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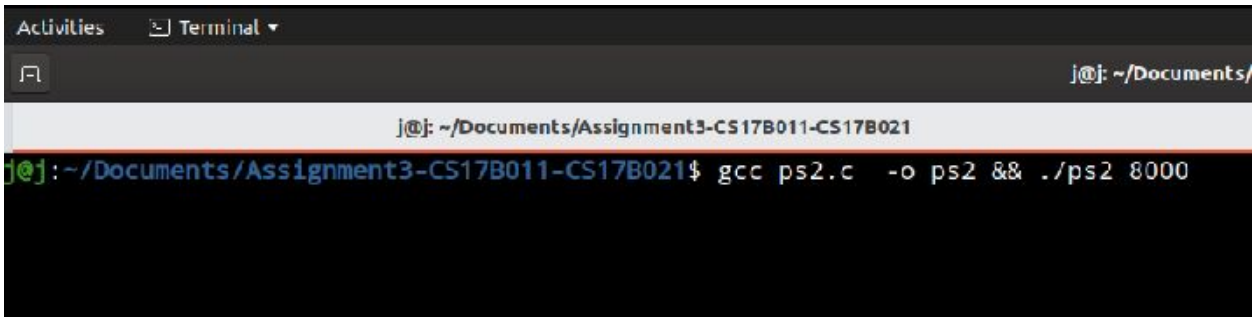
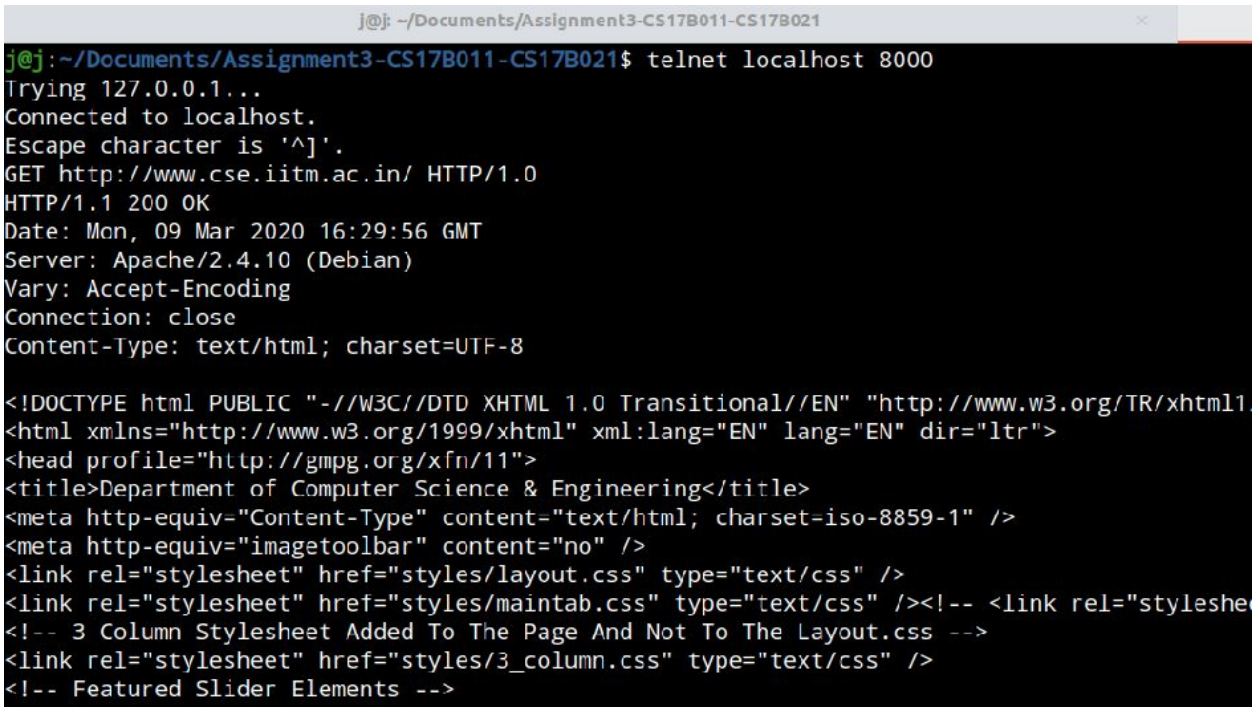
HTTP PROXY IMPLEMENTATION

a)For one client (single terminal)





```
j@j:~/Documents/Assignment3-CS17B011-CS17B021$ telnet localhost 8000
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
PUSH http://www.cse.iitm.ac.in/ HTTP/1.0
Not Implemented 501Connection closed by foreign host.
```

```
j@j:~/Documents/Assignment3-CS17B011-CS17B021$ telnet localhost 8000
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
GET http://www.cse.iitm.ac.in/ /1.0
Bad Request 400Connection closed by foreign host.
```

