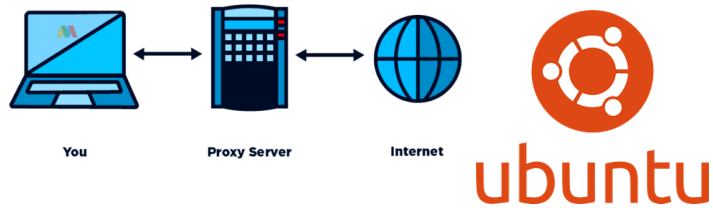




Continuing Education Program
Center for Computing and Information Technology
Fakultas Teknik Universitas Indonesia

PROJECT



“Proxy Server in Ubuntu Server”

Group 2

Names : David Julian Ernestine (2120010033)

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Faculty : Kevin Harada

Semester : 2

Quarter : 2

Class : 2ISA2

**CONTINUING EDUCATION PROGRAM CENTER FOR COMPUTING
AND INFORMATION TECHNOLOGY,
FACULTY OF ENGINEERING, UNIVERSITY OF INDONESIA**

2022

PROJECT ON

Proxy Server in Ubuntu Server

Developed by

- | | |
|---------------------------|--------------|
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The logo for NIIT (National Institute of Information Technology) is displayed in a large, bold, blue serif font.

PROXY SERVER IN UBUNTU SERVER

Batch Code : 2 ISA2

Start Date : June 20, 2022

End Date : July 08, 2022

Name of Faculty : Kevin Harada

Names of Developer:

- | | |
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Date of Submission: July 08, 2022



CERTIFICATE

This is to certify that this report titled Proxy Server in Ubuntu Server done by David Julian Ernestine, Fajar Afrianto Mustika and Muhammad Rhazes, in partial fulfillment of their course requirement at NIIT.

Coordinator:

Kevin Harada

ACKNOWLEDGEMENT

Authors would like to praise to Allah, Most Merciful bless and so authors can finish this Project entitled “Proxy Server in Ubuntu Server”. Author would like to thanks to Kevin Harada as Lecturer who has given useful suggestion which are help author in writing this paper.

The writer realized that this paper far from perfection, then the writer will be very unfettered the chest and was encouraged, if colleagues and the guide's agreeing lecturer gave the suggestion & criticism for this paper perfection.

SYSTEM ANALYSIS

System Summary:

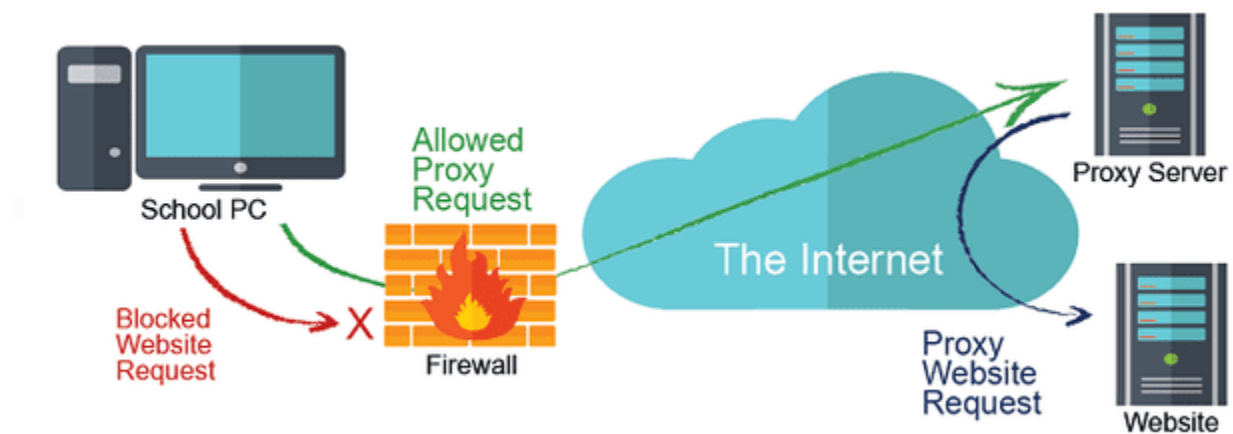
This project describes the use of a Proxy Server application on an Ubuntu Server, which is used to block some or even a website that will later be inaccessible.

