

Lab – 7

CE004
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```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ ping 192.168.32.21
PING 192.168.32.21 (192.168.32.21) 56(84) bytes of data:
64 bytes from 192.168.32.21: icmp_seq=1 ttl=63 time=0.628 ms
64 bytes from 192.168.32.21: icmp_seq=2 ttl=63 time=0.664 ms
64 bytes from 192.168.32.21: icmp_seq=3 ttl=63 time=0.624 ms
64 bytes from 192.168.32.21: icmp_seq=4 ttl=63 time=0.612 ms
64 bytes from 192.168.32.21: icmp_seq=5 ttl=63 time=0.608 ms
64 bytes from 192.168.32.21: icmp_seq=6 ttl=63 time=0.855 ms
64 bytes from 192.168.32.21: icmp_seq=7 ttl=63 time=0.849 ms
64 bytes from 192.168.32.21: icmp_seq=8 ttl=63 time=1.63 ms
64 bytes from 192.168.32.21: icmp_seq=9 ttl=63 time=0.576 ms
64 bytes from 192.168.32.21: icmp_seq=10 ttl=63 time=0.633 ms
64 bytes from 192.168.32.21: icmp_seq=11 ttl=63 time=0.644 ms
64 bytes from 192.168.32.21: icmp_seq=12 ttl=63 time=0.515 ms
64 bytes from 192.168.32.21: icmp_seq=13 ttl=63 time=0.974 ms
64 bytes from 192.168.32.21: icmp_seq=14 ttl=63 time=0.892 ms
```

```
166 packets transmitted, 166 received, 0% packet loss, time 167767ms
rtt min/avg/max/mdev = 0.339/0.814/1.633/0.180 ms
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ hostname
celab2-ThinkCentre-neo-50s-Gen-3
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$
```

```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ ssh 192.168.32.21
hadoop@192.168.32.21's password:
Last login: Mon Sep 12 15:39:02 2022
[hadoop@hadoop-clone-21 ~]$ hostname
hadoop-clone-21
[hadoop@hadoop-clone-21 ~]$
```

```

64 bytes from 192.168.32.21: icmp_seq=157 ttl=63 time=0.965 ms
64 bytes from 192.168.32.21: icmp_seq=158 ttl=63 time=0.964 ms
64 bytes from 192.168.32.21: icmp_seq=159 ttl=63 time=0.964 ms
64 bytes from 192.168.32.21: icmp_seq=160 ttl=63 time=1.13 ms
64 bytes from 192.168.32.21: icmp_seq=161 ttl=63 time=1.01 ms
64 bytes from 192.168.32.21: icmp_seq=162 ttl=63 time=1.13 ms
64 bytes from 192.168.32.21: icmp_seq=163 ttl=63 time=1.12 ms
64 bytes from 192.168.32.21: icmp_seq=164 ttl=63 time=0.929 ms
64 bytes from 192.168.32.21: icmp_seq=165 ttl=63 time=0.773 ms
64 bytes from 192.168.32.21: icmp_seq=166 ttl=63 time=1.10 ms
^C
--- 192.168.32.21 ping statistics ---
166 packets transmitted, 166 received, 0% packet loss, time 167767ms
rtt min/avg/max/mdev = 0.339/0.814/1.633/0.180 ms
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ hostname
celab2-ThinkCentre-neo-50s-Gen-3
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ ifconfig
enp3s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.26.21 netmask 255.255.255.0 broadcast 192.168.2
    6.255
    inet6 fe80::7a0:ca99:ddc5:35e prefixlen 64 scopeid 0x20<link
    >
    ether f4:6b:8c:8c:ed:45 txqueuelen 1000 (Ethernet)
    RX packets 16838 bytes 10498834 (10.4 MB)
    RX errors 0 dropped 62 overruns 0 frame 0
    TX packets 10831 bytes 2459986 (2.4 MB)
    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 2428 bytes 246440 (246.4 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2428 bytes 246440 (246.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ ssh 192.168.32.21
hadoop@192.168.32.21's password:
Last login: Mon Sep 12 15:39:02 2022
[hadoop@hadoop-clone-21 ~]$ hostname
hadoop-clone-21
[hadoop@hadoop-clone-21 ~]$ ifconfig
eno1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.32.21 netmask 255.255.255.0 broadcast 192.168.3
    2.255
    inet6 fe80::8464:1497:c647:392f prefixlen 64 scopeid 0x20<li
    nk>
    ether 00:d8:61:60:73:65 txqueuelen 1000 (Ethernet)
    RX packets 26126 bytes 23900164 (22.7 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 16689 bytes 2880868 (2.7 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 17 memory 0xb1100000-b1120000

