

Smarten

Implementation & Troubleshooting

User Manual

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1. Smarten Installation Manual (Linux)

1.1 Prerequisites and Compatibility

1.1.1 Require files and folder

- smarten.war / smarten.war.zip
- wildfly / wildfly.zip
- data folder / smartendata.zip
- oracle jdk 8 (java-8)

1.1.2 Prerequisites

- install oracle jdk8
- create system environment variable JAVA_HOME

1.2 Deploying Smarten on Application Servers

1.2.1 Install and set JAVA_HOME in Linux

- **For Centos, Fedora, Redhat, Arch Linux**

Download RPM file using below mention Dropbox link.

<https://www.dropbox.com/s/mdl2zmapag3phvo/jdk-8u161-linux-x64.rpm?dl=0>

install jdk rpm with root or sudo privileges

sudo rpm -Uvh jdk-8u161-linux-x64.rpm

check you java home path using below mention command

update-alternatives --config java

JAVA_HOME

- **For Ubuntu and Debain**

Download tar.gz file using below mention Dropbox link.

<https://www.dropbox.com/s/rsz3fg8nlew1mcc/jdk-8u211-linux-x64.tar.gz?dl=0>

sudo su

mkdir /opt/jdk

tar -zxf jdk-8u211-linux-x64.tar.gz -C /opt/jdk

update-alternatives --install /usr/bin/java java /opt/jdk/jdk1.8.211/bin/java 10

update-alternatives --install /usr/bin/javac javac /opt/jdk/jdk1.8.211/bin/javac 100

update-alternatives --display java

update-alternatives --display javac

The output should look like this:

java - auto mode

link currently points to /opt/jdk/jdk1.8.0_211/bin/java

/opt/jdk/jdk1.8.0_05/bin/java - priority 100

Current 'best' version is '/opt/jdk/jdk1.8.0_05/bin/java'.

```
javac - auto mode  
link currently points to /opt/jdk/jdk1.8.0_211/bin/javac  
/opt/jdk/jdk1.8.0_05/bin/javac - priority 100  
Current 'best' version is '/opt/jdk/jdk1.8.211/bin/javac'.
```

Note:

Note down java path ([/opt/jdk/jdk1.8.0_211](#)) in any txt format for use in installing Wildfly as a services.

1.2.2 Step to install Smarten

- Download all zip file(data,wildfly,.war)
- unzip all file
- create directory name is smarten
mkdir smarten
- extract wildfly.zip in smarten folder
- extract smartndata.zip in smarten folder
- extract smarten.war.zip in smarten/wildfly/standalone/deployments/
- create empty file smarten.war.dodeploy in deployments folder using below mention path and command
cd smarten/wildfly/standalone/deployments/
touch smarten.war.dodeploy

1.2.3 Step to configure Smarten

1.2.3.1 Change memory setting

Open file standalone.conf from path shown below and make changes.

```
# vi smarten/wildfly/bin/standalone.conf
```

This will allow you to modify java VM size parameters (-Xms and -Xmx) (where Xms is minimum heap size, Xmx is maximum heap size)

For example, to allow 10GB of heap memory,

```
JAVA_OPTS="-Xms10G -Xmx10G"
```

1.2.3.2 Change HTTP port(default 8080)

Use this setting to modify Wildfly HTTP port value (by default port 8080). If another program running on your server users port 8080, Wildfly cannot use port 8080. In such cases, change this setting to allocate some other port number to wildfly.

Open file standalone.xml from path shown below and make changes.

```
# vi smarten/wildfly/standalone/configuration/standalone.xml
```

```
<socket-binding-group name="standard-sockets" default-interface="public" port-offset="${jboss.socket.binding.port-offset:0}">
```

```
<socket-binding name="http" port="${jboss.http.port:80}"/>
</socket-binding-group>
```

1.2.3.3 Permission on Wildfly application

Using below mention command give permission to Smarten application

```
# chmod -R 775 smarten(dir name)
```

- Configure Smarten URL for JPG/PNG/PDF export functionality
Open file dbconf.properties from path show below

```
# vi smarten/wildfly/standalone/deployments/smarten.war/conf/dbconf.properties
```

Make appropriate changes in below URL parameter as per Smarten URL:

```
system.contextURL=http://localhost/smarten
```

1.2.3.4 Set SmartenData folder path

Create system.properties file using below mention path and add data folder location.

```
# vi smarten/wildfly/standalone/deployments/smarten.war/conf/system.properties
```

Add your data folder path:

```
APPLICATION_PATH=/root/smarten/data  
and save file with wq!
```

1.2.3.5 Start Application Server form command prompt

To start Wildfly As on Linux run standalone.sh file from shell prompt

```
# cd smarten/wildfly/bin
# sh standalone.sh
```

1.2.3.6 Running Application Server as a system service, for Centos/Fedora/Redhat

```
* cp smarten/wildfly/docs/contrib/scripts/init.d/wildfly.conf
/etc/default/wildfly.conf

* cp smarten/wildfly/docs/contrib/scripts/init.d/wildfly-init.redhat.sh
/etc/init.d/wildfly
```

1.2.3.6.1 Edit the Wildfly.conf and uncomment following parameters

```
# vi /etc/default/wildfly.conf
```

```
JAVA_HOME="/usr/lib/jvm/java-8-oracle"(The default path of jdk installed in your system)
```

```
JBOSS_HOME="/home/smarten/wildfly" (Location of Wildfly folder)
```

```
JBOSS_USER=root (Change user from wildfly to user having rights on wildfly folder)
```

```
JBOSS_MODE=standalone
```

JBOSS_CONFIG=standalone.xml

1.2.3.6.2 Edit Wildfly init service and add following parameters

```
# vi /etc/init.d/wildfly

if [ -z "$JBOSS_HOME" ]; then
    JBOSS_HOME="/home/mg/smarten/$NAME"(Set your wildfly home)

fi
if [ -z "$JBOSS_USER" ]; then
    JBOSS_USER=root (Set root user)
fi
```

1.2.3.6.3 Given root owner rights and permission on init services

```
# chown -r root:root /etc/init.d/wildfly
# chmod +x /etc/init.d/wildfly
# chkconfig wildfly on
# /etc/init.d/wildfly start
```

1.2.3.6.4 For Ubuntu, Debian

```
* cp smarten/wildfly/docs/contrib/scripts/init.d/wildfly.conf
/etc/default/wildfly.conf

* cp smarten/wildfly/docs/contrib/scripts/init.d/wildfly-init.debian.sh
/etc/init.d/wildfly
```

1.2.3.6.5 Edit the wildfly.conf and uncomment following parameters

```
# vi /etc/default/wildfly.conf

JAVA_HOME="/usr/lib/jvm/java-8-oracle"(The default path of jdk installed in your system)
JBOSS_HOME="/home/smarten/wildfly" (Location of Wildfly folder)
JBOSS_USER=root (Change user from wildfly to user having rights on wildfly folder)
JBOSS_MODE=standalone
JBOSS_CONFIG=standalone.xml
```

1.2.3.6.6 Edit Wildfly init service and add following parameters

```
# vi /etc/init.d/wildfly

if [ -z "$JBOSS_HOME" ]; then
    JBOSS_HOME="/home/smarten/$NAME"(Set your wildfly home)

fi
if [ -z "$JBOSS_USER" ]; then
    JBOSS_USER=root (Set root user)
fi
```

1.2.3.6.7 Given root owner rights and permission on init services

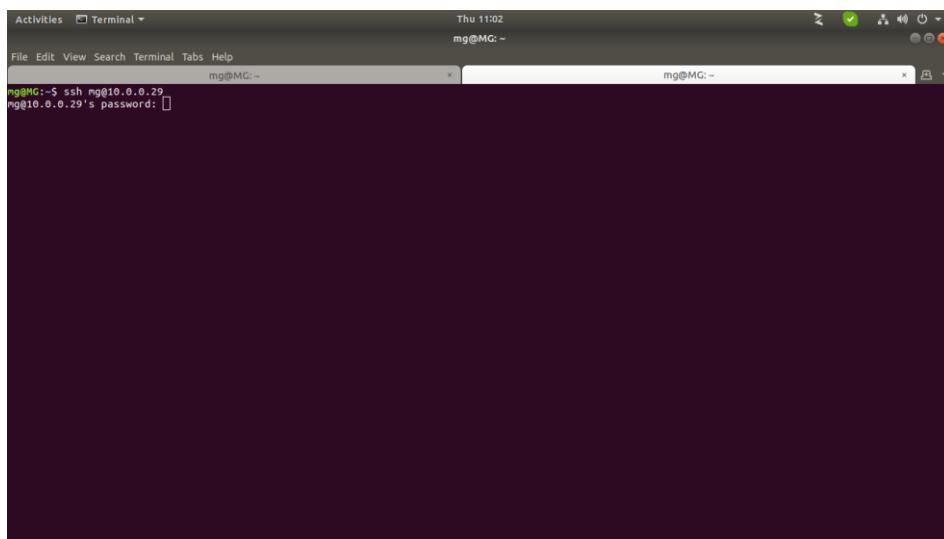
```
# chown -r root:root /etc/init.d/wildfly  
# chmod +x /etc/init.d/wildfly  
# update-rc.d wildfly default  
# systemctl enable wildfly  
# systemctl start wildfly
```

2. Linux Command Reference

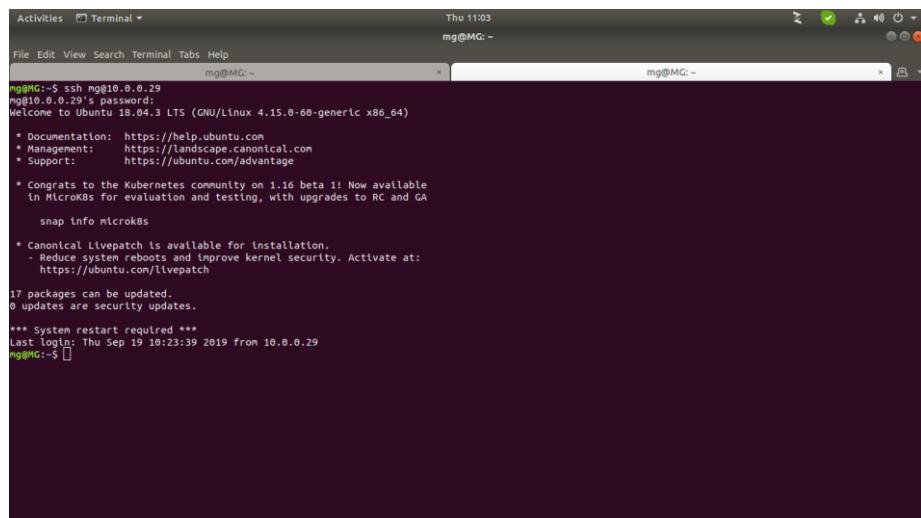
2.1 SSH

SSH command used to take any linux system on remote. There is different way to take ssh connection. From Linux open terminal and following step.

```
# ssh mg(user)@10.0.0.29(remote-ip)
```



After that there is password prompt enter the user's password and press enter.



(AWS LINUX instance ssh remote connection from linux)

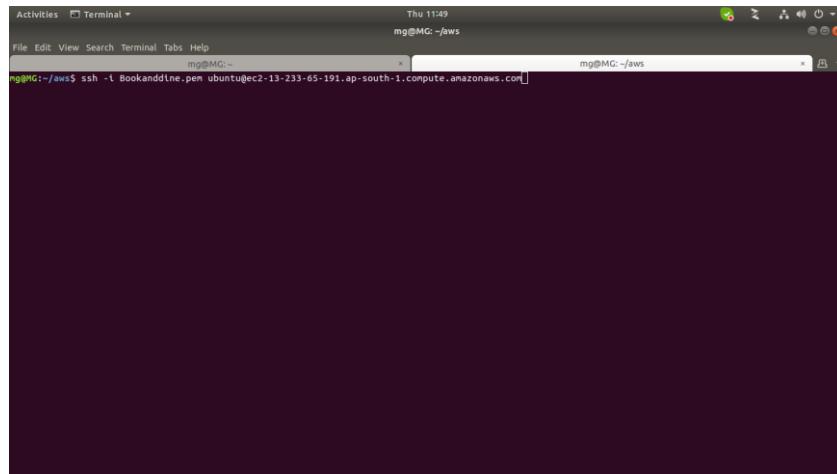
When we need aws linux machine on remote ssh, following ssh command to take aws linux on ssh.
Open terminal and following command.

Note:

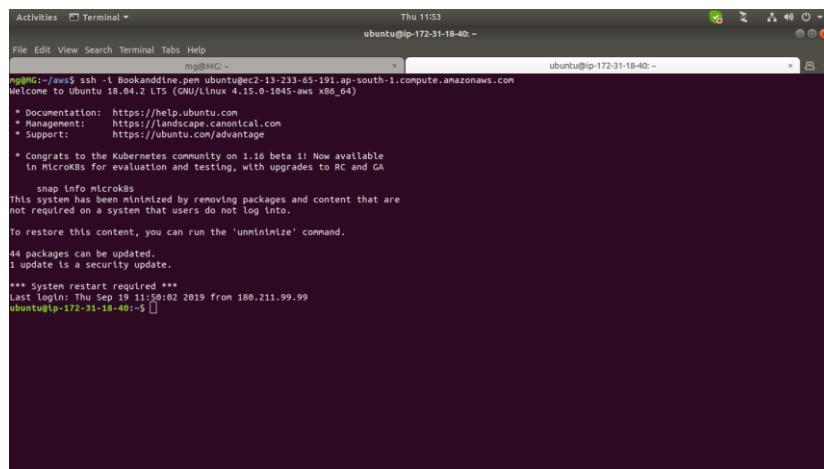
AWS linux instance require .pem key file to connect aws linux instance. So first get or download AWS linux instance .pem key file and put in any linux dir.

```
# cd /home/mg/aws/ >> going to .pem file dir
```

```
# ssh -i Bookanddine.pem(key file) ubuntu(user)@ec2-13-233-65-191.ap-south-1.compute.amazonaws.com(remote-ip or DNS) press enter.
```

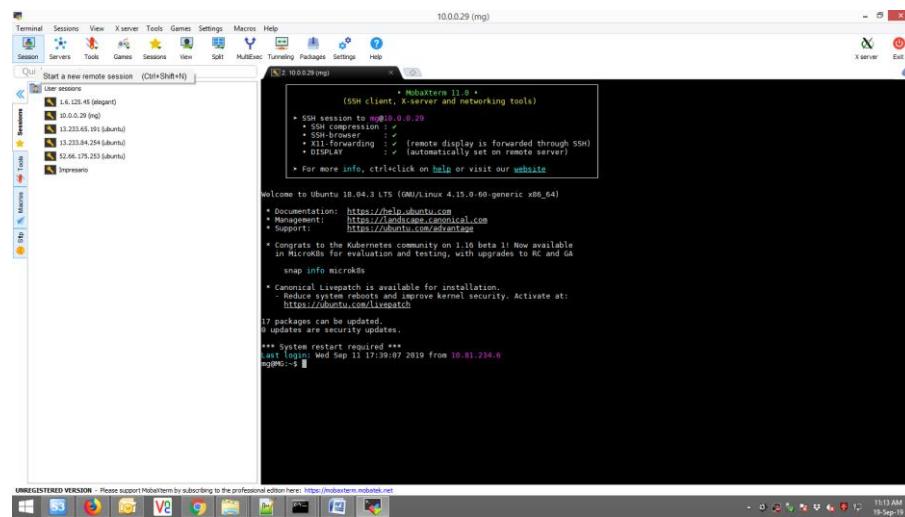


After that you get Aws linux instance on ssh.

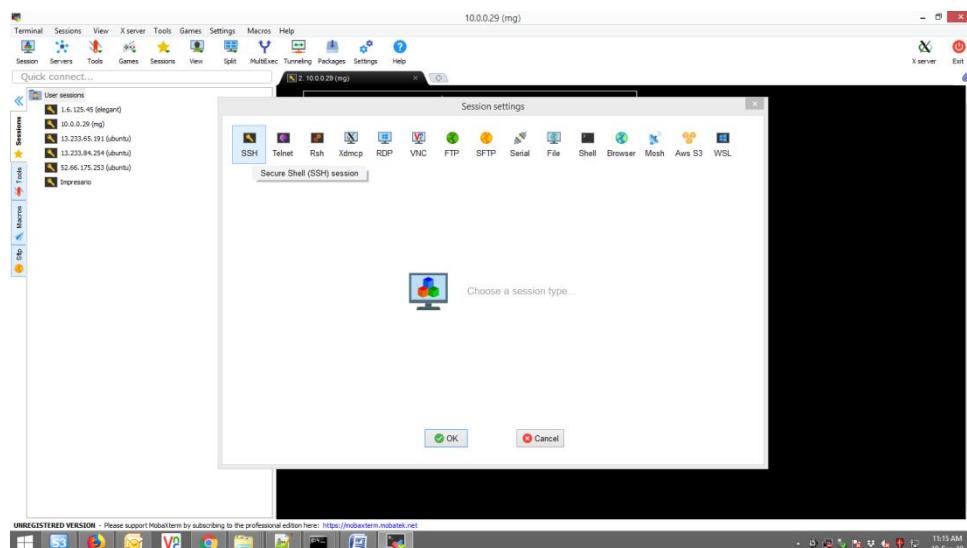


From windows there is many utility like bitwise, mobaxterm. Here is saw you mobaxterm example.

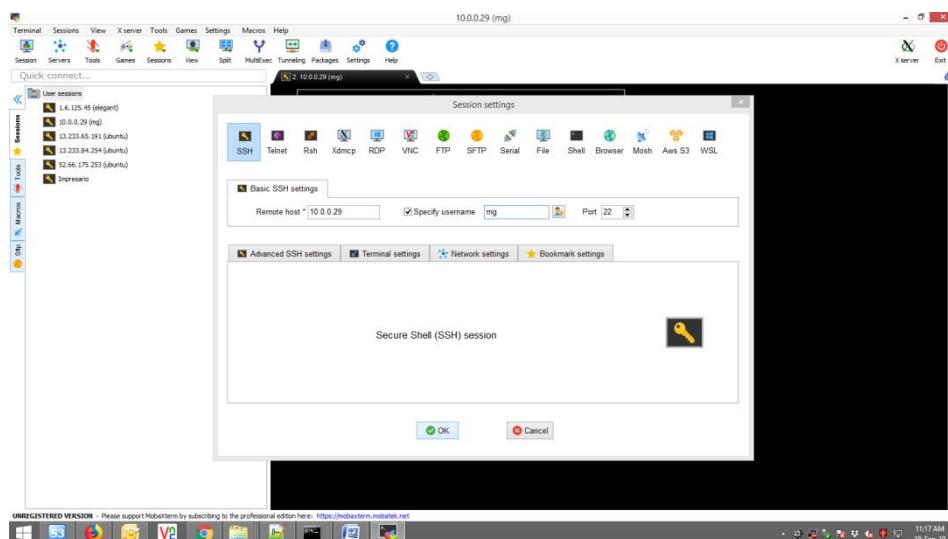
Install mobaxterm tool and open.



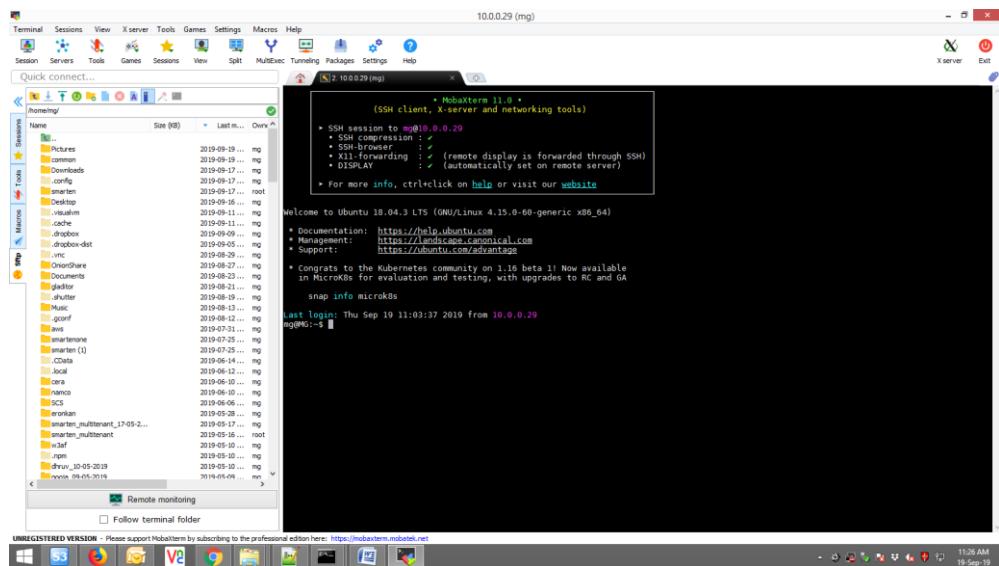
After that click on session tab in left side upper panel and click on ssh tab.



After that add remote host IP and check mark specify username and enter the remote username and click ok.



Your ssh connection now add in session panel double click on that and enter remote user's password. You get linux remote ssh.



