

Basic Command:

=====

S.N Command-----explained

1. whoami-----which user
2. passwd-----user password change
3. date-----date & time
4. date + %x-----date
5. date + %r-----time
6. sudo su -root user/super user
7. hostname (name)---hostname change

Navigating path:

=====

1. pwd -----full path name
2. cd -----change directory
3. touch----create file
4. hostnamectl set-hostname ...--permanent hostname change

Managing File using Command line:

=====

1. mkdir- folder create
2. mkdir -p tesis/dsf -----create subfolder

Move & Remove Command:

=====

1. mv- Move Command
2. rm- Remove file Command
3. rmdir- Remove folder
4. mv 1.txt /home/khair/Desktop/Denmark/- Move txt file

Matching File Names Using Path Name Expansion:

=====

1. mkdir adnan ; cd adnan--directory create & enter directory same time
2. ls a*-- list file name only file start with a

man Command:

=====

Any command user manul details view

User and Group Create:

=====

groupadd name- groupadd IT- create group for user
cat- need to see anything on server
usermod -G IT tamim- make tamim to add in IT group (IT:x:1002:tamim)
usermod -G IT,Accounts tamim- make tamim user add on both group(IT:x:1002:tamim
Accounts:x:1003:tamim)
gpasswd -d tamim Accounts- Remove tamim from accounts group(tamim:x:1001: IT:x:1002:tamim
Accounts:x:1003:)
groupdel Accounts-group delete
groupmod -n ITD IT- IT group name change to ITD

Editing File With Vim in Linux:

=====

vim test1-create and edit
shift i- insert in file to write
Esc-exit from editing file
:wq-save and quit

vim test2-create and edit
shift i- insert in file to write
Hello
How are you?
Esc-exit from editing file
left arrow to select text
press c to copy file
press p to paste file
:wq-save and quit

Linux Permission:

=====

useradd adnan passwd adnan (pass)-create user and pass
groupadd callcenter-create group
usermod -G callcenter adnan-add adnan in callcenter group
ls -l exam-exam file permission view
-rw-r--r-- 1 root root 19 Jul 13 14:20 exam--user rw group-r others-r

Activities Firefox Web Browser Jul 13 2:36 PM

WhatsApp Mail - Khair Mahm... Work Task - Planne... Inbox - khair.adnan... MNBL MRTG Index (4) Linux File Perm... PLAYING

https://www.youtube.com/watch?v=Obf9AVq9bzA&list=PLYTRAVMliobhW2-sJbg9EhmtJ57IkxAhI&in...

YouTube BD bd server solutions

File Type

Permissions

File size

Last Modify Time

File name

rw-r-x-r-x

1

walbert support

0

Oct 31 11:06

test

4:37 / 17:13

#bdserversolutions

Linux File Permission || Lecture -13 | Bangla

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12 Lecture 12 Linux Permission 6:35

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14 Lecture 14 How to Kill Linux Process 2:32

15 Lecture 15 Network

Live Workshop

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-

rwX

r--

r--

"-" indicates a file
"d" indicates directory
"l" indicates a link

Read, write, and execute permissions for the owner of the file

Read, write, and execute permissions for members of the group owning the file

Read, write, and execute permissions for other users

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9 DISLIKE SHARE SAVE ...