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 66 bytes 3300 (3.2 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 66 bytes 3300 (3.2 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

virbr0: flags=4096<UP,BROADCAST,MULTICAST> mtu 1500
    inet 192.168.122.1 netmask 255.255.255.0 broadcast 192.168.1
    22.255
    ether 52:54:00:2c:f2:f7 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[hadoop@hadoop-clone-21 ~]$

```

```

hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ cat /etc/hosts
127.0.0.1 localhost
127.0.1.1 celab2-ThinkCentre-neo-50s-Gen-3
#127.0.0.1 celab2-ThinkCentre-neo-50s-Gen-3
# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

[hadoop@hadoop-clone-21 ~]$ cat /etc/hosts
127.0.0.1 localhost localhost hadoop-clone
192.168.1.102 egov.ddit.ac.in
192.168.1.102 www.ddit.ac.in
192.168.29.100 ftp.ddit.ac.in
192.168.32.11 hadoop-clone-11
192.168.32.12 hadoop-clone-12
192.168.32.13 hadoop-clone-13
192.168.32.14 hadoop-clone-14
192.168.32.15 hadoop-clone-15

```

```

[hadoop@hadoop-clone-21 ~]$ systemctl status firewalld
● firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; ve
   ndor preset: enabled)
   Active: active (running) since Tue 2022-09-13 08:34:04 IST; 39min ago
     Docs: man:firewalld(1)
   Main PID: 886 (firewalld)
    Tasks: 2
   CGroup: /system.slice/firewalld.service
           └─886 /usr/bin/python2 -Es /usr/sbin/firewalld --nofork --n...

[hadoop@hadoop-clone-21 ~]$

```

```
/home/hadoop/Desktop  
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ cd ..
```

```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$ ls
```

CC_Lab5	'PracticeInvolvement - Sheet1.csv'
core-site.xml	Public
Desktop	snap
Documents	Templates
Downloads	test.csv
hello_hadoop1.txt	Untitled1.ipynb
hello.txt	Untitled2.ipynb
input.txt	Untitled3.ipynb
lab5	Untitled4.ipynb
LocalDir	Untitled5.ipynb
MapReduce	Untitled.ipynb
Music	Videos
Pictures	

```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$ pwd
```

```
/home/hadoop
```

```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$
```

```
Documents Music ptg_1560125128936.log Untitled.ipynb  
[hadoop@hadoop-clone-21 ~]$ systemctl status firewalld  
● firewalld.service - firewalld - dynamic firewall daemon  
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; ve  
ndor preset: enabled)  
   Active: active (running) since Tue 2022-09-13 08:34:04 IST; 39min ago  
     Docs: man:firewalld(1)  
  Main PID: 886 (firewalld)  
    Tasks: 2  
   CGroup: /system.slice/firewalld.service  
           └─886 /usr/bin/python2 -Es /usr/sbin/firewalld --nofork --n...  
[hadoop@hadoop-clone-21 ~]$ systemctl status firewalld  
● firewalld.service - firewalld - dynamic firewall daemon  
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; ve  
ndor preset: enabled)  
   Active: inactive (dead) since Tue 2022-09-13 09:15:17 IST; 1min 37s ag  
o  
     Docs: man:firewalld(1)  
  Process: 886 ExecStart=/usr/sbin/firewalld --nofork --nopic $FIREWALLD_  
ARGS (code=exited, status=0/SUCCESS)  
  Main PID: 886 (code=exited, status=0/SUCCESS)  
[hadoop@hadoop-clone-21 ~]$
```