Service Package:

- **Proxy Server**

PROXY SERVER OBJECTIVES

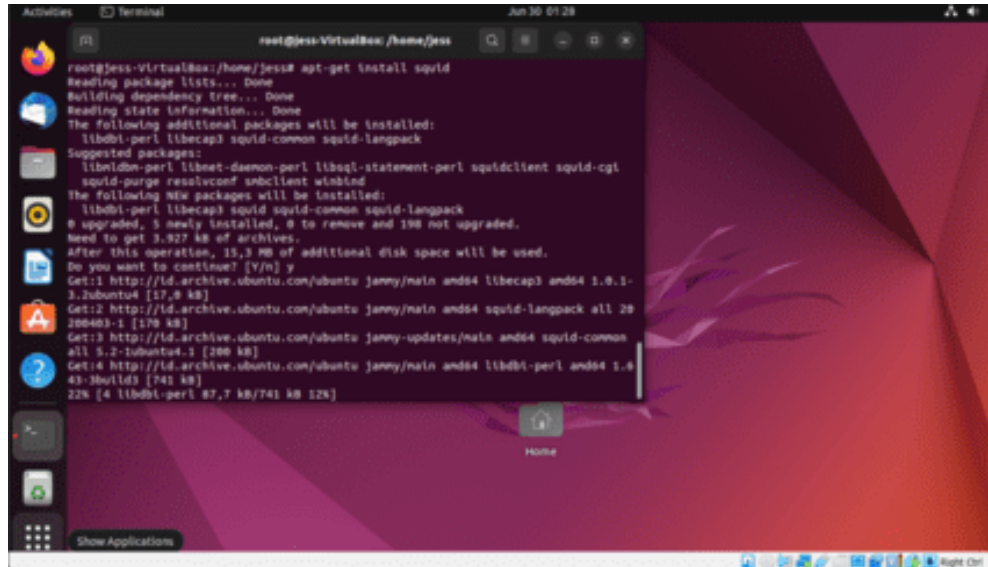
System Process:



A proxy server is a server that stores frequently requested information (documents or files) from elsewhere in the network and makes it available to users or in another definition is an intermediary (computer system or application) that acts as an intermediary for requests from clients to locate resources. power from another server. client A connects to an intermediary server, requesting some service such as a file, connection, page, or other available resource from a different server. Proxies provide resources either by connecting to a specific server or by serving from cache. In some cases, proxies can modify client requests or server responses for various purposes.