(AWS LINUX instance ssh remote connection from windows using Mobaxterm)

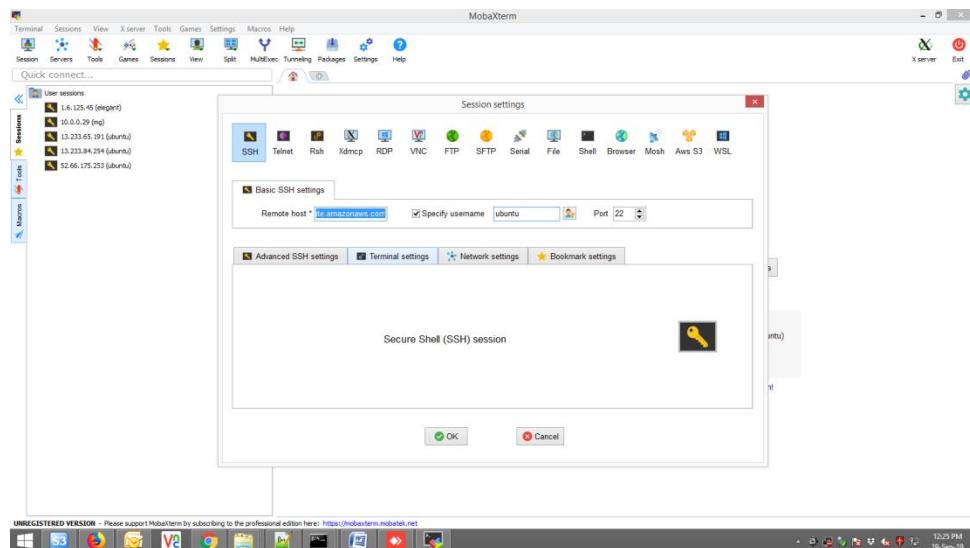
Note:

AWS linux instance require .pem key file to connect aws linux instance. So first get or download AWS linux instance .pem key file and put in any dir.

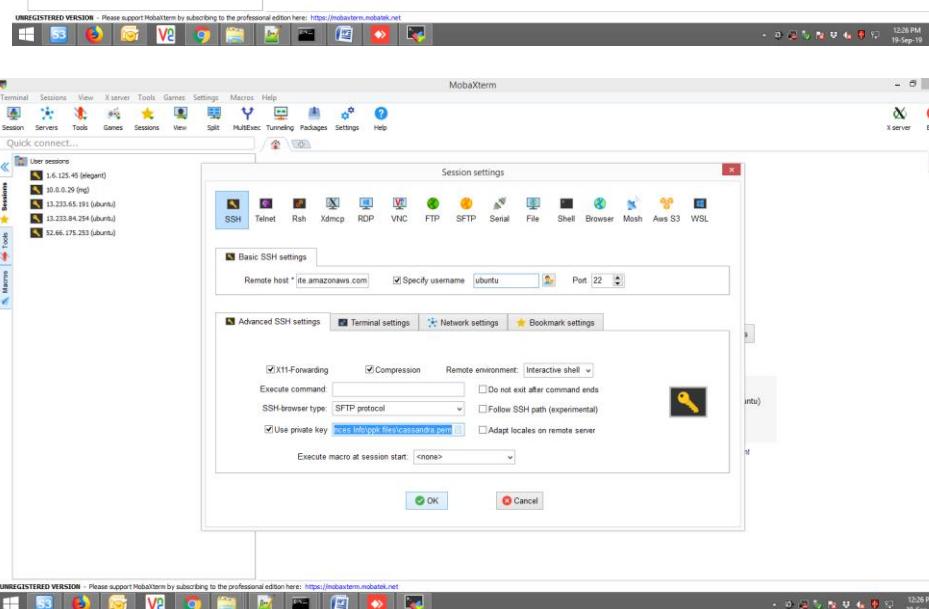
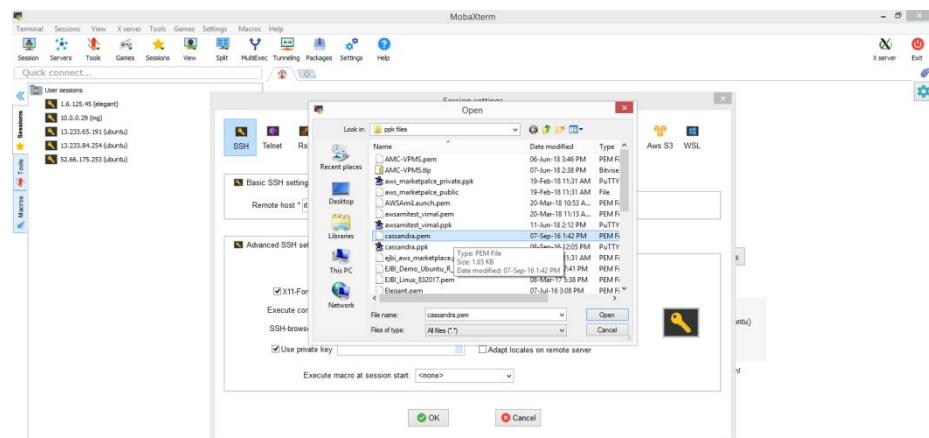
Open Mobaxterm utility and create new ssh terminal session, add remote host IP and check mark specify username and enter the remote username and click ok.

remote host ip(aws instance public dns) : ec2-52-66-175-253.ap-south-1.compute.amazonaws.com

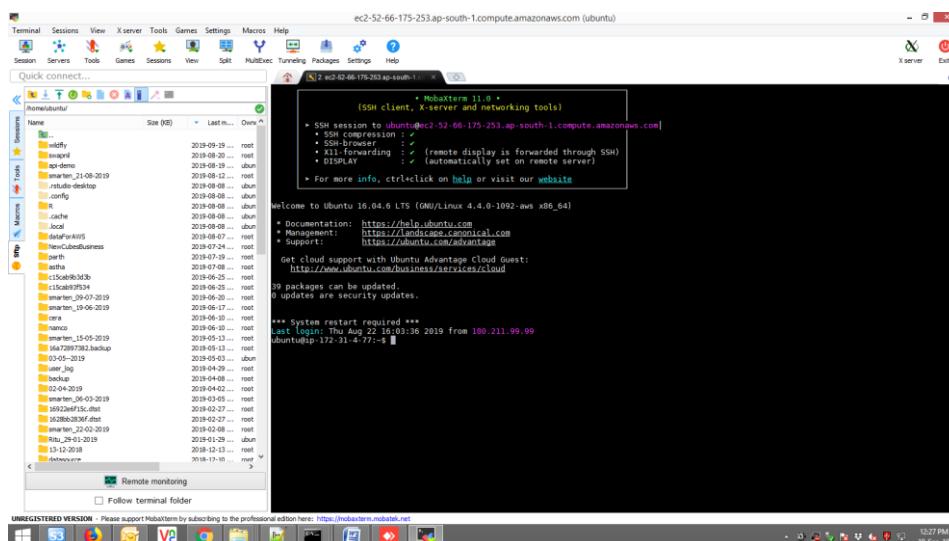
Username: ubuntu(default aws ubuntu linux instance)



After that click on advance setting and check mark Use private key tab and put .pem file location and click ok.



AWS linux instance successfully connected.

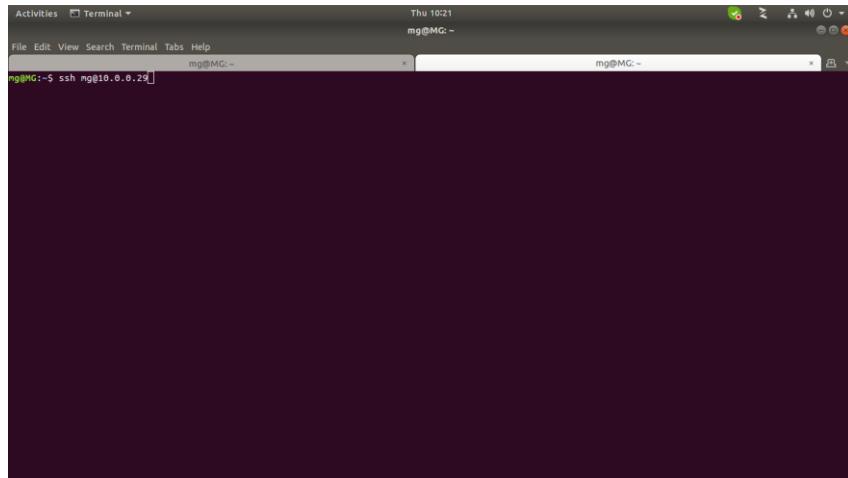


2.2 sudo su

sudo su command used to switch root/Administrator privileges. Any linux system you fire any command using **sudo su**. Generally ssh connect with normal user after login normal user type **sudo su** command then you got root privilege access.

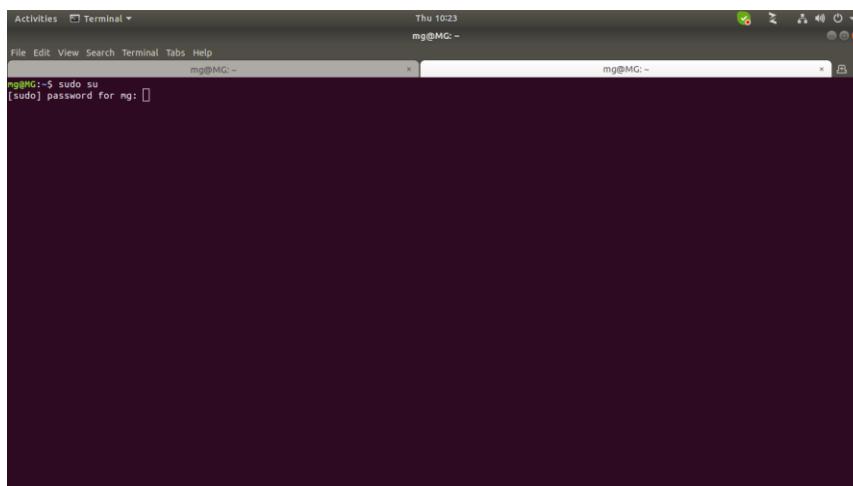
Ex.

```
mg@MG:~$ ssh mg@10.0.0.29
```



```
mg@MG:~$ sudo su
```

type normal user password



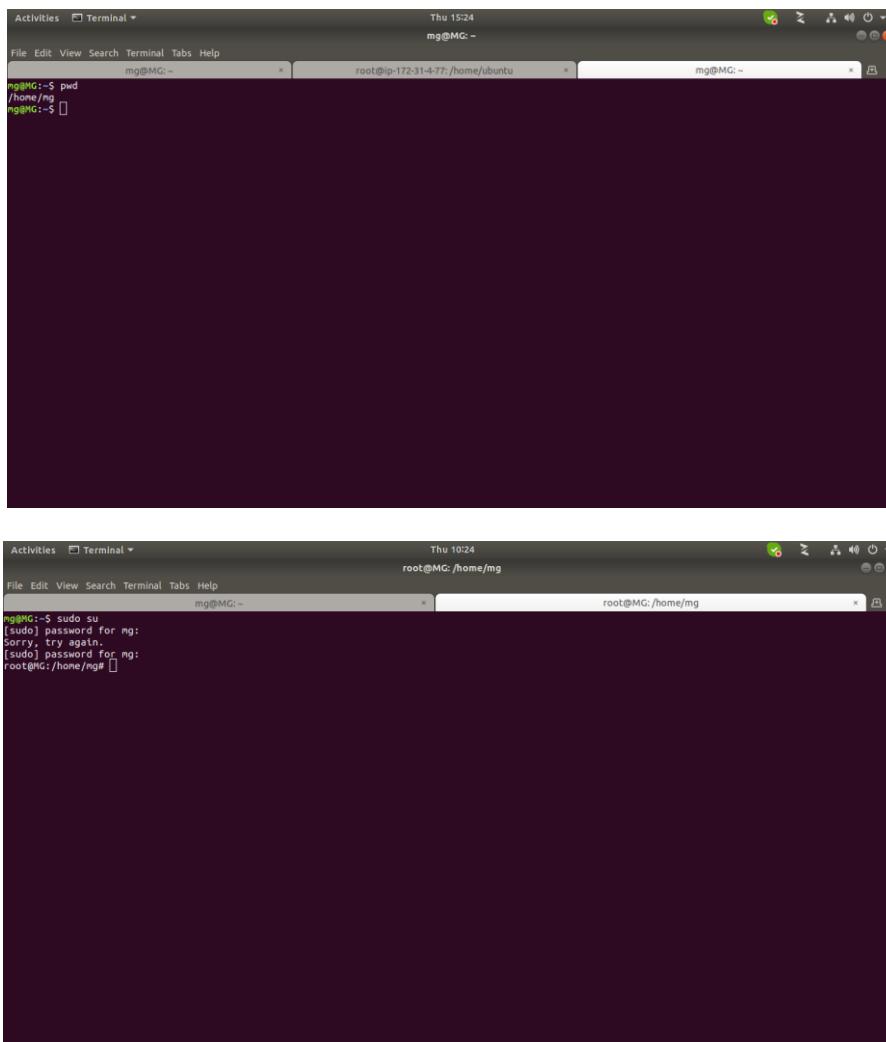
```
root@MG:/home/mg# >> now you login with root privileges.
```

2.3 PWD

PWD command use to check print working directory. It prints the path of the working directory.

```
# mg@MG:~$ pwd
```

pwd command print what is current working dir.



```
mg@MG:~$ pwd
/home/mg
mg@MG:~$ 

Thu 15:24
root@ip-172-31-4-77:/home/ubuntu
mg@MG:~ 

mg@MG:~$ 

Activities Terminal
File Edit View Search Terminal Tabs Help
mg@MG:~ root@ip-172-31-4-77:/home/ubuntu mg@MG:~
```



```
Thu 10:24
root@MG:/home/mg
root@MG:/home/mg

mg@MG:~$ sudo su
[sudo] password for mg:
Sorry, try again.
[sudo] password for mg:
root@MG:/home/mg
```

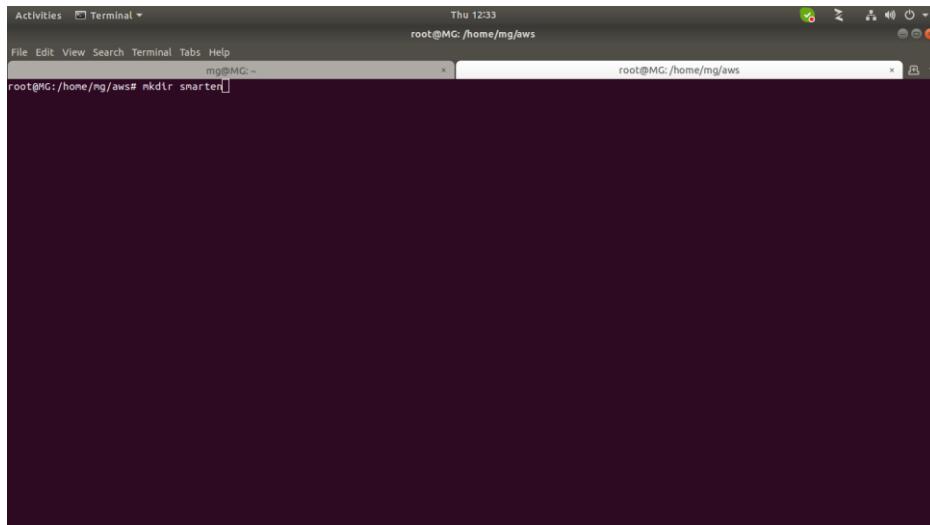
Note:

All command fire using root privileges because normal user haven't administrator privileges(root).

2.4 mkdir command

mkdir command used to create dir.
ex. create smarten directory.

```
root@MG:/home/mg/aws# mkdir smarten
```



2.5 chmod command

chmod command used to change the permissions of file or folder, which can be found separately for user, group, and world by adding:

* 4- read (r)

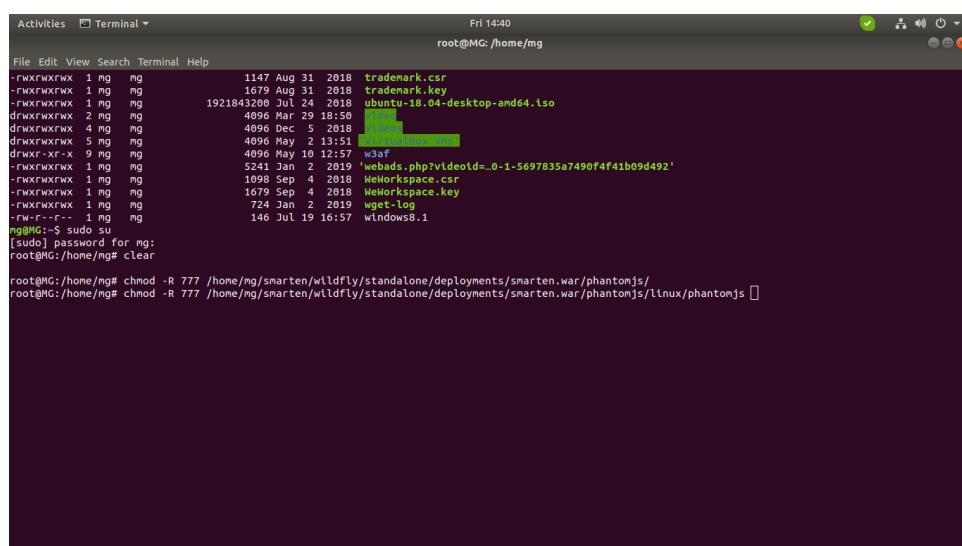
* 2-write (w)

* 1-execute (x)

Ex.

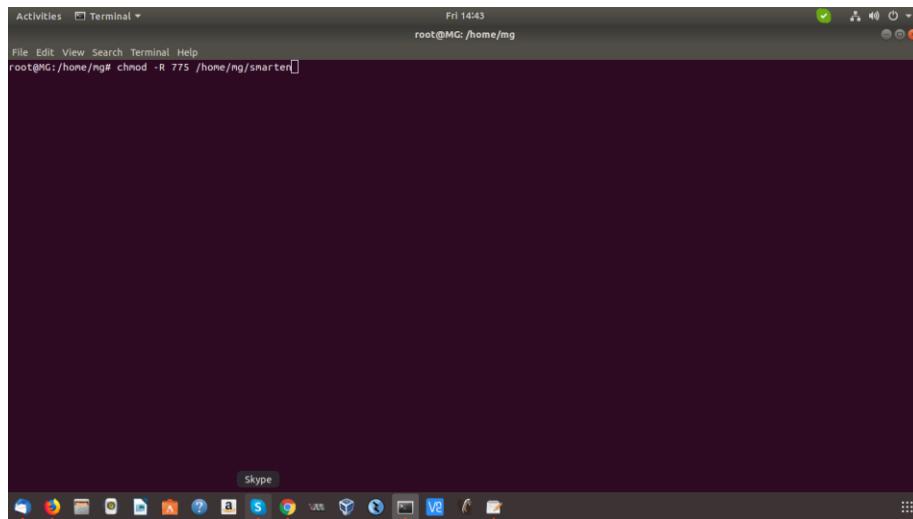
```
# chmod -R 777  
/home/mg/smarten/wildfly/standalone/deployments/smarten.war/phantom.js/linux
```

above command given full permission on phantom.js/linux folder.



our smarten folder we are given 775 permission , means user and group full rights on folder and other user only read and execute permission.

```
# chmod -R 775 /home/mg/smarten
```



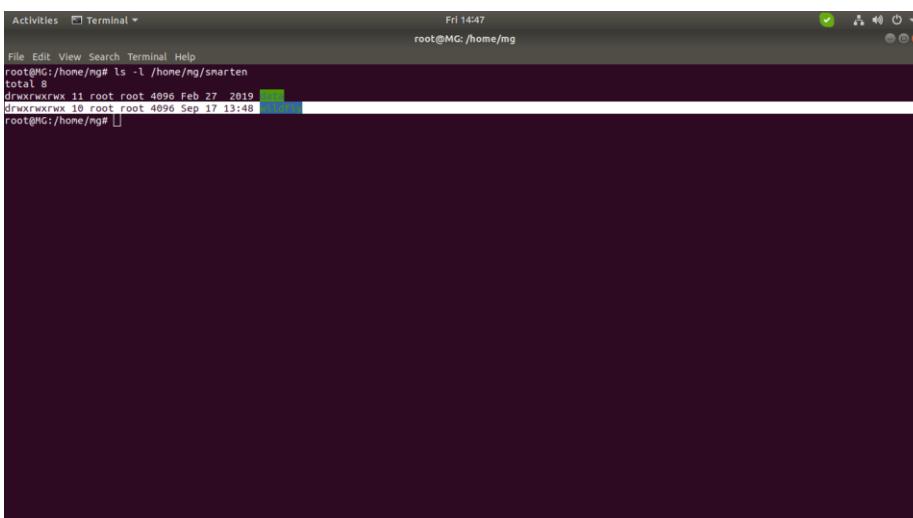
Using below mention command and refer the screen shot how to check permission on file and folder.

First going to dir which is you want see file or folder permission. In my scenario I would check smarten folder permission.

```
# ls -l /home/mg/smarten
```

see below mention screen shot, on smarten folder permission is 777.

user, group and other give full permission.



2.6 Chown command

Chown command is used to change the owner and group of files, directories and links.

Ex. i have check my smarten folder owner and group. using ls -l and folder name which folder you want see owner.

```
# ls -l /home/mg/smarten
```

As per below screenshot my smarten folder owner is mg and group also mg(normal user). i want to change my smarten folder owner and group is root. Because normal user can't start wildfly service because normal user haven't permission.