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BD - Server Solutions 6:08

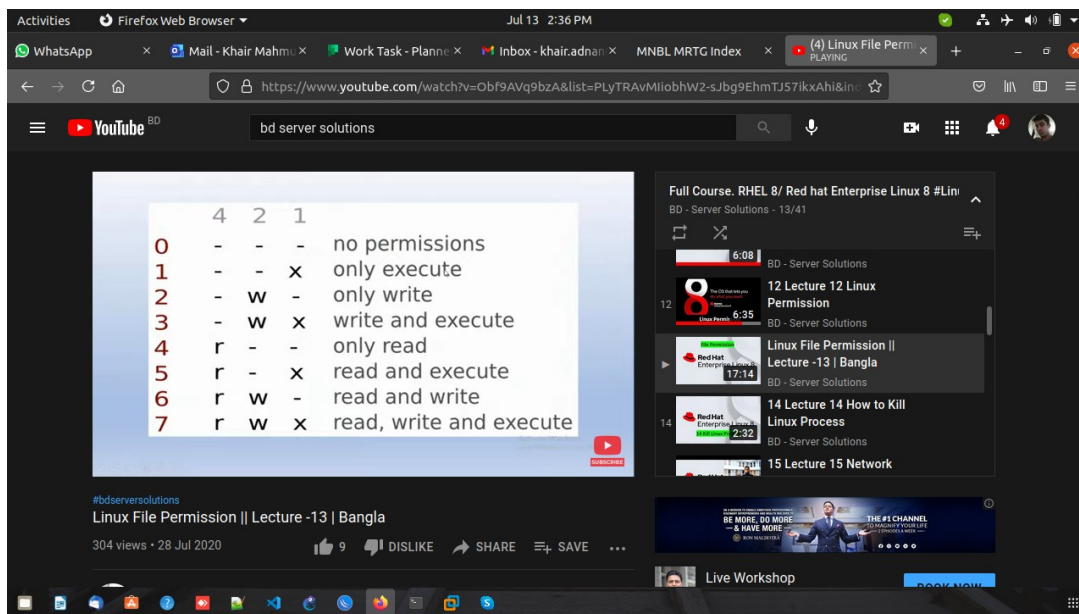
12 Lecture 12 Linux Permission 6:35

Linux File Permission || Lecture -13 | Bangla 17:14

14 Lecture 14 How to Kill Linux Process 2:32

15 Lecture 15 Network

Live Workshop



chown adnan exam--- change ownership of user exam file
 chown :callcenter exam-- change ownership of group exam file
 chmod 470 exam- user 4 r- group 7 -rwx other 0 none
 -r--rwx--- 1 adnan callcenter 19 Jul 13 14:20 exam
 chmod g+w exam- group write permission
 chmod o+r exam- others read permission
 chmod u+w,g+w,o+w exam- user, group & others write permission
 chmod ugo+rwx exam-everyone rwx permission

How to Kill Linux Process:

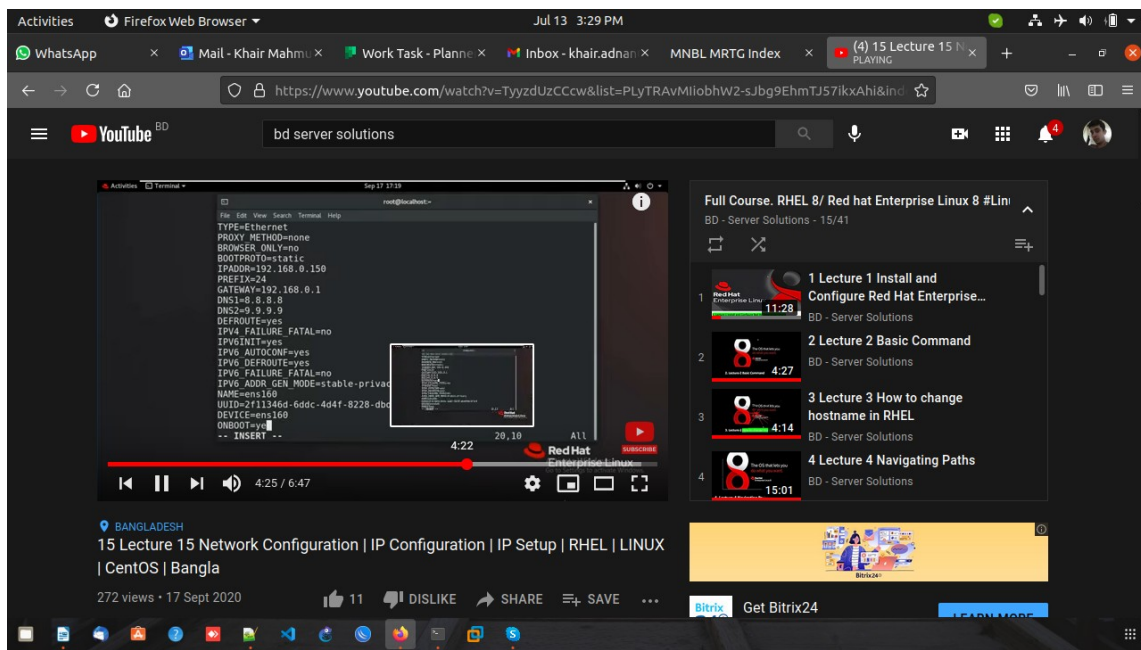
=====

pidof firefox- any apps process id
 27655 21715 21561 21417 21376 21352 21293 21222 21163 21102 21017
 kill 21017-shutdown any process