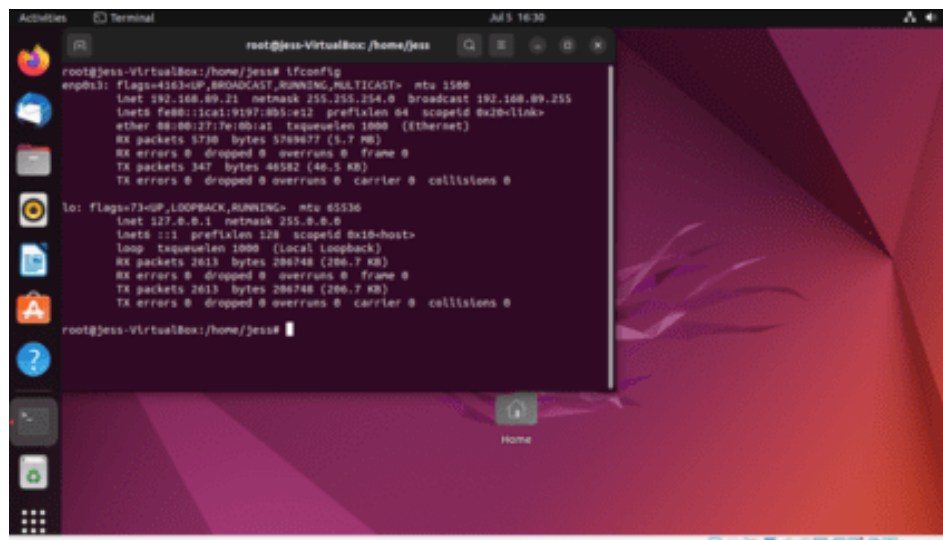
PROXY SERVER

System Process:



```
root@jess-VirtualBox:/home/jess# apt-get install squid
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libdbi-perl libecap3 squid-common squid-langpack
Suggested packages:
  libnldm-perl libnet-daemon-perl libsql-statement-perl squidclient squid-cgi
  squid-purge resolvconf smbclient winbind
The following NEW packages will be installed:
  libdbi-perl libecap3 squid squid-common squid-langpack
0 upgraded, 5 newly installed, 0 to remove and 190 not upgraded.
Need to get 3,927 kB of archives.
after this operation, 15.3 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu jammy/main amd64 libecap3 amd64 1.0.1-3.2ubuntu4 [17.0 kB]
Get:2 http://id.archive.ubuntu.com/ubuntu jammy/main amd64 squid-langpack all 20200403-1 [170 kB]
Get:3 http://id.archive.ubuntu.com/ubuntu jammy-updates/main amd64 squid-common all 5.2-2ubuntu4.1 [200 kB]
Get:4 http://id.archive.ubuntu.com/ubuntu jammy/main amd64 libdbi-perl amd64 1.0-43-MouId6 [741 kB]
22% [4 libdbi-perl 87,7 kB/741 kB 12%]
```

Description: First, update the system if you haven't already, if you have directly downloaded Squid with the command "apt-get install squid", and wait until the Squid is downloaded.



```
root@jess-VirtualBox:/home/jess# ifconfig
enp0s3: flags=4353<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.89.21 netmask 255.255.254.0 broadcast 192.168.89.255
    inet6 fe80::1c01:9197:805:e12 prefixlen 64 scopeid 0x20-link>
    ether 08:00:27:7e:80:a1 txqueuelen 1000 (Ethernet)
    RX packets 5730 bytes 5789877 (5.7 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 347 bytes 46582 (46.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

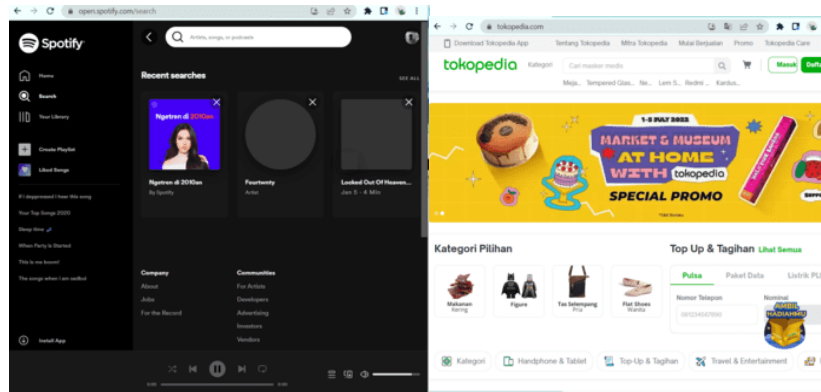
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10-host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 2613 bytes 286748 (286.7 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2613 bytes 286748 (286.7 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@jess-VirtualBox:/home/jess#
```