How to change owner group from file and folder. Using below mention command to change owner and group from file and folder.

```
# chown -R root:root /home/mg/smarten
```

Now check your smarten folder owner and group.

```
Fri 15:00
root@MG: /home/mg/smarten
File Edit View Search Terminal Help
root@MG:/home/mg/smarten# ls -l
total 8
drwxrwxrwx 11 root root 4096 Feb 27 2019 .
drwxrwxrwx 18 root root 4096 Sep 17 13:48 ..
root@MG:/home/mg#
```

2.7 ls command

ls command used to view file and folder list.

ex. ls -l >> list for file or folder

ex. ls -a >> list for hidden file or folder

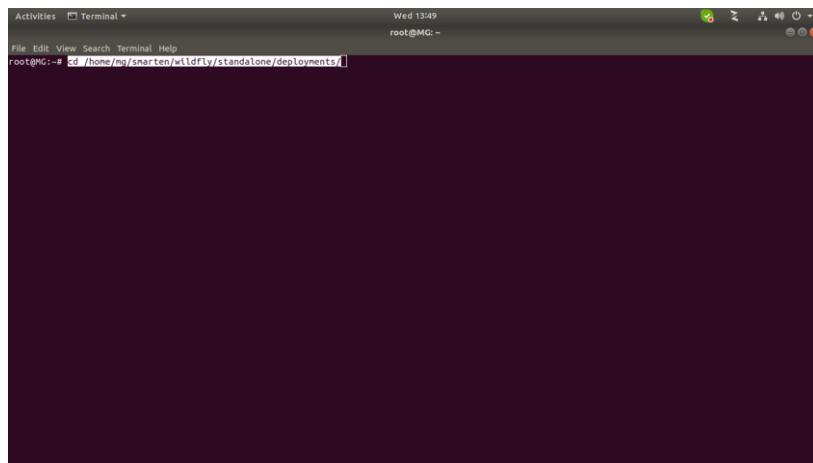
```
Wed 13:46
root@MG: /home/mg/smarten/wildfly#
File Edit View Search Terminal Help
root@MG:/home/mg/smarten/wildfly# ls -l
total 516
drwxrwxrwx 4 root root 4096 Sep 17 15:30 .
-rw-rw-r-- 1 root root 2451 Oct 23 2017 copyright.txt
drwxrwxrwx 1 root root 6 Sep 17 13:48 'Djboss.modules.system.pkgs=org.jboss.byteman'
drwxrwxrwx 5 root root 4096 Feb 28 2018 .
drwxrwxrwx 4 root root 4096 Feb 28 2018 .
drwxrwxrwx 1 root root 403683 Oct 23 2017 jboss-modules.jar
drwxrwxrwx 1 root root 2246 Oct 23 2017 LICENSE.txt
drwxrwxrwx 3 root root 4096 Feb 28 2018 .
drwxrwxrwx 3 root root 2246 Oct 23 2017 README.txt
drwxr-xr-x 2 root root 4096 Sep 17 13:21 spark-warehouse
drwxrwxrwx 8 root root 4096 Sep 17 12:45 .
drwxrwxrwx 3 root root 5489 Sep 17 12:45 velocity.log
drwxrwxrwx 3 root root 4096 Sep 17 12:44 .
root@MG:/home/mg/smarten/wildfly#
```

2.8 cd command

cd command used to going to any dir.

ex. you want going to wildfly/standalone/deployments dir, then used cd after that dir full path.

```
root@MG:~# cd /home/mg/smarten/wildfly/standalone/deployments/
```

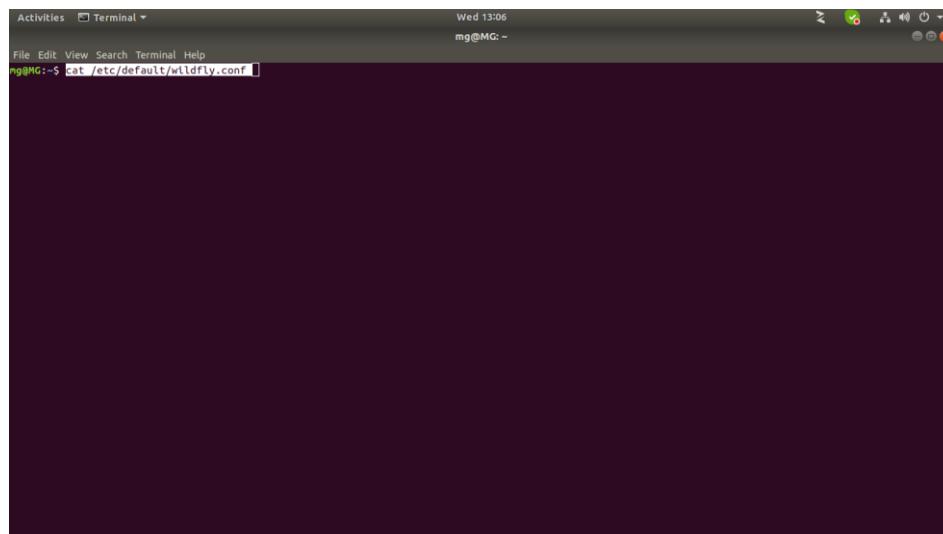


```
Activities Terminal
Wed 13:49
root@MG:~$ cd /home/mg/smarten/wildfly/standalone/deployments[]
```

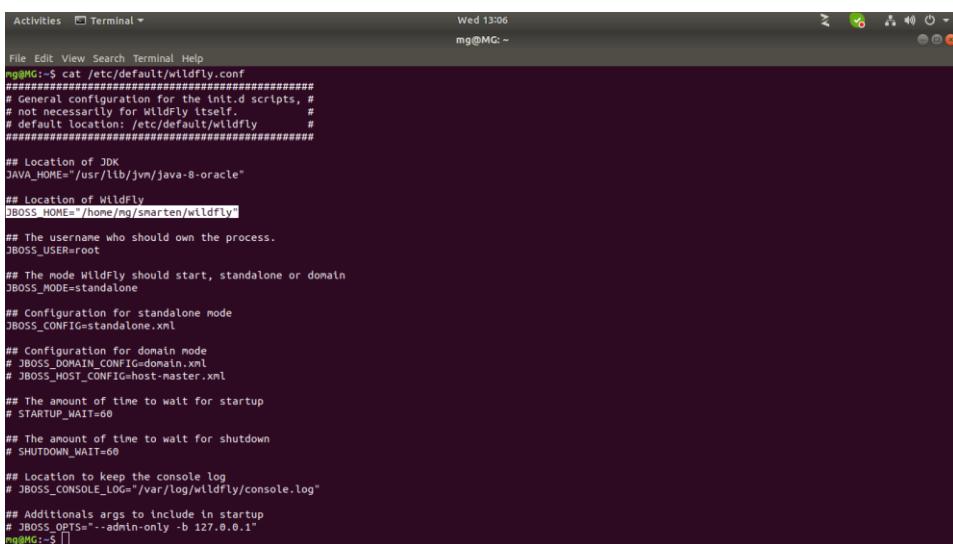
2.9 cat command

cat command used to view file content. Like you want to view what is system. Properties path or where is wildfly dir. Both of example mention below.

mg@MG:~\$ cat /etc/default/wildfly.conf



```
Activities Terminal
Wed 13:06
mg@MG:~$ cat /etc/default/wildfly.conf
```



```
Activities Terminal
Wed 13:06
mg@MG:~$ cat /etc/default/wildfly.conf
#####
# General configuration for the init.d scripts, #
# not necessarily for WildFly itself.          #
# default location: /etc/default/wildfly       #
#####

## Location of JDK
JAVA_HOME="/usr/lib/jvm/java-8-oracle"

## Location of WildFly
JBoss_HOME="/home/mg/smarten/wildfly"

## The user who should own the process.
JBoss_USER=root

## The mode WildFly should start, standalone or domain
JBoss_MODE=standalone

## Configuration for standalone mode
JBoss_CONFIG=standalone.xml

## Configuration for domain mode
# JBoss_DOMAIN_CONFIG=domain.xml
# JBoss_HOST_CONFIG=host-master.xml

## The amount of time to wait for startup
# STARTUP_WAIT=60

## The amount of time to wait for shutdown
# SHUTDOWN_WAIT=60

## Location to keep the console log
# JBoss_CONSOLE_LOG="/var/log/wildfly/console.log"

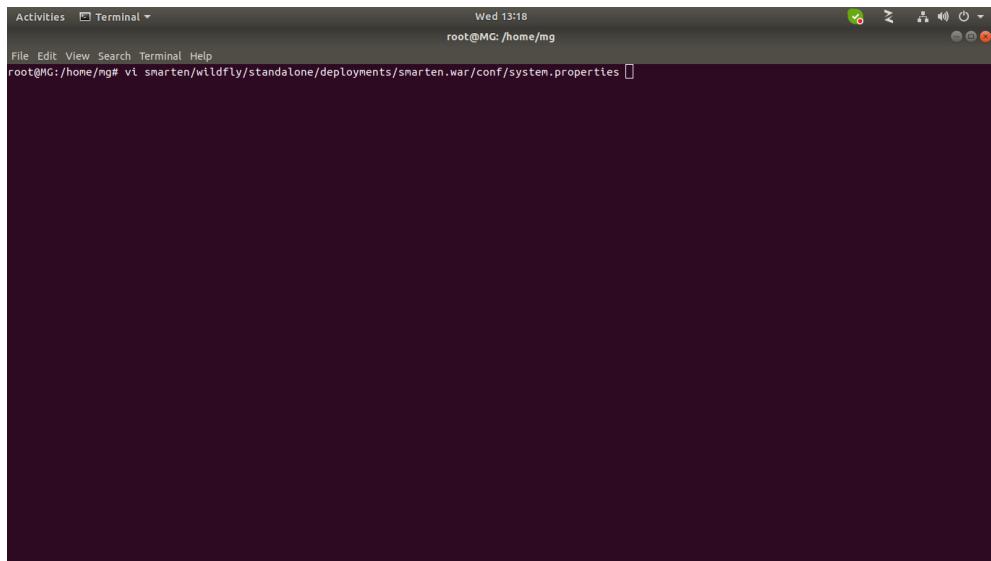
## Additional args to include in startup
# JBoss_OPTS="--admin-only -b 127.0.0.1"
mg@MG:~$ []
```

2.10 VI command

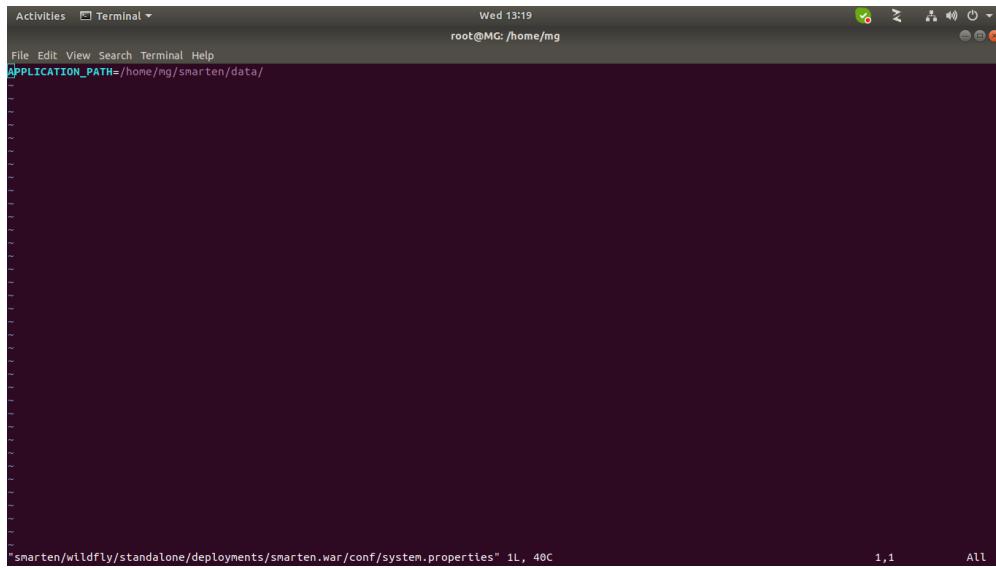
vi is a file editor.vi command used to edit read file. Like you edit system. properties path or edit standalone.conf etc.

open any file using vi editor write vi after that file path.

```
root@MG:/home/mg# vi  
smarten/wildfly/standalone/deployments/smarten.war/conf/system.properties
```

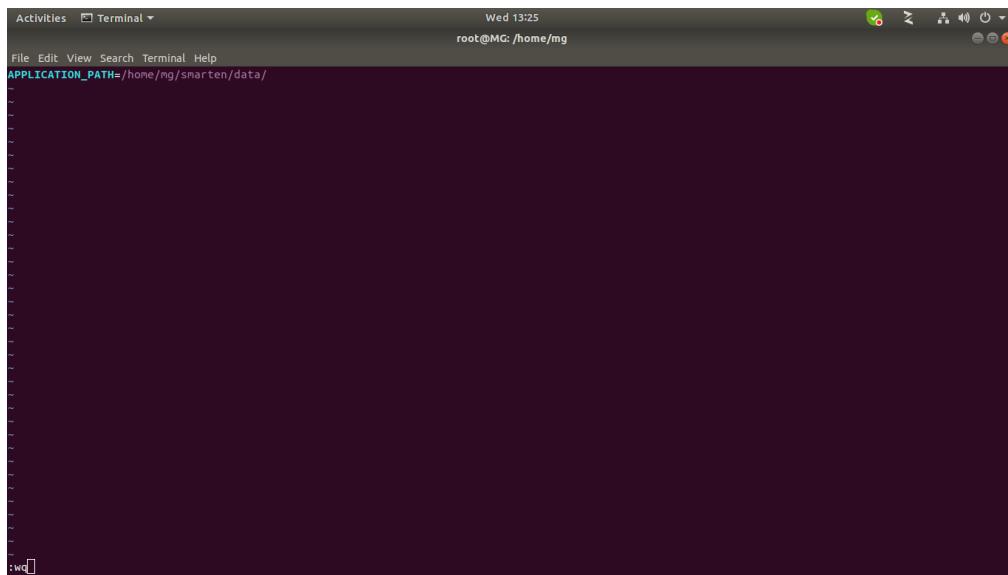


edit text from file press i for insert mode.



After add delete some text from file, you want save the file using below mention string.

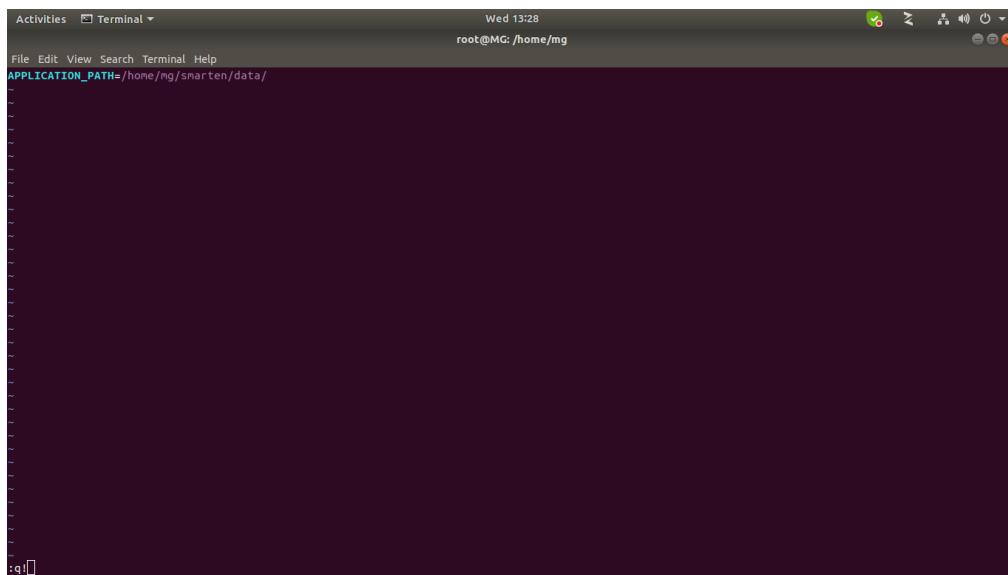
Press Esc then :wq enter .



```
Activities Terminal
File Edit View Search Terminal Help
APPLICATION_PATH=/home/mg/smarten/data/
:q!
```

After edit file there is some unwanted content by mistake add and you want exit without save file then used below mention string. Are you exit from file without any changes.

Press Esc then :q!



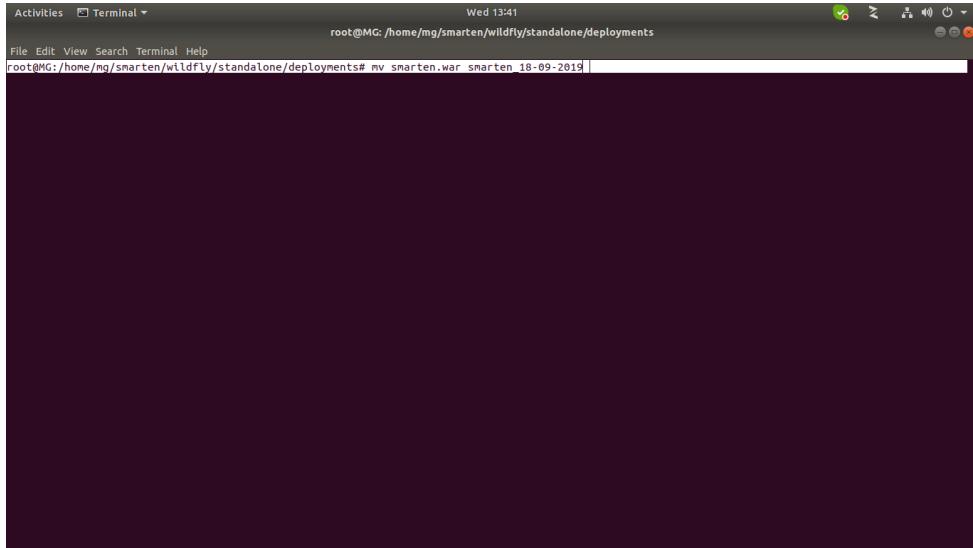
```
Activities Terminal
File Edit View Search Terminal Help
APPLICATION_PATH=/home/mg/smarten/data/
:q!
```

2.11 MV command

mv command used to rename file and folder and also move file and folder.

Ex: in client system update Smarten new patch. We want rename existing .war and put new one in same location then used this command.

```
root@MG:/home/mg/smarten/wildfly/standalone/deployments# mv smarten.war (existing .war)
smarten_18-09-2019(rename .war)
```



A screenshot of a Linux terminal window titled "Terminal". The window shows a command-line interface with the following text:
Activities Terminal *
Wed 13:41
root@MG: /home/mg/smarten/wildfly/standalone/deployments
File Edit View Search Terminal Help
root@MG:/home/mg/smarten/wildfly/standalone/deployments# mv smarten.war smarten_18-09-2019|

2.12 CP command

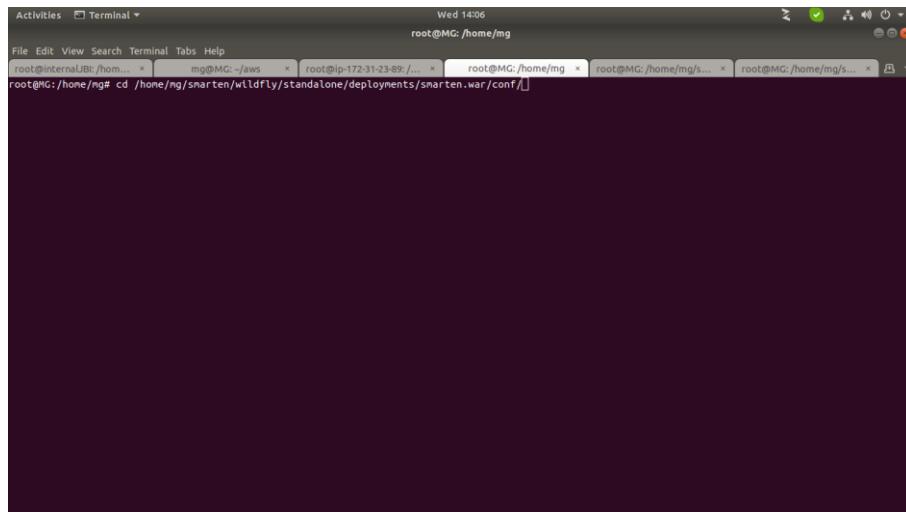
cp command used to copy files and folder.

Ex. We want to copy new license file in smarten.war/conf folder. There is already one license file and we want to copy new one. So first rename existing license file using **mv** command and after that copy new one using below mention command.