```
[hadoop@hadoop-clone-21 ~]$ cat /opt/hadoop/etc/hadoop/slaves
hadoop-clone-11
hadoop-clone-12
hadoop-clone-13
hadoop-clone-14
hadoop-clone-15
hadoop-clone-16
hadoop-clone-17
hadoop-clone-18
hadoop-clone-19
hadoop-clone-20
hadoop-clone-21
hadoop-clone-22
hadoop-clone-23
hadoop-clone-24
hadoop-clone-25
hadoop-clone-26
hadoop-clone-27
hadoop-clone-28
hadoop-clone-29
hadoop-clone-30
hadoop-clone-31
hadoop-clone-32
```

```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3: ~$ cat /opt/hadoop/etc/hadoop/hdfs-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xml"?>

<configuration>
  <property>
    <name>dfs.namenode.name.dir</name>
    <value>/opt/hadoop/hdfs/name</value>
  </property>

  <property>
    <name>dfs.datanode.data.dir</name>
    <value>/opt/hadoop/hdfs/data</value>
  </property>

  <property>
    <name>dfs.namenode.http-address</name>
    <value>hadoop-clone-47:50070</value>
  </property>

  <property>
    <name>dfs.namenode.secondary.http-address</name>
    <value>hadoop-clone-47:50090</value>
  </property>
</configuration>
hadoop@celab2-ThinkCentre-neo-50s-Gen-3: ~$
```

```
hadoop@hadoop-clone-21 ~]$ cat /opt/hadoop/etc/hadoop/hdfs-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xml"?>
<!--
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WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License. See accompanying LICENSE file.
-->

<!-- Put site-specific property overrides in this file. -->

<configuration>
  <property>
    <name>dfs.namenode.name.dir</name>
    <value>/opt/hadoop/dfs/name</value>
  </property>
```



```
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~/Desktop$ cd ..
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$ ls
CC_Lab5      'PracticeInvolvement - Sheet1.csv'
core-site.xml Public
Desktop     snap
Documents   Templates
Downloads   test.csv
hello_hadoop1.txt Untitled1.ipynb
hello.txt    Untitled2.ipynb
input.txt    Untitled3.ipynb
Lab5         Untitled4.ipynb
LocalDir     Untitled5.ipynb
MapReduce    Untitled.ipynb
Music        Videos
Pictures

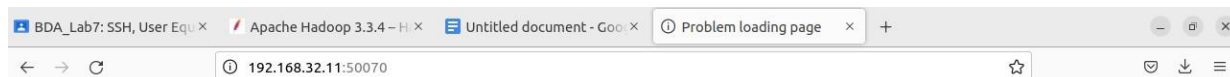
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$ pwd
/home/hadoop
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$ cat /opt/hadoop/etc/hadoop/core-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>
<property>
  <name>fs.defaultFS</name>
  <value>hdfs://hadoop-clone-47:9000/</value>
</property>
<property>
  <name>hadoop.tmp.dir</name>
  <value>/opt/hadoop/tmp</value>
</property>
<property>
<name>hadoop.http.staticuser.user</name>
<value>hadoop</value>
</property>
</configuration>
hadoop@celab2-ThinkCentre-neo-50s-Gen-3:~$