Observations:

1.In one terminal we execute our executable file proxy with port as a command line argument.(As shown in the first screenshot)

2.Open another terminal which acts a client to our proxy server using telnet localhost <port>

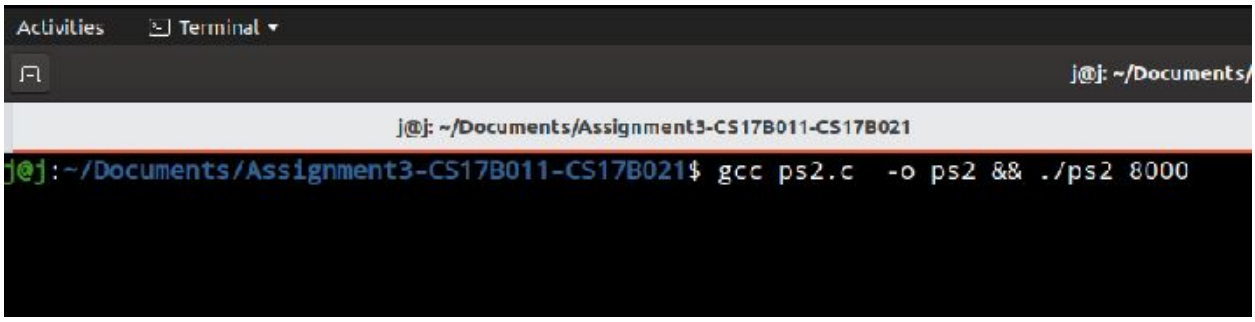
3.After connecting to the proxy server we can send a request to the proxy server

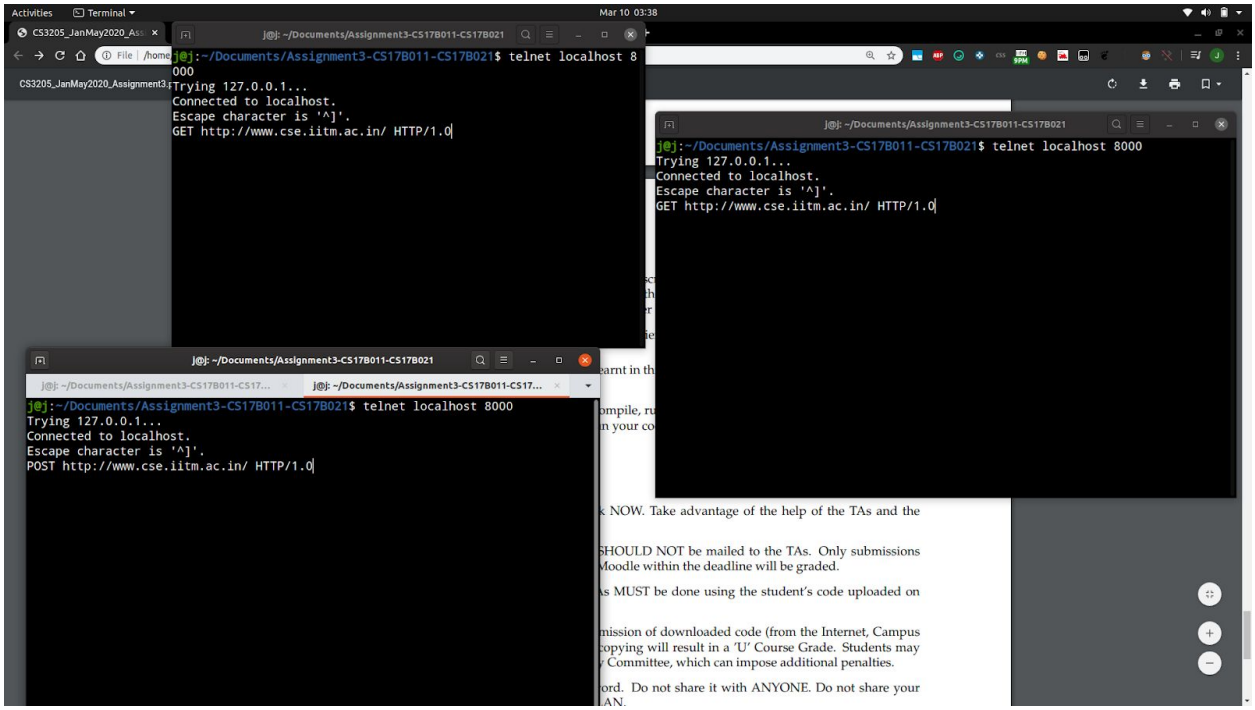
e.g:"GET http://www.cse.iitm.ac.in/ HTTP/1.0"