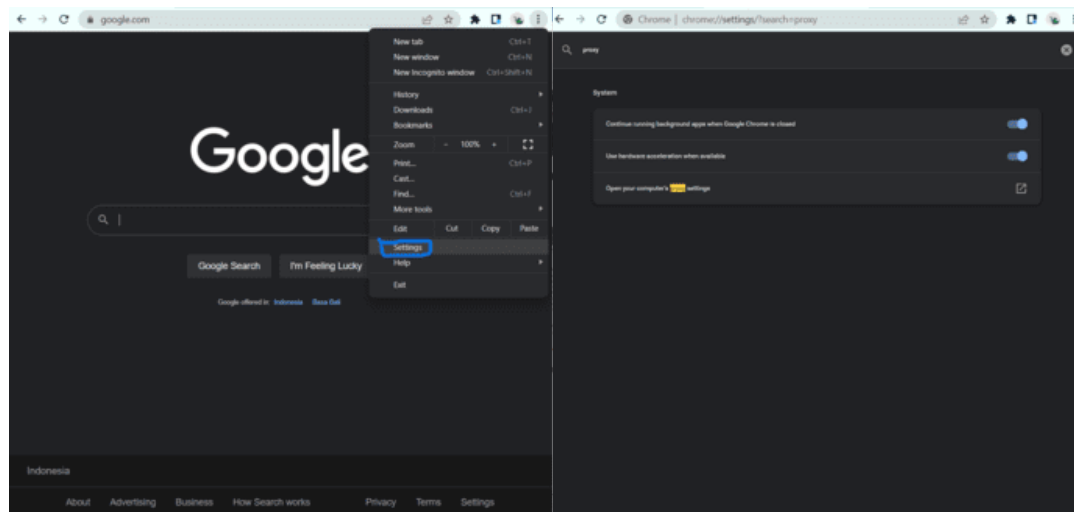
Description: In the second, if squid has been downloaded then check the ip with the "ifconfig" command, if you have searched for the inet for example "192.168.89.21", then copy the inet.

PROXY SERVER

System Process:



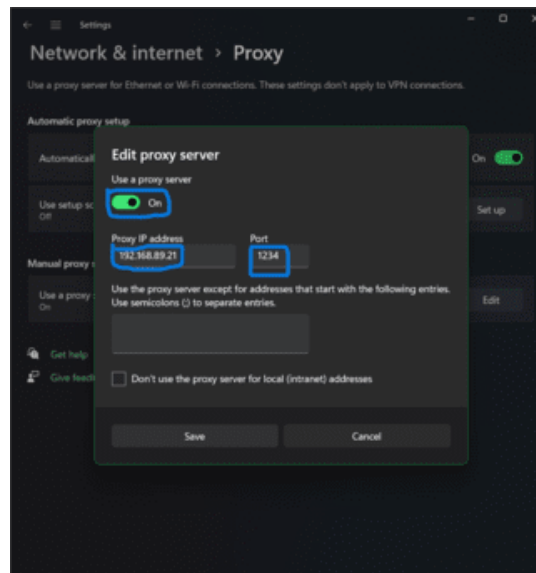
Description: Here we will block Spotify and Tokopedia as an example, above is an image of the web that has not been blocked.



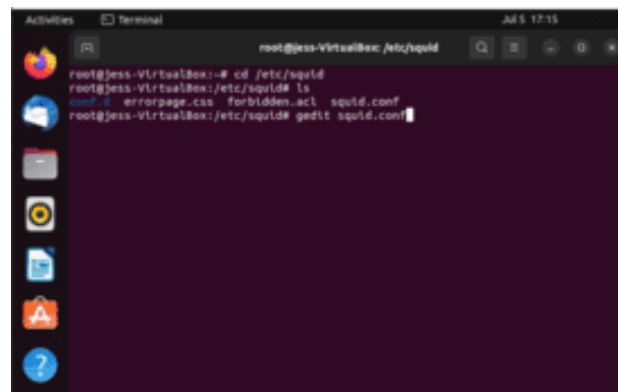
Description: Third, open the application menu on Chrome, select "Settings", and search "Proxy"

