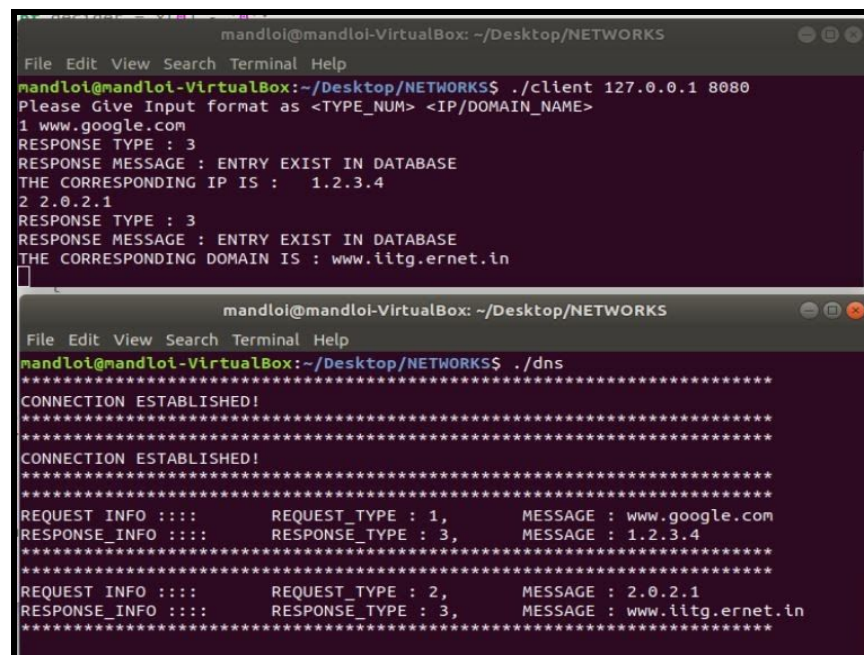
- 1) When connection is established



```
mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
mandloi@mandloi-VirtualBox:~/Desktop/NETWORKS$ ./proxy 8080

mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
mandloi@mandloi-VirtualBox:~/Desktop/NETWORKS$ ./dns
*****
CONNECTION ESTABLISHED!
*****
```

- 2) While making requests from client

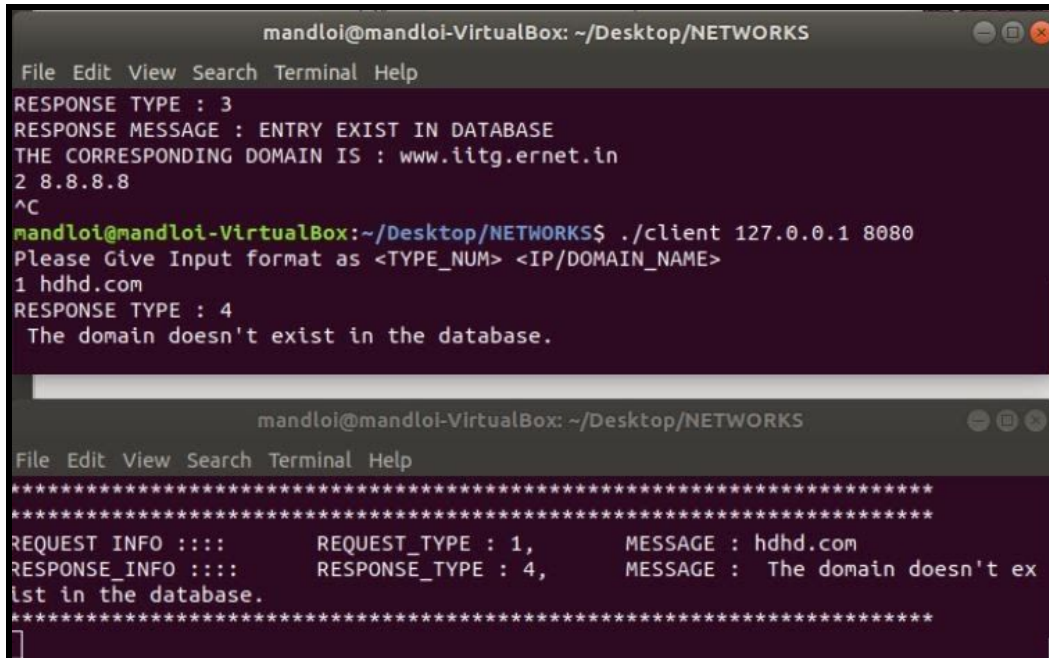


```
mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
mandloi@mandloi-VirtualBox:~/Desktop/NETWORKS$ ./client 127.0.0.1 8080
Please Give Input format as <TYPE_NUM> <IP/DOMAIN_NAME>
1 www.google.com
RESPONSE TYPE : 3
RESPONSE MESSAGE : ENTRY EXIST IN DATABASE
THE CORRESPONDING IP IS : 1.2.3.4
2 2.0.2.1
RESPONSE TYPE : 3
RESPONSE MESSAGE : ENTRY EXIST IN DATABASE
THE CORRESPONDING DOMAIN IS : www.iitg.ernet.in

mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
mandloi@mandloi-VirtualBox:~/Desktop/NETWORKS$ ./dns
*****
CONNECTION ESTABLISHED!
*****
CONNECTION ESTABLISHED!
*****
REQUEST_INFO ::::      REQUEST_TYPE : 1,      MESSAGE : www.google.com
RESPONSE_INFO ::::     RESPONSE_TYPE : 3,      MESSAGE : 1.2.3.4
*****
REQUEST_INFO ::::      REQUEST_TYPE : 2,      MESSAGE : 2.0.2.1
RESPONSE_INFO ::::     RESPONSE_TYPE : 3,      MESSAGE : www.iitg.ernet.in
*****
```