Network Configuration | IP Configuration | IP Setup:

=====

ip addr show- show interface & IP address
 nmcli con show
 vim /etc/sysconfig/network-scripts/ifcfg-ens160- go to ens160 interface to assign IP address



Esc-exit from editing file
:wq!-save and quit
systemctl restart network

Time Setup | Time Zone Setup:

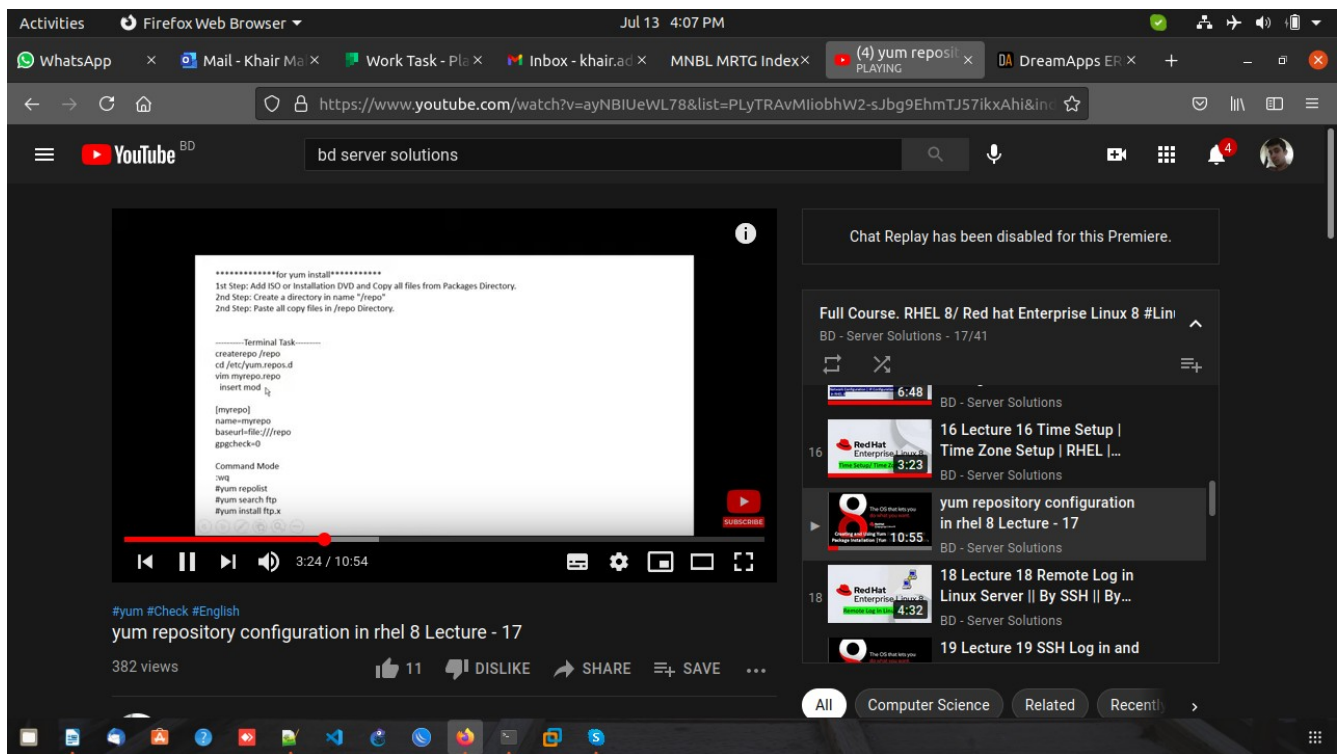
```
timedatectl-show time & date
    Local time: Tue 2021-07-13 15:35:39 +06
    Universal time: Tue 2021-07-13 09:35:39 UTC
    RTC time: Tue 2021-07-13 09:35:38
    Time zone: Asia/Dhaka (+06, +0600)
System clock synchronized: yes
    NTP service: active
    RTC in local TZ: no
```

```
timedatectl set-timezone Asia/Dhaka -set time zone
timedatectl set-ntp true--active ntp service
```

yum repository configuration:

YUM- is a free and open-source command-line package-management utility for computers running the linux operating sysetm using RPM Package Manager.