PROXY SERVER

System Process:



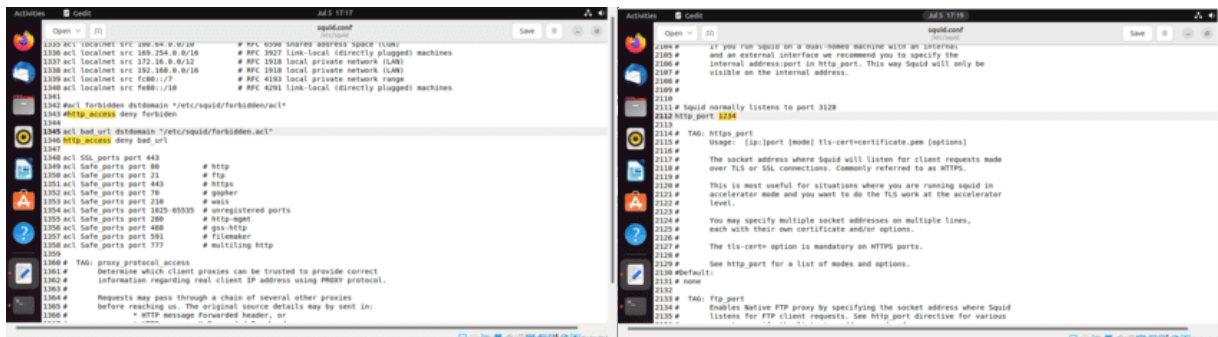
Description: In the settings select the "Manual proxy configuration" option, paste the copied inet, then fill in the port "1234" and if everything is done, press "Save".



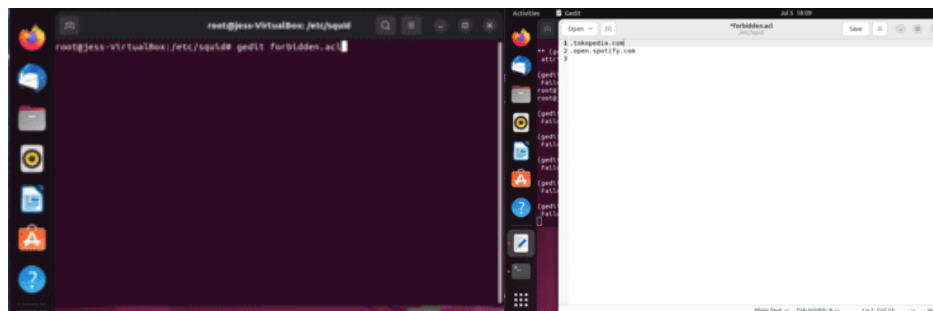
Description: After that go back to the terminal, to check the directory with the command "cd /etc/squid", then type the command "gedit squid.conf" to edit the file.

PROXY SERVER

System Process:



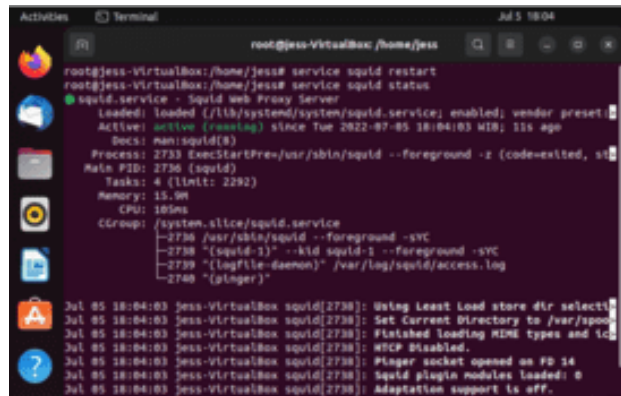
Description: After logging in, search for "http_port" if you find it, and we change the port from 3128 to 1234, then we create new command and type below it with "/etc/squid/forbidden.acl". don't forget to save it