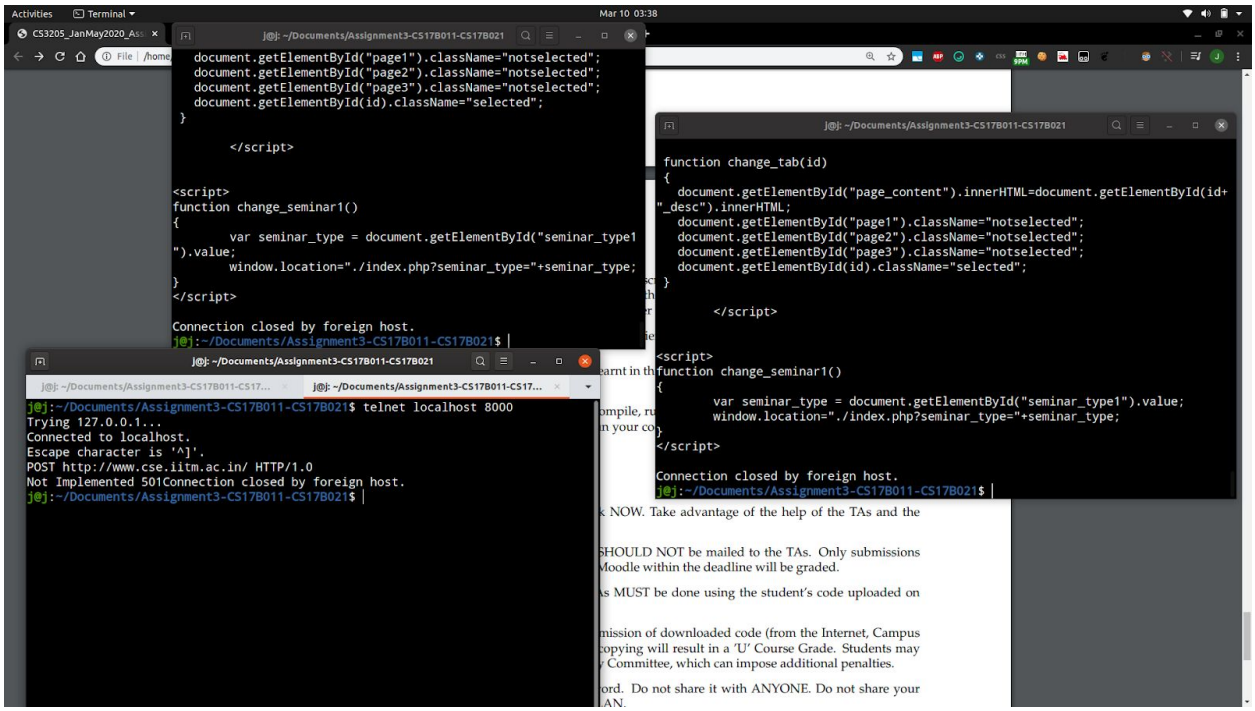
4.The proxy server parses the request and gives an error accordingly if the request is not proper(as in picture 3 and 4)

5.If the parsing is successful then the proxy server sends the request to the server which in turn replies accordingly and it is passed on to the client(as shown in picture 2) and the connection between the proxy server and the client is closed.

b)Simultaneous more than one (3 max) client (multiple terminal)







1.The terminal for proxy is same as the above and three separate terminals for clients requesting concurrently.

2.Intially all the connections are established between client and the proxy server(as shown in picture 2)

3.The requests are taken by the proxy server in separate processes using forking.

4.Requests are parsed and replies are given accordingly to each client separately(as shown in picture 3 in which one of the request is not implemented) and all the connections are closed.

SUMMARY :

1.The privacy of the clients are maintained i.e., if the request sent by the client is valid the proxy server gets the reply to the same from the server without revealing any information about the clients.

2.We can also upgrade the proxy server by implementing a cache system i.e., by remembering the replies for the most common requests asked by clients .This can be useful especially when the server is remote or overloaded the proxy server itself can give the cached reply without contacting the server.

3.Proxy servers can be used to access websites which are restricted by our ISP.