* First going to smarten.war/conf dir.

```
# sudo su
```

```
# cd /home/mg/smarten/wildfly/standalone/deployments/smartен.war/conf
```



A screenshot of a Linux terminal window titled "Terminal". The window shows a command-line interface with the following text:
Activities Terminal *
Wed 14:06
root@MG: /home/mg
File Edit View Search Terminal Tabs Help
root@internalIP: /home... x mg@MG: ~aws x root@ip-172-31-23-89: /... x root@MG: /home/mg x root@MG: /home/mg/s... x root@MG: /home/mg/s... x root@MG: /home/mg/s... x
root@MG: /home/mg# cd /home/mg/smarten/wildfly/standalone/deployments/smartен.war/conf/|

```
# mv license.bin license.old
```

```
Activities Terminal * Wed 14:07
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# ls -l
total 40
-rwxrwxrwx 1 root root 1706 Aug 21 2018 app.settings.properties
-rwxrwxrwx 1 root root 840 Jul 22 13:06 dbConf.properties
-rwxrwxrwx 1 root root 2390 Jul 16 15:31 default.conf
-rwxrwxrwx 1 root root 102 Aug 21 2018 ec2.properties
-rwxrwxrwx 1 root root 240 Aug 21 2018 fairscheduler.xml
-rwxrwxrwx 1 root root 217 Sep 17 12:48 license.bln
-rwxrwxrwx 1 root root 1237 Aug 21 2018 quartz.properties
-rwxrwxrwx 1 root root 3480 Apr 20 2018 sparkConfig.properties
-rwxrwxrwx 1 root root 605 Aug 21 2018 ssoConfig.properties
-rwxrwxrwx 1 root root 40 May 20 13:24 system.properties
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# mv license.bln license.old
```

ls -l (for verify)

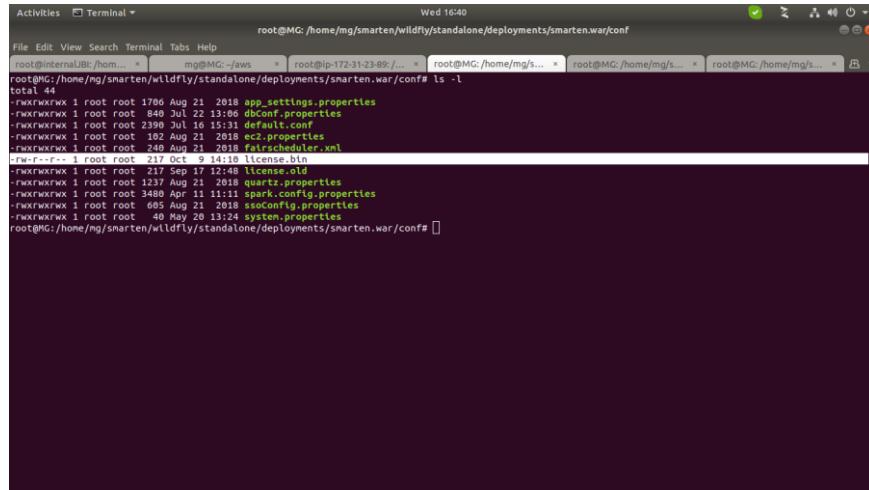
```
Activities Terminal * Wed 14:07
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# ls -l
total 40
-rwxrwxrwx 1 root root 1706 Aug 21 2018 app.settings.properties
-rwxrwxrwx 1 root root 840 Jul 22 13:06 dbConf.properties
-rwxrwxrwx 1 root root 2390 Jul 16 15:31 default.conf
-rwxrwxrwx 1 root root 102 Aug 21 2018 ec2.properties
-rwxrwxrwx 1 root root 240 Aug 21 2018 fairscheduler.xml
-rwxrwxrwx 1 root root 217 Sep 17 12:48 license.old
-rwxrwxrwx 1 root root 1237 Aug 21 2018 quartz.properties
-rwxrwxrwx 1 root root 3480 Apr 20 2018 sparkConfig.properties
-rwxrwxrwx 1 root root 605 Aug 21 2018 ssoConfig.properties
-rwxrwxrwx 1 root root 40 May 20 13:24 system.properties
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

cp -r /home/mg/Downloads/License-Minesh-Elegant\ Microweb.bln
/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf /license.bln

```
Activities Terminal * Wed 14:11
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# cp -r /home/mg/Downloads/License-Minesh-Elegant\ Microweb.bln /home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf/license.bln
```

```
# ls -l
```

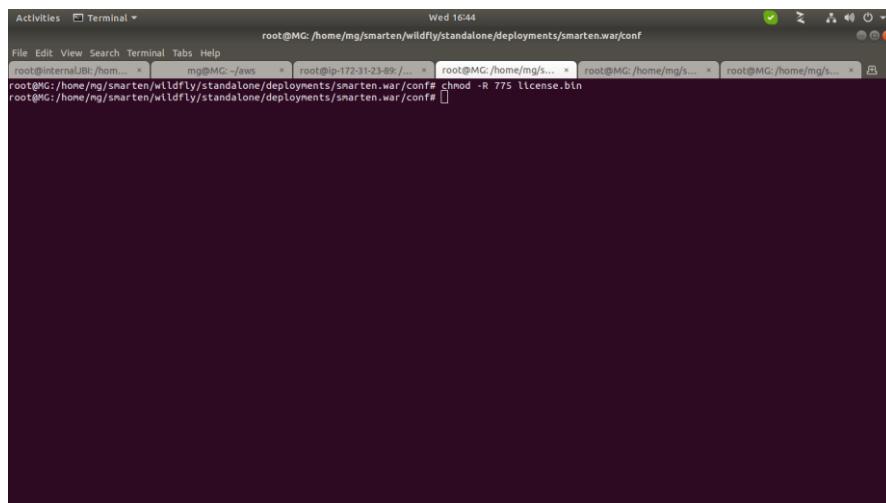
check below screenshot new license.bin file is copy successfully but root user's only read right permission. we want to 775 permission on license file. So following next command to give permission on the license.bin file.



```
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# ls -l
total 44
-rwxrwxrwx 1 root root 1786 Aug 21 2018 app_settings.properties
-rwxrwxrwx 1 root root 121 Jul 16 2018 default.properties
-rwxrwxrwx 1 root root 2398 Jul 16 15:31 default.conf
-rwxrwxrwx 1 root root 182 Aug 21 2018 ec2.properties
-rwxrwxrwx 1 root root 248 Aug 21 2018 failrscheduler.xml
-rw-r--r-- 1 root root 217 Oct 9 14:10 license.bin
-rwxrwxrwx 1 root root 1237 Apr 11 11:11 logback.xml
-rwxrwxrwx 1 root root 3480 Apr 11 11:11 spark.config.properties
-rwxrwxrwx 1 root root 605 Aug 21 2018 ssoconfig.properties
-rwxrwxrwx 1 root root 40 May 20 13:24 system.properties
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

```
# cd /home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf
```

```
# chmod -R 775 license.bin
```



```
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# chmod -R 775 license.bin
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

```
# ls -l
```

A terminal window titled "Activities Terminal" with the status bar "root@MG: /home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf" and "Wed 16:44". The window contains a file listing and a command execution:

```
root@internal:~/hom... mg@MG:~$ ls -l
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# chmod +R 775 license.bln
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# ls -l
total 44
-rwxrwxrwx 1 root root 1700 Aug 21 2018 app_settings.properties
-rwxrwxrwx 1 root root 1000 Jul 16 15:31 dbConfig.properties
-rwxrwxrwx 1 root root 2399 Jul 16 15:31 default.properties
-rwxrwxrwx 1 root root 102 Aug 21 2018 ec2.properties
-rwxrwxrwx 1 root root 240 Aug 21 2018 fairScheduler.xml
-rwxrwxrwx 1 root root 217 Oct 9 14:10 license.bln
-rwxrwxrwx 1 root root 1000 Aug 21 2018 metrics.properties
-rwxrwxrwx 1 root root 1237 Aug 21 2018 nimbus.properties
-rwxrwxrwx 1 root root 3488 Apr 11 11:11 spark.config.properties
-rwxrwxrwx 1 root root 605 Aug 21 2018 ssoConfig.properties
-rwxrwxrwx 1 root root 40 May 20 13:24 system.properties
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

2.13 PS command

PS command is used to provide information about the currently running process.

Ex. i want to information about java process.

```
# ps -aux | grep java (This command give me information about java process)
```

A terminal window titled "Activities Terminal" with the status bar "root@MG: /home/mg" and "Fri 15:31". The window contains the command execution:

```
root@MG:/home/mg# ps -aux | grep java
```

Smarten application running on java, and you can also get information where is Wildfly folder.

```
Activities Terminal Fri 15:31
root@MG:/home/mg# File Edit View Search Terminal Help
root@MG:/home/mg# ps -aux | grep java
root 1829 13.9 37 234048 ? Sl 18:09 1:38 java -Xmx150m -Dsubsonic.home=/var/subsonic -Dsubsonic.host=8.0.0.0 -Dsubsonic.port=4649 -Dsubsonic.httpsPort=8443 -Dsubsonic.contextPath=/ -Dsubsonic.db=DBsubsonic.defaultMusicFolder=/var/music -Dsubsonic.defaultPodcastFolder=/var/music /Podcast -Dsubsonic.defaultPlaylistFolder=/var/playlists -Dmaxwt.headers=true -verbosesure -jar subsonic-booter.jar with dependencies.jar
root 17829 170 13.9 4965992 1700600 ? Sl 15:30 1:47 java -Dstandalone) -server -Djboss.modules.system.pkgs=org.jboss.byteman -Djava.awt.headless=true -Dorg.jboss.boot.log.file=/home/mg/smartten/wildfly/standalone/log/server.log -Dlogging.configuration=file:/home/mg/smartten/wildfly/standalone/configuration/logging.properties -jar /home/mg/smartten/wildfly/jboss-modules.jar -mp /home/mg/smartten/wildfly/modules org.jboss.as.standalone -Djboss.home.dir=/home/mg/smartten/wildfly -Djboss.server.base.dir=/home/mg/smartten/wildfly/standalone -c standalone.xml
root 17211 0.0 0.0 21536 1048 pts/0 S+ 15:31 0:00 grep --color=auto java
root@MG:/home/mg#
```

2.14 TOP Command

TOP command is used to show the Linux processes.

top

A screenshot of a Linux desktop environment showing a terminal window. The window title is "Terminal". The terminal shows the following text:

```
Activities Terminal Fri 15:37
root@MG:/home/mg
File Edit View Search Terminal Help
root@MG:/home/mg# top
```

The terminal is currently running the "top" command, which displays system-wide resource usage statistics.

after top command press **Shift+i**

```
Activities Terminal Fri 15:37
root@MG:/home/mg

File Edit View Search Terminal Help
top - 15:37:02 up 5:28, 2 users, load average: 0.37, 0.34, 0.32
Tasks: 317 total, 1 running, 269 sleeping, 0 stopped, 0 zombie
%CPU(s): 5.7 us, 0.9 sy, 0.0 ni, 92.0 id, 1.3 wa, 0.0 ht, 0.0 st, 0.0 st
kB Mem : 12203496 total, 2734540 free, 4851068 used, 4617888 buff/cache
kB Swap : 7834620 total, 7834620 free, 0 used. 6346852 avail mem

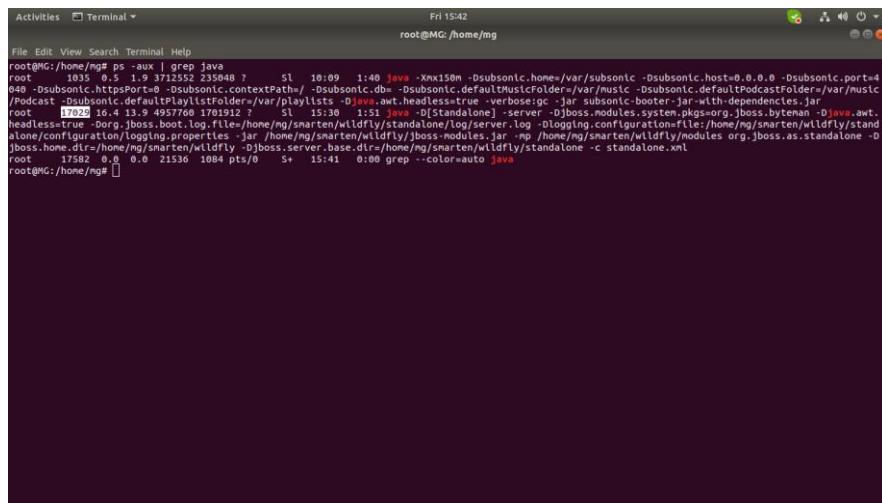
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
169599 root 20 0 0 0 0 0 I 6.2 0.0 0:00:10 kworker/u8:0
173900 root 20 0 51456 4204 3420 R 6.2 0.0 0:00:02 top
1 root 0 0 225892 9724 6740 S 0.0 0.1 0:06:32 systemd
2 root 20 0 0 0 0 0 I 0.0 0.0 0:00:00 rtkitidle
4 root 0 -20 0 0 0 0 I 0.0 0.0 0:00:00 kworker/0:0H
6 root 0 -20 0 0 0 0 I 0.0 0.0 0:00:00 mm_percpu_wq
7 root 20 0 0 0 0 S 0.0 0.0 0:00:11 ksfttrqd/0
8 root 20 0 0 0 0 I 0.0 0.0 0:29:70 rcu_sched
9 root 20 0 0 0 0 I 0.0 0.0 0:00:00 rcu_bh
10 root rt 0 0 0 0 S 0.0 0.0 0:00:01 migration/0
11 root rt 0 0 0 0 S 0.0 0.0 0:00:04 watchdog/0
12 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/0
13 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/1
14 root rt 0 0 0 0 S 0.0 0.0 0:00:04 watchdog/1
15 root rt 0 0 0 0 S 0.0 0.0 0:00:00 migration/1
16 root 20 0 0 0 0 S 0.0 0.0 0:00:08 ksfttrqd/1
18 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 kworker/1:0H
19 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/2
20 root rt 0 0 0 0 S 0.0 0.0 0:00:05 watchdog/2
21 root rt 0 0 0 0 S 0.0 0.0 0:00:01 migration/2
22 root 20 -20 0 0 0 0 S 0.0 0.0 0:00:11 ksfttrqd/2
24 root 20 0 0 0 0 I 0.0 0.0 0:00:00 kworker/2:0H
25 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/3
26 root rt 0 0 0 0 S 0.0 0.0 0:00:05 watchdog/3
27 root rt 0 0 0 0 S 0.0 0.0 0:00:00 migration/3
28 root 20 0 0 0 0 S 0.0 0.0 0:00:30 ksfttrqd/3
30 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 kworker/3:0H
31 root 20 0 0 0 0 S 0.0 0.0 0:00:00 kdevtmpfs
32 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 migration/4
33 root 20 0 0 0 0 S 0.0 0.0 0:00:00 rcu_tasks_kthre
34 root 20 0 0 0 0 S 0.0 0.0 0:00:00 kaudittd
```

2.15 Kill command

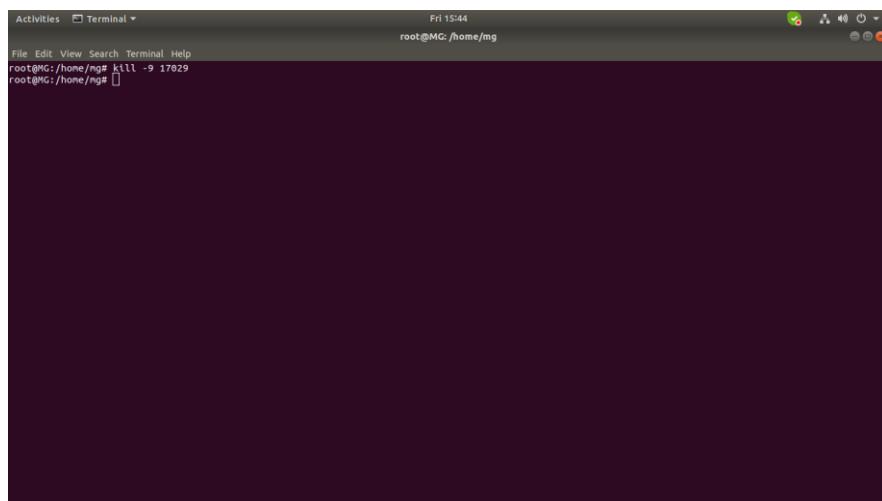
kill command is used to terminate process manually. First you find out process id using `ps -aux | grep java` and you get java process id.

```
# ps -aux | grep java
```

java process id is 17029. I want terminate this process manually.

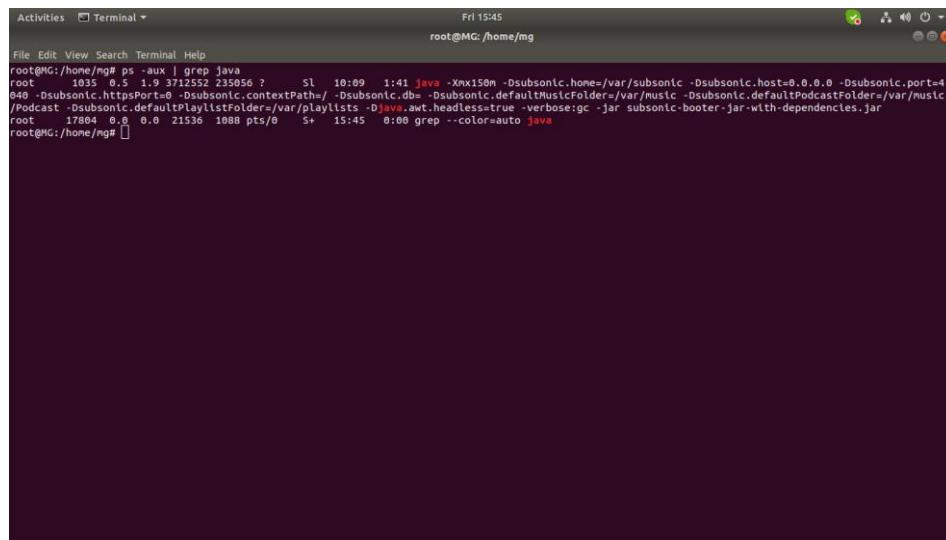


```
# kill -9 17029(process id)
```



```
# ps -aux | grep java (check again your java process terminate or not)
```

See below screenshot my Smarten java application terminate now and it's not running.

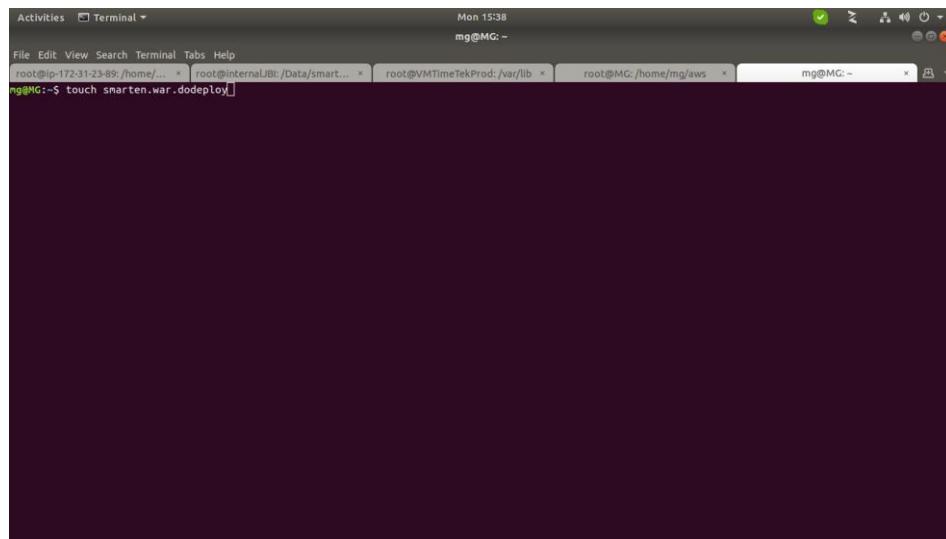


```
Fri 15:45
root@MG: /home/mg
File Edit View Search Terminal Help
root@MG:/home/mg# ps -aux | grep java
root 17804 0.0 21536 1088 pts/0 1:41 grep --color=auto java
root@MG:/home/mg#
```

2.16 Touch command

Touch command is used to create empty file.

```
# touch smarten.war.dodeploy
```



```
Mon 15:38
mg@MG: ~
File Edit View Search Terminal Tabs Help
root@ip-172-31-23-89:/home/... ~ root@internalJBI:/Data/smarten... ~ root@VMTimTekProd:/var/lib ~ root@MG:/home/mg/aws ~ mg@MG: ~
mg@MG:~$ touch smarten.war.dodeploy
```

2.17 Nano command

nano is a file editor nano command used to edit read file. Like you edit system. Properties path or edit standalone.conf etc.

```
root@MG:/home/mg# nano
smarten/wildfly/standalone/deployments/smartens.war/conf/system.properties
```

```

root@ip-172-31-23-89:/home/...  * root@internalUBL:/Data/smarten...  * root@VMTimTekProd:/var/lib  * root@MG:/home/mg/aws  * root@MG: ~
root@MG:~# nano /home/mg/smarten/wlldfly/standalone/deployments/smarten_17-10-2019/conf/system.properties
root@MG:~#
```

APPLICATION_PATH=/home/mg/smarten/data/

Ctrl+o >> used to overite

Ctrl+x >> save and exit

2.18 DF & DU command

DF command is used to display information related to file systems about total space and available space.

df -h (This command display information about all partition space)