Process: 886 ExecStart=/usr/sbin/firewalld --nofork --nospid $FIREWALLD_A
RGS (code=exited, status=0/SUCCESS)
Main PID: 886 (code=exited, status=0/SUCCESS)
[hadoop@hadoop-clone-21 ~]$ jps
1094 Jps
[hadoop@hadoop-clone-21 ~]$ cat /opt/hadoop/etc/hadoop/core-site.xml
cat: /opt/hadoop/etc/hadoop/core-site.xml: No such file or directory
[hadoop@hadoop-clone-21 ~]$ cat /opt/hadoop/etc/hadoop/core-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License. See accompanying LICENSE file.
-->
<!-- Put site-specific property overrides in this file. -->
<configuration>
<property>
  <name>fs.defaultFS</name>
  <value>hdfs://hadoop-clone-11:9000/</value>
</property>
<property>
  <name>hadoop.tmp.dir</name>
  <value>/opt/hadoop/tmp</value>
</property>
</configuration>
[hadoop@hadoop-clone-21 ~]$
```



Unable to connect

Firefox can't establish a connection to the server at 192.168.32.11:50070.

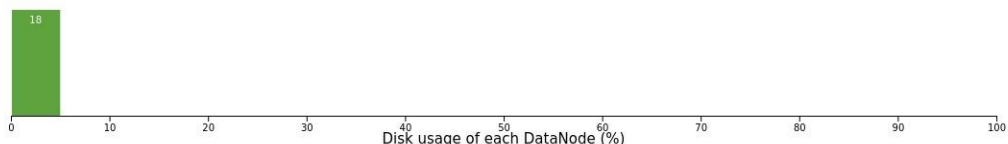
- The site could be temporarily unavailable or too busy. Try again in a few moments.
- If you are unable to load any pages, check your computer's network connection.
- If your computer or network is protected by a firewall or proxy, make sure that Firefox is permitted to access the Web.

Try Again

Datanode Information

✓ In service ⚠ Down ⚠ Decommissioned ⚠ Decommissioned & dead 🔧 In Maintenance & dead

Datanode usage histogram



In operation

Show 25 entries

Search:

Node	Http Address	contact	Report	Capacity	Blocks	used	Version
✓hadoop-clone-11:9866 (192.168.32.11:9866)	http://hadoop-clone-11:9866	2s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-12:9866 (192.168.32.12:9866)	http://hadoop-clone-12:9866	2s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-13:9866 (192.168.32.13:9866)	http://hadoop-clone-13:9866	2s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-14:9866 (192.168.32.14:9866)	http://hadoop-clone-14:9866	2s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-15:9866 (192.168.32.15:9866)	http://hadoop-clone-15:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-16:9866 (192.168.32.16:9866)	http://hadoop-clone-16:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-17:9866 (192.168.32.17:9866)	http://hadoop-clone-17:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-18:9866 (192.168.32.18:9866)	http://hadoop-clone-18:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-19:9866 (192.168.32.19:9866)	http://hadoop-clone-19:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-20:9866 (192.168.32.20:9866)	http://hadoop-clone-20:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-21:9866 (192.168.32.21:9866)	http://hadoop-clone-21:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0
✓hadoop-clone-22:9866 (192.168.32.22:9866)	http://hadoop-clone-22:9866	0s	0m	309.81 GB	0	24 KB (0%)	3.2.0

```
<!-- License Version 2.0, encoding UTF-8 -->
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

    http://www.apache.org/licenses/LICENSE-2.0

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License. See accompanying LICENSE file.
-->

<!-- Put site-specific property overrides in this file. -->

<configuration>
<property>
  <name>fs.defaultFS</name>
  <value>hdfs://hadoop-clone-18:9000/</value>
</property>
<property>
  <name>hadoop.tmp.dir</name>
  <value>/opt/hadoop/tmp</value>
</property>
</configuration>

~
~
~
~
~
~
~
~
~
~
-- INSERT --
```

22,31-38

All

```
hadoop@hadoop-clone-21:~  
</property>  
  
<property>  
  <name>dfs.datanode.data.dir</name>  
  <value>/opt/hadoop/dfs/data</value>  
</property>  
<property>  
  <name>dfs.namenode.http-address</name>  
  <value>hadoop-clone-22:50070</value>  
</property>  
  
<property>  
  <name>dfs.namenode.secondary.http-address</name>  
  <value>hadoop-clone-22:50090</value>  
</property>  
</configuration>
```

```
hadoop@hadoop-clone-21:~  
  
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distributed under the License is distributed on an "AS IS" BASIS,  
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.  
See the License for the specific language governing permissions and  
limitations under the License. See accompanying LICENSE file.  
-->  
  
<!-- Put site-specific property overrides in this file. -->  
  
<configuration>  
  <property>  
    <name>fs.defaultFS</name>  
    <value>hdfs://hadoop-clone-18:9000/</value>  
  </property>  
  <property>  
    <name>hadoop.tmp.dir</name>  
    <value>/opt/hadoop/tmp</value>  
  </property>  
</configuration>
```