Description: After that go back to the terminal, then type the command "gedit forbidden.acl" to edit the file we create before. And type the command .tokopedia.com and .open.spotify.com for deny access internet. Save it and close

PROXY SERVER

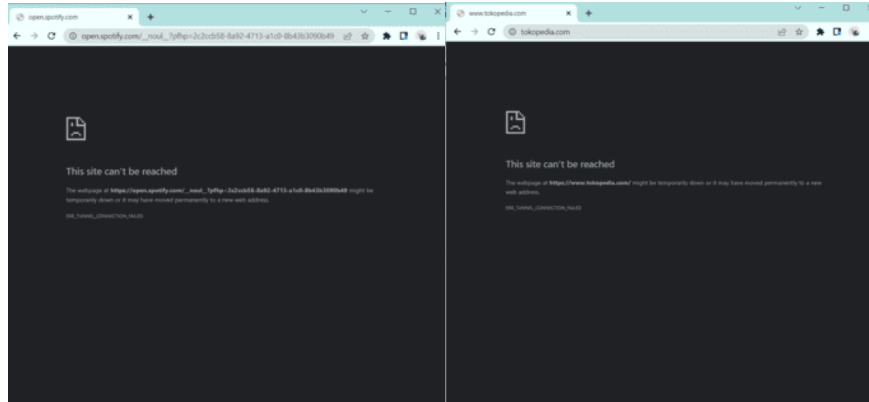
System Process:



```
root@jess-VirtualBox: /home/jess# service squid restart
root@jess-VirtualBox: /home/jess# service squid status
● squid.service - Squid web Proxy Server
   Loaded: loaded (/lib/systemd/system/squid.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2022-07-05 18:04:03 WIB; 11s ago
     Docs: man:squid(8)
   Process: 2733 ExecStartPre=/usr/sbin/squid --foreground -z {code=exited, status=0/SUCCESS}
   Main PID: 2736 (squid)
    Tasks: 4 (limit: 2292)
   Memory: 15.9M
      CPU: 16ms
   CGroup: /system.slice/squid.service
           └─2736 /usr/sbin/squid --foreground -syc
             └─2738 "squid-1" --kid squid-1 --foreground -syc
               └─2739 "[logfile-daemon]" /var/log/squid/access.log
                 └─2740 "[pinger]"

Jul 05 18:04:03 jess-VirtualBox squid[2738]: Using Least Load store dir selectio
Jul 05 18:04:03 jess-VirtualBox squid[2738]: Set Current Directory to /var/spo
Jul 05 18:04:03 jess-VirtualBox squid[2738]: Finished loading MIME types and ic
Jul 05 18:04:03 jess-VirtualBox squid[2738]: HTTP disabled.
Jul 05 18:04:03 jess-VirtualBox squid[2738]: Pinger socket opened on FD 14
Jul 05 18:04:03 jess-VirtualBox squid[2738]: Squid plugin modules loaded: 0
Jul 05 18:04:03 jess-VirtualBox squid[2738]: Adaptation support is off.
```

Description: In the last, restart squid with the command "service squid restart", enter then type the command "service squid status" to see whether it is active (running) or not.



Description: Finally, go back to chrome to enter tokopedia and spotify whether it is blocked or not, above is a web image that has been blocked and below is a web image that is not blocked other than that.

CONFIGURATION

Hardware :

HP Pavilion, Intel(R) Core(TM) i5-10300H CPU @ 2.50GHz, Windows 10, RAM 8,00 GB

Operating System :

Ubuntu 22.04, Microsoft Windows 10

Software :

Oracle Virtual Box

PROJECT FILE DETAILS

No	File Name	Remarks
1.	PROJEK3PROXY.doc	Word Document Contain Relation
2.	Project Proxy Server.pptx	Power Point Contain Relation
3.		Video Presentation