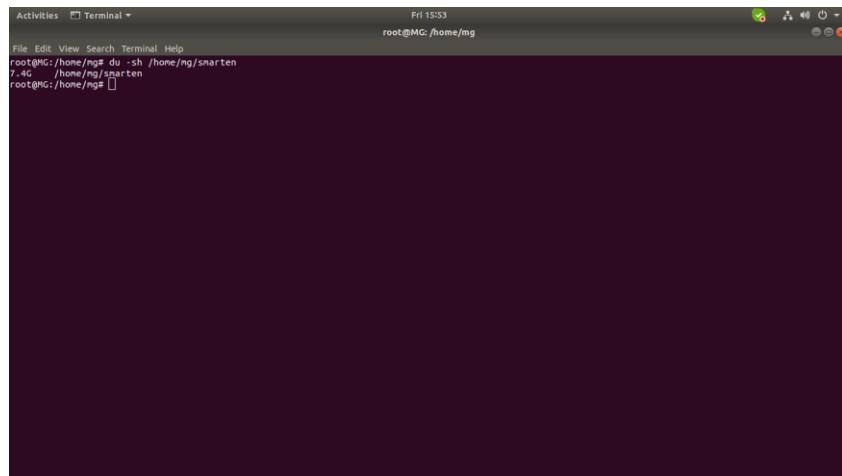
```

root@MG:/home/mg# df -h
Filesystem      Size  Used  Avail Use% Mounted on
udev            5.8G   0    5.8G  0% /dev
tmpfs           1.2G  12K  1.2G  1% /run
/dev/sda6        90G   78G  82G  86% /var/lib
tmpfs           5.9G  26M  5.6G  1% /dev/shm
tmpfs           5.0M  4.0K  5.0M  1% /run/lock
tmpfs           5.9G   0  5.9G  0% /sys/fs/cgroup
/dev/loop1       1.0M  1.0M  0  100% /snap/gnome-logs/61
/dev/loop0       85M  85M  0  100% /snap/simpleScreenRecorder-mardy/4
/dev/loop18      1.0M  1.0M  0  100% /snap/gnome-logs/73
/dev/loop4       3.8M  3.8M  0  100% /snap/gnome-system-monitor/100
/dev/loop22      165M  165M  0  100% /snap/squirrelsgui/22
/dev/loop2        3.8M  3.8M  0  100% /snap/gnome-system-monitor/95
/dev/loop3        158M  158M  0  100% /snap/gnome-3-28-1804/67
/dev/loop14       43M  43M  0  100% /snap/ gtk-common-themes/1313
/dev/loop10       55M  55M  0  100% /snap/core18/1098
/dev/loop17       89M  89M  0  100% /snap/core/7396
/dev/loop5        141M  141M  0  100% /snap/sftpclient/74
/dev/loop9        4.3M  4.3M  0  100% /snap/gnome-calculator/501
/dev/loop11       4.2M  4.2M  0  100% /snap/gnome-calculator/406
/dev/loop8        36M  36M  0  100% /snap/gtk-common-themes/1198
/dev/loop12       150M  150M  0  100% /snap/gnome-characters/296
/dev/loop15       15M  15M  0  100% /snap/gnome-characters/317
/dev/loop7        141M  141M  0  100% /snap/gnome-3-28-1804/92
/dev/loop13       141M  141M  0  100% /snap/sftpclient/88
/dev/loop1        150M  150M  0  100% /snap/gnome-3-28-1804/71
/dev/loop19       55M  55M  0  100% /snap/core18/1144
/dev/loop21       174M  174M  0  100% /snap/squirrelsgui/54
/dev/loop20       141M  141M  0  100% /snap/gnome-3-28-1804/98
/dev/loop16       90M  90M  0  100% /snap/core/7713
/dev/sda5        1.2G  167M  1.0G  13% /boot
tmpfs           1.2G  16K  1.2G  1% /run/user/128
tmpfs           1.2G  76K  1.2G  1% /run/user/1000
tmpfs           1.2G   0  1.2G  0% /run/user/0
root@MG:/home/mg#
```

DU command is used to display information related to file and folder space and size.

du -sh /home/mg/smarten (This command display information about smarten folder size)

Smarten folder size is 7.4 GB

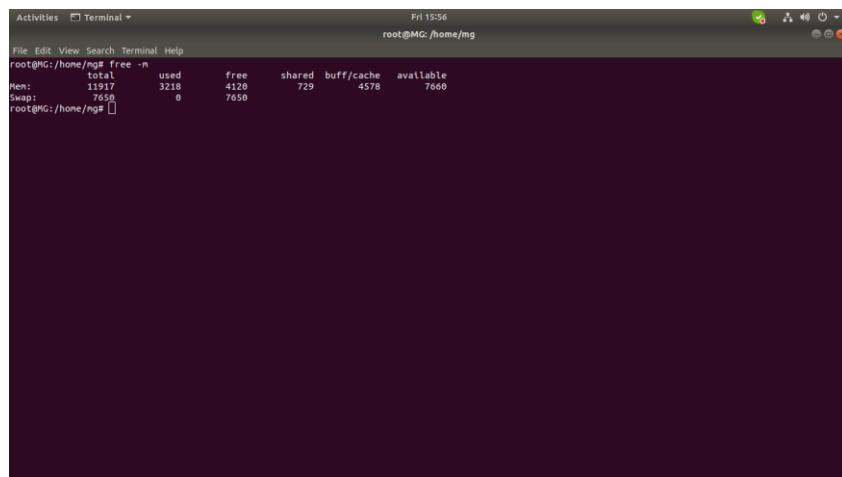


```
Activities Terminal Fri 15:53
File Edit View Search Terminal Help
root@MG:/home/mg# du -sh /home/mg/smarten
7.4G /home/mg/smarten
root@MG:/home/mg#
```

2.19 Free command

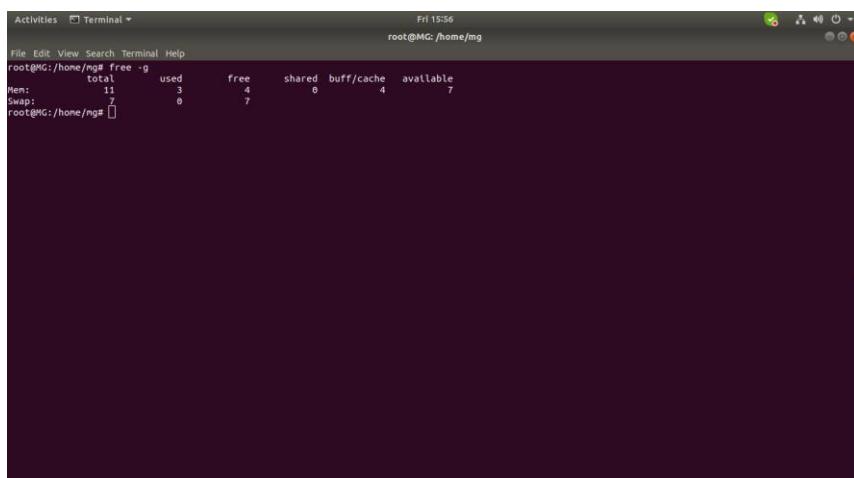
free command is used to display amount of free and used memory in the system.

free -m (Display amount of free and used memory in MB)



```
Activities Terminal Fri 15:56
File Edit View Search Terminal Help
root@MG:/home/mg# free -m
              total        used        free      shared  buff/cache   available
Mem:       11917       3218       4128       729       4578       7660
Swap:          0         0         0          0          0          0
root@MG:/home/mg#
```

free -g (Display amount of free and used memory in GB)



```
Activities Terminal Fri 15:56
File Edit View Search Terminal Help
root@MG:/home/mg# free -g
              total        used        free      shared  buff/cache   available
Mem:          11         3         4         0         4         7
Swap:          0         0         0          0          0          0
root@MG:/home/mg#
```

2.20 cat/proc/cpuinfo

cat /proc/cpuinfo - This command is used to display cpu information.

```
# cat /proc/cpuinfo
```

```
Activities Terminal Fri 16:03 root@MG:/home/mg
File Edit View Search Terminal Help
root@MG:/home/mg# cat /proc/cpuinfo
processor : 0
vendor_id : GenuineIntel
cpu family : 6
model : 43
model name : Intel(R) Core(TM) i3-2100 CPU @ 3.10GHz
stepping : 7
microcode : 0x2f
cpu MHz : 1596.398
cache size : 3072 KB
physical id : 0
siblings : 4
core id : 0
cpu cores : 2
apicid : 0
initial apicid : 0
fpu : yes
fpu_exception : yes
cpuid level : 13
wp : yes
flags : fpu de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx rdtscp lm constant_tsc arch_perfmon pebs bis rep_good nopl xtpr topology nonstop_tsc cpuid aperfmpref pnt pclmulqdq dtes64 monitor ds_cpl vmx est tm2 ssse3 cx16 xtr pdcm pcid sse4_1 sse4_2 popcnt tsc_deadline_timer xsave avx lahf_lm epb pti ssbd ibrs ibpb stibp tpr_shadow vmxnest flexpriority ept vpid xsaveopt ept�n arat pln pts md_clear flush_lid
bugs : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips : 6186.02
clflush size : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:

processor : 1
vendor_id : GenuineIntel
cpu family : 6
model : 42
model name : Intel(R) Core(TM) i3-2100 CPU @ 3.10GHz
stepping : 7
microcode : 0x2f
```

2.21 cat/proc/meminfo

cat /proc/meminfo - This command is used to display memory information

```
# cat /proc/meminfo
```

```
Activities Terminal Fri 16:04 root@MG:/home/mg
File Edit View Search Terminal Help
root@MG:/home/mg# cat /proc/meminfo
MemTotal: 12203408 kB
MemFree: 4283692 kB
MemAvailable: 7831088 kB
Buffers: 241844 kB
Cached: 4213660 kB
SwapCached: 0 kB
Active(anon): 3044864 kB
Inactive(anon): 742168 kB
Active(file): 1680520 kB
Inactive(file): 2029980 kB
Unevictable: 80 kB
Mlocked: 80 kB
SwapTotal: 7834620 kB
SwapFree: 7834620 kB
Dirty: 40 kB
Writeback: 0 kB
AnonPages: 3041984 kB
Mapped: 1315052 kB
Shmem: 745316 kB
slab: 306680 kB
ShmAvailable: 232912 kB
slUnreclaim: 73768 kB
KernelStack: 19456 kB
PageTables: 88324 kB
HFS_Unclean: 0 kB
Bounce: 0 kB
WritebackTmp: 0 kB
CommitLimit: 13996368 kB
Committed_AS: 12467828 kB
VmallocTotal: 34359738367 kB
Vmalledcused: 0 kB
VmallocUsed: 0 kB
HardwareCorrupted: 0 kB
AnonHugePages: 0 kB
```

2.22 Wget command

Wget command - This command is used to download the files from the web.

Ex. I want download smarten.war using dropbox link.

```
# wget -c https://www.dropbox.com/s/y1hmu9iwfhjs5vs/smarten-5.0.9.zip?dl=0
```

```
Activities Terminal Fri 16:22
root@MG:/home/mg
File Edit View Search Terminal Help
root@MG:/home/mg wget -c https://www.dropbox.com/s/cwz6v2bnhyh8474/sharten-5.0.8.zip?dl=0
--2019-09-20 16:22:34-- https://www.dropbox.com/s/cwz6v2bnhyh8474/sharten-5.0.8.zip?dl=0
Resolving www.dropbox.com ([www.dropbox.com... 162.125.81.1, 2620:100:6031:1:a27d:5101
Connecting to www.dropbox.com ([www.dropbox.com... 162.125.81.1]:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com/o/lnlne/AoSK0E68PechRDLG91lH0wvQR6_c-BLnvYCMFAD4002a8k0l8rZbwoqMn6mUvY
--2019-09-20 16:22:35-- https://www.dropbox.com/s/raw/cwz6v2bnhyh8474/sharten-5.0.8.zip
Resolving existing connection to www.dropbox.com:443.
HTTP request sent, awaiting response... 302 Found
Location: https://uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com/o/lnlne/AoSK0E68PechRDLG91lH0wvQR6_c-BLnvYCMFAD4002a8k0l8rZbwoqMn6mUvY
--2019-09-20 16:22:36-- https://uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com/o/lnlne/AoSK0E68PechRDLG91lH0wvQR6_c-BLnvYCMFAD4002a8k0l8rZbwoqMn6mUvY
rz@woognGm6UvYjR0XbSuQn0z5Vpr0PrOpTcmRsJ30Bt3_d5tg-0ee0mf8fLVykg1kunffpp4Dcc/file
Resolving uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com (uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com...) 162.125.81.6, 2620:100:6
31:6::#a27d:510
Connecting to uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com (uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com)|162.125.81.6|:443... connected.
HTTP request sent, awaiting response... 302 FOUND
Location: /cd0/lInlne/oA5084Bz21lbvDULzNJS!LN5L3Kpt0NBNNBj8yD9L_f0Bu07eSc113tc_dehI0ydkNwoyHwZLnn749c79xY8BpdYubgv0qJipU67U60mx0LJHlWeyPlC6vC6B
HkPknpo4gqruBz21lbvDULzNJS!LN5L3Kpt0NBNNBj8yD9L_f0Bu07eSc113tc_dehI0ydkNwoyHwZLnn749c79xY8BpdYubgv0qJipU67U60mx0LJHlWeyPlC6vC6B
lmSgln72RqDf0TbPKM51Aqgx0LPX10Wt0LzW11Jzr2g0JhktbthC09_QRTA1j61VA1EIKh0M0Va47qkdq0/file [following]
--2019-09-20 16:22:37-- https://uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com/o/lnlne/AoSK0E68PechRDLG91lH0wvQR6_c-BLnvYCMFAD4002a8k0l8rZbwoqMn6mUvY
Yz2jPBC0L113...dehI0ydkNwoyHwZLnn749c79xY8BpdYubgv0qJipU67U60mx0LJHlWeyPlC6vC6B
Saving to: 'sharten-5.0.8.zip'
Resolving existing connection to uc6547ccfc8456a27276798347d.dl.dropboxusercontent.com:443.
HTTP request sent, awaiting response... 200 OK
Length: 32192003 (30MB) [application/zip]
Saving to: 'sharten-5.0.8.zip'

sharten-5.0.8.zip[dl=0] 6%[ ] 1.24M 478KB/S
```

2.23 Unzip command

unzip command is used to unzip to .zip file.

Ex. I want unzip wildfly11.zip file

* First going to dir whhere is located wildfly11.zip file.

```
# cd /home/mg/Pictures
```

```
Activities Terminal Wed 17:21
root@MG:/home/mg/Pictures

File Edit View Search Terminal Tabs Help
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 15-44-20.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 15-44-20.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 15-45-26.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 15-45-26.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 15-50-42.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 15-50-42.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 15-53-33.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 15-53-33.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 15-56-09.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 15-56-09.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-00-14.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-00-14.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-03-35.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-03-35.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-04-46.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-04-46.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-22-40.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-22-40.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-31-41.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-31-41.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-31-53.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-31-53.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 18-40-39.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 18-40-39.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 18-44-14.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 18-44-14.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 18-49-58.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 18-49-58.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-19-58.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-19-58.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-20 16-20-01.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-20 16-20-01.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-30 17-18-59.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-30 17-18-59.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-09-30 17-20-39.png root@MG:/home/mg/Pictures/Screenshot From 2019-09-30 17-20-39.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-03 03-03-27.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-03 03-03-27.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-03 03-04-14.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-03 03-04-14.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-04 14-06-53.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-04 14-06-53.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 14-07-04.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 14-07-04.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 14-07-21.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 14-07-21.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 14-07-34.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 14-07-34.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 14-09-58.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 14-09-58.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 14-10-00.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 14-10-00.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-40-51.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-40-51.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-44-33.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-44-33.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-44-37.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-44-37.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-48-33.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-48-33.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-48-59.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-48-59.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-51-10.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-51-10.png
root@internalLB0:~#aws s3 cp --recursive ./Screenshot From 2019-10-09 16-56-36.png root@MG:/home/mg/Pictures/Screenshot From 2019-10-09 16-56-36.png
root@internalLB0:~#aws s3 cp --recursive ./standalone.sh root@MG:/home/mg/Pictures/standalone.sh
root@internalLB0:~#aws s3 cp --recursive ./thumb-2016-429287.png root@MG:/home/mg/Pictures/thumb-2016-429287.png
root@internalLB0:~#aws s3 cp --recursive ./wildfly-10.0.0.Final.rar root@MG:/home/mg/Pictures/wildfly-10.0.0.Final.rar
root@internalLB0:~#
```

```
# unzip wildfly-11.0.0.final.zip
```

```

Activities Terminal
File Edit View Search Terminal Tabs Help
root@internalB1:/home... * mg@MG: ~aws * root@ip-172-31-23-89:/... * root@MG:/home/mg/Pictures * root@MG:/home/mg/s... * root@MG:/home/mg/s...
-rw-rw-r-- 1 mg ng 30445 Sep 29 15:44 'Screenshot from 2019-09-20 15-44-20.png'
-rw-rw-r-- 1 mg ng 57507 Sep 29 15:45 'Screenshot from 2019-09-20 15-45-26.png'
-rw-rw-r-- 1 mg ng 16902 Sep 29 15:45 'Screenshot from 2019-09-20 15-45-26.png'
-rw-rw-r-- 1 mg ng 33831 Sep 29 15:53 'Screenshot from 2019-09-20 15-53-33.png'
-rw-rw-r-- 1 mg ng 37488 Sep 29 15:56 'Screenshot from 2019-09-20 15-56-09.png'
-rw-rw-r-- 1 mg ng 35949 Sep 29 15:56 'Screenshot from 2019-09-20 15-56-14.png'
-rw-rw-r-- 1 mg ng 127031 Sep 29 16:03 'Screenshot from 2019-09-20 16-03-35.png'
-rw-rw-r-- 1 mg ng 139236 Sep 29 16:04 'Screenshot from 2019-09-20 16-04-46.png'
-rw-rw-r-- 1 mg ng 250541 Sep 29 16:22 'Screenshot from 2019-09-20 16-22-40.png'
-rw-rw-r-- 1 mg ng 15192 Sep 29 16:22 'Screenshot from 2019-09-20 16-22-40.png'
-rw-rw-r-- 1 mg ng 29841 Sep 29 16:31 'Screenshot from 2019-09-20 16-31-53.png'
-rw-rw-r-- 1 mg ng 64269 Sep 29 18:40 'Screenshot from 2019-09-24 18-40-39.png'
-rw-rw-r-- 1 mg ng 61693 Sep 29 18:40 'Screenshot from 2019-09-24 18-40-43.png'
-rw-rw-r-- 1 mg ng 72886 Sep 30 16:19 'Screenshot from 2019-09-30 16-19-58.png'
-rw-rw-r-- 1 mg ng 61326 Sep 30 16:20 'Screenshot from 2019-09-30 16-20-01.png'
-rw-rw-r-- 1 mg ng 72406 Sep 30 17:18 'Screenshot from 2019-09-30 17-18-39.png'
-rw-rw-r-- 1 mg ng 42815 Sep 30 17:18 'Screenshot from 2019-09-30 17-18-39.png'
-rw-rw-r-- 1 mg ng 107279 Oct 3 13:03 'Screenshot from 2019-10-03 13-03-27.png'
-rw-rw-r-- 1 mg ng 194864 Oct 4 18:16 'Screenshot from 2019-10-04 18-16-41.png'
-rw-rw-r-- 1 mg ng 48536 Oct 9 14:06 'Screenshot from 2019-10-09 14-06-53.png'
-rw-rw-r-- 1 mg ng 102659 Oct 9 14:07 'Screenshot from 2019-10-09 14-07-04.png'
-rw-rw-r-- 1 mg ng 103474 Oct 9 14:07 'Screenshot from 2019-10-09 14-07-21.png'
-rw-rw-r-- 1 mg ng 103475 Oct 9 14:07 'Screenshot from 2019-10-09 14-07-21.png'
-rw-rw-r-- 1 mg ng 46582 Oct 9 14:09 'Screenshot from 2019-10-09 14-09-58.png'
-rw-rw-r-- 1 mg ng 50789 Oct 9 14:11 'Screenshot from 2019-10-09 14-11-09.png'
-rw-rw-r-- 1 mg ng 107099 Oct 9 16:40 'Screenshot from 2019-10-09 16-40-52.png'
-rw-rw-r-- 1 mg ng 51547 Oct 9 16:44 'Screenshot from 2019-10-09 16-44-33.png'
-rw-rw-r-- 1 mg ng 114293 Oct 9 16:44 'Screenshot from 2019-10-09 16-44-37.png'
-rw-rw-r-- 1 mg ng 51579 Oct 9 16:44 'Screenshot from 2019-10-09 16-44-37.png'
-rw-rw-r-- 1 mg ng 139790 Oct 9 16:48 'Screenshot from 2019-10-09 16-48-59.png'
-rw-rw-r-- 1 mg ng 44858 Oct 9 16:51 'Screenshot from 2019-10-09 16-51-10.png'
-rw-rw-r-- 1 mg ng 133497 Oct 9 16:56 'Screenshot from 2019-10-09 16-56-36.png'
-rw-rw-r-- 1 mg ng 12258 Jun 28 13:15 standalone.sh
-rwxrwxrwx 1 mg ng 545886 Dec 21 2018 thumb-1920-429287.png
-rw-rw-r-- 1 root root 159148919 Oct 9 17:20 wildfly-11.0.0.Final.zip
root@MG:/home/mg/Pictures# unzip wildfly-11.0.0.Final.zip []