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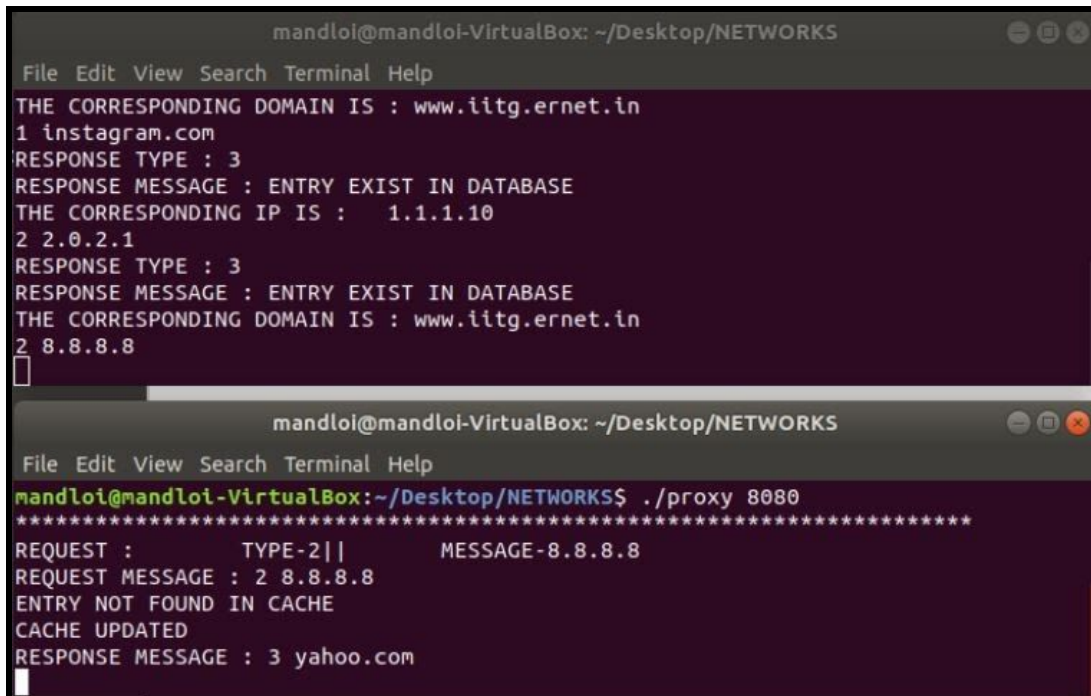
3). When there is no entry found in database(Type 4).



```
mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
RESPONSE TYPE : 3
RESPONSE MESSAGE : ENTRY EXIST IN DATABASE
THE CORRESPONDING DOMAIN IS : www.iitg.ernet.in
2 8.8.8.8
^C
mandloi@mandloi-VirtualBox:~/Desktop/NETWORKS$ ./client 127.0.0.1 8080
Please Give Input format as <TYPE_NUM> <IP/DOMAIN_NAME>
1 hdhd.com
RESPONSE TYPE : 4
The domain doesn't exist in the database.

mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
*****
*****
REQUEST INFO :::      REQUEST_TYPE : 1,      MESSAGE : hdhd.com
RESPONSE_INFO :::      RESPONSE_TYPE : 4,      MESSAGE : The domain doesn't exist in the database.
*****
*****
```

4) Displaying that the entry was not found in cache



```
mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
THE CORRESPONDING DOMAIN IS : www.iitg.ernet.in
1 instagram.com
RESPONSE TYPE : 3
RESPONSE MESSAGE : ENTRY EXIST IN DATABASE
THE CORRESPONDING IP IS : 1.1.1.10
2 2.0.2.1
RESPONSE TYPE : 3
RESPONSE MESSAGE : ENTRY EXIST IN DATABASE
THE CORRESPONDING DOMAIN IS : www.iitg.ernet.in
2 8.8.8.8
█

mandloi@mandloi-VirtualBox: ~/Desktop/NETWORKS
File Edit View Search Terminal Help
mandloi@mandloi-VirtualBox:~/Desktop/NETWORKS$ ./proxy 8080
*****
REQUEST :      TYPE-2||      MESSAGE-8.8.8.8
REQUEST MESSAGE : 2 8.8.8.8
ENTRY NOT FOUND IN CACHE
CACHE UPDATED
RESPONSE MESSAGE : 3 yahoo.com
█
```