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ASSIGNMENT 10

↗
Installation

- Update and Upgrade

```
sudo apt update sudo apt-
getupgrade
```

- Install DHCP Package

```
sudo apt install isc-dhcp-server
```

```
yashashree@Ubuntu:~$ sudo apt install isc-dhcp-server
[sudo] password for yashashree:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  isc-dhcp-server-ldap policycoreutils
The following NEW packages will be installed:
  isc-dhcp-server
0 upgraded, 1 newly installed, 0 to remove and 13 not upgraded.
Need to get 0 B/456 kB of archives.
After this operation, 1,219 kB of additional disk space will be used.
Preconfiguring packages ...
Selecting previously unselected package isc-dhcp-server.
(Reading database ... 208456 files and directories currently installed.)
Preparing to unpack .../isc-dhcp-server_4.4.1-2.3ubuntu2.4_amd64.deb ...
Unpacking isc-dhcp-server (4.4.1-2.3ubuntu2.4) ...
Setting up isc-dhcp-server (4.4.1-2.3ubuntu2.4) ...
Processing triggers for man-db (2.10.2-1) ...
```

* Make a copy of original before making changes

```
yashashree@Ubuntu:~$ cd /etc/dhcp/
yashashree@Ubuntu:/etc/dhcp$ ls
ddns-keys   dhclient.conf         dhclient-exit-hooks.d  dhcpd.conf
debug       dhclient-enter-hooks.d  dhcpd6.conf
yashashree@Ubuntu:/etc/dhcp$ ls -l
total 28
drwxr-x--- 2 root dhcpd 4096 Nov 27 23:55 ddns-keys
-rw-r--r-- 1 root root  1426 Aug  9  2021 debug
-rw-r--r-- 1 root root  1735 Aug  9  2021 dhclient.conf
drwxr-xr-x 2 root root  4096 Nov 29 01:34 dhclient-enter-hooks.d
drwxr-xr-x 2 root root  4096 Nov 29 01:34 dhclient-exit-hooks.d
-rw-r--r-- 1 root root  3331 Feb  1  2023 dhcpd6.conf
-rw-r--r-- 1 root root  3907 Nov 27 23:59 dhcpd.conf
yashashree@Ubuntu:/etc/dhcp$ sudo cp dhcp.conf dhcp.conf.backup
cp: cannot stat 'dhcp.conf': No such file or directory
yashashree@Ubuntu:/etc/dhcp$ sudo cp dhcpd.conf dhcpd.conf.backup
yashashree@Ubuntu:/etc/dhcp$ 
```

* Start DHCP Server Open

* dhcp.conf Make Changes

*
    ◦ INTERFACESv4="interface_name"

- Uncomment the following line by removing the # symbol before it.

  authoritative;

- add the following lines

    default-lease-time 600;

    max-lease-time 7200; #

    subnet

    subnet 192.168.9.0 netmask 255.255.255.0 {

    # range of subnet

    range 192.168.9.5 192.168.9.15;

    # gateway address

    option routers192.168.9.1; # DNS

    server address

    option domain-name-servers 8.8.8.8, 8.8.4.4;

    }

```
  GNU nano 6.2                                                    dhcpd.conf
default-lease-time 600;
max-lease-time 7200;
# subnet
subnet 192.168.9.0 netmask 255.255.255.0 {
# range of subnet
range 192.168.9.5 192.168.9.15;
# gateway address
option routers 192.168.9.1;
# DNS server address
option domain-name-servers 8.8.8.8, 8.8.4.4;
}

# The ddns-updates-style parameter controls whether or not the server will
# attempt to do a DNS update when a lease is confirmed. We default to the
# behavior of the version 2 packages ('none', since DHCP v2 didn't
# have support for DDNS.)
ddns-update-style none;

# If this DHCP server is the official DHCP server for the local
# network, the authoritative directive should be uncommented.
authoritative;

# Use this to send dhcp log messages to a different log file (you also
# have to hack syslog.conf to complete the redirection).
#log-facility local7;

# No service will be given on this subnet, but declaring it helps the
# DHCP server to understand the network topology.
```

Status of the Server

-

```
yashashree@Ubuntu:/etc/dhcp$ sudo systemctl status isc-dhcp-server.service
× isc-dhcp-server.service - ISC DHCP IPv4 server
     Loaded: loaded (/lib/systemd/system/isc-dhcp-server.service; enabled; vendor preset: enabled)
     Active: failed (Result: exit-code) since Wed 2023-11-29 02:05:16 IST; 5min ago
       Docs: man:dhcpd(8)
    Process: 25321 ExecStart=/bin/sh -ec      CONFIG_FILE=/etc/dhcp/dhcpd.conf;      if [ -f /etc/ltsp/dhcpd.conf ]; then CONFIG_FILE=/etc/ltsp/dhcpd.co>
   Main PID: 25321 (code=exited, status=1/FAILURE)
        CPU: 78ms

Nov 29 02:05:16 Ubuntu dhcpd[25321]:
Nov 29 02:05:16 Ubuntu dhcpd[25321]: If you think you have received this message due to a bug rather
Nov 29 02:05:16 Ubuntu dhcpd[25321]: than a configuration issue please read the section on submitting
Nov 29 02:05:16 Ubuntu dhcpd[25321]: bugs on either our web page at www.isc.org or in the README file
Nov 29 02:05:16 Ubuntu dhcpd[25321]: before submitting a bug.  These pages explain the proper
Nov 29 02:05:16 Ubuntu dhcpd[25321]: process and the information we find helpful for debugging.
Nov 29 02:05:16 Ubuntu dhcpd[25321]:
Nov 29 02:05:16 Ubuntu dhcpd[25321]: exiting.
Nov 29 02:05:16 Ubuntu systemd[1]: isc-dhcp-server.service: Main process exited, code=exited, status=1/FAILURE
Nov 29 02:05:16 Ubuntu systemd[1]: isc-dhcp-server.service: Failed with result 'exit-code'.
lines 1-18/18 (END)
yashashree@Ubuntu:/etc/dhcp$
```