```

ls -l (For verify extract folder)

```

Activities Terminal
File Edit View Search Terminal Tabs Help
root@internalB1:/home... * mg@MG: ~aws * root@ip-172-31-23-89:/... * root@MG:/home/mg/Pictures * root@MG:/home/mg/s... * root@MG:/home/mg/s...
-rw-rw-r-- 1 mg ng 37488 Sep 28 15:58 'Screenshot from 2019-09-20 15-56-09.png'
-rw-rw-r-- 1 mg ng 127031 Sep 29 16:03 'Screenshot from 2019-09-20 16-03-35.png'
-rw-rw-r-- 1 mg ng 139236 Sep 29 16:04 'Screenshot from 2019-09-20 16-04-46.png'
-rw-rw-r-- 1 mg ng 250541 Sep 29 16:22 'Screenshot from 2019-09-20 16-22-40.png'
-rw-rw-r-- 1 mg ng 15192 Sep 29 16:22 'Screenshot from 2019-09-20 16-22-40.png'
-rw-rw-r-- 1 mg ng 29841 Sep 29 16:31 'Screenshot from 2019-09-20 16-31-53.png'
-rw-rw-r-- 1 mg ng 64269 Sep 29 18:40 'Screenshot from 2019-09-24 18-40-39.png'
-rw-rw-r-- 1 mg ng 61693 Sep 29 18:40 'Screenshot from 2019-09-24 18-40-43.png'
-rw-rw-r-- 1 mg ng 72886 Sep 30 16:19 'Screenshot from 2019-09-30 16-19-58.png'
-rw-rw-r-- 1 mg ng 61326 Sep 30 16:20 'Screenshot from 2019-09-30 16-20-01.png'
-rw-rw-r-- 1 mg ng 72406 Sep 30 17:18 'Screenshot from 2019-09-30 17-18-39.png'
-rw-rw-r-- 1 mg ng 42815 Sep 30 17:18 'Screenshot from 2019-09-30 17-18-39.png'
-rw-rw-r-- 1 mg ng 107279 Oct 3 13:03 'Screenshot from 2019-10-03 13-03-27.png'
-rw-rw-r-- 1 mg ng 194864 Oct 4 18:16 'Screenshot from 2019-10-04 18-16-41.png'
-rw-rw-r-- 1 mg ng 48536 Oct 9 14:06 'Screenshot from 2019-10-09 14-06-53.png'
-rw-rw-r-- 1 mg ng 102659 Oct 9 14:07 'Screenshot from 2019-10-09 14-07-04.png'
-rw-rw-r-- 1 mg ng 103474 Oct 9 14:07 'Screenshot from 2019-10-09 14-07-21.png'
-rw-rw-r-- 1 mg ng 103475 Oct 9 14:07 'Screenshot from 2019-10-09 14-07-21.png'
-rw-rw-r-- 1 mg ng 46582 Oct 9 14:09 'Screenshot from 2019-10-09 14-09-58.png'
-rw-rw-r-- 1 mg ng 50789 Oct 9 14:11 'Screenshot from 2019-10-09 14-11-09.png'
-rw-rw-r-- 1 mg ng 107099 Oct 9 16:40 'Screenshot from 2019-10-09 16-40-52.png'
-rw-rw-r-- 1 mg ng 51547 Oct 9 16:44 'Screenshot from 2019-10-09 16-44-33.png'
-rw-rw-r-- 1 mg ng 114293 Oct 9 16:44 'Screenshot from 2019-10-09 16-44-33.png'
-rw-rw-r-- 1 mg ng 51864 Oct 9 16:48 'Screenshot from 2019-10-09 16-48-33.png'
-rw-rw-r-- 1 mg ng 138790 Oct 9 16:48 'Screenshot from 2019-10-09 16-48-59.png'
-rw-rw-r-- 1 mg ng 44858 Oct 9 16:51 'Screenshot from 2019-10-09 16-51-10.png'
-rw-rw-r-- 1 mg ng 133497 Oct 9 16:56 'Screenshot from 2019-10-09 16-56-36.png'
-rw-rw-r-- 1 mg ng 36495 Oct 9 17:00 'Screenshot from 2019-10-09 17-00-01.png'
-rw-rw-r-- 1 mg ng 36062 Oct 9 17:23 'Screenshot from 2019-10-09 17-23-09.png'
-rw-rw-r-- 1 mg ng 303417 Oct 9 17:23 'Screenshot from 2019-10-09 17-23-09.png'
-rw-rw-r-- 1 mg ng 12258 Jun 28 13:15 standalone.sh
-rwxrwxrwx 1 mg ng 545886 Dec 21 2018 thumb-1920-429287.png
drwxr-xr-x 10 root root 159148919 Oct 9 17:20 wildfly-11.0.0.Final.zip
root@MG:/home/mg/Pictures# []

```

2.24 RM command

RM command - This command is used to remove objects such as files, directories.

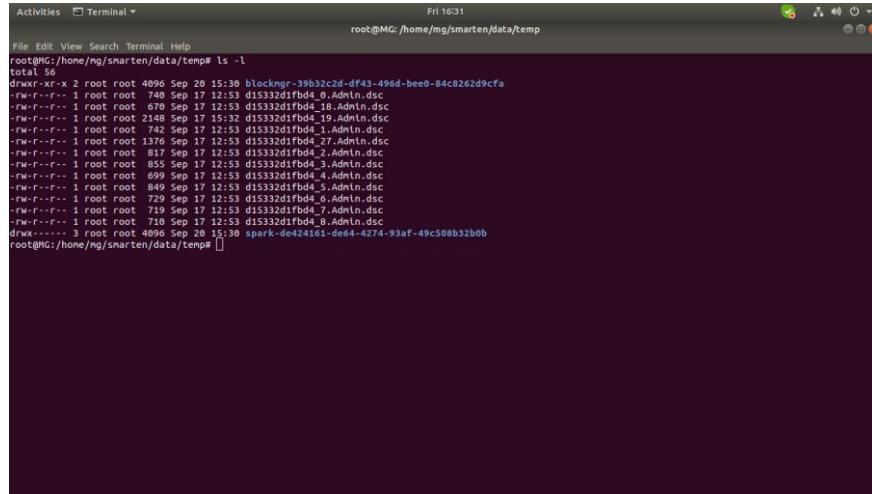
Note:

Be carefully for rm command. If you type wrong path in after rm command your data will be lose and it's not recoverably.

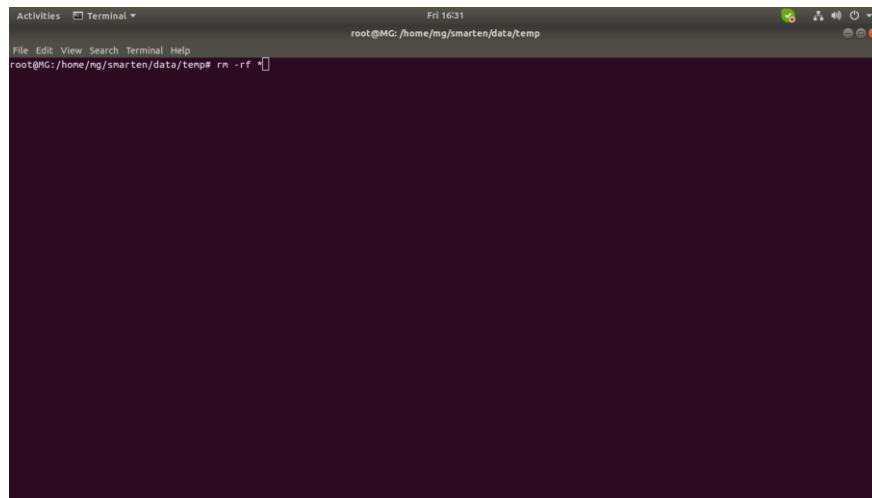
I want to delete logs and temp from data and wildfly standalone folder using below mention command.

cd /home/mg/smarten/data/temp/ (First going to data temp dir)

rm -rf * (remove all temp file)



```
root@MG:/home/mg/smarten/data/temp# ls -l
total 56
drwxr-xr-x 2 root root 4096 Sep 20 15:30 blockmgr-39b3c2d-df43-496d-bee0-84c8262d9cf8
-rw-r--r-- 1 root root 740 Sep 17 12:53 d15332dfbd4.18.Admin.dsc
-rw-r--r-- 1 root root 216 Sep 17 12:53 d15332dfbd4.27.Admin.dsc
-rw-r--r-- 1 root root 742 Sep 17 12:53 d15332dfbd4.1.Admin.dsc
-rw-r--r-- 1 root root 1376 Sep 17 12:53 d15332dfbd4.27.Admin.dsc
-rw-r--r-- 1 root root 817 Sep 17 12:53 d15332dfbd4.2.Admin.dsc
-rw-r--r-- 1 root root 855 Sep 17 12:53 d15332dfbd4.3.Admin.dsc
-rw-r--r-- 1 root root 699 Sep 17 12:53 d15332dfbd4.4.Admin.dsc
-rw-r--r-- 1 root root 649 Sep 17 12:53 d15332dfbd4.5.Admin.dsc
-rw-r--r-- 1 root root 729 Sep 17 12:53 d15332dfbd4.6.Admin.dsc
-rw-r--r-- 1 root root 719 Sep 17 12:53 d15332dfbd4.7.Admin.dsc
-rw-r--r-- 1 root root 710 Sep 17 12:53 d15332dfbd4.8.Admin.dsc
drwx----- 3 root root 4096 Sep 20 15:30 spark-de424161-de64-4274-93af-49c508b32b0b
root@MG:/home/mg/smarten/data/temp#
```



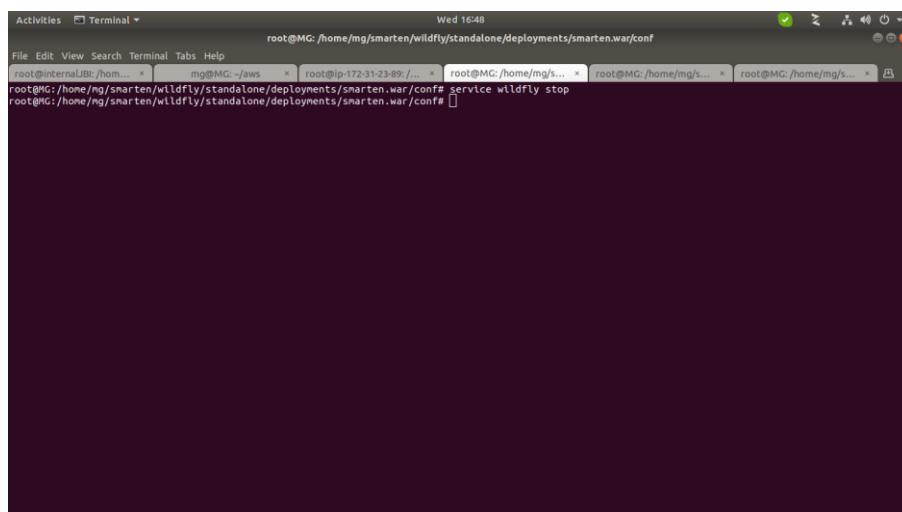
```
root@MG:/home/mg/smarten/data/temp# rm -rf *
root@MG:/home/mg/smarten/data/temp#
```

2.25 Service Command

Service command used to start stop status any service in Linux.

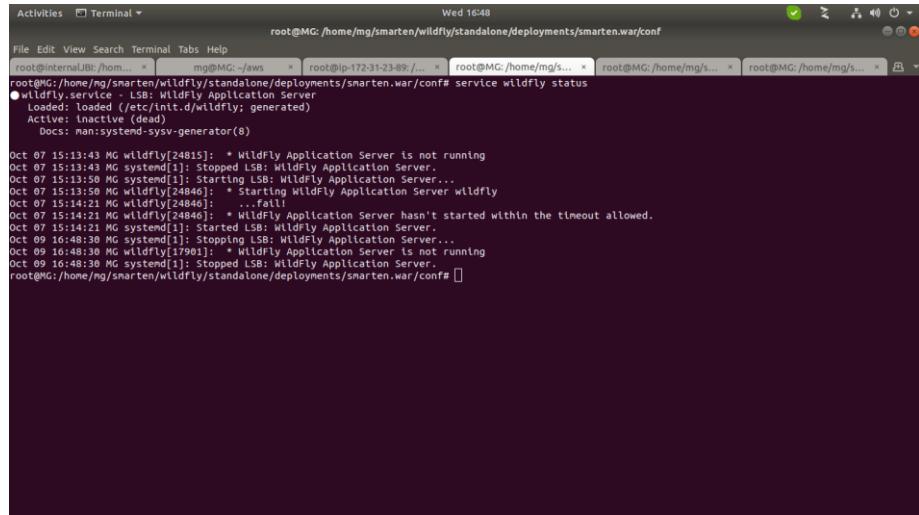
Eg. I want to stop wildfly services.

```
# sudo su
# service wildfly stop
```



```
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# service wildfly stop
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

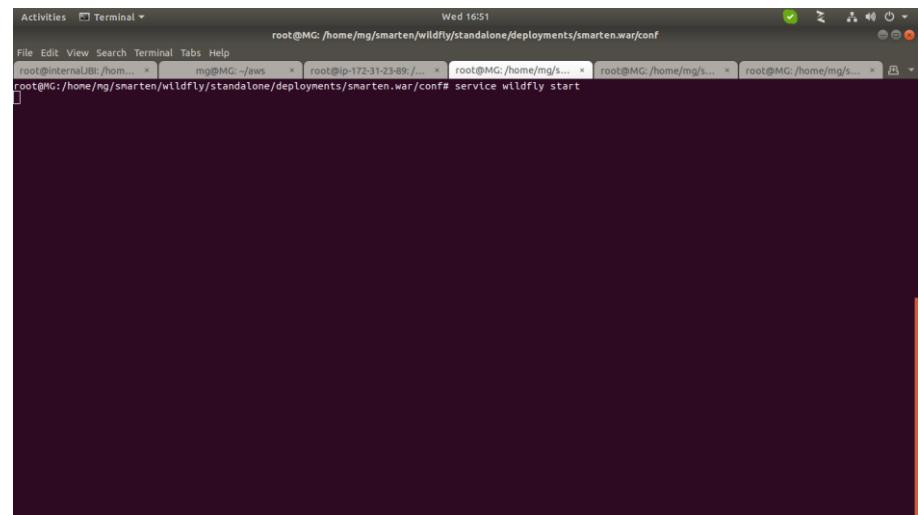
service wildfly status (for check wildfly services stop or not)



```
Activities Terminal Wed 16:48
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# service wildfly status
● wildfly.service - LSB: WildFly Application Server
   Loaded: loaded (/etc/init.d/wildfly; generated)
   Active: inactive (dead)
     Docs: man:systemd-sysv-generator(8)

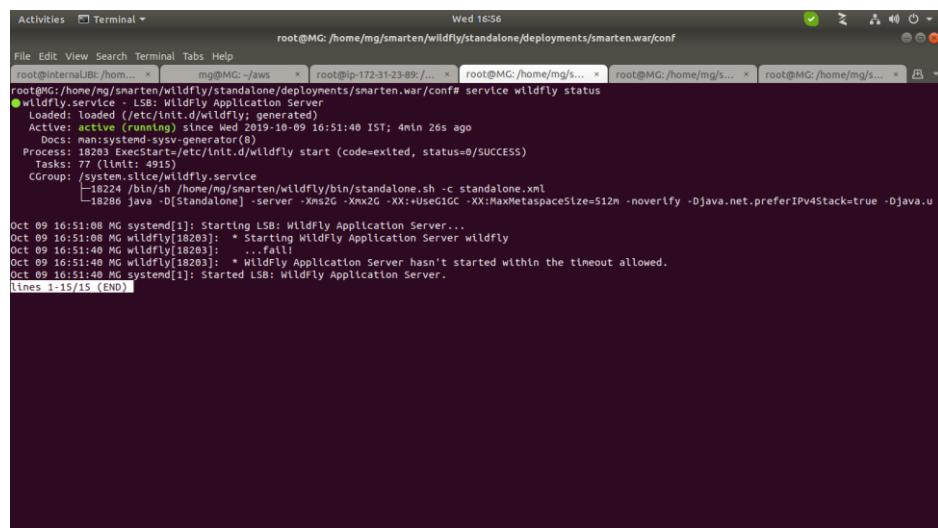
Oct 07 15:13:43 MG wildfly[24815]: * Wildfly Application Server is not running
Oct 07 15:13:43 MG systemd[1]: Stopped LSB: WildFly Application Server.
Oct 07 15:13:50 MG systemd[1]: Starting LSB: WildFly Application Server...
Oct 07 15:13:50 MG wildfly[24846]: * Starting Wildfly Application Server wildfly
Oct 07 15:14:21 MG wildfly[24846]:   failed!
Oct 07 15:14:21 MG wildfly[24846]: * Wildfly Application Server hasn't started within the timeout allowed.
Oct 07 15:14:21 MG systemd[1]: Started LSB: WildFly Application Server.
Oct 09 16:48:30 MG systemd[1]: Stopping LSB: WildFly Application Server...
Oct 09 16:48:30 MG wildfly[17901]: * Wildfly Application Server is not running
Oct 09 16:48:30 MG systemd[1]: Stopped LSB: WildFly Application Server.
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

service wildfly start



```
Activities Terminal Wed 16:51
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# service wildfly start
```

service wildfly status



```
Activities Terminal Wed 16:56
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf# service wildfly status
● wildfly.service - LSB: WildFly Application Server
   Loaded: loaded (/etc/init.d/wildfly; generated)
   Active: active (running) since Wed 2019-10-09 16:51:40 IST; 4min 26s ago
     Docs: man:systemd-sysv-generator(8)
   Process: 18203 ExecStart=/etc/init.d/wildfly start (code=exited, status=0/SUCCESS)
   Tasks: 77 (lmt: 4915)
   CGroup: /system.slice/wildfly.service
           └─18224 /bin/sh /home/mg/smarten/wildfly/bin/standalone.sh -c standalone.xml
               ├─18286 java -D[standalone] -server -Xms2G -Xmx2G -XX:+UseG1GC -XX:MaxMetaspaceSize=512M -noverify -Djava.net.preferIPv4Stack=true -Djava.u

Oct 09 16:51:08 MG systemd[1]: Starting LSB: WildFly Application Server...
Oct 09 16:51:08 MG wildfly[18203]: * Starting WildFly Application Server wildfly
Oct 09 16:51:08 MG wildfly[18203]:   failed!
Oct 09 16:51:40 MG wildfly[18203]: * Wildfly Application Server hasn't started within the timeout allowed.
Oct 09 16:51:40 MG systemd[1]: Started LSB: WildFly Application Server.
root@MG:/home/mg/smarten/wildfly/standalone/deployments/smarten.war/conf#
```

3. Smarten Troubleshooting

3.1 License File Troubleshooting

Sometime client's get license files error, then how to troubleshoot and support him.

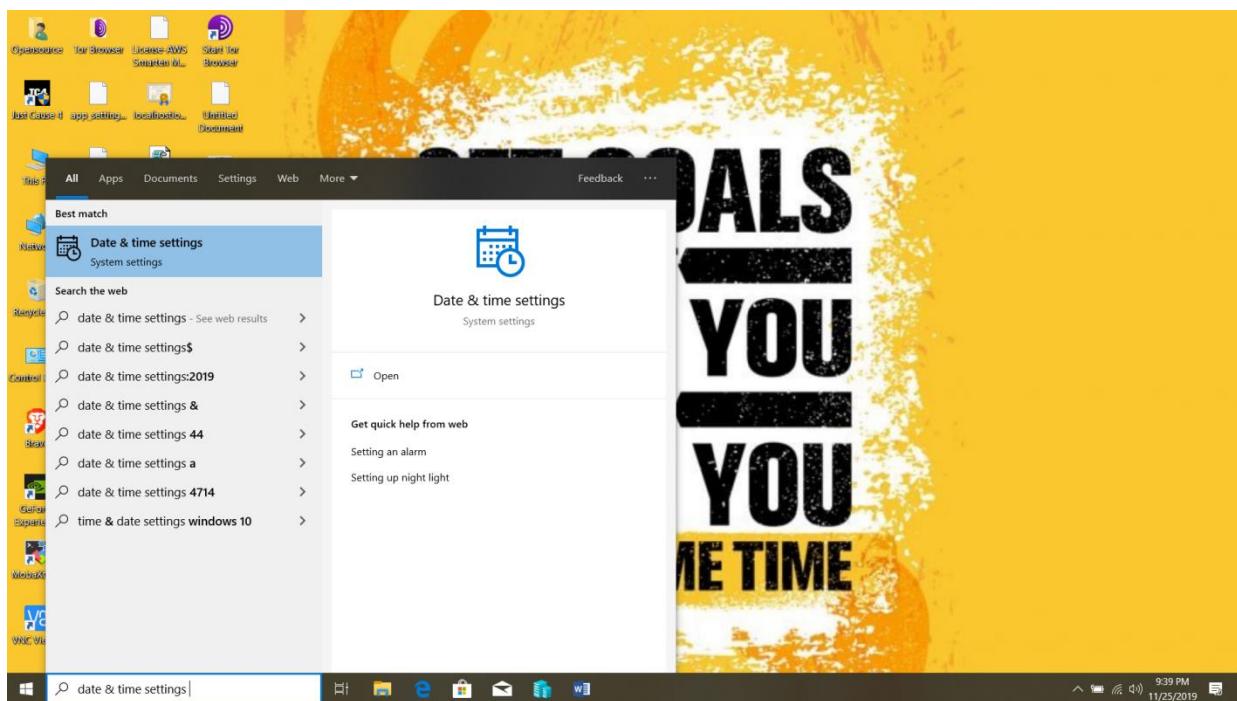
- First check the license file is available in smarten.war/conf/.
- Second check the license file renames it's should be license.bin.
- Third check the date & time match current time.