RPM - Red hat Package Manager is a free and open-source package management system.



Remote Log in Linux Server:

Remote PC to Linux server ping reachability need to done first.

After that, using putty we can access server remotely

SSH Log in and Copy file one Linux Server to another Linux Server:

SSH second server IP and login

scp filename root@192.168.x.x:/root/Desktop-secure copy from one server to another

Kickstart Using Kickstart unattended Installation:

Unattended operating system installation & configuration(windows deployment service)

Kickstart

The Red Hat Kickstart installation method is used primarily (but not exclusively) by the Red Hat Enterprise Linux operating system to automatically perform unattended operating system installation and configuration.

#Check IP config is set as a "DHCP" mode.

#Check Network Adapter Type is "Host-Only" mode.

#Ensure Yum is installed on Machine.

#Install "VSFTPD" Package: yum install -y vsftpd

```
#Start VSFTP Service: systemctl start vsftpd.service
#Install Kickstart Package: yum install system-config-kickstart
# yes
#Stop Firewall: service firewalld stop
#Restart PC: reboot
#To Configure Kickstart Settings: system-config-kickstart
#Boot Configuration:
Basic Configuration: Asia/Dhaka,
Give Root Pass 2 time,
Check mark "Reboot System after installation"
Boot Loader Option: install new boot loader
Partition Information: Clear Master boot record, Add Button,
Mount Point: / ,Size: 20000,
Add Button, Mount Point /boot, Size: 500,
Add Button, /Swap , Size: 1
#Save the file to /var/ftp/pub, file name ks.cfg
```

-----Now From another Linux-----

Complete create Linux with iso connected , and Host only configuration
 Now Power On Linux
 Press tab key
 Then after type after quietks=ftp://ip of Kickstart server/pub/ks.cfg

Schedule Job | Scheduling Future Task:

=====

The screenshot shows a YouTube video player interface. The video is titled "21 Lecture 21 Schedule Job | Scheduling Future Task Linux | Bangla |" and is from the channel "BD - Server Solutions". The video content displays a diagram of the cron command syntax: "# * * * * * command to execute", with labels for each field: "*" for day of week (0 - 7), "*" for month (1 - 12), "*" for day of month (1 - 31), "*" for hour (0 - 23), and "*" for min (0 - 59). The video has 256 views and was uploaded on 1 Oct 2020. The right sidebar shows a list of related videos, including "20 Lecture 20 Kickstart using Kickstart unattended...", "21 Lecture 21 Schedule Job | Scheduling Future Task Linux...", "22 Lecture 22 ACL in Linux RHEL", and "23 Lecture 23 SELinux || RHEL || Linux".

crontab -l -schedule job

crontab -r -schedule job remove

crontab -e---installing schedule job

ACL in Linux RHEL:

=====

setfacl & getfacl are used for setting up ACL

getfacl test

file: test

owner: khair

group: khair

user::rwx

group::rwx

other::r-x

setfacl -m u:adnan:rx test---acl set for test user adnan-ownershipchange

getfacl test

file: test

owner: khair

group: khair

user::rwx

user:adnan:r-x

group::rwx

mask::rwx

other::r-x

SELinux:

=====

SELinux has three modes:

-Enforcing

-Permissive

-Disabled

getenforce-check selinux modes

Disabled

sestatus

SELinux status: disabled

setenforce-mode select

setenforce 0 -enforcing mode

getenforce-check

semodule -l | less --show all file

getsebool all-show all service

getsebool httpd_enable_homedirs-show its state like off/on

setsebool httpd_enable_homedirs on- turn it on

Normal Partition Create in RHEL:

=====

fdisk -l --partition show command

fdisk /dev/sda

m-for help

n-for new partition

partprobe /dev/sda

partprobe /dev/sda7

NIC Teaming or Network load balance:

=====

NIC teaming

nmcli connection add type team con-name team0 ifname team0 config '{"runner":{"name":
"loadbalance"}}'

nmcli con mod team0 ipv4.addresses 10.10.10.20/8

nmcli con mod team0 ipv4.method manual

nmcli con add type team-slave con-name eno33554992 ifname eno33554992 master team0

nmcli con add type team-slave con-name eno16777736 ifname eno16777736 master team0

nmcli con up team0

nmcli dev dis eno33554992

teamctl team0 state

DNS Server Configure:

=====

```
#yum install -y bind*
#vim /etc/named.conf
```

```
options{
# 127.0.0.1
# ::1
allow-query {192.168.1.1/24; };
```

```
zone "student.com" IN {
type master;
file "forward.zone";
};
zone "1.168.192.in-addr.arpa" IN {
type master;
file "reverse.zone";
};
```

```
:wq
```

```
#cd /var/named/
#ls
#cp -rf named.localhost forward.zone
#cp -rf named.loopback reverse.zone
#vim forward.zone
```

```
$TTL 1D
@      IN SOA  student.com. root.student.com. (
                                0      ; serial
                                1D     ; refresh
                                1H     ; retry
                                1W     ; expire
                                3H )   ; minimum
      NS   student.com.
student.com. IN A 192.168.1.10
www.student.com. IN A 192.168.1.10
```

```
-----
##vim reverse.zone
$TTL 1D
@      IN SOA  student.com. root.student.com. (
                                0      ; serial
                                1D     ; refresh
```

```
1H    ; retry
1W    ; expire
3H )  ; minimum
NS    student.com.
10 PTR student.com.
10 PTR www.student.com.
```

```
-----
#chown -R named:named /var/named/
#vim /etc/resolv.conf
```

```
search student.com
nameserver 192.168.1.10
```

```
:wq
```

```
#systemctl restart named
#systemctl enable named
#nslookup student.com
#dig student.com
#dig -x 192.168.1.10
#systemctl stop firewalld
```

How to Configure Mail Server:

```
=====
```

```
yum install postfix
vim /etc/postfix/main.cf
```

```
75
83
99
164
264
265
313
```

```
systemctl restart postfix.service
firewall-cmd --permanent --add-service=smtp
firewall-cmd --reload
create user , send mail to him with subject.
mail -v musa@tareq.com
su musa
mail
```

How to Add Firewall rule to allow the port:

=====

1. For check firewalld status # systemctl status firewalld
2. start or stop firewall service # service firewalld stop
3. Add Firewall rule to allow the port 55555/tcp to accept packets

#firewall-cmd --zone=public --add-port=55555/tcp --permanent

How to create MariaDB:

=====

```
# yum install mariadb* -y
# firewall-cmd --permanent --add-port=3306/tcp
# firewall-cmd --reload
# systemctl restart mariadb
# systemctl enable mariadb
# mysql_secure_installation
```

enter

y

Pass

Retype Pass

y

y

y

y

systemctl restart mariadb

mysql -u root -p

(a)show databases;

(b)create database studentlist;

(c)use studentlist;

How to configure Apache Web Server:

=====

```
yum install httpd -y
mkdir /var/www/html/idb
```

=====Name Base Virtual Hosting=====

```
vim /etc/httpd/conf/httpd.conf
```

-----Insert-----end of line-----

VirtualHost 192.168.1.10:80

servername www.idb.com

DocumentRoot /var/www/html/idb
/VirtualHost

:wq

To check insert systext is okay

vim /etc/hosts
192.168.1.10 www.localhost.com
192.168.1.10 www.idb.com

firewall-cmd --permanent --add-service=http
firewall-cmd --reload

cd /var/www/html/idb
vim index.html

systemctl restart httpd.service
systemctl start httpd.service
systemctl enable httpd.service
setenforce 0

Open brower & type www.idb.com
or 192.168.1.10

How run Bash Scripts on:

=====

----To print 1 2 3 4-----
for i in 1 2 3 4
do
echo \$i
done

-----1 line command to print 1 2 3 4----
for i in 1 2 3 4 5 6 7 8; do echo \$i; done

-----TO print 1 to 100-----
for i in {1..100}; do echo \$i; done

-----To print 0 to 200 sequential print (`: backtrik)-----
for i in `seq 0 2 200`; do echo \$i; done