How to check date & time in windows and Linux both of way mention below.

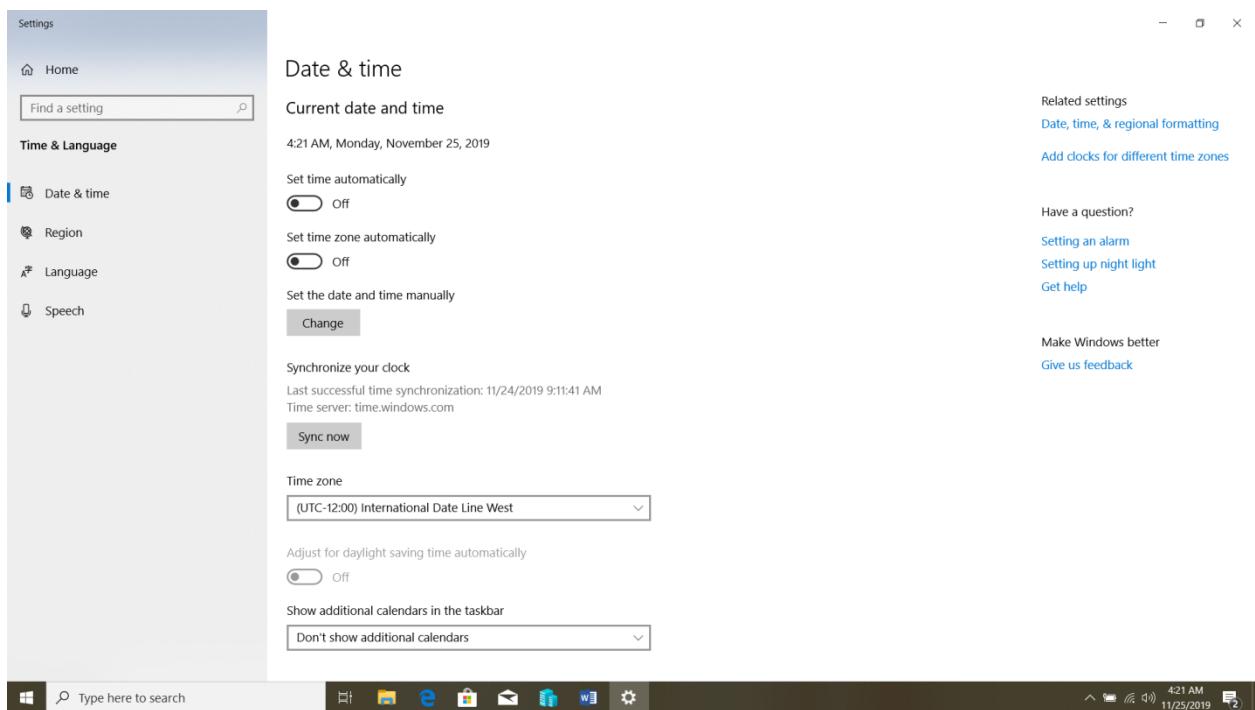
3.1.1 How to check date & time both in windows and Linux

3.1.1.1 In Windows

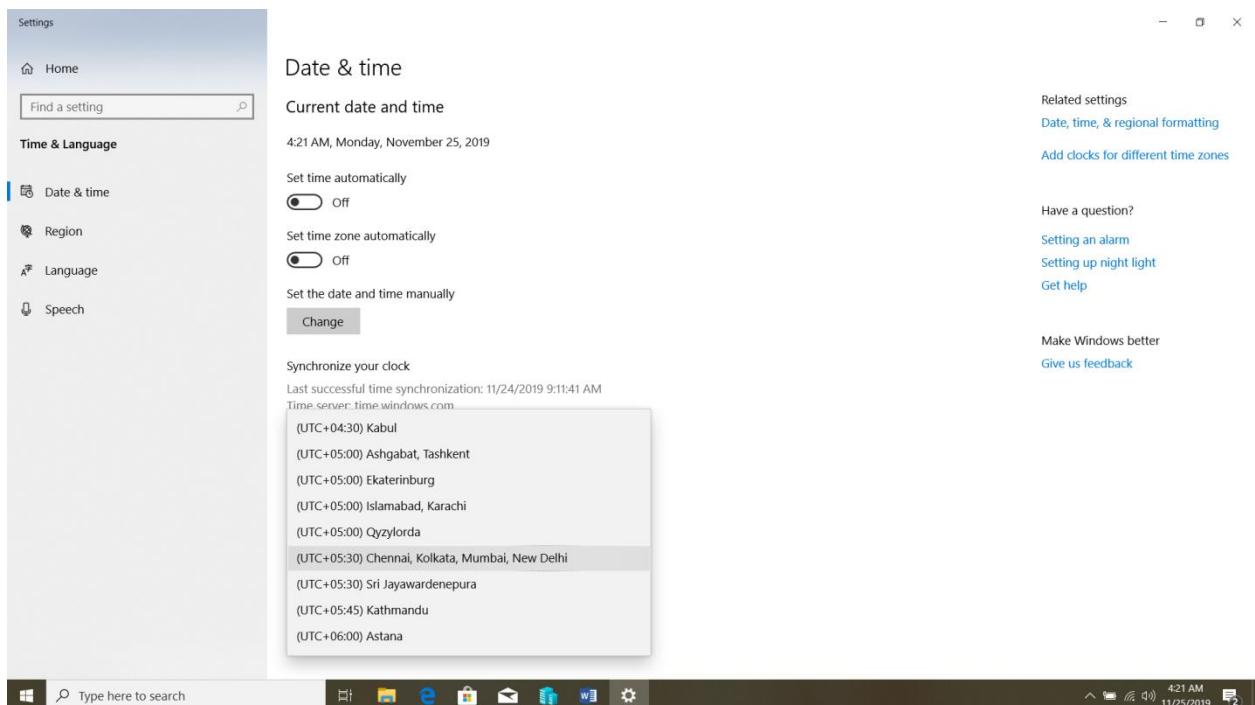
1. Press windows key and search **date & time settings**.



2. Click on Time Zone



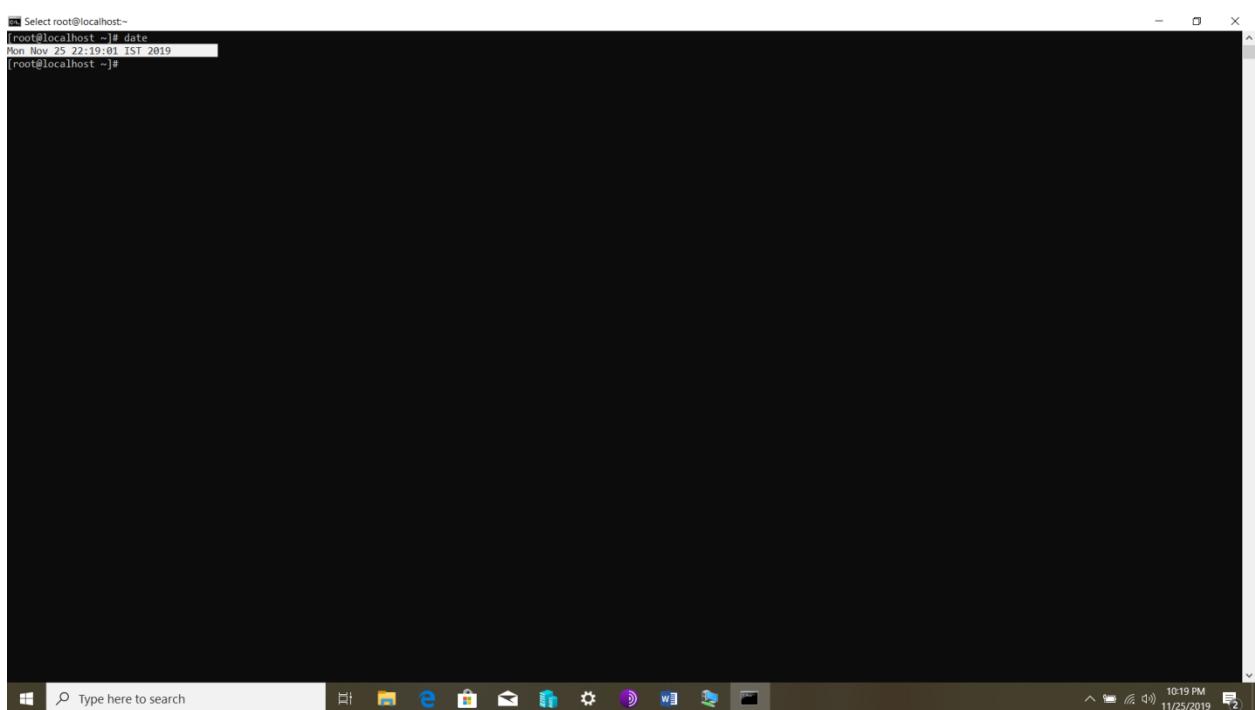
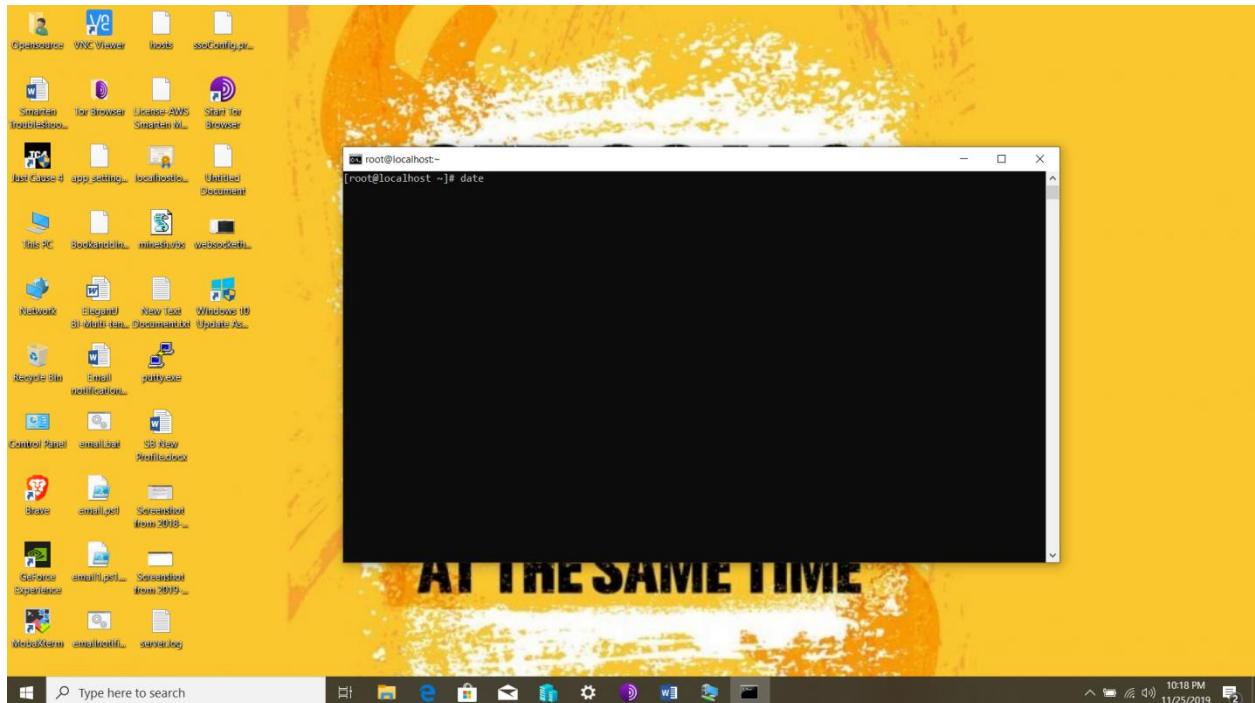
3. Set (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi



3.1.1.2 In Linux

1. Check current time with date command.

```
[root@localhost ~]# sudo date
```



2. Set IST timezone (Asia/Kolkata)

```
[root@localhost ~]# sudo timedatectl set-timezone Asia/Kolkata
```

```
[root@localhost ~]# sudo timedatectl set-timezone Asia/Kolkata
[root@localhost ~]#
```



3. Verify timezon

```
[root@localhost ~]# timedatectl
```

```
[root@localhost ~]# sudo timedatectl set-timezone Asia/Kolkata
[root@localhost ~]# timedatectl
      Local time: Mon 2019-11-25 22:24:29 IST
      Universal time: Mon 2019-11-25 16:54:29 UTC
            RTC time: Mon 2019-11-25 16:54:29
           Time zone: Asia/Kolkata (IST, +0530)
System clock synchronized: no
          NTP service: n/a
    RTC in local TZ: no
[root@localhost ~]#
```



3.2 Email Notification Troubleshooting

Sometime client face the email notification doesn't work. In that case check below mention point.

1. Confirm with client's email id and password is correct.
2. Check smtp port open or not in client environment Firewall.

For the example I will used Gmail smtp server. Are you use client smtp address instead of gmail smtp.

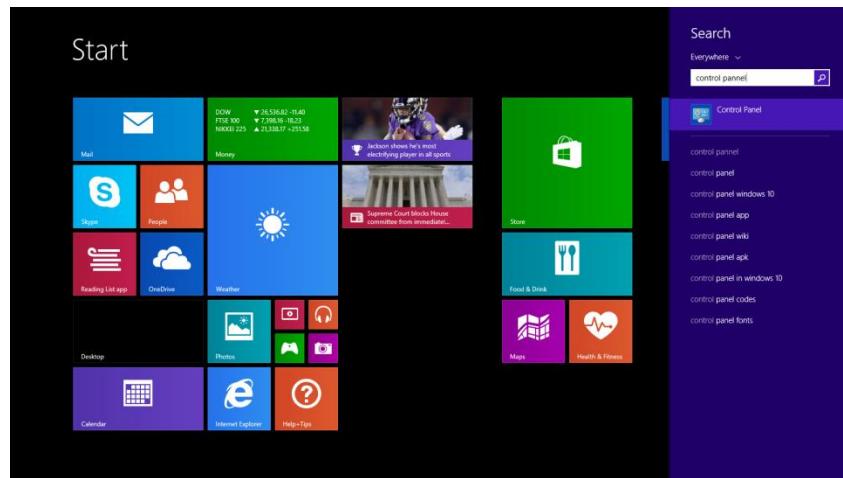
telnet command use for check port open or not. Go through below mention windows and Linux example.

3.2.1 In Windows

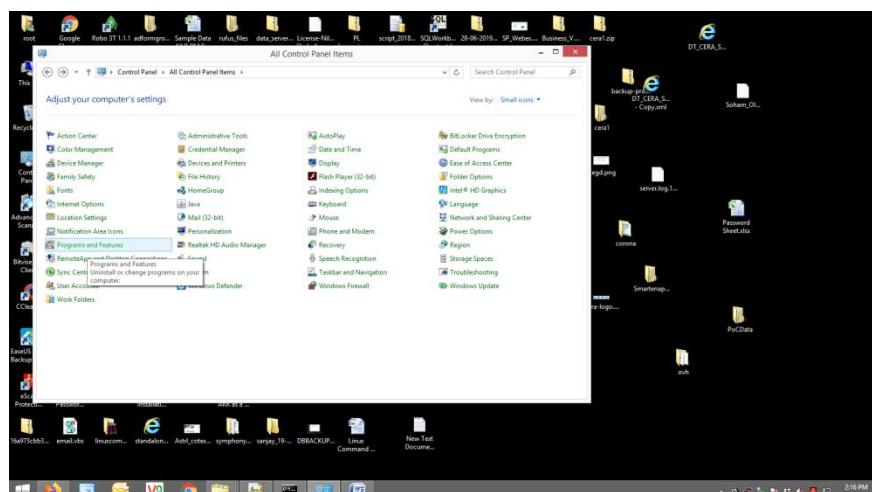
1. By default in Windows telnet client not installed, So perform first step to install telnet by self or told to client for install telnet.

Install telnet in windows:

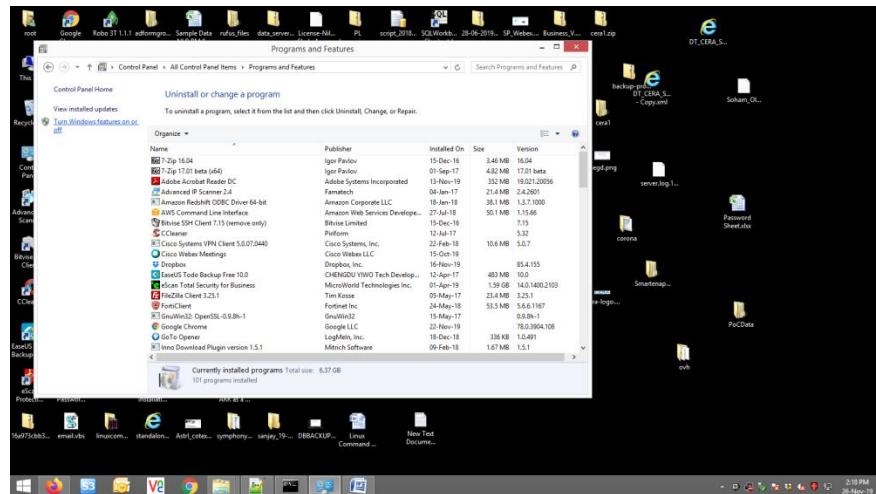
Press Windows key and search control panel.



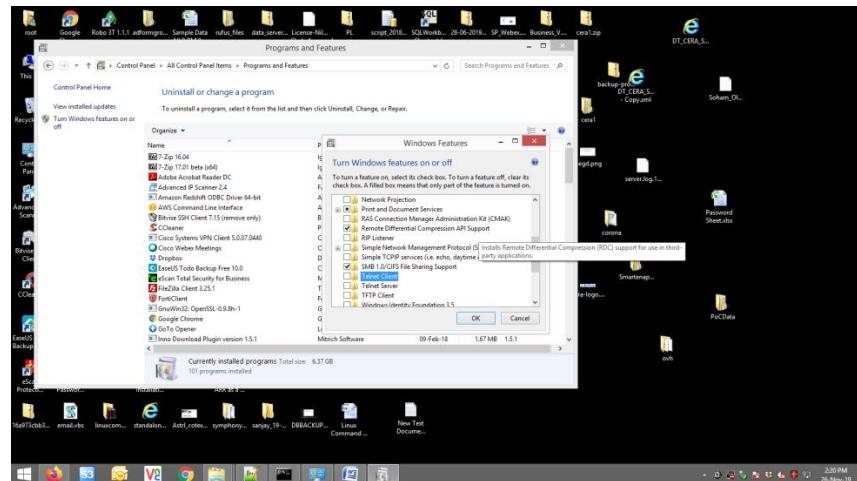
Open Control panel and click on Programs And Features.



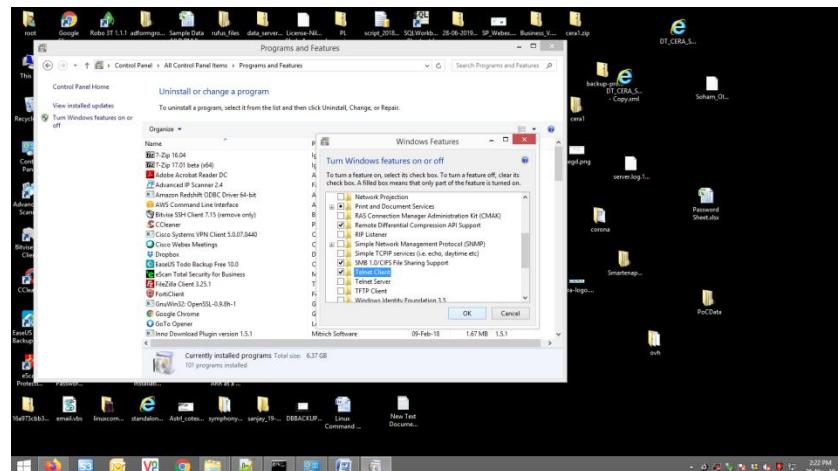
Click on Turn Windows features on or off.



After click on Turn Windows features on or off open one Windows features dialogues box.

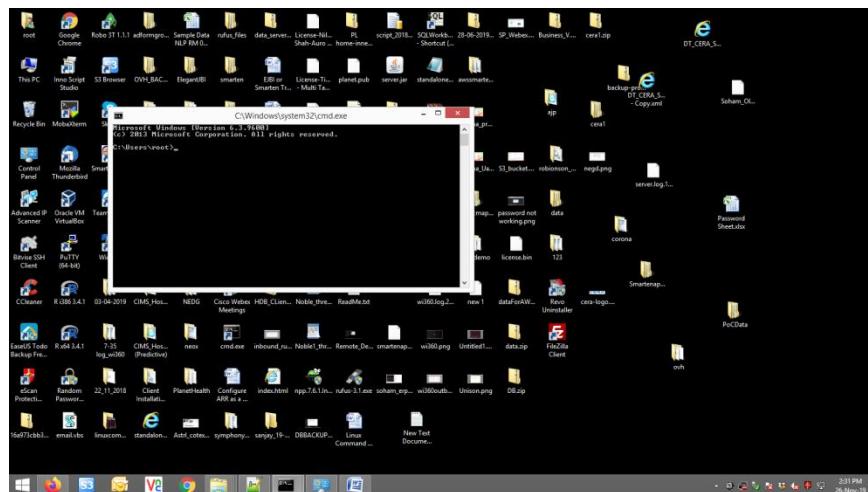
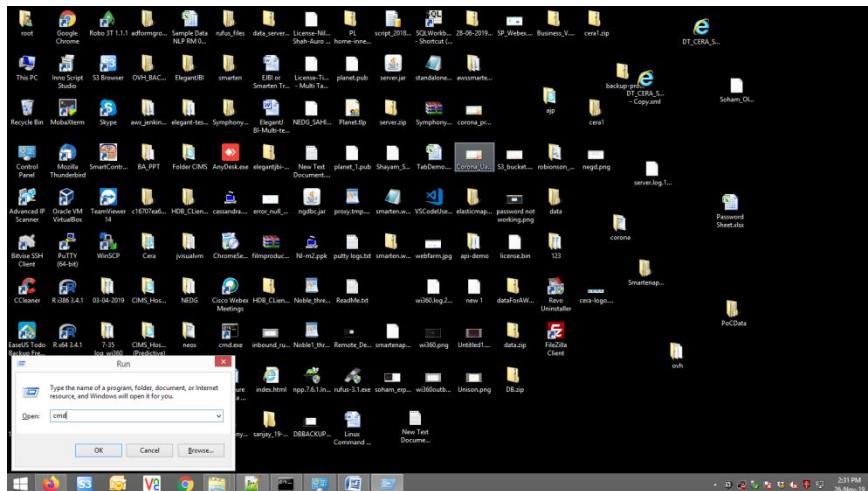


Find Telnet client and click in empty box and then press ok.



Telnet client successfully installed in your windows system.

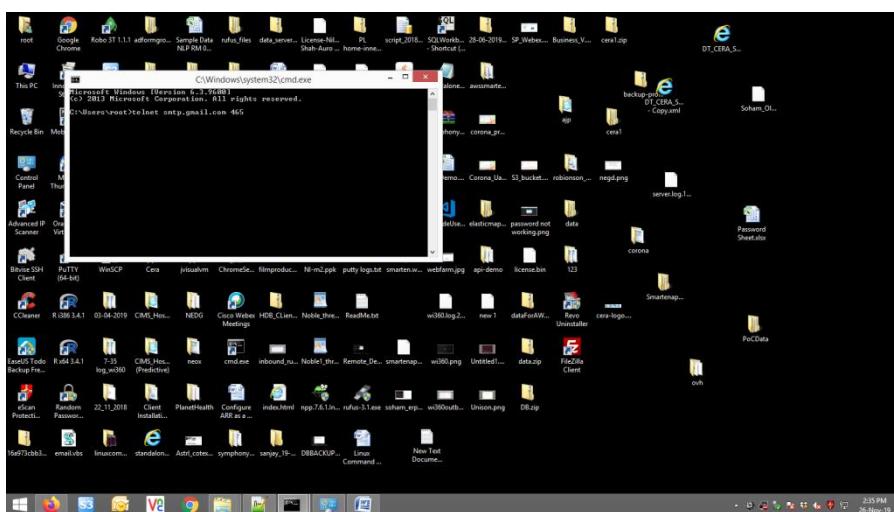
2. Perform below mention telnet command to check port open or not.
Press Windows+R key and type cmd and Enter.



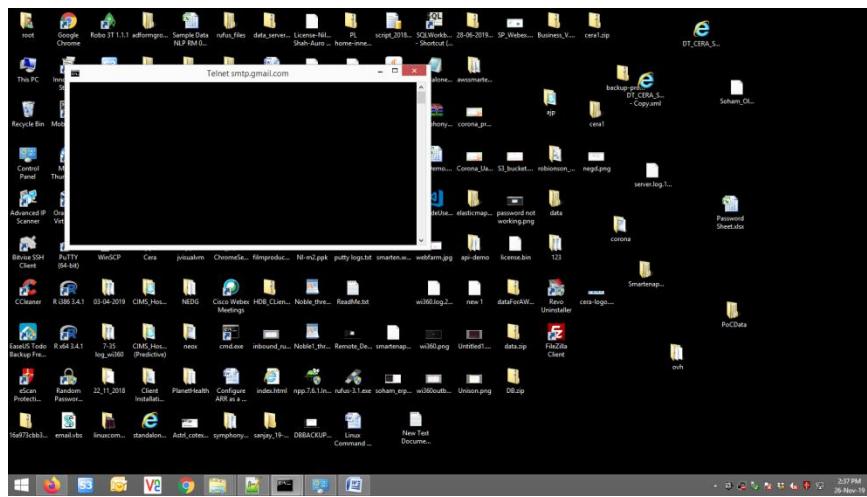
Type telnet smtp.gmail.com 465

Note:

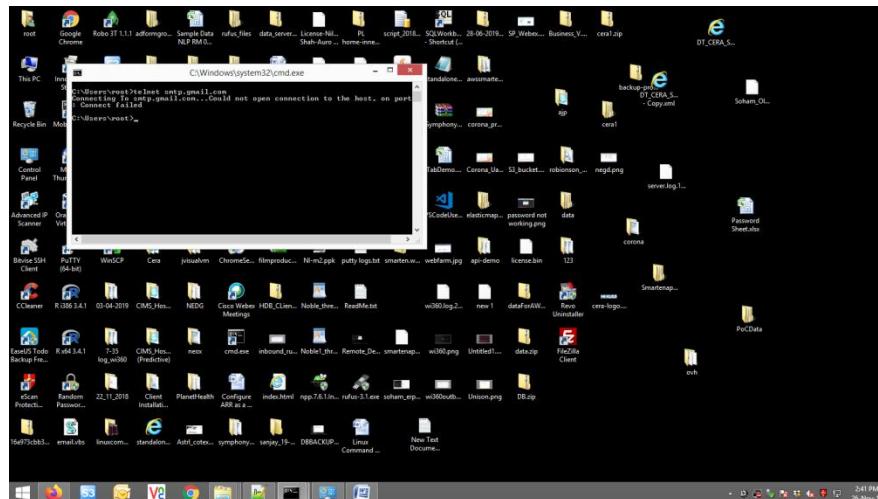
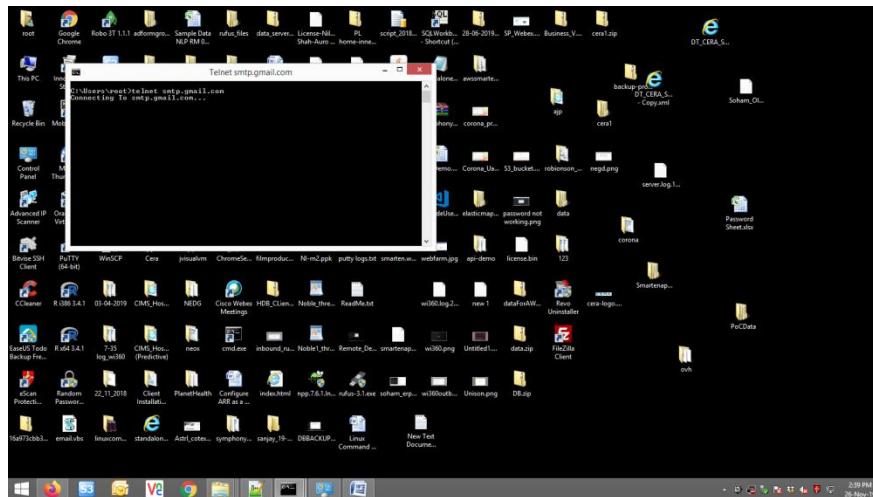
Use client's smtp host instead of smtp.gmail.com and port.



Port have already open then your desktop screen open blank black screen, means your smtp port is open.



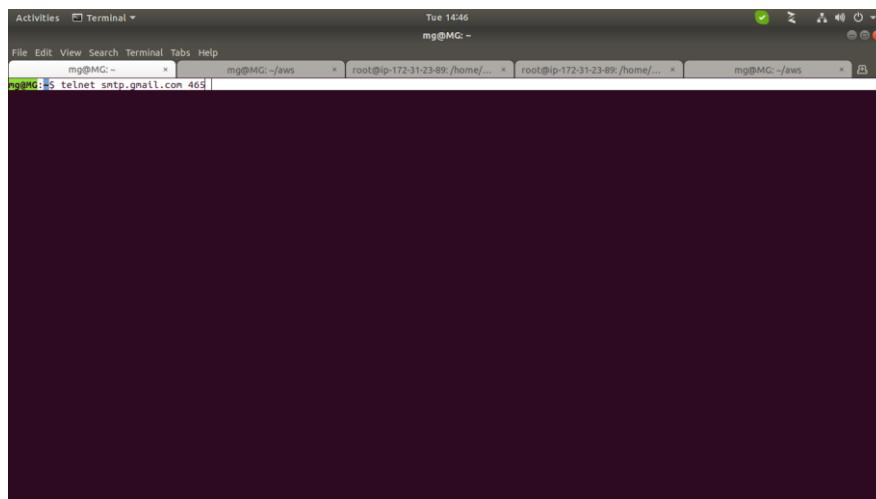
Port have block by firewall then you see connecting error. Error is connecting to smtp.gmail.com could not open connection to the host.



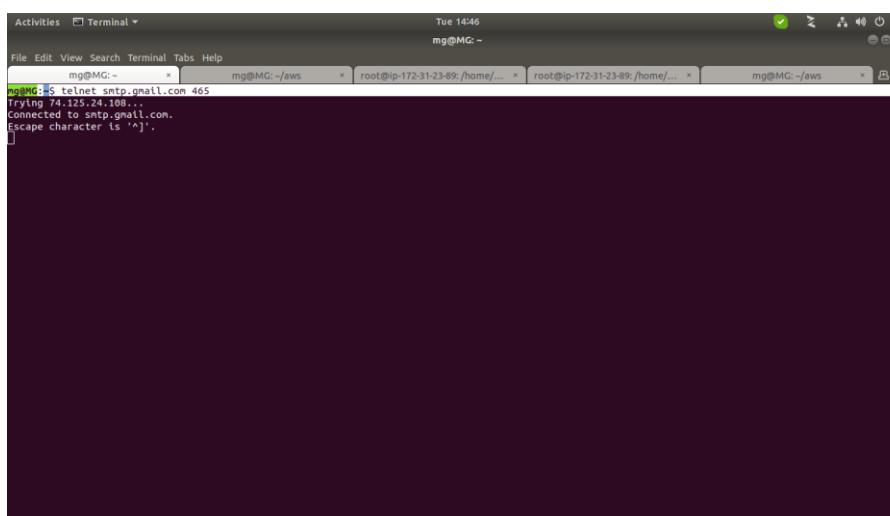
3.2.2 In Linux

1. By default in Linux telnet client preinstalled then open terminal and type

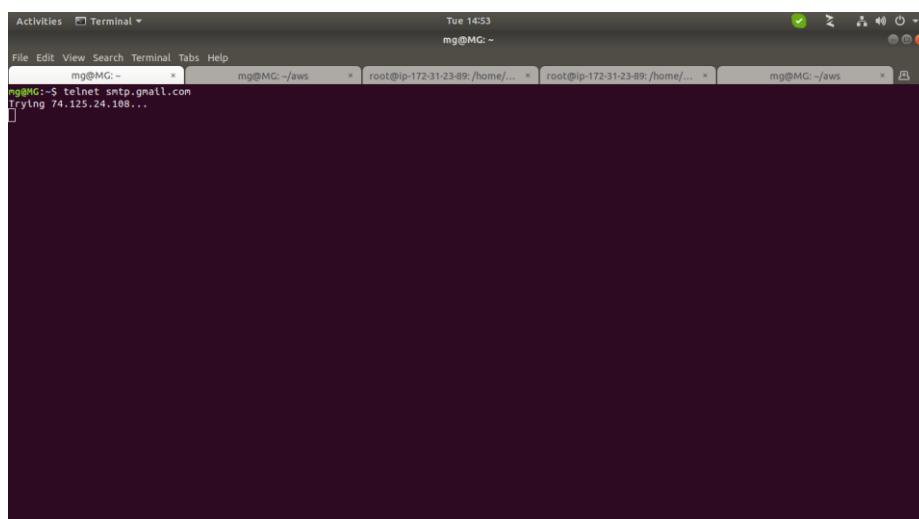
```
mg@MG:~$ telnet smtp.gmail.com 465
```



Port is already open then prompt is connected.



When it's not open then prompt Trying to connecting.



3.3 Smarten application deployed failed

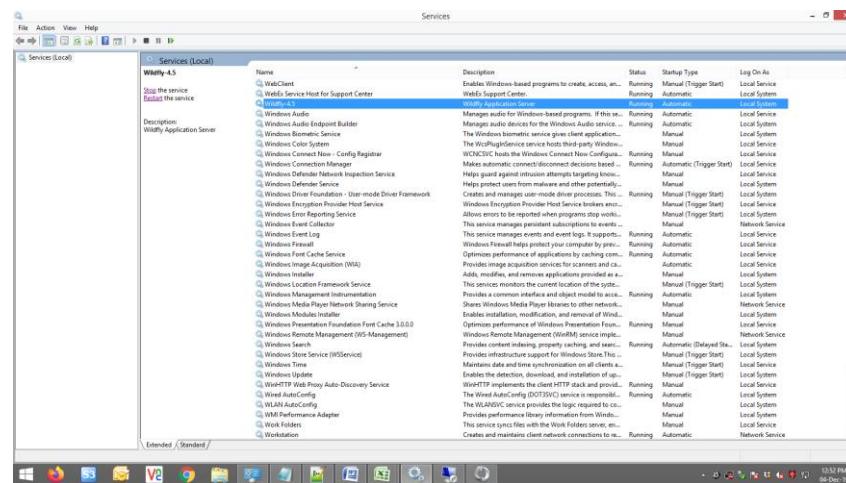
Some time when you started the Smarten application, smarten.war.dodeploy failed status in that case perform below mention process for resolved the issue.

1. Stop the Wildfly service

In Windows open run program using press Windows+r key.

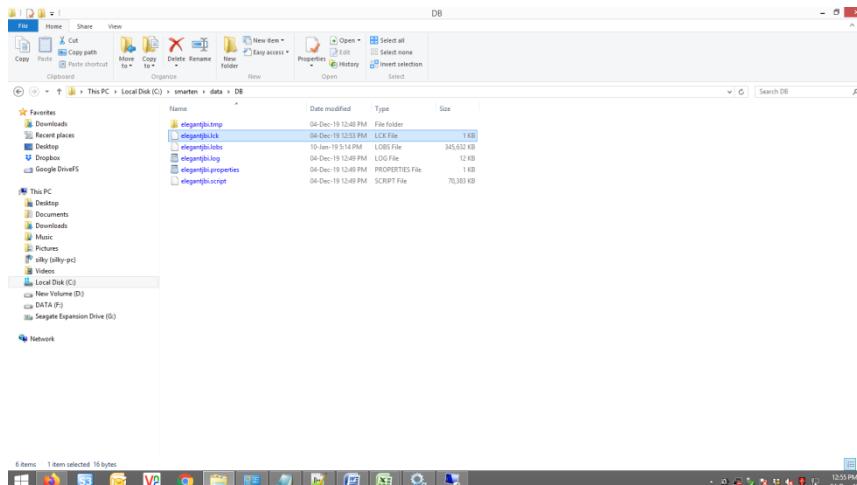
Type services.msc in run dialogue box and hit enter.

Find Wildfly-4.5 services and stop it.

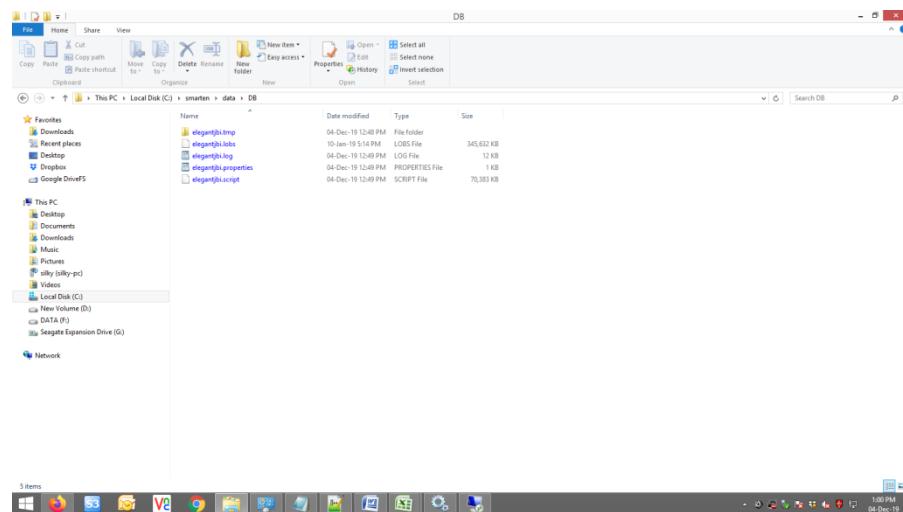


2. After successfully stop the service move elegantjbi.lck file from data folder to another location.

Going to Smarten+data+DB folder.

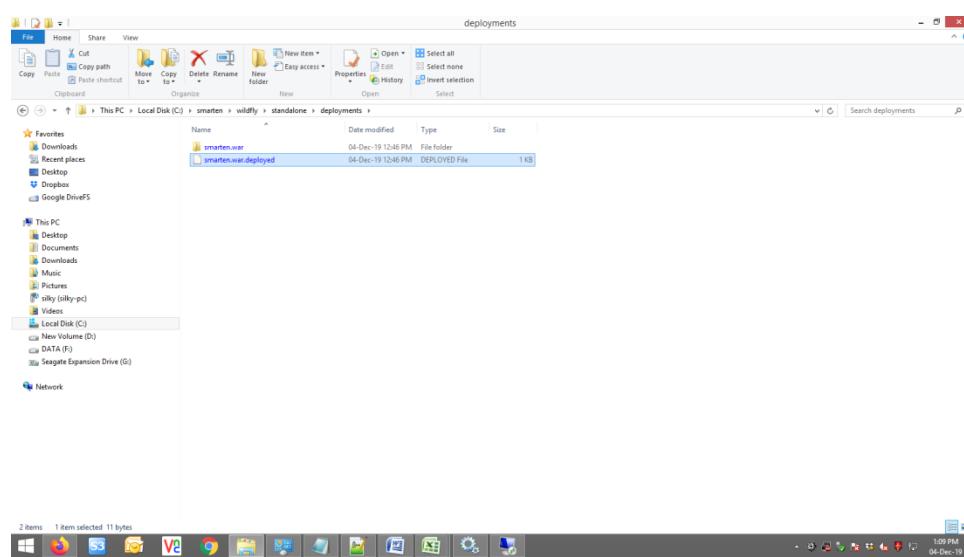
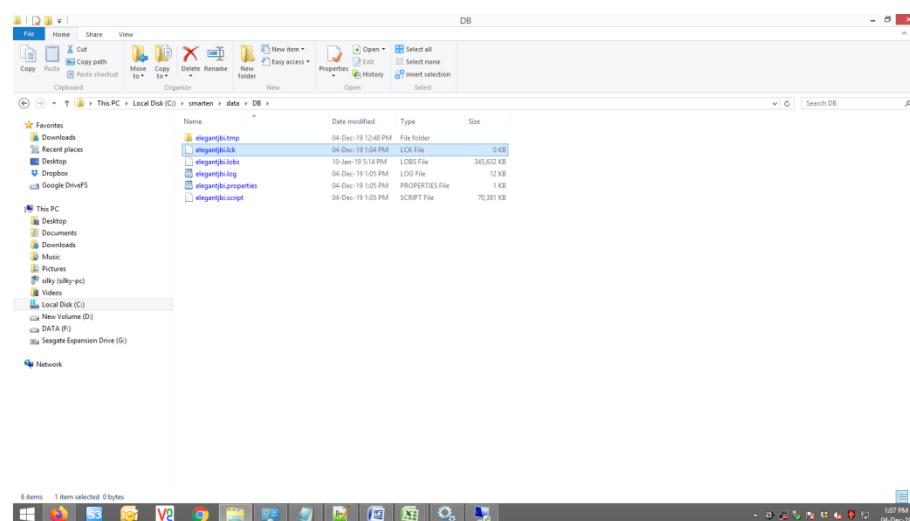


mv elegantjbi.lck file to another location. Following mention below screenshot elegantjbi.lck file not available.



After that start the Wildfly-4.5 services and Smarten Application deployed successfully.

eleganjbi.lck file auto generated when Wildfly-4.5 services started. Following mention below screenshot, eleganjbi.lck file auto generated and Smarten Application successfully deployed.



3.4 Smarten file export issue

Smarten Export url is correct but still export file size generate is 0 KB. So in this scenario in Linux machine some packages is missing to generate file. So following below step to resolution.

3.4.1 In Ubuntu

```
# sudo apt-get install fontconfig freetype freetype-devel fontconfig-devel libstdc++  
# sudo systemctl stop wildfly  
# sudo ps -aux | grep java (for verify java process running or not)  
# sudo systemctl start wildfly
```

3.4.2 In Fedora|Centos|Redhat

```
# sudo yum install fontconfig freetype freetype-devel fontconfig-devel libstdc++  
# sudo systemctl stop wildfly  
# sudo ps -aux | grep java (for verify java process running or not)  
# sudo systemctl start wildfly
```